DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR parts 65, 119, 121, 135 and 142

[Docket No. FAA–2008–0677; Notice No. 08–07]

RIN 2120–AJ00

Qualification, Service, and Use of Crewmembers and Aircraft Dispatchers

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of Proposed Rulemaking (NPRM).

SUMMARY: The FAA proposes to amend the regulations for crewmember and dispatcher training programs in domestic, flag, and supplemental operations. The proposed regulations enhance traditional training programs by requiring the use of flight simulation training devices for flight crewmembers and including additional training requirements in areas that are critical to safety. The proposal also reorganizes and revises the qualification and training requirements. The proposed changes are intended to contribute significantly to reducing aviation accidents.

DATES: Comments must be received on or before May 12, 2009.

ADDRESSES: You may send comments identified by Docket Number FAA–2006–26139 using any of the following methods:

- *Federal eRulemaking Portal:* Go to *http://www.regulations.gov* and follow the online instructions for sending your comments electronically.
- *Mail:* Send comments to the Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue, SE., West Building Ground Floor, Room W12–140, Washington, DC 20590.
- *Fax:* Fax comments to the Docket Management Facility at 202–493–2251.
- *Hand Delivery:* Bring comments to the Docket Management Facility in Room W12–140 of the West Building Ground Floor at 1200 New Jersey Avenue, SE., Washington, DC between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For more information on the rulemaking process, see the **SUPPLEMENTARY INFORMATION** section of this document.

Privacy: We will post all comments we receive, without change, to *http://www.regulations.gov*, including any personal information you provide. Using the search function of our docket Web site, anyone can find and read the comments received into any of our dockets, including the name of the individual sending the comment (or signing the comment for an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19477–78).

Docket: To read background documents or comments received, go to *http://www.regulations.gov* at any time or to the Docket Management Facility in Room W12–140 of the West Building Ground Floor at 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: For flight crewmember information contact Ed Cook, for flight attendant information contact Nancy Lauck Claussen, and for aircraft dispatcher information contact David Maloy, Air Carrier Training Branch (AFS–210), Flight Standards Service, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591; telephone (202) 267–8166. For legal questions, contact Anne Bechdolt, Office of Chief Counsel (AGC–200), Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591; telephone (202) 267–7230; e-mail: *Anne.Bechdolt@faa.gov*.

SUPPLEMENTARY INFORMATION: Later in this preamble under the Additional Information section, we discuss how you can comment on this proposal and how we will handle your comments. Included in this discussion is related information about the docket, privacy, and the handling of proprietary or confidential business information. We also discuss how you can get a copy of this proposal and related rulemaking documents.

Authority for This Rulemaking

The FAA's authority to issue rules on aviation safety is found in Title 49 of the United States Code. This rulemaking is promulgated under the authority described in 49 U.S.C. 44701(a)(5), which requires the Administrator to promulgate regulations and minimum standards for other practices, methods, and procedures necessary for safety in air commerce and national security.

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I. Summary of the Proposal

Purpose

The primary purpose of this NPRM is to establish new requirements for traditional air carrier training programs to ensure that safety-critical training is included. These changes are expected to make a significant contribution to the FAA's accident reduction goal. The secondary purpose of this rulemaking project is to reorganize, simplify and modernize all rule language associated with crewmember and aircraft dispatcher qualification and training under part 121. This proposal revises and recodifies the crewmember qualification and training requirements in subparts N and O into a new subpart BB of part 121 and revises and recodifies the aircraft dispatcher qualification and training requirements in subparts N and P into subpart CC of part 121.

This rulemaking is part of the FAA's efforts to reduce fatal accidents in which human error was a major contributing cause. The proposed changes would reduce human error and improve performance among flight crewmembers, flight attendants, and aircraft dispatchers.

The FAA is proposing the following safety improvements to its qualification and training requirements:

- Train and evaluate flight crewmembers in a complete flight crew environment.
- Require Line Oriented Flight Training (LOFT) to be administered to flight crewmembers in a full flight simulator (FFS) during recurrent training.
- Require the use of a qualified flight simulation training device (FSTD) for training, testing, and checking flight crewmembers.
- Require special hazard training for flight crewmembers, such as loss of control and Controlled Flight Into Terrain (CFIT).

• Require additional training and practice in the use of Crew Resource Management (CRM) principles.
• Require flight attendants to complete ''hands on'' performance drills using emergency equipment and procedures every 12 months.
• Require flight attendants to complete operating experience by aircraft type for the certificate holder.
• Require trained and qualified flight attendant ground instructors and evaluators.
• Standardize the training and experience requirements for check dispatchers and dispatcher instructors.
• Implement supervised operating experience (SOE) requirements for aircraft dispatchers.
• Establish Requalification training for aircraft dispatchers and crewmembers.
• Require a continuous analysis process (CAP) for certificate holders.

In addition, the FAA's recent ''Call to Action'' plan elevated short-, mid-, and long-term goals to address safety improvement at airport runways. This proposed rule states that the tasks listed in the rule, and the Flight Crewmember Operating Manual (FCOM) required by the rule, must be integrated with one another and must reflect the certificate holder's operations and the specific aircraft. The proposed rule also includes tasks that directly address the runway safety goals. Specifically, they include the following:

(1) Using an airport diagram (surface movement) chart to aid in maintaining positional awareness.

(2) Obtaining the appropriate clearance before crossing or entering active runways.

(3) Observing runway hold lines, localizer and glide slope critical areas, beacons, and other surface movement guidance control markings and lighting.

(4) Ensuring takeoff clearance is received and that the correct runway is being entered for takeoff prior to crossing the hold short line.

The FAA is issuing this proposal under the authority described in Subtitle VII, Part A, subpart i, 49 U.S.C. 44701. The FAA is charged with regulating air commerce in a way that best promotes safety.

Compliance Issues

To help transition from the current regulations to the revised requirements for qualification, service, and use of crewmembers and aircraft dispatchers, the FAA is proposing to continue the current regulations under subparts N, O, and P, for 5 years after the effective date of the final rule. On the date the current regulations expire, all certificate holders, crewmembers, and aircraft dispatchers must be in compliance with the requirements in subparts BB and CC of part 121. Therefore, it will be necessary for certificate holders to begin training under subparts BB and CC in sufficient time to ensure that all crewmembers and aircraft dispatchers are trained, qualified, and meet the applicable look back provisions of subparts BB and CC, before the expiration of regulations pertaining to qualification, service, and use of crewmembers and aircraft dispatchers in subparts N, O, and P. Proposed 14 CFR121.1202 and 121.1402 require certificate holders to submit a transition plan that specifies the transition completion date, which must be before the expiration of the current regulations.

The effective date of the final rule will be 120 days after publication in the **Federal Register**. Persons who have an approved training program before the effective date of the final rule or have submitted a training program for approval before the effective date of the final rule may comply with existing regulations, subparts BB and CC, or both. The proposed rule permits simultaneous compliance to allow the certificate holder to continue using its approved programs while transitioning to the new requirements. Although the rule allows the certificate holder to simultaneously comply with the existing regulations and the new rules, each individual crewmember or aircraft dispatcher must be trained and qualified under the requirements of either subparts BB and CC, or subparts N, O, and P.

For example, during the transition period, the air carrier may decide to train all newly hired flight attendants in accordance with the proposed rules, while continuing to train existing flight attendants under the current requirements. However, individual flight attendants, in the above example, would be required to be fully in compliance with the requirements of the existing regulations or with the proposed regulations. If a certificate holder submits a training program for a new aircraft type after the effective date of the rule, the training program developed for this new aircraft type must be in compliance with and approved under proposed subparts BB and CC. Therefore, any flight attendants qualified on this new aircraft type would be trained in accordance with the new rules, while flight attendants qualified on aircraft types currently operated by the certificate holder could be trained in accordance with the existing regulations in subparts N, O, and P.

Setting the effective date for 120 days after publication of the final rule and allowing use of the existing regulations for 5 years after this period provides existing certificate holders and the FAA time to smoothly transition to the new requirements. By using this approach, certificate holders seeking FAA approval for a new training program will not have to develop one training program to comply with the old regulations, then develop another training program to comply with the new regulations.

The proposed rule also contemplates that when a new training program is submitted for approval after the rule's effective date, the training program must meet the requirements of subparts BB or CC, as applicable. The FAA does not intend that non-significant modifications that may be proposed to a current training program under the existing regulations would require the certificate holder to initiate development of a training program to comply with Subpart BB or CC any earlier than they had planned in accordance with their current business plan.

The FAA has included a grandfather provision in proposed subpart BB to allow persons qualified for a crewmember duty position under the current rules to meet the requirements of the proposed rule without having to repeat certain categories of training they have already completed under the current rules. Proposed subpart CC contains a similar grandfather provision for aircraft dispatchers.

In addition, the FAA is proposing to amend requirements in current § 121.543 in proposed § 121.1241(b)(3)(v). Proposed § 121.1241(b)(3)(v) requires that all flight crewmembers at the controls are current and qualified, including landing recency. Under the current rules, landing recency is not required for relief pilots. This proposal codifies current industry practice and ensures proficiency in all tasks necessary for safe operation of the aircraft.

II. Qualification Performance Standards (QPS) Appendices

The FAA is proposing to add four QPS appendices in 14 CFR part 121: pilots, appendix Q; flight engineers, appendix R; flight attendants, appendix S; and aircraft dispatchers, appendix T. The QPS appendices contain minimum training and evaluation standards as well as procedures for crewmembers and aircraft dispatchers to become qualified and maintain qualification. The material in the proposed QPS appendices is based on the subjects and

tasks in subparts N, O, and P. In addition, the pilot QPS is based on current part 121 practical training and checking standards in appendices E and F, and flight simulation performance guidelines in appendix H. The FAA has separated the material in the QPS appendices into two sections: ''QPS Requirements'' and ''Information.'' The ''QPS Requirements'' sections are regulatory and are in addition to the requirements in part 121. The ''Information'' sections are advisory, and are not regulatory. Future changes and additions to the QPS Requirements would be subject to notice and comment rulemaking procedures under the Administrative Procedure Act, unless ''good cause'' (see 5 U.S.C. 553(b)(B)) exists to justify proceeding without notice and comment.

The FAA does not expect that many changes to the QPS appendices will justify the expenditure of time and resources at the highest levels of the agency that the standard procedures for final review of rulemakings require. The Administrator will delegate authority for final review and issuance of changes to the QPS appendices to the Director of the Flight Standards Service. This delegation of authority will be exercised with the concurrence of the Office of the Chief Counsel. This streamlined process will result in timely responses to incident and accident data, continuous analysis process (CAP) changes, and advances in aircraft or simulation technology. If at any time during the amendment process the Administrator or the Director of the Flight Standards Service determines that a proposed amendment is not appropriate for this streamlined process, the rulemaking project will proceed in accordance with the agency's standard rulemaking procedures.

III. Background

A. Current Qualification and Training Requirements

The regulations governing certificate holder crewmember and aircraft dispatcher qualification and training requirements appear in 14 CFR part 121 subparts N, O, and P. Subpart N contains the requirements for establishing and maintaining a training program for crewmembers, aircraft dispatchers, and other operations personnel. Subpart N also contains the requirements for the use of airplane simulators and other training devices. Subpart O contains crewmember qualification requirements. Subpart P contains aircraft dispatcher qualification requirements. Appendix E to part 121 establishes the flight training tasks required in pilot initial, transition, and upgrade training. Appendix F to part 121 establishes the flight checking tasks required in pilot proficiency checks. Appendix H to part 121 provides guidelines and a means for using advanced airplane simulators in training and checking of flight crewmembers.

B. Need for Safety Improvements and FAA Actions

FAA Initiatives

Among the leading causes of fatal accidents for U.S. air carriers from 1987 through 1996 were loss of control and CFIT. Human error was identified as a major contributing cause in a large percentage of these accidents. The FAA took immediate steps toward preventing these types of accidents by developing technological standards and encouraging simulator training in CFIT avoidance and to improve flight crewmember response in loss of control situations. The FAA also reviewed its regulations in 14 CFR part 121 subparts N, O, and P to identify improvements in training for flight crewmembers, flight attendants, and aircraft dispatchers.

As part of the regulatory review, the FAA evaluated its experience with the Advanced Qualification Program (AQP) currently in place at many part 121 air carriers. AQP is an alternative method using advanced simulation equipment and objective performance standards for training and testing crewmembers.[1] The FAA's review of AQP revealed the need to improve the traditional qualification and training programs conducted under subparts N, O, and P.

The National Transportation Safety Board (NTSB) investigations identified several areas of inadequate training that were the probable cause of an accident, such as Incomplete Manuals, Inadequate Standards/Procedures, Lack of a Stabilized Approach Below 500 Feet, Crew Resource Management, Turbulence, Thunder Storms, Wind Shear, IFR Conditions, Cross Wind, and Tail Wind.

During the 1985 through 2004 time period, the NTSB determined that inadequate training was the probable cause of 169 accidents involving the affected populations. We believe that many of these accidents could have been prevented if the proposed training initiatives were in place during that 20-year period. Of the 169 accidents, 43 (about 25%) involved one or more fatalities and 126 (about 75%) had no fatalities. These accidents resulted in 988 fatalities and 250 serious injuries. In addition to the injuries and fatalities, there was also significant damage or complete hull loss for these accidents. This proposal contains changes to address the causes and factors identified by the NTSB.

NTSB Recommendations

The changes proposed in this NPRM also address several NTSB recommendations. The NTSB recommendations addressed Crewmember Resource Management (CRM) training (Recommendations A–88–71 and A–94–196); use of simulators to conduct LOFT (Recommendations A–94–191 through 194); TCAS RA training (Recommendation A–93–46); training of flight crews to respond to sudden, unusual or unexpected aircraft upsets (Recommendation A–96–120); flight attendant training (Recommendations A–92–67, A–92–70, A–92–71, A–92–74, and A–92–77); and training to respond to inflight fires (Recommendations A–01–83 through A–01–85).[2]

The FAA recognizes that the NTSB has already closed some of these recommendations. However, we reviewed NTSB recommendations concerning training to make the proposed training requirements as effective as possible. For specific information on how the FAA is responding to these NTSB recommendations, see section IV, ''The Proposal,'' later in this preamble.

C. Qualification To Serve as a Required Crewmember or Aircraft Dispatcher

There are several requirements for a crewmember to become qualified to serve in part 121 operations. Just because an individual is ''qualified'' under this proposal does not mean that he or she can serve in part 121 operations without meeting additional requirements. For example, pilots are ''qualified'' under this proposal when they hold the appropriate certificates and ratings and have completed the required curricula. However, to serve unsupervised in part 121 operations they must also meet the operating experience, initial line check, crew pairing, operating limitations, and route and airport qualification requirements. In addition, when they first serve in part 121 operations they must be supervised. Further, once they obtain their initial authorization to serve, they must continually meet a different set of requirements to retain that authorization. This is similar to current requirements.

[1] The FAA codified AQP in 14 CFR part 121 subpart Y (September 16, 2005; 70 FR 54810).

[2] The NTSB Safety Recommendation Letters are available online at *http://www.ntsb.gov/Recs/letters/letters.htm.*

D. Subparts N and O Aviation Rulemaking Committee (ARC)

On May 3, 2004, the FAA established the ARC as a forum for the FAA and the aviation community to discuss crewmember and aircraft dispatcher qualification and training. The ARC focused on changes to improve flight safety issues; the application of simulation to flight crewmember training, testing, or checking activities; and the implementation of technical changes in training and qualification standards. The ARC included participants from the FAA, Air Line Pilots Association, Air Transport Association, Airbus Training Center, Airline Dispatchers Federation, Alteon Training, America West Airlines, American Airlines, Association of Flight Attendants, Association of Professional Flight Attendants, Boeing, CAE, Independence Air, JetBlue Airways, Northwest Airlines, Omni Air International, Pan Am, Regional Airline Association, and Southwest Airlines. The ARC submitted recommendations to the Associate Administrator for Aviation Safety in April 2005. These recommendations focused on changes to the regulatory requirements, the development of QPS appendices specific to the needs of pilots, flight engineers, flight attendants, and aircraft dispatchers, and organization of the regulations.

E. Training Program Vocabulary and Instructional Design

The purpose of a certificate holder's training program is to produce and maintain competency necessary for job performance. In this proposal, the FAA is introducing new terms associated with training programs.

At the highest level, training programs have ''curricula'' to qualify a person for a duty position for an aircraft type. A pilot in command (PIC), second in command (SIC), flight engineer, or a flight attendant serving in operations under this part holds a ''crewmember duty position.'' A flight instructor (aircraft or simulator), flight engineer instructor (aircraft or simulator), flight attendant instructor, check person (check pilot, aircraft; check pilot, simulator; check flight engineer, aircraft; check flight engineer, simulator; or check flight attendant), or person authorized to administer flight attendant proficiency tests holds a ''training'' or ''evaluation'' duty position. The curriculum for each crewmember duty position and training or evaluation duty position includes categories of training and the appropriate segments for each category.

Within a curriculum, ''categories of training'' (also called ''training categories'') relate to qualification experience levels, first time qualification for a certificate holder, first time qualification in type, configuration differences within type or series, maintaining and regaining qualification, and changes in operation. The categories of training within a curriculum include: New hire; initial; transition; conversion (full and core); upgrade (full and core); emergency; differences; recurrent; requalification; and special.

Each category of training includes two ''segments of training''—academic and job performance. Academic is training and evaluation that provides students with the required knowledge and cognitive skills necessary to perform the tasks required for the crewmember duty position or training or evaluation duty position. Academic training could be completed in either a classroom setting or through distance learning. Job performance is training and evaluation in the duty or job environment that provides students with the practical, hands on experience of integrating knowledge and skills and learning the related motor skills necessary to perform the job.

For flight crewmembers, the proposed term ''academic training'' is currently known as ''ground training.'' For flight crewmembers, the proposed term ''job performance training'' is currently known as ''flight training.'' The FAA has proposed these new terms in order to ensure they accurately apply to all training populations affected by the proposed rule, including those that do not conduct flight training, such as flight attendants and aircraft dispatchers.

Segments of training have subsets called ''modules.'' Certificate holders create modules based on the task requirements in the applicable QPS. The FAA approves all modules as part of the approved training program.

The following table compares the proposed terminology with the current usage.

Current rule	Proposed rule		
TRAINING PROGRAM (Curriculum and Resources)	TRAINING PROGRAM (Curriculum and Resources)		
CURRICULUM	CURRICULUM		
CATEGORIES OF TRAINING	CATEGORIES OF TRAINING		
	Flight crewmember:	Flight attendant:	Aircraft dispatchers:
Basic Indoctrination	New Hire	New Hire	Initial
Initial	Initial	Initial	Transition
Transition	Transition	Transition	Recurrent
Upgrade	Conversion	Recurrent	Requalification
Recurrent	Upgrade	Requalification	Differences
Requalification	Recurrent	Differences	Special
Differences	Requalification	Special	
Crewmember Emergency	Differences	Emergency	
	Special		
CURRICULUM SEGMENTS (Two Types—Ground and Flight)	CURRICULUM SEGMENTS (Two Types—Academic and Job Performance)		
MODULE	MODULE		
LESSON	LESSON		
ELEMENT	ELEMENT		

IV. The Proposal

This section addresses the major changes proposed in this document and includes a general description of each change and supporting rationale. You can find a detailed description of these and other proposed changes in the ''Section-by-Section Discussion'' in the docket for this rulemaking at *http://*

www.regulations.gov. In addition to the ''Section-by-Section Discussion'' document, the docket also contains ''Derivation and Distribution Tables'' for the proposed Subparts BB and CC. The ''Derivation and Distribution Tables'' will help commenters track how the proposed sections relate to the current sections in part 121. The following table lists the major changes and their applicability to crewmembers and aircraft dispatchers.

MAJOR CHANGES AND THEIR APPLICABILITY TO CREWMEMBERS AND AIRCRAFT DISPATCHERS

Major changes
A. Crewmembers and Aircraft Dispatchers
1. Provide more accurate and complete operating procedures and crewmember and aircraft dispatcher duties.
2. Integrate subparts N, O, and P into new subparts BB and CC.
3. Require baseline and minimum programmed hours.
4. Require integration of Crew Resource Management (CRM) and Dispatcher Resource Management (DRM).
5. Add ''Special'' training category.
6. Establish phased Requalification.
7. Establish provisions for initial cadre.
8. Continuous analysis process.
B. Flight Crewmembers
1. Require the use of FSTD for job performance training and evaluation.
2. Train and evaluate flight crewmembers in a full crew environment.
3. Require Special Hazards training.
4. Require Recurrent LOFT.
5. Reduce the frequency of performance drills using emergency equipment and procedures.
C. Flight Attendants
1. Establish qualification and training requirements for check flight attendants, flight attendant instructors, and evaluators.
2. Require operating experience by aircraft type specific to the certificate holder.
3. Increase the frequency of performance drills using emergency equipment and procedures.
D. Aircraft Dispatchers
1. Establish dispatcher instructors and check dispatchers.
2. Require supervised operating experience specific to the certificate holder.
3. Establish optional aircraft dispatcher Combined Certification and Initial Curriculum.
4. Establish qualification requirements for Dispatch Program Designees.

A. Major Changes Affecting Crewmembers and Aircraft Dispatchers

1. Provide for More Accurate and Complete Operating Procedures and Crewmember and Aircraft Dispatcher Duties

Training effectiveness is enhanced when operational procedures and crewmember duties are thoroughly and accurately defined for the type of operation. The FAA reviewed numerous accidents where a lack of properly defined procedures and duties were a direct or contributing factor. The following proposals will improve the completeness and accuracy of the duties and procedures for crewmembers and aircraft dispatchers.

• Add Standard Operating Procedures, Abnormal or Non-normal Procedures, Emergency Procedures, Weight and Balance (or Loading), and Performance sections to the Operating Limitations section of the FAA-approved Flight Crew Operating Manual (FCOM) as mandatory instructions for all persons operating a civil aircraft in operations under this part.

• Require that training and evaluation of monitoring duties for the pilot not flying the aircraft be provided in addition to the traditional pilot flying (at the controls).

• Include procedures in the FCOM for executing the tasks authorized for the certificate holder. These procedures may come from the following: (1) The FAA-approved Airplane Flight Manual (AFM); (2) the generic procedures provided in the QPS; or other procedures as modified by the certificate holder and approved by the Principal Operations Inspector (POI), such as those contained in Operations Specifications (OpSpecs).

• Provide training in approved procedures in critical environments (*e.g.*, windshear for takeoff and landing).

• Provide awareness performance statements relative to each task (*e.g.*, be aware of the autoflight configuration at all times).

• Require that the material in the current certificate holder's manual (§§ 121.133, 121.135, and 121.141) pertaining to crewmembers and aircraft dispatchers be contained in the Flight Crew Operating Manual (FCOM), Flight Attendant Operating Manual (FAOM), and Aircraft Dispatcher Procedures Manual (ADPM).

The requirement for operating procedures and crewmember duties is not new. However, a thorough and accurate compilation of the information will improve safety of flight operations. It will also result in better training program definition and development.

2. Integrate Subparts N, O, and P Into New Subparts BB and CC

Under the proposal, the current regulations governing drug and alcohol testing and hazardous material training would remain in subparts N and O. The crewmember qualification and training requirements in subparts N and O would be moved into subpart BB of part 121 and the aircraft dispatcher qualification and training requirements in subparts N and P would be moved into subpart CC of part 121. Other changes include the addition of new appendices, Q, R, S, and T as QPS appendices for pilots, flight engineers, flight attendants, and aircraft dispatchers. The proposal also removes obsolete references to flight navigators.

3. Require Baseline and Minimum Programmed Hours

This proposal prescribes programmed hour requirements for crewmembers and aircraft dispatchers. Programmed hours are the required academic and job performance training hours for categories of training. The proposed programmed hours are contained in the applicable QPS. The programmed hours consist of baseline and minimum hours for academic and job performance training segments. The term baseline hours refers to the starting point for determining the number of programmed

hours required for FAA approval. The FAA may allow a reduction from the baseline hours in certain circumstances. However, the FAA will not allow a reduction below the minimum number of hours prescribed in the QPS appendices.

For example, in accordance with Table 1 of the Pilot QPS, the baseline for transition academic training is 92 hours. The FAA may allow a certificate holder to reduce the number of programmed hours if the certificate holder demonstrates that circumstances justify a lesser amount. However, the FAA will not approve a reduction below the minimum hours stated in the Pilot QPS, which is 62 hours for transition academic training. These proposed requirements would improve the consistency of reductions to training hours.

The programmed hours do not include other required training, such as training for hazardous materials and security. In addition, periods of time when training is not occurring, such as lunch and travel between facilities, do not count toward required programmed hours. The proposed programmed hours give certificate holders flexibility in developing training programs. The proposed programmed hours also ensure that training programs have a sufficient number of hours for crewmembers and aircraft dispatchers to gain and maintain proficiency.

Flight Crewmember Programmed Hours

Programmed hours consist of baseline and minimum hour requirements. The FAA bases the proposed baseline and minimum program training hours on national norms, FAA handbooks, traditional and AQP training programs, and problems routinely encountered by a POI. The baseline hours for flight training are not reducible. The baseline hours for academic training could be reduced to the minimum hours if the certificate holder applied for a reduction under proposed § 121.1335(b). The Administrator would consider the factors outline in proposed § 121.1337(e) before granting a reduction in programmed hours. These factors are:

- The pass/fail rate in the curriculum.
- The quality and effectiveness of the teaching-learning process.
- The experience levels of the students, instructors, and check persons.
- The certificate holder's type and scope of operations.
- The complexity of make, model, and series of aircraft used.

Current regulations prescribe minimum programmed hours for flight training. However, under § 121.409(c), the minimum programmed hours do not apply if the training program includes a course of flight crewmember training in an FSTD. Since one of the purposes of this rule is to require all certificate holders to use FSTD in their job performance training programs, the FAA proposes to delete the exception in current § 121.409(c). Under § 121.1335 of this proposal, all training programs are required to have the programmed hours specified in the applicable QPS.

Flight Attendant Programmed Hours

Similar to flight crewmember programmed hours, flight attendant programmed hours are also based on current regulatory and advisory material. In Recommendation A–92–67, the NTSB stated the FAA should establish procedures for reducing required hours of flight attendant Recurrent training. Specifically, the NTSB recommended the procedures be based on the following:

- The number of types of aircraft for which flight attendants are qualified.
- The accuracy and effectiveness of training devices and simulators.
- The methods used to test and evaluate proficiency.

The FAA proposes to change the way it allocates flight attendant programmed hours for Initial training for each aircraft type. The FAA proposes to increase the number of baseline hours for Initial training on the first aircraft type. Under the proposal, the FAA requires 12 hours of training on general subjects (such as CRM, passenger handling, and theory of flight) and 12 hours of aircraft type specific training. For each subsequent aircraft type, the FAA does not require the flight attendant to repeat training on the general subjects.

The FAA also proposes a baseline of 24 hours for flight attendant emergency training. These hours may not be reduced for flight attendants qualified in overwater operations. For flight attendants not qualified in overwater operations, the required hours may be reduced to a minimum of 22 hours. This proposal codifies the national norms that the FAA has included in FAA Order 8400.10 Air Transportation Operations Inspector's Handbook (*http://www.faa.gov/library/manuals/examiners_inspectors/8400/*), and is consistent with industry practice and NTSB recommendations.

In addition, the FAA is proposing new programmed hours for transition training. Transition training would allow a flight attendant to qualify on an aircraft type if the flight attendant has been qualified for at least 180 days and served in the previous 180 days on an aircraft as a flight attendant for that certificate holder.

Under the proposal, the baseline programmed hours for transition training are 12 hours to ensure adequate training for flight attendants. The baseline may be reduced to a minimum of 8 hours.

Aircraft Dispatcher Programmed Hours

The proposed aircraft dispatcher regulations contain programmed hour requirements similar to crewmember programmed hours, including authorizations for reductions. For example, the Aircraft Dispatcher QPS outlines a baseline programmed hour requirement of 8 hours for supervised operating experience. These programmed hours may not be reduced below the baseline.

4. Require Integration of Crew Resource Management (CRM) and Dispatcher Resource Management (DRM)

CRM and DRM training is the incorporation of team management concepts in flight operations. Resource management training focuses on the interaction among flight crewmembers, flight attendants, aircraft dispatchers, maintenance personnel, air traffic controllers, and others. CRM and DRM activities include team building and maintenance, information transfer, problem solving, decision making, maintaining situational awareness, and using automated systems. This proposal revises current CRM and DRM requirements by integrating CRM and DRM proficiencies throughout the training and evaluation programs for crewmembers and aircraft dispatchers. These proposed changes address NTSB recommendations concerning CRM training (Recommendations A–88–71 and A–94–196).

The proposed requirements provide details about how certificate holders must include CRM and DRM training in specific subject areas. The QPS appendices describe specific CRM and DRM subject areas, such as: Communication processes and decisions, workload management, and situational awareness. The proposed Pilot and Flight Engineer QPS appendices require CRM training and evaluation during recurrent LOFT sessions and line checks. Training in these areas helps prevent errors such as taxiing on a wrong runway, misinterpreting tower controller information, and incompletely preparing for takeoff because of interruptions. The Flight Attendant QPS incorporates CRM proficiencies into performance drills. The Aircraft Dispatcher QPS requires that certificate

holders evaluate DRM indicators throughout the entire Proficiency Test or Check.

5. Add ''Special'' Training Category

When certain changes are made to the certificate holder's operations or equipment, the certificate holder must make conforming changes to its training program. For example, a certificate holder may begin conducting Reduced Vertical Separation Minimums (RVSM) or Extended Operations (ETOPs) and would need to amend its training program to address these new operations. Another example is the addition of equipment to aircraft (e.g., Automated External Defibrillators). In these situations, it may be difficult to determine when specific crewmembers and aircraft dispatchers have been trained. To address this situation, some certificate holders have developed a ''Special'' training category. The modules for this ''Special'' training category are temporary and used by the certificate holder to ensure that all crewmembers and aircraft dispatchers receive the new training. The certificate holder integrates the module for this ''Special'' training into the existing training categories. The proposed language has adopted this strategy by codifying a ''Special'' category of training.

6. Establish Phased Requalification

Flight Crewmembers

Proposed § 121.1239 establishes Requalification requirements for flight crewmembers who become unqualified by not meeting Recurrent training requirements. The proposed changes clarify that an unqualified person may not necessarily be required to repeat all of the Initial training to regain qualification. Instead, the FAA has based the Requalification requirements on the amount of time that has elapsed since the person last served in the duty position in operations under this part.

Proposed § 121.1239(b) outlines three phases of Requalification:

- Phase I Requalification—the person has been unqualified for less than 9 months.
- Phase II Requalification—the person has been unqualified for at least 9 months, but less than 27 months.
- Phase III Requalification—the person has been unqualified for 27 months or more.

The specific tasks that the flight crewmember must complete for requalification are outlined in the appropriate QPS.

Flight Attendants

Proposed § 121.1309 establishes Requalification requirements for flight attendants who become unqualified by not meeting Recurrent training requirements. This rule is necessary because the current regulations imply that an unqualified person must repeat all required training. In some cases this is not necessary because a previously qualified flight attendant retains some of the knowledge and skills that he or she has learned. Thus, proposed § 121.1309 establishes that, to be requalified, the person must meet either the basic qualification requirements (new hire, initial, transition, and emergency training, and differences training, if necessary), or requalification requirements based on the amount of time the person has been unqualified.

Proposed § 121.1309 outlines three phases of requalification:

- Phase I Requalification—the person has been unqualified for less than 12 months.
- Phase II Requalification—the person has been unqualified for at least 12 months, but not more than 24 months.
- Phase III Requalification program—the person has been unqualified for more than 24 months.

The specific tasks that the flight attendant is required to complete for Requalification are outlined in the proposed Flight Attendant QPS.

Dispatchers

Proposed § 121.1419 contains aircraft dispatcher requalification requirements that are similar to crewmember requalification requirements.

Proposed § 121.1419 outlines five phases of requalification:

- Phase I Requalification—the person has been unqualified for less than 6 months.
- Phase II Requalification—the person has been unqualified for 6 months or more, but less than 12 months.
- Phase III Requalification—the person has been unqualified for 12 months or more, but less than 24 months.
- Phase IV Requalification—the person has been unqualified for 24 months or more, but less than 36 months.
- Phase V Requalification—the person has been unqualified for 36 months or more.

The specific tasks that the dispatcher must accomplish for requalification are outlined in the appropriate QPS.

7. Establish Provisions for Initial Cadre

A start-up part 119 certificate holder or an existing certificate holder starting-up operations using a new aircraft type is not able to meet all of the requirements for check pilots, check flight engineers, and check flight attendants. Those certificate holders lack qualified personnel to fill these duty positions. The FAA has over 40 years of experience authorizing check persons as the initial cadre. The existing practice has served the safety goals of the FAA for the following reasons: (1) The FAA requires highly qualified and recently experienced personnel to participate in the initial cadre; (2) the FAA directly oversees the evaluation and observation of the initial cadre; and (3) the FAA limits the duration of the initial cadre to a period not to exceed 24 months. Proposed § 121.1257 codifies a long-standing FAA policy to allow initial cadre personnel to serve as check pilots or check flight engineers during the period of initial cadre status.

Proposed §§ 121.1425 and 121.1323 for check dispatchers and check flight attendants are similar to proposed § 121.1257 for initial cadre check pilots and check flight engineers. These sections codify requirements for qualifying an initial cadre of check persons. Most of the proposed requirements are based on current industry practice and FAA policy.

8. Continuous Analysis Process

The proposal adds a continuous analysis process for crewmember and aircraft dispatcher training programs. These new requirements are similar to the existing § 121.373, which addresses continuing analysis and surveillance for maintenance programs. The proposal requires certificate holders to establish procedures for validating and maintaining the effectiveness of the continuous analysis process and the training program. Additionally, it requires certificate holders to analyze crewmember and aircraft dispatcher evaluations to identify areas that need to be addressed and training program improvements that need to be made. The continuous analysis process ensures that certificate holders identify and correct deficiencies in their training programs. The proposal also establishes a notification and appeal process that ensures the FAA approves any changes to the training program, consistent with the approval and amendment process.

B. Major Changes Affecting Flight Crewmembers

1. Require the Use of FSTD for Job Performance Training and Evaluation

Current appendix H of part 121 permits certificate holders to use simulators for varying amounts of the training, testing, and checking required by the FAA. Appendix H is a voluntary alternative to training and checking in the airplane. The only required use of an FSTD in the current regulations is the windshear requirements in § 121.409(d).

The proposal requires that all creditable pilot and flight engineer training and evaluation be completed in a qualified FSTD approved by the POI for those tasks specified in the applicable QPS. Using FSTD, rather than airplanes, allows for more in-depth training in a safer environment, including the practice of critical emergency procedures. FSTD also provide benefits such as reducing noise, air pollution, and air traffic congestion, and conserving petroleum resources. This proposal addresses concerns raised by NTSB Recommendations A–94–191 through 194, which stated that part 121 flight training and checking should be required in FSTD wherever possible.

The FAA recognizes that in a few cases, certificate holders initially may not be able to comply with the requirements to use FSTD for all of their job performance training and evaluation. Accordingly, the proposed rule includes provisions for requesting a deviation in § 121.1345(b) through (e). Proposed paragraph (b) describes the limited circumstances when a certificate holder may receive a deviation from the requirement in paragraph (a). Proposed paragraph (c) requires a person requesting a deviation to demonstrate to the FAA why the circumstances warrant a deviation from the requirement to use a qualified FSTD. The FAA does not intend that the deviation provide a loophole for certificate holders who want to continue training and evaluating in aircraft. Rather, the deviation is designed to accommodate those certificate holders who use aircraft for which there are no FSTD available (e.g., DC–6) or, for extraordinary reasons, do not have access to an FSTD for the aircraft type they operate.

2. Train and Evaluate Flight Crewmembers in a Full Crew Environment.

The existing recurrent qualification and training requirements for a PIC and SIC differ in several respects. Current regulations require different tasks and events for PIC and SIC, and the training is separate. For example, PIC receive more training tasks and more frequent proficiency checks than SIC. In addition, PIC train on a 6-month basis, and SIC train on a 12-month basis. The disparity between the training requirements for PIC and SIC is not consistent with actual line operations. During actual operations, pilots must work as a flight crew unit. Typically, today's flight operations involve PIC and SIC performing both pilot flying and monitoring duties.

The proposed rule eliminates the differences in training for PIC and SIC. The training cycles for PIC and SIC are no longer separate. Under the proposal, PIC and SIC are required to complete Recurrent training on a 9-month basis. The requirement is such that each must complete all of the academic subjects and all of the job performance tasks listed in the applicable QPS where each subject, task, or environment may be required once each 9-month period; once each 18-month period, or once each 36-month period. Proposed § 121.1333 and the QPS require the same tasks and events for PIC and SIC. Both PIC and SIC must demonstrate proficiency in the flying and monitoring duties associated with the prescribed tasks and events. The QPS also requires the same number of programmed hours for PIC and SIC training. For example, there are 24 programmed hours for transition flight training. During that 24 hours of training, both the PIC and the SIC must demonstrate proficiency in flying and monitoring duties. The proposed changes facilitate training flight crewmembers in a complete crewmember environment.

In addition to leveling the requirements regarding tasks and task performance between PIC and SIC, this proposal provides additional advantages. The change in frequency of training exposure provides an increase in the actual training exposure for both PIC and SIC over an equal time period. Additionally, while this proposal reduces the frequency with which PIC return for training, it increases the frequency with which SIC return for training. The FAA anticipates a reduction in previous piloting experience for pilots entering the air carrier industry in the near future; almost all of these new pilots will start their air carrier service as SIC. This proposal would provide these new, lesser experienced, pilots with more training at each training event and provide those training events more frequently than under today's regulations.

In addition to integrating the training for PIC and SIC, the proposal will also integrate the training for flight engineers with the training for PIC and SIC, when applicable. Proficiency tests, proficiency checks, proficiency reviews, LOFT, and FSTD Course of Instruction require all flight crewmember duty positions to be occupied by a person who is qualified to serve in that crewmember duty position (including a qualified crewmember, instructor, check pilot, and aircrew program designee (APD)), or is in student status learning to serve in that crewmember duty position.

3. Require Special Hazards Training

In 1996, the NTSB recommended the FAA require training to better prepare flight crewmembers to respond to sudden or unexpected aircraft upsets (Recommendation A–96–120). Also, the NTSB recommended the FAA develop CFIT training requirements for all pilots operating under part 121.

The QPS includes special hazard academic training subjects such as CFIT and Ground Proximity Escape maneuvers, upset and loss of control, and runway incursions. In addition to academic training in special hazards, the FAA is proposing to include job performance training during Initial, Conversion, Transition, Upgrade, Requalification, and Recurrent training. For pilots, this training includes inflight maneuvers in upset and disturbance recovery, low altitude windshear avoidance and escape, and ground proximity warning system (GPWS) and terrain awareness warning system (TAWS) alert recognition and escape maneuvers.

4. Require Recurrent LOFT

LOFT is training in an FSTD with a complete flight crew. LOFT uses representative flight segments containing standard operating procedures, abnormal procedures, non-normal procedures, and emergency procedures expected in line operations. LOFT used in Recurrent training is called ''recurrent LOFT.'' LOFT used to qualify for line operations is called ''qualification LOFT.''

Proposed § 121.1353 includes the general requirements for conducting LOFT. The proposed requirements are more specific than the current regulations and codify existing advisory material (AC 120–35C, Line Operational Simulations: Line Oriented Flight Training, Special Purpose Operational Training, Line Operational Evaluation). A LOFT is conducted as a line operation and allows for no interruption by the instructor during the session except for a non-disruptive acceleration of uneventful en route segments. Interruptions are not allowed in LOFT

sessions because they disrupt the flow and undermine the realistic nature of line operations.

The proposal requires 4 hours of training in an FSTD, plus a briefing and debriefing. In addition, each duty position must be filled by a person who is qualified or in student status to serve in that position. This proposed requirement is needed because the training value of LOFT is diminished when inappropriate crew substitutions are made, such as using an SIC to substitute for a PIC. The certificate holder selects the tasks to be performed from the list provided in the applicable QPS, and the FAA approves the selected tasks. In this way, the FAA is certain the selected tasks are appropriate for the certificate holder's operations.

Under proposed § 121.1353, any person serving in a flight crewmember position during a LOFT who does not perform satisfactorily may not serve as a required crewmember or operate under part 121 without receiving additional training to correct the deficiencies. This is common industry practice and consistent with FAA advisory material. The certificate holder must schedule a separate training session to correct the deficiencies. This additional training ensures that the substandard performance is corrected before the person performs line operations.

5. Reduce the Frequency of Performance Drills Using Emergency Equipment and Procedures

The current rule requires all crewmembers to have recurrent emergency ''hands on'' performance drill training on the use of portable emergency equipment (e.g., fire extinguishers, protective breathing equipment, portable oxygen equipment, flotation equipment) and aircraft exits every 24 months. This proposal adjusts the frequency of flight crewmember ''hands on'' training from 24 months to 36 months. This matches the newly adjusted frequency for flight crewmember Recurrent training. It also addresses FAA guidance recommending that flight crewmembers land the aircraft as quickly as possible to minimize the effect of an on-board fire, and that flight crewmembers remain on the flight deck, consistent with the post-9/11 security procedures. In addition, current policy places increased responsibility on the flight attendant to respond to emergency situations in the aircraft cabin. While this proposal decreases the frequency of hands on drills for flight crewmembers, it increases the frequency of hands on drills for flight attendants. Although the FAA is proposing to reduce the frequency for flight crewmember emergency ''hands on'' drills, we are also proposing to add an unannunciated fire (fire in the aircraft cabin) drill to flight training.

C. Major Changes Affecting Flight Attendants

The proposed rule and associated Flight Attendant QPS appendix would revise flight attendant requirements in several areas to address NTSB recommendations and to enhance flight attendant training and evaluation.

1. Establish Qualification and Training Requirements for Check Flight Attendants, Flight Attendant Instructors, and Evaluators

Check Flight Attendants

The proposed rule includes eligibility, approval, qualification, and continuing qualification requirements for check flight attendants. These proposed requirements provide regulatory standards for initially qualifying a flight attendant to serve as a check flight attendant as well as continuing qualification for that flight attendant. The requirements ensure that check flight attendants are familiar with the certificate holder's operations as well as the aircraft type on which they will be conducting operating experience, that they are line-qualified for the certificate holder before evaluating other flight attendants, and that they are qualified to evaluate flight attendants who are completing operating experience. The FAA is proposing to add these requirements to ensure that effective and qualified evaluators conduct the evaluation of the person completing operating experience.

Flight Attendant Instructors

The proposed rule requires each flight attendant instructor to complete basic qualification or Recurrent training requirements, as appropriate, for the certificate holder. The FAA recognizes that a flight attendant instructor may not be physically able to perform certain performance drills due to injury, pregnancy, or disability. Therefore, the FAA also proposes to allow those individuals to complete the required training to qualify as a flight attendant instructor, with the exception of those performance drills the person cannot physically perform. However, the FAA only allows flight attendant instructors to teach performance drills that they are able to demonstrate at the time of instruction. In addition, the flight attendant instructors must have performed the drills within the past 12 months as part of their basic qualification or Recurrent flight attendant training. This requirement provides certificate holders with flight attendant instructor staffing flexibility, while ensuring that flight attendant training is delivered by knowledgeable instructors who have completed the FAA approved flight attendant training program for that certificate holder. The FAA based the proposed rule on current effective industry practices.

Persons Authorized To Administer Flight Attendant Proficiency Tests

The FAA is proposing new requirements to ensure that an individual who evaluates flight attendant proficiency tests is approved by the Administrator and has appropriate training to administer the test. This ensures that effective and qualified evaluators administer the proficiency tests. The FAA based these requirements on current effective industry practice regarding qualification of instructors and evaluators in flight attendant training programs.

2. Require Operating Experience by Aircraft Type Specific to the Certificate Holder

The proposed rule increases the requirements for flight attendants to complete operating experience on each aircraft type operated by the certificate holder prior to becoming qualified on that aircraft type. The proposed rule requires flight attendants to gain aircraft operating experience after completion of Initial training for each aircraft type. This is different from the current rule which only requires a flight attendant to complete operating experience on one aircraft type (Group I or Group II, as applicable) in part 121 operations during the flight attendant's career. The proposal ensures that a flight attendant qualified on a large number of different aircraft types has more extensive training on each aircraft type than under the current rules. The proposed rule also requires that a person receive operating experience on each aircraft type for each certificate holder for whom the person is employed. This requirement is necessary because flight attendant procedures can differ significantly between certificate holders, even for the same aircraft type.

The proposed rule also gives certificate holders more flexibility than the current rule regarding the instructional design of basic qualification curricula. For example, under the current rule, a person must complete all Basic Qualification training before beginning operating experience. However, under the proposed rule, a person must only complete new hire

and Initial training on the aircraft type prior to beginning aircraft operating experience on that aircraft type. This approach allows certificate holders to incorporate the increased operating experience requirements into their training programs more efficiently.

The proposed rule also requires flight attendants to complete aircraft operating experience within 90 days of completing Initial training on that aircraft type. This is consistent with the concept of consolidating knowledge and skills learned in Initial training on that aircraft type.

The proposed rule also establishes new supervision requirements for aircraft operating experience and limits the number of persons who may receive or administer operating experience on any one operating cycle. For example, a check flight attendant cannot supervise more than four persons on any one operating cycle, and there can be no more than two check flight attendants supervising on any one operating cycle. These requirements help ensure a realistic operating environment where effective evaluation of the person receiving operating experience can occur, and are consistent with current effective industry practices and International Civil Aviation Organization (ICAO) recommendations for Cabin Attendant's Safety Training.

The proposed rule also requires that when completing operating experience, a person perform the assigned duties of a flight attendant on at least two cycles on each aircraft type. This ensures that a person completing operating experience is actually gaining experience during takeoffs and landings, which are the most critical phases of flight. However, the person could not serve as a required crewmember, because the person is not a fully qualified flight attendant. The proposed rule continues the current requirement that a person receive aircraft operating experience for 5 hours. All operating experience must be gained during line operations. The proposal does not allow operating experience credit for training conducted in a full-scale cabin training device. The FAA considers experience gained in a ''line operations'' environment to be a significant training event that combines the demonstration of knowledge and skill. A ground based cabin training device is not considered an adequate substitute for operating experience gained during actual line operations with passengers onboard.

3. Increase the Frequency of Performance Drills Using Emergency Equipment and Procedures

The proposed rule requires flight attendants to perform emergency procedure drills with the appropriate emergency equipment every 12 months, as opposed to the 24-month interval in the current rule. These drills provide critical practice in the actions that flight attendants must take in an emergency. As stated in NTSB Report, Flight Attendant Training and Performance During Emergency Situations (NTSB/SIR–92/02),

> [e]mergency procedures, such as those required to prepare an airplane for an evacuation or a ditching, extinguish an in-flight fire, supervise the cabin following a decompression, handle a hijack situation, or manage passengers during an emergency evacuation, are rarely, if ever, used. Flight attendants must immediately change from passenger service oriented roles to their critical safety-related roles in an emergency. Emergency situations typically require quick, assertive, and decisive action with little time for analysis of the situation. For most flight attendants, the only opportunity to practice skills needed in an emergency is during Initial and Recurrent training. These skills are perishable, and continuing and effective training is essential for maintaining them.

In addition to responding to the NTSB, this proposal codifies current industry practice, as well as ICAO recommendations for Cabin Attendant's Safety Training.

D. Major Changes Affecting Aircraft Dispatchers

1. Establish Dispatcher Instructors and Check Dispatchers

The proposal establishes qualification requirements for dispatcher instructors and check dispatchers. The new requirements are based on current FAA policy and industry practice. Codifying these requirements standardizes requirements for dispatcher instructors and check dispatchers.

The proposal adds new requirements that a dispatcher instructor either hold an aircraft dispatcher certificate, maintain aircraft dispatcher currency, and meet certain instructor training requirements or be a subject matter expert. The proposal provides flexibility by allowing people who do not have an aircraft dispatcher certificate to be subject matter experts and instruct in specific subjects as approved by the Administrator (e.g., weather). The proposed requirements ensure that all dispatcher instructors (subject matter experts and certificated aircraft dispatchers) are knowledgeable in the subjects they are teaching. In addition, the proposal ensures that dispatcher instructors who are certificated aircraft dispatchers are knowledgeable in the certificate holder's facilities, equipment, and procedures, and use equipment and facilities specifically approved for the certificate holder's training program.

The proposal also codifies check dispatcher qualification requirements. The proposed term ''check dispatcher'' replaces current terms ''supervisor or ground instructor'' used in § 121.422(b). The proposal requires check dispatchers to hold an aircraft dispatcher certificate, maintain aircraft dispatcher currency, and meet certain training and experience requirements. For example, a check dispatcher must have performed the duties of an aircraft dispatcher for at least 8 hours in a 24-hour period in the preceding 60 days, and be current and qualified as an aircraft dispatcher for a part 121 domestic or flag operation for at least 3 of the previous 5 years. The FAA believes that the proposed recency of experience requirement is necessary because currently dispatchers who administer competency checks are not required to have recent practical work experience. The FAA believes recent experience is necessary for check dispatchers to competently evaluate aircraft dispatchers. This is consistent with proposed subpart BB for crewmembers.

The proposed new section also specifies curriculum requirements for Initial and Recurrent training for check dispatchers. These requirements are consistent with the proposed requirements in subpart BB for check pilots and check flight engineers and with current industry practice.

2. Require Supervised Operating Experience Specific to the Certificate Holder

The proposal establishes a new requirement that aircraft dispatchers receive supervised operating experience for the certificate holder. This proposal improves safety by ensuring that aircraft dispatchers are familiar with the certificate holder's operations, and have an opportunity to practice knowledge and skills during actual operations. The proposal prescribes minimum hours of supervised operating experience that the aircraft dispatcher must meet before serving unsupervised.

The proposal also imposes specific criteria for persons supervising operating experience. The supervising dispatcher does not need to be a check dispatcher. However, the supervising dispatcher must meet the same experience requirements as a check dispatcher. Requiring the supervising dispatcher to have the same experience as a check dispatcher provides adequate

safety for supervised operating experience and staffing flexibility for certificate holders.

The proposed rule also clarifies that supervised operating experience may not begin until the person has completed Initial, Combined Certification and Initial, or Requalification training and operating familiarization. This new requirement ensures that supervised operating experience provides an opportunity to consolidate knowledge and skills acquired in training.

The proposal also prohibits an aircraft dispatcher administering operating experience from supervising more than one person at a time. This ensures that the supervising aircraft dispatcher has a manageable workload.

3. Establish Optional Aircraft Dispatcher Combined Certification and Initial Curriculum

Currently a person may obtain an aircraft dispatcher certificate only under the requirements in part 65 subpart C. After obtaining a certificate from the FAA, the aircraft dispatcher is then trained in the certificate holder's approved training program to become qualified to serve as an aircraft dispatcher in the certificate holder's operations.

The proposed rule continues to allow certification of aircraft dispatchers under part 65, but it also integrates part 65 requirements into part 121 training programs to allow certification through a certificate holder's approved Combined Certification and Initial training curriculum (in-house).[3] Under the proposal, a person could receive the necessary training, be tested by the certificate holder's dispatch program designee, and be issued an aircraft dispatcher certificate. The aircraft dispatcher's certificate would be issued under part 65, not part 121. Integrating a certification program into a certificate holder's training program allows a certificate holder to draw potential dispatchers from its pool of employees and train them ''in-house'' to become aircraft dispatchers.

The requirements for obtaining an in-house dispatcher certificate are contained in the proposed Aircraft Dispatcher QPS. These proposed requirements are based on the requirements in Appendix A of part 65 and provide an equivalent level of training and safety. The proposed Aircraft Dispatcher QPS also contains training requirements for aircraft dispatchers who receive certificates through a traditional FAA approved part 65 program.

Under the proposal, a certificate holder with a Combined Certification and Initial curriculum administers practical and proficiency tests to their dispatcher candidates. This process is illustrated in Flowchart 1 of the proposed Aircraft Dispatcher QPS. The dispatcher candidate completes the practical test, undergoes supervised operating experience, and then completes a proficiency test. A dispatch program designee for the certificate holder or the FAA must administer the practical test.

4. Establish Qualification Requirements for Dispatch Program Designees

This proposed section establishes qualification requirements for a dispatch program designee. These requirements are consistent with those proposed for aircrew program designees in subpart BB. Part 65 currently allows designated aircraft dispatcher examiners to administer practical tests for certification to graduates from certain approved courses. The proposal would allow dispatch program designees to administer practical tests for certification to graduates of the specific certificate holder's in-house training program. The FAA has used designees for pilot, maintenance, and aircraft certification for decades and has been satisfied with designee performance. Therefore, the FAA proposes to extend the use of designees to aircraft dispatcher certification in part 121 operations to provide greater flexibility while maintaining the highest level of safety. Dispatch program designees evaluate aircraft dispatcher candidates based on the specific operational requirements of the certificate holder; therefore, the FAA believes it is in the best interest of safety for dispatch program designees to be limited to a specific certificate holder.

V. Impact Statements

Privacy Impact Statement for Proposed 14 CFR Part 121 Subparts BB and CC—Qualification, Service, and Use of Crewmembers and Aircraft Dispatchers

Legal Requirements

Section 522 of the Consolidated Appropriations Act of 2005 instructs DOT to conduct a privacy impact assessment (PIA) of proposed rules that will affect the privacy of individuals. The PIA should identify potential threats relating to the collection, handling, use, sharing and security of the data, the measures identified to mitigate these threats, and the rationale for the final decisions made for the rulemaking as a result of conducting the PIA.

Definitions

Certificate holder means a person certificated under part 119 of this chapter that conducts operations under part 121 of this chapter, or a person certificated under part 119 of this chapter that conducts operations under part 135 of this chapter and is permitted or required by § 135.3 of this chapter to conduct training curricula in compliance with this subpart.

Individual means a living human being, especially a citizen of the United States or an alien lawfully admitted for permanent residence.

Personally Identifiable Information (PII) is any information that permits the identity of an individual to whom the information applies to be reasonably inferred by either direct or indirect means, singly or in combination with other data. Examples of PII include but are not limited to physical and online contact information, Social Security number and driver's license number.

Privacy Impact Assessment is an analysis of how a rulemaking would impact the way information is handled in order to ensure data handling conforms to applicable legal, regulatory, and policy requirements regarding privacy, determine the risks and effects the rulemaking will have on collecting, maintaining and sharing PII, and examine and evaluate protections and alternative processes for handling information to mitigate potential privacy risks.

Requirements for the Submission and Retention of PII as Part of Compliance With Proposed 14 CFR Part 121 Subparts BB and CC—Qualification, Service, and Use of Crewmembers and Aircraft Dispatchers

The FAA proposes to amend the training regulations for pilots, flight engineers, flight attendants and aircraft dispatchers serving in part 121 operations. There are 34,000 affected pilots in part 121 operations, 1,600 flight engineers, 2,700 aircraft dispatchers, and 106,600 flight attendants. Therefore, the total number of individuals that would be impacted by the proposed rule is approximately 150,000.

Under the proposal, certificate holders are required to develop a record keeping system demonstrating that each

[3] ''In-house'' is used in this preamble to mean as part of the part 121 operator's FAA-approved training program. This option is described in detail in the Aircraft Dispatcher QPS as the ''combined certification & initial training curriculum.'' Use of the phrase ''in-house'' does not mean that the training necessarily would only be conducted by the certificate holder or in the certificate holder's facility. Some training could still be out sourced to an FAA-approved training provider.

person has completed the required training and evaluation to serve in a particular duty position for the certificate holder. The proposed rule does not require a certificate holder to maintain PII. However, the FAA recognizes that certain PII may be contained in the certificate holder's records. This information may include the person's name, date of birth, address, telephone number, duty position, social security number, medical records, and type ratings. The FAA routinely reviews training records in the course of exercising its safety oversight authority and may request a certificate holder to disclose PII for investigation, compliance, or enforcement purposes.

In addition to the certificate holders' records, the FAA also maintains PII for all certificated airmen, including pilots and aircraft dispatchers. The FAA records for certificated airmen include the name, date of birth, social security number, driver's license number, passport number, or government ID number, physical description (height, weight, hair and eye color, sex, and citizenship), address (airmen only), medical records, and airmen certificate number. The FAA also maintains PII for flight attendants who have obtained a Certificate of Demonstrated Proficiency.

The FAA protects PII in its possession in accordance with *''Privacy Act Notice DOT/FAA 847—Aviation Records on Individuals (formerly General Air Transportation Records on Individuals).''* The Privacy Act Notice is available at *http://cio.ost.dot.gov/DOT/OST/Documents/files/records.html.*

The FAA did not conduct a PIA for this rulemaking because this proposed rule does not specifically require the collection of any PII. However, in August 2004, the FAA released a PIA for airmen certification records. The PIA addresses the methodology the agency uses to collect, store, distribute, and protect PII for certificated airmen and flight attendants. The PIA is available at *http://www.dot.gov/pia/faa_rms.htm.*

For more information or for comments and concerns on our privacy practices, please contact our Privacy Officer, Carla Mauney at *carla.mauney@faa.gov,* or by phone at (202) 267–9895.

Paperwork Reduction Act

This proposal contains the following new information collection requirements. As required by the Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)), the FAA has submitted the information requirements associated with this proposal to the Office of Management and Budget for its review.

Title: Qualification, Service, and Use of Crewmembers and Aircraft Dispatchers.

Summary: The FAA proposes to amend the regulations for crewmember and dispatcher training programs in domestic, flag, and supplemental operations. The proposed regulations enhance traditional training programs by requiring the use of flight simulation training devices for flight crewmembers and including additional training requirements in areas that are critical to safety. The proposal also reorganizes and revises the qualification and training requirements. The proposed changes are intended to contribute significantly to reducing aviation accidents.

Use of: This project is in direct support of the Department of Transportation's Strategic Plan—Strategic Goal—SAFETY; i.e., to promote the public health and safety by working toward the elimination of transportation-related deaths and injuries. This request for clearance reflects requirements necessary under Title 14 CFR parts 65, 119, 121, 135, and 142, to ensure safety-of-flight by making certain that complete and adequate training, testing, checking, and experience is obtained and maintained by those who operate under these parts of the regulation and that the use of flight simulation is utilized to its maximum practical extent in achieving these goals. The FAA will use the information it collects and reviews to ensure compliance and adherence to regulations and, where necessary, to take enforcement action on violators of the regulations.

Respondents (including number of): The FAA estimates there are 118 certificate holders who would be required to provide information in accordance with the proposed rule. The respondents to this proposed information requirement are certificate holders using the training requirements in 14 CFR part 121.

Frequency: The FAA estimates certificate holders will have a one time information collection, then will collect or report information occasionally thereafter.

Burden Estimate: This proposal would result in a 10-year recordkeeping and reporting burden as follows:

Summary of time and costs (10-year) addressed in question 12:

Section	Cost	Hours
121.133/121.135:		
Flight Crew Operating Manual	$1,272,212	42,480.0
Flight Attendant and Aircraft Dispatcher Operating Manuals	424,071	14,160.0
121.1413	13,295	320.0
121.1421	83	2.0
121.1433		
(a)(i)	13,273	355.0
(b)(i)	159,281	4,260.0
(b)(ii)	159,281	4,260.0
(b)(iii)	106,188	2,840.0
(b)(iv)	42,475	1,136.0
121.1457	16,618	400.0
121.1459	16,618	400.0
121.1307	105,618	2,840.0
121.1331		
(a)(i)	208,253	2124.0
(a)(ii)	1,041,266	10620.0
(b)(i)	5,263	142.0
(b)(ii)	39,469	1065.0
(c)(i)(A)	122,081	3195.0
(c)(i)(B)	16,277	426.0
(c)(i)(C)	8,139	213.0
(c)(ii)(A)	651,098	17,040.0
(c)(ii)(B)	542,582	14,200.0
(c)(ii)(C)	108,516	2,840.0

Section	Cost	Hours
(d)	601	35.5
121.1355		
Pilots and Flight Engineers	273,133	3068.0
Flight Attendants	79,980	1,846.0
Dispatchers	76,693	1,846.0
Total	5,502,366	132,113.5

The agency is soliciting comments to:

(1) Evaluate whether the proposed information requirement is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;

(2) Evaluate the accuracy of the agency's estimate of the burden;

(3) Enhance the quality, utility, and clarity of the information to be collected; and

(4) Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

Individuals and organizations may submit comments on the information collection requirement by May 12, 2009, and should direct them to the address listed in the **ADDRESSES** section of this document. Comments also should be submitted to the Office of Information and Regulatory Affairs, OMB, New Executive Building, Room 10202, 725 17th Street, NW., Washington, DC 20053, *Attention:* Desk Officer for FAA.

According to the 1995 amendments to the Paperwork Reduction Act (5 CFR 1320.8(b)(2)(vi)), an agency may not collect or sponsor the collection of information, nor may it impose an information collection requirement unless it displays a currently valid OMB control number. The OMB control number for this information collection will be published in the **Federal Register**, after the Office of Management and Budget approves it.

International Compatibility

In keeping with U.S. obligations under the Convention on International Civil Aviation, it is FAA policy to comply with International Civil Aviation Organization (ICAO) Standards and Recommended Practices to the maximum extent practicable. The FAA has reviewed the corresponding ICAO Standards and Recommended Practices and has identified no differences with these proposed regulations.

Economic Assessment, Initial Regulatory Flexibility Determination, Trade Impact Assessment, and Unfunded Mandates Assessment

Changes to Federal regulations must undergo several economic analyses. First, Executive Order 12866 directs that each Federal agency shall propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 (Pub. L. 96–354) requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act (Pub. L. 96–39) prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. In developing U.S. standards, this Trade Act requires agencies to consider international standards and, where appropriate, that they be the basis of U.S. standards. Fourth, the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4) requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local, or tribal governments, in the aggregate, or by the private sector, of $100 million or more annually (adjusted for inflation with base year of 1995). This portion of the preamble summarizes the FAA's analysis of the economic impacts of this proposed rule. We suggest readers seeking greater detail read the full regulatory evaluation, a copy of which we have placed in the docket for this rulemaking.

In conducting these analyses, FAA has determined that this proposed rule: (1) Has benefits that justify its costs, (2) is a ''significant regulatory action'' as defined in section 3(f) of Executive Order 12866, requiring review by the Office of Management and Budget, (3) is ''significant'' as defined in DOT's Regulatory Policies and Procedures; (4) would have a significant economic impact on a substantial number of small entities; (5) would not create unnecessary obstacles to the foreign commerce of the United States; and (6) would not impose an unfunded mandate on State, local, or tribal governments, or on the private sector by exceeding the threshold identified above. These analyses are summarized below.

The purpose of this rulemaking is to establish new requirements for air carrier training programs to enhance safety-critical training. These changes are expected to significantly reduce aviation accidents. The secondary purpose of this rulemaking project is to reorganize, simplify, and modernize all rule language associated with crewmember and aircraft dispatcher qualification and training under part 121. This proposal revises and recodifies the crewmember qualification and training requirements in subparts N and O into a new subpart BB of part 121, and revises and recodifies the aircraft dispatcher qualification and training requirements in subparts N and P into subpart CC of part 121. The rulemaking is necessary because the existing regulations have not been revised since 1970. They do not reflect current best practices or technological advances that have emerged over the last 30 years.

Over a 10-year period, the total cost of the proposed rule would be approximately $372.7 million ($229.7 million, discounted). The total cost is composed of the costs of subparts BB and CC. The total the cost of subpart BB (crewmember training) would be approximately $368.1 million ($226.3 million, discounted), and the cost of subpart CC (aircraft dispatcher training) would be approximately $4.6 million ($3.4 million, discounted).

Based on FAA analysis, the FAA believes the proposed training improvements, both in content and application, are expected to produce safety benefits (i.e., accidents avoided) of $1.11 billion and $2.46 billion over the first 10 years. Presently, part 121 carriers may train crewmembers under existing subparts N and O to part 121 or under the Advanced Qualification Program (AQP), which is in subpart Y to part 121. We believe that current AQP training programs already meet the safety improvements contained in this NPRM. Because the proposed rule would principally affect part 121 and

part 121/135 operators not conducting training under an Advanced Qualification Program (AQP) and because only 42.8 percent of the part 121 and part 121/135 pilots are not trained under AQP, we only claim 42.8 percent of these potential safety benefits. After this adjustment, the safety benefits would be between $476 million and $1.05 billion over the 10-year period. Several requirements of this proposed rule are phased-in over several years. Taking into account the phasing in of the proposed rule requirements, we believe the potential benefits of this rulemaking to be between $333 million and $737 million over the 10-year period, with an expected benefit value of $535 million. The proposed rule would also generate qualitative benefits for dispatchers, flight attendants, and flight engineers.

Initial Regulatory Flexibility Analysis

A. Initial Regulatory Flexibility Analysis for Subpart BB

A.1. Initial Regulatory Flexibility Determination for Subpart BB

The Regulatory Flexibility Act of 1980 (Pub. L. 96–354) (RFA) establishes ''as a principle of regulatory issuance that agencies shall endeavor, consistent with the objectives of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the businesses, organizations, and governmental jurisdictions subject to regulation. To achieve this principle, agencies are required to solicit and consider flexible regulatory proposals and to explain the rationale for their actions to assure that such proposals are given serious consideration.'' The RFA covers a wide range of small entities, including small businesses, not-for-profit organizations, and small governmental jurisdictions.

Agencies must perform a review to determine whether a rule will have a significant economic impact on a substantial number of small entities. If the agency determines that it will, the agency must prepare a regulatory flexibility analysis as described in the RFA.

However, if an agency determines that a rule is not expected to have a significant economic impact on a substantial number of small entities, section 605(b) of the RFA provides that the head of the agency may so certify and a regulatory flexibility analysis is not required. The certification must include a statement providing the factual basis for this determination, and the reasoning should be clear.

The Small Business Administration size standard for ''small'' air carrier is 1,500 or fewer employees, as defined in 13 CFR 121.201, NAICS Code 48111. For subpart BB, the FAA identified a total of 73 out of 102 air carriers affected by this rule that meet this definition.

For each of these entities, the FAA attempted to retrieve annual revenue data from Back Aviation Solutions. The FAA found revenue data for 17 of the 73 small entities that would be impacted by the rule. The FAA then compared this revenue data with the annualized compliance costs (see Appendix H, Table H.1, in the full regulatory evaluation available in the docket). Of the 17 entities, the FAA expects that the projected annualized cost per entity of the rule would be $104,000. The FAA also expects that the projected annualized costs of the rule would be 1% or higher than the annual revenue for five of them (29%), which we believe is a significant economic impact. For the remaining 56 small entities, we believe that the annualized cost of the rule would also be significant for 29%, or sixteen or more of them. Accordingly, the FAA concludes that Subpart BB of the proposed rule would have a significant economic impact on a substantial number of small entities.

A.2. Initial Regulatory Flexibility Analysis for Subpart BB

Under section 603(b) of the RFA (as amended), each initial regulatory flexibility analysis is required to address the following points: (1) Reasons why the agency considered the rule, (2) the objectives and legal basis for the rule, (3) the type and number of small entities to which the rule will apply, (4) the reporting, recordkeeping, and other compliance requirements of the rule, and (5) all Federal rules that may duplicate, overlap, or conflict with the rule. In addition, 5 U.S.C. 603(c) requires that the analysis also describe any significant alternatives to the proposed rule which accomplish the stated objectives of applicable statutes and which minimize any significant impact of the proposed rule on small entities.

Reasons Why the FAA Considered the Rule

The FAA reviewed its crewmember and dispatcher training regulations in 14 CFR part 121 to identify improvements in training program content and application that would reduce human error among crewmembers and dispatchers, particularly in situations with special hazards. Based on this review, the FAA proposed improvements to the current rule, as discussed in the Background section of this Regulatory Evaluation (Section II.).

The Objectives and Legal Basis for the Rule

The objective of the rule is to enhance crewmember and aircraft dispatcher training programs by including additional training requirements in areas that are critical to safety. The proposed changes are intended to contribute significantly to reducing aviation accidents and improving crewmember and dispatcher performance.

The legal basis for the rule is 49 U.S.C. 44701 *et seq.*, which provides that for regulations related to airmen certification, the FAA must consider the duty of an air carrier to provide service with the highest possible degree of safety in the public interest. The FAA must also consider, as a matter of policy, reducing or eliminating the possibility of recurrence of accidents in air transportation (49 U.S.C. 44701(c)).

The Type and Number of Small Entities to Which the Rule Will Apply

Of the 102 air carriers affected by the rule, there are 73 air carriers that meet the SBA size standard of small business. Of these 73 air carriers, we retrieved net income and balance sheet data on 20 of these identified air carriers. A brief financial profile of these small entities is provided in Tables H.2 (net income) and H.3 (current assets, current liabilities, and financial solvency ratios) in the full regulatory evaluation available in the docket.

Federal Rules That May Duplicate, Overlap, or Conflict With the Rule

The FAA is unaware of any Federal rules that duplicate, overlap, or conflict with the rule.

Other Considerations:

Affordability Analysis

For the purpose of this analysis, the degree to which small entities can ''afford'' the cost of compliance is predicated on the availability of financial resources. Initial implementation costs can be paid from existing company assets, from borrowing, or from obtaining additional equity capital. Continuing annual costs of compliance may be accommodated by accepting reduced profits, raising ticket prices, or finding other ways to offset costs.

Other means of assessing the affordability is the ability of each of the small entities to meet its short-term obligations, as shown in Tables H.2 (net income) and H.3 (working capital and financial solvency ratios) of the full

regulatory evaluation available in the docket. A company's short-term financial strength is substantially influenced by its working capital and its ability to pay short-term liabilities. Net working capital is the excess of current assets over current liabilities. It represents the margin of short-term debt-paying ability over existing short-term debt. In addition to the amount of net working capital, two other analytical indexes of current position are often computed: (1) Current ratio; and (2) quick ratio. The current ratio (i.e., current assets divided by current liabilities) helps put the amount of net working capital into perspective by showing the relationship between current assets and short-term debt. The quick ratio (sometimes called the acid test ratio) focuses on immediate liquidity (e.g., cash, marketable securities, accounts receivable) divided by current liabilities. A decline in net working capital, the current ratio, and the quick ratio over a period of time (such as 3 or 4 years) may indicate that a company is losing financial solvency. Negative net working capital is an indication of financial difficulty. If a company is experiencing financial difficulty, it is less likely to be able to afford additional costs.

To assess the affordability of affected entities, we can also consider the amount of the annualized costs of the rule relative to net income. The lower the relative importance of the costs, the greater the likelihood that implementing offsetting cost-saving efficiencies or raising fares to cover increased costs will not substantially decrease the number of passengers.

The financial information shown in Tables H.2 and H.3 of the full regulatory evaluation, available in the docket, suggest the following:

- Five of these entities appear to be generally profitable and solvent, as shown in Table H.2 and H.3, respectively, for most or all of the 5-year period examined. Therefore, they probably will have financial resources available to meet the requirements of this rule.
- For 10 entities, the FAA is unable to determine the ability to financially comply with the rule because of contradictory results (e.g., the companies were profitable, yet their net working capital has been negative, and their current and quick ratios have been below 1.00).
- The FAA has identified five small entities that may have trouble financing the expected compliance cost of this rule. Those entities had net losses as well as negative net working capital, current ratios, and quick ratios below 1.00 for most of the years examined. This amounts to 25% of the entities for which we found data.
- Additionally, there is little or no data in 53 cases to make any financial assessment. However, based on the information on the companies that we do have information on, we believe that 25%, or thirteen or more of these entities, also may have trouble financing the expected costs of the rule.

Competitiveness Analysis

Due to the financial problems that certain aircraft operators are experiencing, there may be an impact on the relative competitive position of these carriers in the markets they serve.

Business Closure Analysis

The FAA is unable to determine with certainty the extent to which those small entities that would be significantly impacted by this proposed rule would have to close their operations. However, the profitability information shown in Table H.2 in the full regulatory evaluation, available in the docket, and the affordability analysis can be indicators of the likelihood of a business closure.

A number of these small entities are already in serious financial difficulty. To what extent the proposed rule makes the difference in whether these entities remain in business is difficult to determine. However, the FAA believes that the likelihood of business closure is high for three of the 20 (15%) entities for which financial data was available. (See Table H.2 in the full regulatory evaluation, available in the docket). Therefore, we believe that for the remaining 53 small entities, 15% or more may have similar difficulties.

Alternatives

The FAA considered alternatives to the rule for the small air carriers. A discussion of these alternatives follows.

Alternative 1—12-month recurrent training cycle for small entities.

Currently, PICs train every 6 months and SICs train every 12 months. The FAA could extend the recurrent training cycle for PICs working for small entities to 12 months to coincide with current SIC recurrent training cycles, instead of proposing to require PICs and SICs to attend recurrent training on a 9-month training cycle. This would result in cost savings for small entities. Again, in the proposal the FAA has required improvements that would reduce human error among crewmembers and aircraft dispatchers, particularly in situations with special hazards. Reducing the training cycle for PICs to a 12-month cycle is contrary to the purpose of this rulemaking.

Conclusion. In the proposal, the FAA has required improvements that would reduce human error among crewmembers and aircraft dispatchers, particularly in situations with special hazards. Because these problems are equally incurred by all part 121 air carriers, regardless of size, it would be contrary to our policy for one high level of safety in all part 121 operations to exclude certain operators simply because they are small entities. Thus, the FAA does not consider this to be a significant alternative in accordance with 5 U.S.C. 603(d).

Alternative 2—Extending the final compliance date to 7 years for small entities.

Extending the final compliance date from 5 years to 7 years for small entities reduces the costs to the industry by approximately 40 percent. Under this alternative, the FAA expects that the projected annualized cost of the rule would still be significant for 2 of the 20 operators studied, or 10 percent of the small entities. Since there are 73 known small operators impacted by this rule, this alternative not only does not eliminate the problem for a substantial number of small entities, but also it would be contrary to our policy for one level of safety.

Conclusion: In the proposal, the FAA has required improvements that would reduce human error among crewmembers and aircraft dispatchers, particularly in situations with special hazards. Because these problems are equally incurred by all part 121 air carriers, regardless of size, it would be contrary to our policy for one high level of safety in all part 121 operations to exclude certain operators simply because they are small entities. Thus, the FAA does not consider this to be a significant alternative in accordance with 5 U.S.C. 603(d).

Based on this analysis, the FAA expects that subpart BB may have a significant impact on small entities. Please provide comment on any or all provisions in the rule with regard to the impact of the provisions on small entities, including any benefits and costs, as well as any alternatives that would meet the FAA's safety objectives but also result in reducing the costs and burdens for these small entities. All comments must be accompanied with clear and detailed supporting data.

B. Initial Regulatory Flexibility Determination for Subpart CC

In accordance with the Regulatory Flexibility Act of 1980 (RFA) the FAA reviewed subpart CC to determine

whether there would be a significant economic impact on a substantial number of small entities. Over a 10-year period, enactment of subpart CC would impose costs of $25,500 ($18,400, discounted) per small entity or applicant (see Appendix I in the full regulatory evaluation, available in the docket, for further details). The Small Business Administration size standard for ''small'' air carrier is 1,500 or fewer employees, as defined in 13 CFR 121.201, NAICS Code 48111 (2008). A review of the air carriers listed by the FAA concluded that 73 of the firms met this criterion, which employ on average 13 dispatchers. These dispatchers would incur a one-time cost for the initial and transition dispatchers' training and an annual cost for the recurrent training. Because the initial and transition training costs are different from the recurrent training cost, costs would vary on a per year basis, but the annualized cost per small entity would only be $2,600 ($18,400 × 0.14238), which is less than 1% of the annual revenue of small entities. As a result, subpart CC would not have a significant economic impact on a substantial number of small entities. The FAA, however, invites industry comments and requests that all comments be accompanied with clear and detailed supporting data.

VII. International Trade Impact Assessment

The Trade Agreements Act of 1979 (Pub. L. 96–39) prohibits Federal agencies from establishing any standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. Legitimate domestic objectives, such as safety, are not considered unnecessary obstacles. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards. The FAA has assessed the potential effect of this proposed rule and has determined that it would have only a domestic impact and therefore no effect on any trade-sensitive activity.

VIII. Unfunded Mandates Assessment

Title II of the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4) requires each Federal agency to prepare a written statement assessing the effects of any Federal mandate in a proposed or final agency rule that may result in an expenditure of $100 million or more (adjusted annually for inflation with the base year 1995) in any one year by State, local, and tribal governments, in the aggregate, or by the private sector; such a mandate is deemed to be a ''significant regulatory action.'' The FAA currently uses an inflation-adjusted value of $136.1 million in lieu of $100 million.

This proposed rule does not contain such a mandate.

Executive Order 13132, Federalism

The FAA has analyzed this proposed rule under the principles and criteria of Executive Order 13132, Federalism. We determined this action would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government, and therefore would not have federalism implications.

Environmental Analysis

FAA Order 1050.1E identifies FAA actions that are categorically excluded from preparation of an environmental assessment or environmental impact statement under the National Environmental Policy Act in the absence of extraordinary circumstances. The FAA has determined this proposed rulemaking action qualifies for the categorical exclusion identified in paragraph 312f and involves no extraordinary circumstances.

Regulations That Significantly Affect Energy Supply, Distribution, or Use

The FAA has analyzed this NPRM under Executive Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use (May 18, 2001). We have determined that it is not a ''significant energy action'' under the executive order because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

Additional Information

Comments Invited

The FAA invites interested persons to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, please send only one copy of written comments, or if you are filing comments electronically, please submit your comments only one time.

We will file in the docket all comments we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

Proprietary or Confidential Business Information

Do not file in the docket information that you consider to be proprietary or confidential business information. Send or deliver this information directly to the person identified in the **FOR FURTHER INFORMATION CONTACT** section of this document. You must mark the information that you consider proprietary or confidential. If you send the information on a disk or CD–ROM, mark the outside of the disk or CD–ROM and also identify electronically within the disk or CD–ROM the specific information that is proprietary or confidential.

Under 14 CFR 11.35(b), when we are aware of proprietary information filed with a comment, we do not place it in the docket. We hold it in a separate file to which the public does not have access, and we place a note in the docket that we have received it. If we receive a request to examine or copy this information, we treat it as any other request under the Freedom of Information Act (5 U.S.C. 552). We process such a request under the DOT procedures found in 49 CFR part 7.

Availability of Rulemaking Documents

You can get an electronic copy of rulemaking documents using the Internet by—

1. Searching the Federal eRulemaking Portal (*http://www.regulations.gov*);

2. Visiting the FAA's Regulations and Policies Web page at *http://www.faa.gov/regulations_policies/*; or

3. Accessing the Government Printing Office's Web page at *http://www.gpoaccess.gov/fr/index.html*.

You can also get a copy by sending a request to the Federal Aviation Administration, Office of Rulemaking, ARM–1, 800 Independence Avenue, SW., Washington, DC 20591, or by calling (202) 267–9680. Make sure to identify the docket number, notice number, or amendment number of this rulemaking.

You may access all documents the FAA considered in developing this proposed rule, including economic analyses and technical reports, from the Internet through the Federal

eRulemaking Portal referenced in paragraph (1).

List of Subjects

14 CFR Part 65

Aircraft, Airmen, Aviation safety, Reporting and recordkeeping requirements.

14 CFR Part 119

Administrative practice and procedure, Air carriers, Aircraft, Aviation safety, Reporting and recordkeeping requirements.

14 CFR Part 121

Air carriers, Aircraft, Aviation safety, Reporting and recordkeeping requirements, Safety, Transportation.

14 CFR Part 135

Air taxis, Aircraft, Airmen, Aviation safety, Reporting and recordkeeping requirements.

14 CFR Part 142

Administrative practice and procedure, Airmen, Educational facilities, Reporting and recordkeeping requirements, Schools, Teachers.

The Proposed Amendment

In consideration of the foregoing, the Federal Aviation Administration proposes to amend Chapter 1 of Title 14, Code of Federal Regulations (CFR) parts 65, 119, 121, 135, and 142, as follows:

PART 65—CERTIFICATION: AIRMEN OTHER THAN FLIGHT CREWMEMBERS

1. The authority citation for part 65 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701–44703, 44707, 44709–44711, 45102–45103, 45301–45302.

2. Amend § 65.57 by revising the introductory text and adding paragraph (c) to read as follows:

§ 65.57 Experience or training requirements.

An applicant for an aircraft dispatcher certificate must present documentary evidence satisfactory to the Administrator that he or she has the experience prescribed in paragraph (a) of this section or has accomplished the training described in paragraph (b) of this section or has completed a dispatcher training program in accordance with paragraph (c) of this section as follows:

* * * * *

(c) Successfully completed an aircraft dispatcher training program approved in accordance with subpart CC of part 121 of this chapter.

3. Amend § 65.70 by revising the introductory text of paragraph (a) to read as follows:

§ 65.70 Aircraft dispatcher certification courses: Records.

(a) The operator of a part 65 appendix A aircraft dispatcher course must maintain a record for each student, including a chronological log of all instructors, subjects covered, and course examination and results. The record must be retained for at least 3 years after graduation. The course operator must also prepare for its records, and transmit to the Administrator not later than January 31 of each year, a report containing the following information for the previous year:

* * * * *

PART 119—CERTIFICATION: AIR CARRIERS AND COMMERCIAL OPERATORS

4. The authority citation for part 119 continues to read as follows:

Authority: 49 U.S.C. 106(g), 1153, 40101, 40102, 40103, 40113, 44105, 44106, 44111, 44701–44717, 44722, 44901, 44903, 44904, 44906, 44912, 44914, 44936, 44938, 46103, 46105.

5. Amend § 119.65 by adding new paragraph (a)(6) to read as follows:

§ 119.65 Management personnel required for operations conducted under part 121 of this chapter.

(a) * * *

(6) At least one line qualified check pilot, and, if appropriate, at least one check flight engineer, for each aircraft make and model and aircraft type for which the certificate holder has more than five pilots. A check pilot or check flight engineer may hold the additional position of Director of Safety, Director of Operations, or Chief Pilot, if the check pilot or check flight engineer meets the requirements of the additional position.

* * * * *

6. Amend § 119.67 by adding paragraph (f) to read as follows:

§ 119.67 Management personnel: Qualifications for operations conducted under part 121 of this chapter.

* * * * *

(f) To serve as a Check Pilot or Check Flight Engineer for an aircraft type under § 119.65(a) a person must be qualified in accordance with §§ 121.1251, 121.1253, and 121.1255 of this chapter.

7. Amend § 119.69 by adding paragraph (a)(4) to read as follows:

§ 119.69 Management personnel required for operations conducted under part 135 of this chapter.

(a) * * *

(4) A line qualified check pilot or check flight engineer for each aircraft make and model and aircraft type for which the certificate holder has more than five pilots and is required to have, or elects to have, an approved training program under part 121 of this chapter. A check pilot or check flight engineer can hold the additional position of Director of Safety, Director of Operations, or Chief Pilot, if the check pilot or check flight engineer meets the requirements of the additional position.

* * * * *

8. Amend § 119.71 by redesignating paragraphs (e) and (f) as paragraphs (f) and (g) and adding a new paragraph (e) to read as follows:

§ 119.71 Management personnel: Qualifications for operations conducted under part 135 of this chapter.

* * * * *

(e) To serve as a Check Pilot for an aircraft make and model and aircraft type under § 119.69 a person must be qualified in accordance with § 121.1251 of this chapter.

* * * * *

PART 121—OPERATING REQUIREMENTS: DOMESTIC, FLAG, AND SUPPLEMENTAL OPERATIONS

9. The authority citation for part 121 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 40119, 44101, 44701–44702, 44705, 44709–44711, 44713, 44716–44717, 44722, 44901, 44903–44904, 44912, 46105.

10. Revise § 121.1(c) to read as follows:

§ 121.1 Applicability.

* * * * *

(c) Each person who applies for initial or provisional approval of an Advanced Qualification Program curriculum, curriculum segment, or portion of a curriculum under subpart Y of this part and each person employed or used by a person authorized to conduct operations under this part to perform training, qualification, or evaluation functions in accordance with an Advanced Qualification Program under subpart Y of this part.

* * * * *

11. Add new § 121.9 to read as follows:

§ 121.9 Fraud, falsification, or incorrect statements.

(a) No person may make, or cause to be made, any of the following:

(1) A fraudulent or intentionally false statement in any application or any amendment thereto, or in any other record or test result required by this part or by any QPS associated with this part.

(2) A fraudulent or intentionally false statement in, or a known omission from, any record or report that is kept, made, or used to show compliance with this part or with any QPS associated with this part, or to exercise any privileges under this chapter.

(b) The commission by any person of any act prohibited under paragraph (a) of this section is a basis for any one or any combination of the following:

(1) A civil penalty.

(2) Suspension or revocation of any certificate held by that person that was issued under this chapter.

(3) The denial of an application for approval of a training program established under this part.

(4) The removal of approval for a training program established under this part.

(c) The following may result in denial of an application or removal of approval for a training program established under this part:

(1) An incorrect statement, upon which the FAA relied or could have relied, made in support of an application for approval of a training program.

(2) An incorrect entry, on which the FAA relied or could have relied, made in any training records or test results required to be kept, made, or used to show compliance with any requirement of this part or with any QPS associated with this subpart.

12. Revise § 121.133 to read as follows:

§ 121.133 Preparation.

(a) Each certificate holder must prepare and keep current a manual for the use and guidance of flight and ground operations, and management personnel in conducting its operations.

(b) The certificate holder may prepare the manual, in whole or in part, in printed form or other form acceptable to the Administrator. The manual must include the instructions and information necessary to allow crewmembers or aircraft dispatchers to perform their required safety related duties and responsibilities with the highest possible degree of safety. The manual, and any changes, must be approved by the Administrator and contain the following:

(1) A Flight Attendant Operating Manual (FAOM) for all of the aircraft types operated by the certificate holder in operations under this part.

(2) A Flight Crewmember Operating Manual (FCOM) for each aircraft type operated by the certificate holder in operations under this part.

(3) An Aircraft Dispatcher Procedures Manual (ADPM) for all types of operations and aircraft types, if required.

13. Amend § 121.135 by revising paragraph (b)(16), redesignating paragraph (b)(26) as (b)(28), and adding new paragraphs (b)(26) and (b)(27) to read as follows:

§ 121.135 Manual contents.

* * * * *

(b) * * *

(16) Each training program curriculum required by § 121.1333.

* * * * *

(26) Each task specified in each of the crewmember and aircraft dispatcher Qualification Performance Standards (QPS) must be tailored to the specific aircraft type as provided in the FAOM, FCOM, or ADPM and must be trained or evaluated as indicated in the appropriate QPS.

(27) Each FCOM must also include the contents described in § 23.1581(a)(1) or § 25.1581(a)(1), as appropriate for the specific aircraft type.

* * * * *

14. Revise § 121.141 to read as follows:

§ 121.141 Airplane Flight Manual.

Each certificate holder must keep a current approved Airplane Flight Manual for each type of airplane that it operates except for nontransport category aircraft certificated before January 1, 1965.

15. Add new § 121.392 to read as follows:

§ 121.392 Personnel identified as flight attendants.

(a) Any person identified by the certificate holder as a flight attendant on an aircraft in operations under this part must be trained and qualified in accordance with subpart BB of this part. This includes:

(1) Flight attendants provided by the certificate holder in excess of the number required by § 121.391(a) and (b);

(2) Flight attendants provided by the certificate holder on an aircraft having a passenger seating capacity of 9 or less; and

(3) Flight attendants provided by the certificate holder on an aircraft with a payload capacity of 7,500 pounds or less and a passenger seating capacity of 19 or less.

(b) Any person serving as a crewmember on an aircraft in operations under this part, who has not completed the requirements of § 121.1301(a)(1) and (a)(2) for the certificate holder, may not be identified to passengers as a flight attendant.

§ 121.393 [Amended]

16. Amend § 121.393(a) by removing the reference to ''§ 121.417'' and adding in its place ''§ 121.1373 or 121.417, as applicable''.

17. Amend § 121.400 by adding paragraph (d) and a note to paragraph (d), to read as follows:

§ 121.400 Applicability and terms used.

* * * * *

(d) Except for § 121.429, the provisions of this subpart, and Appendices E, F, and H of this part, expire on [date 5 years and 120 days after publication of the final rule]. After [date 5 years and 120 days after publication of the final rule], all training programs must be established and maintained in accordance with the provisions in subparts BB and CC of this part, or in accordance with the certificate holder's approved Advanced Qualification Program under subpart Y of this part.

Note to paragraph (d): *See* §§ 121.1202 and 121.1402 for provisions outlining the process for transitioning from training programs established in accordance with subparts N, O, and P of this part, to the training program requirements provided in subparts BB and CC of this part.

18. Amend § 121.431 by adding paragraph (c), and a note to paragraph (c), to read as follows:

§ 121.431 Applicability.

* * * * *

(c) Except for §§ 121.455, 121.457, 121.458, and 121.459, the provisions of this subpart, and Appendices E, F, and H of this part, expire on [date 5 years and 120 days after publication of the final rule]. After [date 5 years and 120 days after publication of the final rule], all training programs must be established and maintained in accordance with the provisions in subparts BB and CC of this part, or in accordance with the certificate holder's approved Advanced Qualification Program under subpart Y of this part.

Note to paragraph (c): *See* §§ 121.1202 and 121.1402 for provisions outlining the process for transitioning from training programs established in accordance with subparts N, O, and P of this part, to the training program requirements provided in subparts BB and CC of this part.

§ 121.461 [Amended]

19. Amend § 121.461 by removing the words ''Qualifications and'' from paragraph (a).

§ 121.463 [Removed]

20. Remove § 121.463.

§ 121.465 [Amended]

21. Amend § 121.465 by removing paragraph (c).

22. Add § 121.540 to read as follows:

§ 121.540 Manual procedures requirements.

Each crewmember must perform and each certificate holder must ensure that each crewmember performs the respective job function in accordance with the information, instructions, duties, and responsibilities contained in the manual required by § 121.133. The information, instructions, duties, and responsibilities must include standard operating procedures, abnormal procedures, non-normal procedures, emergency procedures, airplane performance, and airplane limitations.

23. Amend § 121.543 by adding paragraph (c), to read as follows:

§ 121.543 Flight crewmembers at controls.

* * * * *

(c) The requirements of § 121.543 will expire on [date 5 years and 120 days after publication of the final rule]. After [date 5 years and 120 days after publication of the final rule], the requirements of § 121.1241 apply.

* * * * *

24. Revise § 121.683 to read as follows:

§ 121.683 Crewmember and dispatcher record.

(a) Each certificate holder must maintain current records for each crewmember and dispatcher in accordance with the following requirements:

(1) The records must show whether the crewmember or aircraft dispatcher complies with the applicable sections of this chapter, including proficiency and route checks, airplane and route qualifications, training, and all required physical examinations, flight time, and duty and rest periods.

(2) Training records must include qualifications, instruction, certificate and ratings, and satisfactory proficiency evaluations. For flight crewmembers, the training records must also include both satisfactory and unsatisfactory performance evaluations and comments and evaluations made by an evaluator designated under §§ 121.1251, 121.1271, 125.295, or 135.337 of this chapter.

(3) For flight crewmembers and aircraft dispatchers, records must show any disciplinary action that was taken with respect to the individual that was not later overturned.

(4) For flight crewmembers and aircraft dispatchers, records must show any release from employment or resignation, termination, or disqualification with respect to employment.

(b) Except for records on flight time, and duty and rest periods, crewmember and aircraft dispatcher records must be maintained for at least 5 years. Flight attendant records must be maintained for at least 12 months. For aircraft dispatchers, records kept under paragraph (a)(4) of this section must be kept for 6 months.

(c) Each certificate holder conducting supplemental operations must maintain the records required by this section at its principal base of operations, or at another location used by it and approved by the Administrator.

(d) Computer record systems approved by the Administrator may be used in complying with the requirements of this section.

25. Amend § 121.805 by removing paragraph (b)(4), redesignating paragraph (b)(5) as paragraph (b)(4), and revising the newly redesignated paragraph paragraph (b)(4)(iii), to read as follows:

§ 121.805 Crewmember training for in-flight medical events.

* * * * *

(b) * * *

(4) * * *

(iii) Recurrent training, to include performance drills, in the proper use of an automated external defibrillator and in cardiopulmonary resuscitation at least once every 12 months.

* * * * *

§ 121.901 [Amended]

26. Amend § 121.901(b) by removing the reference to ''§ 121.401'' and adding in its place ''§ 121.1331, or the provisions of subpart N and O of this part, as applicable''.

§ 121.909 [Amended]

27. Amend § 121.909(d) by removing the reference to ''§ 121.405(e)'' and adding in its place ''§ 121.1337(e) or § 121.405, as applicable''.

28. Add subpart BB to part 121 consisting of §§ 121.1201 through 121.1391 to read as follows:

Subpart BB—Requirements for Qualification, Service, and Use of Crewmembers

General

Sec.

Flight Crewmember

Check Pilot and Check Flight Engineer Qualification

Aircrew Program Designee Qualification

Flight Instructor Qualification

Flight Attendant Instructor Qualification

Flight Attendant

Check Flight Attendant Qualification

General Training Program Requirements

Subpart BB—Requirements for Qualification, Service, and Use of Crewmembers

General

§ 121.1201 Applicability.

(a) This subpart prescribes the following:

(1) Requirements for qualification, service, and use for:

(i) Persons who serve in operations under this part as crewmembers, flight instructors, check pilots, check flight engineers, aircrew program designees (APDs), flight attendant instructors, check flight attendants, or persons authorized to conduct flight attendant proficiency tests.

(ii) Persons who serve in operations under part 135 of this chapter for a certificate holder that is permitted or required by § 135.3 of this chapter to conduct training curricula in compliance with this subpart.

(2) Requirements applicable to each certificate holder for establishing, obtaining approval of, and maintaining a training program, for crewmembers, flight instructors, check pilots, check flight engineers, APDs, flight attendant instructors, check flight attendants, and persons authorized to conduct flight attendant proficiency tests, who serve under this part.

(3) Requirements applicable to persons other than the certificate holder's employees who are used by the certificate holder to assist in meeting the certificate holder's responsibilities under this subpart.

(b) Any person qualified in a duty position for the certificate holder before [date 120 days after publication of the final rule], or qualified under the provisions in subparts N and O of this part, may continue to serve in that duty position for that certificate holder without complying with new hire training under § 121.1363, initial training under § 121.1365 or § 121.1369, operating experience under § 121.1305, or emergency training under § 121.1373.

§ 121.1202 Interim requirements for training programs transitioning from the requirements of subparts N and O.

(a) Contrary provisions of this subpart notwithstanding, a person who has submitted a training program for approval before [date 120 days after publication of the final rule] that was constructed in accordance with the applicable provisions of subparts N and O of this part in effect on or before [date 119 days after publication of the final rule], may complete the approval and implementation process and conduct operations in compliance with the applicable provisions of subparts N and O of this part instead of the provisions of subpart BB of this part.

(b) A certificate holder must submit a transition plan to the FAA no later than [date 4 years and 120 days after publication of the final rule]. The transition plan must include the following:

(1) Subpart BB training program(s), as applicable.

(2) Plan for transition for crewmembers from the provisions of subparts N and O to the provisions of subpart BB of this part.

(3) A transition completion date that is before [date 5 years and 120 days after the publication of the final rule].

(c) During the transition, the certificate holder may use people to conduct operations under this part provided those people are trained under the applicable provisions of subparts N and O of this part, or subpart BB of this part. While a certificate holder may simultaneously operate training programs in compliance with the applicable provisions of subparts N and O of this part and subpart BB of this part, each individual (crewmember or aircraft dispatcher) must be trained and qualified under the requirements of either the applicable provisions of subparts N and O of this part, or the applicable provisions of subpart BB of this part.

(d) The certificate holder may not use a crewmember, nor may a crewmember serve, in a duty position unless that person is current and qualified to perform the duties to which he or she is assigned. If, during the operation of the aircraft, one required crewmember is current and qualified in accordance with the appropriate provisions of subparts N and O of this part, and another required crewmember is current and qualified in accordance with subpart BB of this part, the lesser operating requirements apply for that duty position for that operation.

§ 121.1203 Certificate holder responsibility for compliance with this subpart.

Responsibility for compliance with the requirements of this subpart applies as follows:

(a) Each certificate holder is responsible for ensuring that its approved training program, including all portions of the training program conducted by persons other than the part 119 certificate holder's employees, meets the requirements of this subpart.

(b) Each certificate holder is responsible for ensuring that all training program procedures, manuals, and other materials submitted for initial or final approval are kept up to date.

(c) Each certificate holder is responsible for ensuring that all training and evaluation is completed in accordance with the requirements of this subpart. Training or evaluation that does not meet the definition of complete, as used in this subpart, must be repeated to ensure that the requirements of this subpart are met.

§ 121.1205 Definitions.

For the purpose of this subpart, the following terms and their definitions apply:

Academic training. The structured training conducted on the ground in a classroom or other location for the purpose of acquiring knowledge, procedural skills, and cognitive skills needed to perform in operations under this part.

Actual fire. A fire fueled by ignited combustible material, in controlled conditions, of sufficient magnitude and duration to complete crewmember training requirements for the firefighting drill as contained in the Pilot QPS, Flight Engineer QPS, and Flight Attendant QPS.

Airplane Flight Manual (AFM). A document that contains aircraft operating limitations, operating procedures, and performance information. The FAA may review and approve amendments to the operating limitations section of the AFM. Amendments to the AFM that are adopted via Airworthiness Directives are enforceable by the FAA.

Approved fire extinguisher device. A training device that has been approved by the Administrator for use in meeting crewmember training requirements for operation of a specific type of aircraft installed hand fire extinguisher as contained in the Pilot QPS, Flight Engineer QPS, and Flight Attendant QPS.

Approved protective breathing equipment (PBE) device. A training device that has been approved by the Administrator for use in meeting crewmember training requirements for operation of a specific type of protective breathing equipment as contained in the Pilot, Flight Engineer and Flight Attendant QPS.

Base month. The month in which a recurrent activity is due.

Basic Qualification (flight attendant). All requirements that a person must complete prior to working his or her first flight for a certificate holder as a flight attendant. It includes new hire training, initial training, emergency training, and differences training, as applicable, as well as aircraft operating experience.

Categories of training. Parts of a curriculum that relate to qualification experience levels, first time qualification for a certificate holder, first time qualification in group (applicable to flight crewmembers), configuration differences within type or series, maintaining and regaining qualification, and changes in operations. Categories of training include: New hire, initial, transition, conversion (full and core), upgrade (full and core), emergency, differences, recurrent, requalification, and special.

Certificate holder. A person certificated under part 119 of this chapter that conducts operations under part 121, or a person certificated under part 119 of this chapter that conducts operations under part 135 of this chapter and is permitted or required by § 135.3 of this chapter to conduct training curricula in compliance with this subpart.

Check captain. A person qualified as pilot in command who is current and qualified on the navigation system necessary for the route to be flown and the aircraft on which he or she will be supervising operating experience, and who is specifically approved by the Principal Operations Inspector for supervising operating experience.

Check flight attendant. A person who meets the qualification and training requirements for a check flight attendant and is authorized to evaluate a person who is completing aircraft operating experience as required by the Flight Attendant QPS.

Check person. A person who meets the training and qualification requirements to serve as an aircrew program designee, check pilot, check flight engineer, or check flight attendant.

Combat. To properly fight an actual fire or simulated fire using an appropriate type of fire extinguisher until that fire is extinguished.

Complete. To fully carry out the training or evaluation required by this subpart, including being eligible to receive or administer the training or evaluation, and demonstrating the required level of proficiency. In addition, for flight crewmembers, performing the training or evaluation in a flight simulation training device (FSTD) appropriately qualified in accordance with the requirements of part 60 of this chapter.

Consolidation. The process by which a person through practice and practical experience increases proficiency in newly acquired knowledge and skills.

Conversion training. A category of training used to qualify a person as a flight crewmember for a certificate holder when the person has been previously qualified in the same crewmember duty position in the same aircraft type(s) for another certificate holder conducting operations under this part. Conversion training may be required to reestablish recency or for Requalification training for the certificate holder. Conversion training may be either ''core'' or ''full'' as specified in the QPS.

Crewmember Duty Position. A crewmember duty position is a pilot in command, second in command, flight engineer, or flight attendant serving in operations under this part.

Current. Current means satisfying the recency of experience requirements prescribed in § 121.1229, § 121.1231, or § 121.1307.

Currently Serving. Currently serving means current and qualified as defined in this subpart.

Curriculum. A curriculum is the training required to qualify a person for a crewmember duty position or a training or evaluation duty position for an aircraft type. The curriculum for each duty position includes categories of training and the appropriate segments for each category.

Differences training. A category of training on a particular aircraft type when the Administrator finds additional training is necessary before that person serves in the same capacity on a particular variation within a series of an aircraft type or a different series within an aircraft type.

Eligibility Period. The eligibility period consists of the month in which the recurrent activity is due (the ''base month''), the month before and the month after (the ''grace month'').

Emergency training (flight attendant). A category of training that qualifies flight attendants to conduct emergency procedures, operate emergency equipment, and enhance passenger and crewmember survivability.

Environment. A combination of external, physical, and surrounding conditions that affect aircraft performance, aircraft and equipment operation, and decisionmaking.

Evaluation. Any testing, checking, proficiency review or observation activities in which a person's knowledge and skills are assessed by a person authorized to perform that evaluation.

Exit device. Exit device means emergency exit doors, plugs, and hatches, including window exits, floor level exits, tailcone exits, ventral stairs, flight deck exits, and any other exit designed for passenger or crewmember egress from the aircraft.

Flight Attendant Jumpseat. A flight attendant jumpseat is a seat located in the cabin of an aircraft that meets the requirements of § 121.311(g).

Flight Attendant Operating Manual (FAOM). An FAA-approved document that includes the instructions and information necessary to allow the flight attendant to perform his or her required safety related duties and responsibilities with the highest possible degree of safety. The FAOM contains standard operating procedures, abnormal or non-normal procedures, and emergency procedures.

Flight Crewmember. A pilot in command, second in command, or flight engineer.

Flight Crewmember Operating Manual (FCOM). An FAA-approved document that includes the instructions and information necessary to allow a flight crewmember to perform his or her required safety related duties and responsibilities with the highest possible degree of safety. The FCOM contains standard operating procedures, abnormal or non-normal procedures, and emergency procedures. The FCOM also contains information such as ground and flight operations tasks, flight deck checklists, systems descriptions, and evacuation procedures.

Flight tasks. The maneuvers and procedures necessary to operate the aircraft in various phases of flight operations and environments.

Group. A broad categorization of aircraft based on propulsion methods. Group I is propeller driven, including reciprocating powered and turbopropeller powered. Group II is turbojet powered.

Initial Cadre. The specific persons approved by the FAA for the start-up time frame necessary, not to exceed 24 months, for a new part 119 certificate holder to initiate operations under part 119 of this chapter, or for a current part 119 certificate holder to initiate operations of a new aircraft type not operated previously or to initiate a new type of operation.

Initial training (flight attendant). A category of training required to qualify a person to serve as a flight attendant on an aircraft type when the person has not served as a flight attendant for at least 180 days in operations under this part for the certificate holder.

Initial training (flight crewmembers). A category of training that is required to qualify a person to serve as a flight crewmember for the first time in group or for the first time in operations under this part.

Initial training (flight instructors, check persons, flight attendant instructors, and persons authorized to conduct flight attendant proficiency tests). A category of training that is required to qualify a person to serve for the first time for the certificate holder as a flight instructor, check person, flight attendant instructor, and a person authorized to conduct flight attendant proficiency tests.

Job performance training. The structured training conducted in an aircraft, in a flight simulation training device approved under part 60 of this chapter, in another training device approved under this part, or in a classroom for the purpose of obtaining required psychomotor skills for crewmembers.

Lesson. A part of a segment of training. A module could be a lesson, or a module could have several lessons.

Line operating flight time. Flight time performed in operations under this part.

Line Oriented Flight Training (LOFT). Training in a simulator with a complete flight crew using representative flight segments that contain procedures that may be expected in line operations. A qualification LOFT is an approved flight simulator course of LOFT to transition from a structured flight training syllabus to representing line operations. A recurrent LOFT is an approved flight simulator course of LOFT that must be used to meet recurrent job performance training requirements.

Line Qualified. Qualified to serve as a flight crewmember in operations under this part.

Module. Modules of instruction are subsets of a training segment that include major subject areas for training and evaluation.

Month. Calendar month.

New Hire training. A category of training required to qualify a person to serve as a crewmember for the first time for the certificate holder under this part.

Observation Drill. Observation drill means a drill where a person watches without actively participating in the training or evaluation.

Observer Seat. An observer seat is a seat on the flight deck, or a forward passenger seat with headset or speaker, that provides adequate visibility of the flight controls, instruments, and external views that is used by the FAA for conducting en route inspections.

Operating cycle. A complete flight segment consisting of the time from push back/power back, taxi out, takeoff, climb, en route portion, descent, landing, taxi in, parking, and shutdown.

Practice. A physical or verbal exercise of skills in an instructor led environment that encourages interaction among participants for the specific area of knowledge.

Procedure. A procedure is a step-by-step method used to complete a specific task. Types of procedures are:

(1) *Standard operating procedure.* A procedure associated with systems that are functioning in their usual manner.

(2) *Abnormal or Non-normal operating procedure.* A procedure associated with systems that are not functioning in their usual manner and that require crewmember action for continued safe flight and landing.

(3) *Emergency procedure.* A procedure requiring immediate crewmember action to protect the aircraft and occupants from serious harm.

Proficiency. Demonstrated sufficient awareness of existing circumstances, competence in the necessary knowledge and skill, and performance of the relevant task (maneuver or procedure) within the operating range of environments to the standards identified and required by the appropriate QPS.

Proficiency check. An assessment of crewmember proficiency during which limited training or practice is allowed. The assessment is of knowledge and skill in tasks to the standards identified and required by the appropriate QPS. The proficiency check must be conducted by a check person.

Proficiency review. An assessment of pilot or flight engineer proficiency during which limited training or practice is allowed. The assessment is of knowledge and skill in tasks to the standards identified and required by the appropriate QPS. The proficiency review must be conducted by a check person, or a flight instructor authorized to conduct proficiency reviews.

Proficiency test. An assessment of crewmember proficiency during which additional training or practice is not allowed. The assessment is of knowledge and skill in tasks to the standards identified and required by the appropriate QPS. For flight crewmembers, when a proficiency test is not for the purpose of obtaining an airman certificate or rating, it must be conducted by a check pilot. When a proficiency test is conducted for the purpose of obtaining an airman certificate or rating, it must be conducted by an APD or an FAA Inspector. For flight attendants, the proficiency test may only be conducted by a person authorized to administer flight attendant proficiency tests or an FAA Inspector.

Programmed hours. The required academic and job performance hours set forth in this subpart for categories of training.

Protective Breathing Equipment (PBE) drill. An emergency drill in which a crewmember combats an actual fire or simulated fire while using PBE.

Qualification Performance Standards (QPS). FAA standards providing all of the tasks and areas of training and evaluation, including activities, procedures, and knowledge needed to qualify a person to serve under this part. The QPSs are in part 121 appendices as follows: appendix Q: Pilot Qualification Performance Standards; appendix R: Flight Engineer Qualification Performance Standards; appendix S: Flight Attendant Qualification Performance Standards; and appendix T, Aircraft Dispatcher Qualification Performance Standards.

Qualified. Qualified, when used in reference to an individual, means:

(1) For a flight attendant crewmember duty position or a flight attendant training or evaluation duty position, an individual who has completed the certificate holder's FAA-approved curriculum for the aircraft type to serve in that position under this part.

(2) For a flight crewmember duty position or a flight crewmember training or evaluation duty position, an individual who has completed the certificate holder's FAA-approved curriculum for the aircraft type to serve in that position under this part and holds the appropriate U.S. medical certificate and airman certificates and ratings.

Recurrent Flight Attendant Training Cycle. The 12 month period in which required tasks are trained and evaluated in accordance with the Flight Attendant QPS.

Recurrent training. A category of training that must be completed within the specified eligibility period to enable a qualified person to continue to serve in a crewmember duty position or a training or evaluation duty position for the certificate holder under this part.

Requalification training. A category of training required to allow crewmembers to become qualified again to serve in a crewmember duty position for the certificate holder in operations under this part.

Segments of training. Each category of training has two segments. One segment is ''academic.'' This is training and evaluation that provides students with the required knowledge and cognitive skills necessary to perform the tasks required for the crewmember duty position or training or evaluation duty position. The other segment is ''job performance.'' This segment is training and evaluation in the duty or job setting. This segment provides students with the practical, hands on experience of integrating knowledge and skills and learning the related motor skills necessary to perform the job.

Serve. To perform the duties and discharge the responsibilities required under this part.

Simulated fire. An artificial duplication of smoke or flame used to create various aircraft firefighting scenarios, such as lavatory, galley oven, and aircraft seat fires.

Simulator Only Instructors and Check Persons. Simulator Only Instructors and Check Persons are persons who have completed the training necessary to qualify as a crewmember and meet the recency of experience requirements prescribed in this subpart, as applicable, but may not serve as a required flight crewmember in operations under this part.

Special training. A category of training necessary to address changes to the certificate holder's operations or to correct deficiencies identified by the certificate holder's continuous analysis process. Special training is temporary and is integrated into the approved training program.

Training. Instruction and practice.

Training center evaluator. An individual who meets the requirements of § 142.55 of this chapter.

Training or Evaluation Duty Position. Flight instructors, flight attendant instructors, check persons, check captains, and persons authorized to conduct flight attendant proficiency tests.

Training program. A certificate holder's training curricula, personnel, facilities, equipment, and other resources used to meet the training requirements under this subpart.

Transition training (check persons and persons authorized to conduct flight attendant proficiency tests). A category of training required to qualify check persons and persons authorized to conduct flight attendant proficiency tests to serve in a training or evaluation duty position on an aircraft type for the certificate holder when they have previously served in the same training or evaluation duty position on a different aircraft type in the same group for that certificate holder.

Transition training (flight attendants). A category of training that allows a flight attendant to qualify on an aircraft type if the flight attendant has been qualified for at least 180 days and served in the previous 180 days on an aircraft as a flight attendant for that certificate holder.

Transition training (flight crewmembers). A category of training required to qualify flight crewmembers who have qualified and served in the same duty position on a different aircraft type in the same group in operations under this part.

Upgrade training. Refers to core upgrade or full upgrade training.

(1) *Core Upgrade:* A category of training required to qualify flight crewmembers as either PIC or SIC in an aircraft type in which they have been previously qualified and served as SIC or flight engineer respectively for that certificate holder. A pilot may complete core upgrade when it has been 9 months or less since the person served as SIC or flight engineer for that certificate holder.

(2) *Full Upgrade.* A category of training required to qualify flight crewmembers as either PIC or SIC in an aircraft type in which they have been previously qualified and served as SIC or flight engineer respectively. A pilot may complete full upgrade when it has been more than 9 months but less than 36 months since the person has qualified and served as SIC or flight engineer for that certificate holder, or when it has been 36 months or less since the person served as SIC or flight engineer for another certificate holder in operations under this part.

§ 121.1207 Certification requirements: Crewmembers, flight instructors, check pilots, check captain, and check flight engineers.

(a) No certificate holder may use any person, nor may any person serve, as a crewmember, flight instructor, check pilot, check captain, or check flight engineer in a training program or in operations under this part, unless that person meets the following requirements, as applicable:

(1) *Pilots.*

(i) To act as pilot in command of an aircraft, or as second in command of an aircraft that requires three or more pilots in a flag or supplemental operation, a pilot must hold an airline transport pilot certificate and an appropriate type, category, and class rating for that aircraft.

(ii) To act as a second in command of an aircraft that requires only two pilots in flag operations or in international supplemental operations, a pilot must hold at least a commercial pilot certificate with appropriate type, category, and class ratings for that aircraft, and an instrument rating.

(iii) To act as a second in command in domestic operations, a pilot must hold at least a commercial pilot certificate with appropriate category and class ratings for that aircraft, and an instrument rating.

(2) *Flight Engineers.* To serve as a flight engineer, a person must hold a flight engineer certificate with the appropriate aircraft class rating.

(3) *Flight Instructors, Check Pilots, Check Captains, and Check Flight Engineers.* No person may use, nor may any person serve, as a flight instructor, check pilot, check captain, or check flight engineer in a training program or in operations under this part, with respect to the aircraft type involved, unless the person holds the airman certificates and ratings required to serve as a pilot in command or flight engineer, as applicable, in operations under this part.

(4) *Flight Attendant.* A person is considered to hold a Certificate of Demonstrated Proficiency and is eligible to serve as a flight attendant once the Administrator is notified by a certificate holder that the person has the demonstrated proficiency to be a flight attendant.

(b) A person who is currently serving as a pilot or flight engineer for the certificate holder or a person who is engaged in training and evaluation activities for the certificate holder (as described in § 121.1331(d)) may be issued the appropriate certificate or type rating if that person meets the following requirements:

(1) The applicable eligibility, aeronautical knowledge, and experience required by part 61 or part 63 of this chapter.

(2) The applicable training requirements of this subpart.

(3) The proficiency test requirements of § 121.1365(b)(1). The FAA or an APD must administer the proficiency test.

§ 121.1209 English language requirement.

No certificate holder may use any person, nor may any person serve, as a flight crewmember, flight attendant, or person acquiring flight attendant operating experience in operations under this part, unless that person has demonstrated to an individual qualified to conduct evaluations under this part, that he or she can:

(a) Read, write, speak, and understand the English language.

(b) Have his or her English language and writings understood.

§ 121.1211 Medical certificate requirements.

(a) No certificate holder may use any person, nor may any person serve, on an aircraft as a required flight crewmember in operations under this part unless that person has a valid medical certificate required by § 61.23 or § 63.31 of this chapter, as appropriate for the duty being performed.

(b) No medical certificate is required to serve in an FSTD.

§ 121.1213 Pilot monitoring (not flying) duties.

Each pilot who is seated at the pilot controls of the aircraft or FSTD, while not flying the aircraft or FSTD, is required to accomplish pilot monitoring duties as appropriate in accordance with the FCOM. Pilot monitoring duties are subject to the same oversight and evaluation as pilot flying duties.

Flight Crewmember

§ 121.1221 Flight Crewmember: Training and evaluation.

No certificate holder may use any person, nor may any person serve, as a required flight crewmember in operations under this part unless that person has completed the required curriculum for that aircraft type and crewmember duty position.

(a) A curriculum consists of the programmed hours, including training and evaluation, as specified in § 121.1335 and in the appropriate QPS, and the following training categories.

(1) New hire training as prescribed in § 121.1363.

(2) Initial, conversion, transition, or upgrade training as prescribed in § 121.1365, as applicable.

(3) Differences training, if necessary, as prescribed in § 121.1391.

(4) Recurrent training as prescribed in § 121.1367, according to the schedule prescribed in § 121.1223.

(5) Requalification training, if necessary, as prescribed in § 121.1239.

(6) Special training, if necessary, as prescribed in § 121.1337.

(b) *Continuity of training.* Within 120 days of beginning first time qualification a person must have completed in the following order:

(1) The required new hire training as described in paragraph (a)(1) of this section, if the person is qualifying for the first time for the certificate holder.

(2) The required initial, conversion, transition, or upgrade training categories and academic and job performance training segments described in paragraph (a)(2) of this section, as applicable; and differences training as described in paragraph (a)(3) of this section, if applicable.

(3) A proficiency test as prescribed in § 121.1365(b)(1).

(4) A qualification LOFT as prescribed in § 121.1365(b)(2).

(c) *Failure to complete training within 120 days.* If a person fails to complete the required curriculum within the 120 days, as required by paragraph (b) of this section, the person must repeat the entire curriculum. No credit is given for any of the training previously completed if the entire curriculum is not completed within 120 days.

(d) *Complete Flight Crew.* Except as provided in paragraph (d)(2) of this section, a complete flight crew is required for training under this part and each flight crewmember duty position must be filled by a person qualified to serve in the required duty position.

(1) For aircraft certificated for 2 pilots: Each pilot duty position must be occupied by a person who is qualified to serve in that crewmember duty position (a line qualified crew member, a simulator-only instructor, a flight instructor, a check pilot, a check captain, or an APD), or by a student training to serve in that crewmember duty position.

(2) For aircraft certificated for 2 pilots and a flight engineer: Each pilot duty position and the Flight Engineer duty position must be occupied by a person who is qualified to serve in that crewmember duty position (a line qualified crew member, a simulator-only instructor, a flight instructor, a check pilot, a check captain, a check flight engineer, or an APD), or by a student training to serve in that crewmember duty position. After the minimum hours of job performance training have been completed, at the discretion of the instructor, training on specific piloting tasks may be conducted without the flight engineer duty position being filled. In these situations, the flight engineer's panel in the simulator must be properly set for the pilot training tasks and must not require further monitoring or adjustment.

§ 121.1223 Flight Crewmember: Recurrent training and evaluation schedule for continuing qualification.

(a) To serve as a flight crewmember, a person must complete the recurrent academic and job performance training segments for each aircraft type, as prescribed in § 121.1367, in accordance with the associated programmed hours specified in § 121.1335. Each flight crewmember must complete all of the academic subjects and all of the job performance tasks and environments in accordance with the applicable QPS.

(b) A flight crewmember must complete a recurrent academic training module, a recurrent job performance training module, and aircraft emergency equipment training as prescribed in § 121.1367 and at the interval specified in the applicable QPS.

(c) A flight crewmember must complete recurrent academic and job performance training modules by the end of the eligibility period. The eligibility period consists of the base month, the month before the base month and the month after the base month. The base month is the 9th month following

the month during which the proficiency test required in § 121.1365(b)(1) is completed; the 9th month following the month in which the proficiency test authorized in § 121.1239 is completed; or the 9th month following the completion of the recurrent academic and job performance training modules when adjusting the base month in accordance with § 121.1223(d).

(d) The base month may be adjusted by completing the required recurrent academic and recurrent job performance training modules within the time frames described in § 121.1223(f) at any time prior to the beginning of the eligibility period described in paragraph (c) of this section.

(e) A flight crewmember who has not completed recurrent training by the end of the base month may continue to serve until the end of the eligibility period. However, if the recurrent requirements are not completed during the eligibility period and the base month is not adjusted forward as described in paragraph (d) of this section, the person is unqualified for that flight crewmember duty position on the first day of the month following the eligibility period. The unqualified person may not serve in that flight crewmember duty position until requalified. The person must complete the applicable phase of the requalification training category in accordance with § 121.1239 to become requalified.

(f) Time required to complete recurrent training:

(1) *Academic Training.* A flight crewmember must complete each required recurrent academic training and evaluation within the preceding number of months specified in the applicable QPS. The academic training must begin and end within the eligibility period, and end within 30 days from the beginning of the academic training.

(2) *Job Performance Training.* A flight crewmember must complete required job performance training and evaluation within the preceding number of months specified in the applicable QPS. The job performance training must begin and end within the eligibility period, and end within 96 hours from the beginning of the training.

§ 121.1225 Flight Crewmember: Operating experience.

(a) Except as provided in this section, no certificate holder may use any person, nor may any person serve, as a required flight crewmember on an aircraft, unless the person has completed the operating experience and operating cycles required by this section for that aircraft type and in that duty position in operations under this part. The certificate holder must ensure that the flight crewmember completing operating experience and operating cycles is current and qualified for the duty position in accordance with this part.

(b) Pilots must complete operating experience and operating cycles as follows:

(1) *General.* Operating experience must include at least four operating cycles and 21 hours in operations under this part. At least one cycle must be flown as the pilot monitoring the aircraft. At least two cycles must be flown as the pilot flying the aircraft, of which at least one must be flown with the automatic pilot disengaged after takeoff until departing the terminal area and prior to approach upon entering the terminal area. A pilot will receive one hour of credit towards the 21 hours required by this paragraph for each operating cycle completed in excess of the four operating cycles required. Operating experience must be started no later than 60 days and completed within 120 days of completing the proficiency test given at the end of initial, transition, upgrade, or conversion training. If operating experience is not started within 60 days or completed within 120 days of completing the proficiency test, another proficiency test is required to re-initiate operating experience.

(2) *Pilot in command.*

(i) A qualifying pilot in command completing operating experience and operating cycles must complete all of the following:

(A) Serve as the second in command of record.

(B) Perform the duties of a pilot in command under the supervision of a check pilot or check captain, except as provided in paragraph (d) of this section.

(C) Be given a line check conducted by an appropriately qualified check pilot during the final portion of operating experience. The line check must consist of at least two operating cycles. During one of the cycles the qualifying pilot in command must perform the duties of the pilot flying the aircraft. In the other cycle, the qualifying pilot in command must perform the pilot monitoring duties.

(D) In addition to the requirements in paragraphs (b)(2)(i)(A) through (C) of this section, a qualifying pilot in command receiving operating experience after completing initial or upgrade training, must perform the duties of a pilot in command during at least one operating cycle under the observation of an APD authorized to conduct these observations or an FAA inspector.

(ii) Except as provided in paragraph (d) of this section, the check pilot or check captain supervising operating experience must serve as the pilot in command and occupy a pilot station under the following requirements:

(A) While supervising the transitioning or converting pilot in command until the qualifying pilot in command has completed the following, at which time the check pilot or check captain may occupy the observer's seat for the remaining portion of the operating experience:

(*1*) Made at least two takeoffs and landings in the aircraft type used.

(*2*) Satisfactorily demonstrated to the check pilot or check captain the ability to perform the duties of a pilot in command of that aircraft type.

(B) While supervising an initial or upgrading pilot in command.

(3) *Second in command.* A second in command pilot must perform the duties of a second in command under the supervision of an appropriately qualified check pilot or check captain.

(c) A flight engineer must perform the duties of a flight engineer for at least 10 hours of operating experience in operations under this part under the supervision of a check flight engineer, a check pilot, a check captain, or a flight engineer who is specifically authorized by the POI to supervise operating experience.

(d) During operating experience following transition, conversion, or upgrade training, the check pilot or check captain may take a rest period during the en route cruise portion of flight, if the following conditions are met:

(1) The pilot obtaining operating experience meets the requirements of paragraphs (b)(2)(ii)(A)(*1*) and (2) of this section.

(2) The relief pilot meets the requirements in § 121.1241(b)(3).

(e) In the case of an aircraft not previously used by the certificate holder in operations under this part, operating experience for pilots and flight engineers completed in the aircraft during proving flights or ferry flights may be used to meet this requirement.

(f) Credit for operating experience hours may only be taken while the pilot or flight engineer is under the direct supervision of the check pilot or check captain.

§ 121.1227 Pilot: Consolidation.

(a) Pilots completing the proficiency test given at the end of initial, transition, or conversion training must

complete at least 100 hours of LOFT for consolidation in that aircraft type for the certificate holder. The consolidation hours must be completed within 120 days after completing the proficiency test.

(1) If the consolidation flight time in an aircraft type is interrupted by flight time in another aircraft type, the pilot must complete refresher training to refresh the pilot's knowledge and skills, as provided in the certificate holder's approved training program. The refresher training must be completed in the aircraft type in which consolidation was started before continuing the consolidation. The refresher training must be conducted by a flight instructor or check pilot qualified under this part.

(2) Consolidation must be started no later than 60 days after completion of the proficiency test given at the end of initial, transition, or conversion training. If consolidation is not started within 60 days of completing the proficiency test, another proficiency test is required to re-initiate consolidation.

(b) If consolidation is not completed within 120 days of completing the proficiency test given at the end of initial, transition, or conversion training, the certificate holder may extend the 120-day period to no more than 150 days if both of the following conditions are met:

(1) The pilot continues to meet all other applicable requirements of this subpart.

(2) On or before the 120th day the pilot completes refresher training conducted by an appropriately qualified and authorized instructor or check pilot to refresh the pilot's knowledge and skills, as provided in the certificate holder's approved training program, or a check pilot determines that the pilot has retained an adequate level of proficiency after observing that pilot in a supervised line operating flight.

(c) If consolidation is not completed within 150 days of completing the proficiency test given at the end of initial, transition, or conversion training, the certificate holder may extend the 150-day period to no more than 210 days if both of the following conditions are met:

(1) The pilot continues to meet all other applicable requirements of this subpart.

(2) On or before the 150th day the pilot completes a proficiency check in a Level C or D full flight simulator qualified in accordance with part 60 of this chapter.

(d) If consolidation is not completed within 210 days of completing the proficiency test given at the end of initial, transition, or conversion training, the remaining line operating flight time that is necessary to complete consolidation must be supervised by a check pilot.

(e) If consolidation is not completed by the time the proficiency test required by § 121.1223 is completed for the first recurrent period, consolidation must start over.

§ 121.1229 Pilot: Recent experience.

(a) No certificate holder may use any person, nor may any person serve, as a required pilot unless the person has made, within the preceding 90 days, at least three takeoffs and landings as the pilot flying in the aircraft type in which the person is to serve. The three takeoffs and landings required by this paragraph must be satisfied by compliance with either paragraph (b) or (c) of this section, but not a combination of paragraph (b) and (c) of this section.

(b) If a pilot satisfies the requirements of paragraph (a) of this section through the use of an aircraft, the pilot must complete three operating cycles in the aircraft type in which the pilot serves.

(c) If a pilot satisfies the requirements of paragraph (a) of this section through the use of a full flight simulator (FFS), the FFS must be qualified in accordance with part 60 of this chapter and approved for takeoff and landing maneuvers. The pilot must complete in a single simulator session at least three takeoffs and landings and the maneuvers and procedures prescribed in the QPS. One takeoff and one landing must be included in a LOFT environment under § 121.1353.

(d) If it has been 90 days or less since the pilot's recency has lapsed, the pilot may regain recency by completing at least three takeoffs and landings using the maneuvers and procedures specified in the Pilot QPS in an FFS qualified for takeoffs and landings in accordance with part 60 of this chapter. All three takeoffs and landings must be conducted in a LOFT environment as provided in § 121.1353.

(e) If it has been more than 90 days since the pilot's recency has lapsed, the pilot may only regain recency by completing the core conversion training category in accordance with the pilot QPS. Completing core conversion to reestablish recency of experience does not change the pilot's recurrent training base month.

§ 121.1231 Flight engineer: Recent experience.

(a) No certificate holder may use any person, nor may any person serve, as a required flight engineer unless, within the preceding 90 days, the person has performed the duties of a flight engineer during at least three takeoffs and landings in the aircraft type in which the person is to serve. The three takeoffs and landings required by this paragraph must be satisfied by compliance with either paragraph (b) or (c) of this section, but not a combination of paragraphs (b) and (c) of this section.

(b) If a flight engineer satisfies the requirements of paragraph (a) of this section through the use of an aircraft, the flight engineer must complete three operating cycles in the aircraft type in which the flight engineer serves.

(c) If a flight engineer satisfies the requirements of paragraph (a) of this section through the use of an FFS, the FFS must be qualified in accordance with part 60 of this chapter and approved for takeoff and landing maneuvers. When an FFS is used, the flight engineer must complete in a single simulator session at least three takeoffs and landings and the maneuvers and procedures prescribed in the QPS. One takeoff and one landing must be included in a LOFT environment under § 121.1353.

(d) If it has been 90 days or less since the flight engineer's recency has lapsed, the flight engineer may regain recency by completing a proficiency check in accordance with the Flight Engineer QPS. This proficiency check must be administered with a complete flight crew, with each crewmember duty position filled by a person who is qualified or in student status to serve in that crewmember duty position.

(e) If it has been more than 90 days since the flight engineer's recency has lapsed, the flight engineer may only regain recency by completing the core conversion training category in accordance with the flight engineer QPS. Completing core conversion to reestablish recency of experience does not change the flight engineer's recurrent training base month.

§ 121.1233 Line checks.

(a) No certificate holder may use any person, nor may any person serve, as a pilot in command, unless, within the preceding 24 months, that person has completed a line check for that certificate holder in one of the aircraft types in which he or she is to serve. During the line check, the person must perform the duties and responsibilities of a pilot in command.

(b) A pilot in command line check for domestic and flag operations must be administered by a check pilot or APD who is current and qualified on both the route and the aircraft type. A pilot in command line check for supplemental operations must be administered by a check pilot or APD who is current and

qualified in the aircraft type and must be conducted on an instrument flight rules flight plan.

(c) A line check conducted under this part must consist of at least two operating cycles during operations under this part. In one of the cycles the pilot in command must perform the duties of the pilot flying the aircraft. In the other cycle, the pilot in command must perform the pilot monitoring duties.

(d) The check pilot or APD conducting the line check must evaluate the entire flight crew in the performance of their duties during the line check of the pilot in command required by paragraph (a) of this section. The check pilot or APD will record the evaluation of the pilot in command and any other required flight crewmember that demonstrates a lack of proficiency. If any required flight crewmember performs below standard on any tasks, that person may not serve as a required flight crewmember in operations under this part until he or she receives training on such tasks, and completes a proficiency test in those tasks.

(e) Check pilots or APDs conducting line checks must conduct a debriefing of the flight crew that includes technical and resource management competencies.

(f) On flights with a flight engineer as a required crewmember, check pilots or APDs who meet the qualification requirements of this subpart to conduct pilot in command line checks will evaluate flight engineer performance during the line check. The check pilot or APD is not required to hold a flight engineer certificate to conduct flight engineer evaluations during line checks.

(g) If a pilot does not receive the line check required by paragraph (a) of this section, the pilot may not serve as pilot in command in operations under this part until he or she completes the following:

(1) If it has been more than 24 months, but less than 30 months since the pilot received his or her last line check, the pilot must complete a line check. The check pilot or APD must serve as the pilot in command during the line check and must occupy a pilot duty station.

(2) If it has been 30 months or more since the pilot received his or her last line check, the pilot must complete the core conversion training category in accordance with the pilot QPS and complete a line check. The check pilot or APD must serve as the pilot in command during the line check and must occupy a pilot duty station. Completing core conversion to satisfy the line check requirement does not change the pilot's recurrent training base month.

(h) If a pilot in command fails the line check required by paragraph (a) of this section, the pilot may not serve in operations under this part until he or she successfully completes within 60 days of the date of failure all of the following:

(1) Recurrent academic training without adjusting the recurrent base month.

(2) A proficiency check.

(3) A qualification LOFT, consisting of at least two operating cycles, one under normal conditions, and one that includes abnormal or emergency issues.

(4) Two operating cycles during line operations under the supervision of a check pilot or APD, followed by a line check. The check pilot or APD must serve as the pilot in command and occupy a pilot duty station during the operating cycles required by this section and the line check.

(i) If a pilot in command fails to meet the requirements of paragraph (h) of this section within 60 days of the date of the failed line check, the pilot in command may not serve in operations under this part until the pilot in command completes the following:

(1) Full conversion training without adjusting the recurrent base month.

(2) A proficiency check.

(3) A qualification LOFT, consisting of at least two operating cycles, one under normal conditions, and one that includes abnormal or emergency issues.

(4) Two operating cycles during line operations under the supervision of a check pilot or APD, followed by a line check. The check pilot or APD must serve as the pilot in command and occupy a pilot duty station during the operating cycles required by this section and the line check.

§ 121.1235 Pilot: Routes and airports.

(a) No certificate holder may use any person, nor may any person serve, as a pilot, unless that pilot has current information provided by the certificate holder regarding routes, airports and terminal areas into which that pilot operates. The certificate holder must ensure that each pilot has adequate knowledge and skill to use the information. The certificate holder must provide information on at least the following subjects:

(1) Weather.

(2) Navigation facilities.

(3) Communication procedures, including airport visual aids.

(4) Terrain and obstructions.

(5) Minimum safe flight levels.

(6) En route and terminal area arrival and departure procedures, holding procedures and authorized instrument approach procedures for the airports involved.

(7) Congested areas and physical layout of each airport in the terminal area in which the pilot will operate.

(8) Notices to Airmen.

(b) Each certificate holder must provide a system acceptable to the Administrator for disseminating the information required by paragraph (a) of this section to the pilots and appropriate flight operations personnel. The system must also provide an acceptable means for showing compliance with pilot qualification for special areas, routes, and airports.

(c) The Administrator may determine that certain airports (due to items such as surrounding terrain, obstructions, or complex approach or departure procedures) are special airports requiring special airport qualifications and that certain areas or routes require a special type of navigation qualification.

(d) No certificate holder may use any person, nor may any person serve, as a pilot in special airport operations unless, within the preceding 18 months, the pilot has met one of the following requirements:

(1) Made a takeoff and landing at the special airport while serving as a pilot flying the aircraft.

(2) Qualified by using photographs and diagrams approved by the Administrator for the special airport.

(3) Qualified by using written descriptions and diagrams of the special characteristics of the airport only in those cases where the country in which the airport is located does not allow photographs to be taken of the airport. The written descriptions and diagrams must be approved by the Administrator.

§ 121.1237 Pilot: Operating limitations and crew pairing.

(a) No certificate holder may use any person, nor may any person serve, as a pilot in operations under this part unless either the pilot in command or the second in command has at least 75 hours of line operating flight time for that aircraft type, either as pilot in command or second in command. The Administrator may, upon application by the certificate holder, authorize deviations from the requirements of this paragraph by an appropriate amendment to the operations specifications in any of the following circumstances:

(1) A new certificate holder does not employ any pilots who meet the minimum requirements of this paragraph (a).

(2) An existing certificate holder adds an aircraft type that was not previously proven for use in its operations.

(3) An existing certificate holder establishes a new domicile to which it assigns pilots who will be required to become qualified on the aircraft operated from that domicile.

(b) If the second in command has fewer than 100 hours of flight time as second in command in operations under this part in the aircraft type being flown, and the pilot in command is not an appropriately qualified check pilot, the pilot in command must make all takeoffs and landings in any of the following conditions:

(1) The prevailing visibility value in the latest weather report for the airport is below ¾ mile.

(2) The runway visual range for the runway to be used is below 4,000 feet.

(3) The runway to be used has water, snow, slush or similar conditions that may adversely affect aircraft performance.

(4) The braking action on the runway to be used is reported to be less than ''good.''

(5) The crosswind component for the runway to be used is in excess of 15 knots.

(6) Windshear is reported in the vicinity of the airport.

(7) Any time the pilot in command determines it to be prudent to make the takeoffs and landings.

(c) Except for check pilots, newly qualifying PIC in the aircraft type, and as described in paragraph (d) of this section, no certificate holder may use any person, nor may any person serve, as a PIC or SIC in operations under this part unless the PIC has been trained for, is assigned to, and operates the aircraft from the left hand pilot's seat, and the SIC has been trained for, is assigned to, and operates the aircraft from the right hand seat.

(d) A certificate holder may authorize an assigned PIC to operate the aircraft from the right hand pilot seat and to authorize the assigned SIC to operate the aircraft from the left hand pilot seat provided the pilots have completed either a training program for that pilot seat or the seat dependent task training for that pilot seat in accordance with the Pilot QPS. The responsibilities of the PIC and SIC who exchange operating seats as described in this paragraph, remain unchanged regardless of the pilot seat being occupied. Duties and functions of the pilot flying and the pilot monitoring will change only due to the limitations and requirements imposed by occupying the opposite pilot seat.

§ 121.1239 Flight crewmember: Requalification.

(a) No certificate holder may use any person, nor may any person serve, as a pilot or flight engineer if that person has become unqualified by failing to complete recurrent academic or job performance training segments including proficiency tests, proficiency checks, and proficiency reviews, as required by § 121.1223.

(b) If a person fails to meet any of the requirements of paragraph (a) of this section, then the person must complete the initial training requirements of § 121.1365 in accordance with the Pilot QPS, including operating experience and proficiency test, or the person must meet the requirements of this paragraph in accordance with the appropriate requalification phase to be requalified. The requalification phases are based on the person being unqualified and the number of months after the month in which the person last served in a crewmember duty position for the aircraft type in operations under this part.

(1) *Phase I Requalification.*

(i) *Eligibility for Phase I Requalification.* An unqualified flight crewmember may requalify by completing the Phase I Requalification program if it has been less than 9 months since the month the person last served in a crewmember duty position for the aircraft type.

(ii) *Phase I Requalification program.* The flight crewmember must complete all of the recurrent training modules or any modules that were not completed. These requirements must be completed within 30 days of beginning requalification training and less than 9 months from the month the person last served in a crewmember duty position for the aircraft type in operations under this part. The flight crewmember's base month for recurrent training will not change.

(2) *Phase II Requalification.*

(i) *Eligibility for Phase II Requalification.* An unqualified flight crewmember may requalify by completing the Phase II Requalification program if it has been 9 months or more, but less than 27 months since the month the person last served in a crewmember duty position for the aircraft type in operations under this part.

(ii) *Phase II Requalification program.* The flight crewmember must complete the following Phase II Requalification requirements within 60 days of beginning requalification training and less than 27 months from the month the person last served in a crewmember duty position for the aircraft type in operations under this part:

(A) The flight crewmember must complete the core conversion training category. The Principal Operations Inspector will decide, on a case by case basis, the number of programmed hours for academic and job performance training. For academic training, the required programmed hours may be more or less than the core conversion training hours. For the job performance training segment, the programmed hours will be no less than the minimum job performance programmed hours for the core conversion training category required by the applicable QPS. A pilot in command must also complete a line check.

(B) The flight crewmember's recurrent base month must be changed as appropriate to correspond to the month in which the proficiency test was completed.

(3) *Phase III Requalification.*

(i) *Eligibility for Phase III Requalification.* An unqualified flight crewmember must complete the Phase III Requalification program if it has been 27 months or more since the month the person last served in a crewmember duty position for the aircraft type in operations under this part.

(ii) *Phase III Requalification program.* The flight crewmember must complete the following Phase III Requalification requirements within 90 days of beginning requalification training:

(A) The flight crewmember must complete the full conversion training category, except the programmed hours specified in the QPS do not apply. The Principal Operations Inspector will decide, on a case by case basis, the number of hours for academic and job performance training. For job performance training, the programmed hours will be no less than the minimum job performance programmed hours for the full conversion training category required by the applicable QPS. A pilot must also complete a qualification LOFT, and a pilot in command must also complete a line check.

(B) The flight crewmember's recurrent base month must be changed as appropriate to correspond to the month in which the proficiency test was completed.

§ 121.1241 Flight crewmembers at controls.

(a) Except as provided in paragraph (b) of this section, each required flight crewmember on flight deck duty must remain at the assigned duty station with seat belt fastened while the aircraft is taking off or landing, and while it is en route.

(b) A required flight crewmember may leave the assigned duty station only in the following situations:

(1) If the crewmember's absence is necessary for the performance of duties in connection with the operation of the aircraft.

(2) If the crewmember's absence is in connection with physiological needs.

(3) If the crewmember (PIC or SIC) is taking a rest period, and relief is provided during the en route cruise portion of the flight by a pilot who meets all of the following:

(i) Holds an airline transport pilot certificate and a type rating on the aircraft.

(ii) Is qualified as pilot in command or second in command on the aircraft.

(iii) Has completed operating experience in accordance with § 121.1225.

(iv) Has completed line operating flight time for consolidation, if applicable, within the time prescribed in § 121.1227.

(v) Has completed either of the following:

(A) Training for the duty station to be occupied.

(B) Training for the opposite duty station and the seat dependent task training described in the pilot QPS for the duty station to be occupied.

(vi) Is maintaining recency in accordance with § 121.1229.

(4) If the pilot in command is taking a rest period in accordance with paragraph (b)(3) of this section, the pilot in command must designate an acting pilot in command on the flight deck.

Check Pilot And Check Flight Engineer Qualification

§ 121.1251 Eligibility: Check pilot, check flight engineer, Aircrew Program Designee (APD), and Flight Instructor.

To be eligible to enter training as a check pilot, check flight engineer, APD, or Flight Instructor, a person must meet the following requirements:

(a) For pilots:

(1) Have an ATP certificate and a rating for the aircraft type in which they are to serve.

(2) Have served in one of the following capacities for at least 1 year in an aircraft of the same group in which that person is authorized to instruct or evaluate:

(i) A flight instructor in a certificate holder's approved training program.

(ii) A pilot in command.

(iii) A Training Center Evaluator (TCE).

(iv) A second in command.

(3) Have completed the certificate holder's academic and job performance training segments for pilot in command, in accordance with §§ 121.1365 and 121.1367, for the aircraft type on which they are to serve as an instructor, check pilot, or APD.

(b) For flight engineers:

(1) Have a flight engineer certificate and a rating for the aircraft type in which they are to serve.

(2) Have served as a flight engineer for at least 1 year in an aircraft of the same group in which that person is authorized to instruct or evaluate.

(3) Have completed the certificate holder's academic and job performance training segments for flight engineer in accordance with §§ 121.1365 and 121.1367, for the aircraft type on which they are to serve as an instructor, check flight engineer, or APD.

§ 121.1253 Check pilot and check flight engineer: Training, evaluation, approval, and recent experience.

No certificate holder may use any person, nor may any person serve, as a check pilot or check flight engineer in a training program established under this subpart, with respect to the aircraft type involved, unless the person has satisfied the requirements of this section.

(a) Training:

(1) For check pilots, the following:

(i) The certificate holder's approved academic and job performance training for check pilots, as required by §§ 121.1381 and 121.1383.

(ii) The seat dependent task training from both seats, in accordance with the QPS.

(2) For check flight engineers, the certificate holder's approved academic and job performance training for check flight engineers, as required by §§ 121.1381 and 121.1383.

(b) Evaluation:

(1) For check pilots, the following observation checks:

(i) To be authorized to conduct proficiency tests or proficiency checks, the person must be observed conducting a proficiency test or proficiency check in an FFS by an FAA inspector or an APD, and the pilot undergoing the proficiency test or proficiency check for this observation must be signed off by the FAA inspector or the APD as the evaluator of record.

(ii) To be authorized to conduct line checks, the person must be observed conducting a line check by an FAA inspector or an APD, and the pilot undergoing the line check for this observation must be signed off by the FAA inspector or the APD as the evaluator of record.

(2) For check flight engineers, to be authorized to conduct proficiency tests or proficiency checks, the person must be observed conducting a proficiency test or proficiency check in an FFS by an FAA inspector or an APD, and the flight engineer undergoing the proficiency test or proficiency check for this observation must be signed off by the FAA inspector or the APD as the evaluator of record.

(c) Approval:

(1) For check pilots, after completing the requirements of paragraphs (a) and (b) of this section, the check pilot may be issued an FAA letter of authorization to conduct the following, as applicable:

(i) Proficiency tests, proficiency checks, or proficiency reviews, or any combination.

(ii) Line checks.

(2) For check flight engineers, after completing the requirements of paragraphs (a) and (b) of this section, the check flight engineer may be issued an FAA letter of authorization to conduct proficiency tests, proficiency checks, or proficiency reviews, or any combination.

(3) Check pilots and check flight engineers may conduct only those activities listed on the FAA letter of authorization.

(d) Recent experience:

(1) Check pilots and check flight engineers must maintain recency as a pilot or flight engineer as required by § 121.1229 or § 121.1231, as applicable. Check pilots and check flight engineers who use the authorizations of § 121.1229(c) or § 121.1231(c), as applicable, to maintain this recency of experience requirement, must also, within 90 days before performing the duties of a check pilot or check flight engineer, satisfy the following requirements:

(i) The check pilot must have made at least five takeoffs and landings in an FFS qualified in accordance with part 60 of this chapter and approved for performing takeoffs and landings.

(ii) The check flight engineer must have served as a flight engineer on five takeoffs and landings in an FFS qualified in accordance with part 60 of this chapter and approved for performing takeoffs and landings.

(2) After a person has been a check pilot or a check flight engineer for 12 months:

(i) The person may not serve as a check pilot or a check flight engineer unless in the preceding 12 months the person has completed at least eight evaluation activities for the certificate holder. The minimum of eight activities must include at least one of each activity he or she is authorized to conduct in accordance with the applicable QPS. If the check pilot or check flight engineer fails to conduct at

least eight activities, that person may not serve as a check pilot or check flight engineer until the person is re-observed by an FAA inspector or an APD while conducting a proficiency test or proficiency check. If the person has conducted eight activities but one or more of the authorized activities have not been conducted:

(A) The check pilot or check flight engineer may not serve as a check pilot or check flight engineer until re-observed by an FAA inspector or an APD while conducting a proficiency test or proficiency check; or

(B) The certificate holder must request that the FAA update the check pilot's or check flight engineer's letter of authorization by removing the non-conducted activities from the authorizations.

(ii) Within the 12 months preceding performing the duties of a check pilot or check flight engineer, the check pilot or check flight engineer must have completed the following:

(A) Attended all standardization meetings (required by § 121.1355(a)(2)) for each aircraft type in which the person is authorized to conduct check pilot or check flight engineer duties; and

(B) If the check pilot or check flight engineer meets the requirements of paragraph (d)(1) of this section by completing § 121.1229(b) or § 121.1231(b) through aircraft operations other than line operations under this part, or by completing § 121.1229(c) or § 121.1231(c) in a qualified and approved FFS, the check pilot or check flight engineer must have observed the line operations of at least one of the certificate holders for whom the check pilot or check flight engineer performs evaluations. This observation must be part of a Principal Operations Inspector approved line-observation program.

§ 121.1255 Check Captain: Additional training requirements.

No certificate holder may use any person, nor may any person serve, as a check captain in operations under this part with respect to the aircraft type involved, unless the person is current and qualified as a pilot in command and has done the following in an FSTD:

(a) Learned the safety measures to be taken from either pilot seat for emergency situations that are likely to develop during flight operations.

(b) Learned the potential consequences of improper, untimely or unexecuted safety measures during flight operations.

(c) Completed the seat dependent task training described in the QPS.

§ 121.1257 Check pilot, check captain, and check flight engineer: Initial cadre.

(a) A certificate holder may use a person as a check pilot, check captain, or check flight engineer even though the person does not meet the experience, recency, crew pairing, or consolidation requirements of the subpart, if the person meets the initial cadre requirements of this section. The FAA will determine the period of initial cadre status and may terminate initial cadre status entirely or for an individual check pilot, check captain, or check flight engineer, if necessary. In no case will initial cadre status exceed a period of 24 months.

(b) To be an initial cadre check pilot, check captain, or check flight engineer for a part 119 certificate holder and to continue to serve in that capacity for the authorized period, a person must meet all of the following requirements:

(1) Be employed by the part 119 certificate holder.

(2) Have served at least 3 years in the past 6 years as a pilot in command or as a flight engineer, as applicable, on an aircraft of the same group in which the person is to perform duties as an initial cadre check pilot, check captain, or check flight engineer.

(3) Have the appropriate certificates and ratings for the aircraft type and pilot or flight engineer position.

(4) Have completed the academic and job performance training segments of the applicable training categories, as approved by the Principal Operations Inspector for the part 119 certificate holder that are required to serve as a pilot in command or flight engineer, as applicable. For initial cadre check pilots, these requirements must be completed for both pilot seats.

(5) Perform each of the duties to be accomplished as a check pilot, check captain, or check flight engineer under the observation of an FAA inspector. When an observed activity must be made part of a training record, the people undergoing the observed activities must be signed off by the FAA inspector as the evaluator of record.

(6) Be approved by the Principal Operations Inspector for the specific duties to be performed.

(c) Initial cadre check pilots, check captains, and check flight engineers may obtain aircraft operating experience while supervising or being supervised by other initial cadre check pilots, check captains, and check flight engineers, and while being observed by the FAA. Operating experience for initial cadre personnel may be obtained during revenue passenger operations or during aircraft delivery flights, ferry flights, repositioning flights, or proving flights.

(d) An initial cadre check pilot, check captain, or check flight engineer may not gain operating experience in operations under this part unless there is at least one initial cadre check pilot on that flight who has the following experience in the aircraft type:

(1) Has at least 5 hours of operating experience at the pilot controls; and

(2) Has made at least two takeoffs and landings within the previous 60 days.

(e) The part 119 certificate holder must propose for approval by the Principal Operations Inspector, current employees, employees of part 142 certificate holders, employees of other part 119 certificate holders, or aircraft manufacturers as instructors, check pilots, and aircrew program designees (APDs) for initial cadre duties. The FAA must complete all evaluation of initial cadre check pilots and check flight engineers.

(f) Notwithstanding contrary provisions of § 121.1227 for consolidation of knowledge and skills (including operating experience required under § 121.1225), an initial cadre check pilot or check captain may delay initiating line operating flight time for consolidation. The initiation of consolidation may be delayed until 180 days after completing the proficiency test at the end of the initial or transition training category, or until 10 days after the initial cadre status is terminated by the Principal Operations Inspector, whichever is sooner. Once consolidation is initiated, the pilot must acquire 100 hours of line operating experience within 120 days. If consolidation is not completed as required by this paragraph, the pilot must restart consolidation in accordance with § 121.1227.

(g) Notwithstanding contrary provisions of § 121.1229 for recent takeoff and landing experience, an initial cadre check pilot or check captain may perform the duties of a pilot in command or second in command in operations under this part if the initial cadre check pilot or check captain has satisfied the following two requirements:

(1) Has accumulated at least 5 hours of operating experience as the pilot flying in the aircraft type.

(2) Has made at least two takeoffs and landings as the pilot flying within the previous 60 days in the aircraft type.

(h) Notwithstanding contrary provisions of § 121.1237 for crew pairing, an initial cadre check pilot or check captain may perform the duties of a pilot in command or second in command in operations under this part without respect to the minimum number of hours of line operating flight

time in that aircraft type accumulated by the pilot occupying the other pilot position if the initial cadre check pilot or check captain has satisfied the following two requirements:

(1) Has accumulated at least 5 hours of operating experience as the pilot flying in the aircraft type.

(2) Has made at least two takeoffs and landings as the pilot flying within the previous 60 days in the aircraft type.

Aircrew Program Designee Qualification

§ 121.1271 Aircrew Program Designee (APD): Training, evaluation, and recent experience.

No certificate holder may use any person, nor may any person serve, as a pilot APD or a flight engineer APD in a training program established under this subpart, with respect to the aircraft type involved, unless the person meets the requirements of § 121.1251 and has satisfied the requirements of this section.

(a) Training:

(1) For pilot APDs, the following:

(i) The certificate holder's approved academic and job performance training for check pilots, as required by §§ 121.1381 and 121.1383.

(ii) The seat dependent task training from both seats, in accordance with the QPS.

(2) For flight engineer APDs, the certificate holder's approved academic and job performance training for check flight engineers, as required by §§ 121.1381 and 121.1383.

(b) Evaluation:

(1) For pilot APDs, the following observation checks:

(i) To be authorized to conduct proficiency tests, the APD must be observed conducting a proficiency test in an FFS by an FAA inspector, and the pilot undergoing the proficiency test for this observation must be signed off by the FAA inspector as the evaluator of record.

(ii) To be authorized to conduct line checks, the APD must be observed conducting a line check by an FAA inspector, and the pilot undergoing the line check for this observation must be signed off by the FAA inspector as the evaluator of record.

(2) For flight engineer APDs, to be authorized to conduct proficiency tests, the person must be observed conducting a proficiency test in an FFS by an FAA inspector, and the flight engineer undergoing the proficiency test for this observation must be signed off by the FAA inspector as the evaluator of record.

(c) Approval:

(1) For pilot APDs, after completing the requirements of paragraphs (a) and (b) of this section, the pilot APD may be issued an FAA letter of authorization and a certificate of designation to conduct the following, as applicable:

(i) Proficiency tests, or

(ii) Line checks.

(2) For flight engineer APDs, after completing the requirements of paragraphs (a) and (b) of this section, the flight engineer APD may be issued an FAA letter of authorization and a certificate of designation to conduct proficiency tests.

(3) APDs may conduct only those activities listed on the FAA letter of authorization.

(d) Recent experience:

(1) APDs must maintain recency as a pilot or flight engineer as required by § 121.1229 or § 121.1231, as applicable. APDs who use the authorizations of § 121.1229(c) or § 121.1231(c), as applicable, to maintain this recency requirement, must also, within 90 days before performing the duties of an APD, satisfy the following requirements:

(i) The pilot APD must have made at least five takeoffs and landings in an FFS qualified in accordance with part 60 of this chapter and approved for performing takeoffs and landings.

(ii) The flight engineer APD must have served as a flight engineer on five takeoffs in an FFS qualified in accordance with part 60 of this chapter and approved for performing takeoffs and landings.

(2) After a person has been an APD for 12 months, within the 12 months preceding performing the duties of a pilot or flight engineer APD, the APD must:

(i) Have attended all standardization meetings (required by § 121.1355(a)(2)) for each aircraft type in which the person is authorized to conduct APD duties; and

(ii) If the APD has met the requirements of paragraph (d)(1) of this section by completing § 121.1229(c) or § 121.1231(c), complete a Principal Operations Inspector approved line-observation program by observing the certificate holder's line operations from the observer seat.

Flight Instructor Qualification

§ 121.1281 Flight instructor: Qualification and training.

No certificate holder may use any person, nor may any person serve, as a flight instructor in a training program established under this subpart, with respect to the aircraft type involved, unless the person meets the requirements of § 121.1251 and has satisfied the requirements of this section.

(a) Training:

(1) For a pilot flight instructor, the following:

(i) The FAA-approved training program for the certificate holder in the appropriate category of academic and job performance training for pilots, as required by § 121.1365; and, when applicable, the recurring academic and job performance training for pilots, as required by § 121.1367.

(ii) The part 119 certificate holder's approved academic training for pilot flight instructors, as required by § 121.1377, and the part 119 certificate holder's job performance training for pilot flight instructors, as required by § 121.1379.

(iii) The seat-dependent task training from both seats, in accordance with the QPS.

(2) For a flight engineer flight instructor, the following:

(i) The FAA-approved training program for the certificate holder in the appropriate category of academic and job performance training for flight engineers, as required by § 121.1365; and, when applicable, the recurring academic and job performance training for flight engineers, as required by § 121.1367.

(ii) The part 119 certificate holder's approved academic training for flight engineer flight instructors, as required by § 121.1377, and the part 119 certificate holder's job performance training for flight engineer flight instructors, as required by § 121.1379.

(b) Evaluation:

(1) For pilot flight instructors, the following observation checks:

(i) To be authorized to conduct flight training:

(A) The flight instructor must be observed conducting flight training in an FFS by a check pilot; and

(B) The pilot undergoing the flight training for this observation must be signed off by the check pilot as the instructor of record.

(ii) To be authorized to conduct proficiency reviews:

(A) The flight instructor must be observed conducting a proficiency review by a check pilot; and

(B) The pilot undergoing the proficiency review for this observation must be signed off by the check pilot as the evaluator of record.

(2) For flight engineer flight instructors, to be authorized to conduct flight training:

(i) The flight instructor must be observed conducting flight training in an FFS by a check flight engineer; and

(ii) The flight engineer undergoing the flight training for this observation must

be signed off by the check flight engineer as the instructor of record.

(c) Acceptance and approval:

(1) Acceptance of flight instructors: The certificate holder must submit a list of all flight instructors and authorized activities to the Principal Operations Inspector. The flight instructors must be acceptable to the FAA.

(2) Approval of flight instructors to conduct proficiency reviews: The flight instructor must receive a letter of authorization from the Principal Operations Inspector to conduct proficiency reviews.

(d) Recent experience:

(1) Flight instructors must maintain recency as a pilot or flight engineer as required by § 121.1229 or § 121.1231, as applicable. Flight instructors who use the authorizations of § 121.1229(c) or § 121.1231(c), as applicable, to maintain this recency requirement, must also, within 90 days before performing the duties of a flight instructor, satisfy the following requirements:

(i) The pilot flight instructor must have made at least five takeoffs and landings and the maneuvers and procedures prescribed in the QPS in an FFS qualified in accordance with part 60 of this chapter and approved for performing takeoffs and landings.

(ii) The flight engineer flight instructor must have served as a flight engineer on five takeoffs in an FFS qualified in accordance with part 60 of this chapter and approved for performing takeoffs and landings.

(2) After a person has been a flight instructor for 12 months:

(i) The person may not serve as a flight instructor unless in the preceding 12 months the person has completed at least eight instructor activities for the certificate holder. The minimum of eight instructor activities must include at least one period of job performance training, one LOFT, and, if authorized, one proficiency review. If the person fails to conduct at least eight activities within the previous 12-month period, that person may not serve as a flight instructor until:

(A) The person is observed conducting job performance training or LOFT by a check pilot or check flight engineer. This observation will allow the person to conduct job performance training or LOFT.

(B) The person is observed conducting a proficiency review by a check pilot or check flight engineer. This observation will allow the person to conduct job performance training, LOFT, or proficiency reviews.

(C) During the observation required by paragraph (d)(2)(i)(A) or (d)(2)(i)(B) of this section, the check pilot or check flight engineer must be the instructor or evaluator of record.

(ii) If the person conducts at least eight activities within the previous 12-month period, but one or more of the authorized activities was not conducted within that period:

(A) Before conducting the job performance training, LOFT, or proficiency reviews, the person must be observed by a check pilot or check engineer, as described in paragraph (d)(2)(i) of this section, as appropriate; or

(B) The certificate holder must revise the list of authorized activities described in paragraph (c)(1) of this section to eliminate the activities that were not conducted. If the person fails to conduct a proficiency review, the certificate holder must advise the Principal Operations Inspector and the letter of authorization will be rescinded.

(iii) Within the 12 months preceding performing the duties of a pilot or flight engineer flight instructor, the flight instructor must have attended all standardization meetings (required by § 121.1355(a)(2)) for each aircraft type and for each certificate holder for which the person is authorized to conduct flight instructor duties.

(e) If the flight instructor is authorized to conduct proficiency reviews, the flight instructor must, within the preceding 24 months, conduct a proficiency review under the observation of a check pilot or check flight engineer approved by the Principal Operations Inspector to conduct the observation. The proficiency review must be accomplished in an FFS qualified under part 60 of this chapter as prescribed in the applicable QPS.

Flight Attendant Instructor Qualification

§ 121.1291 Flight attendant instructor: Qualification and training.

(a) Except as provided in paragraph (b) of this section, no certificate holder may use any person, nor may any person serve, as a flight attendant instructor in a training program established under this subpart unless that person meets the following requirements:

(1) Within the past 12 months, completed basic qualification or recurrent flight attendant training for the certificate holder, except those performance drills that the person cannot physically perform. A person may provide instruction only in those performance drills that the person can perform at the time of instruction and that the person has completed within the past 12 months as part of the person's basic qualification or recurrent flight attendant training for the certificate holder.

(2) Within the past 12 months completed initial or recurrent flight attendant instructor training as follows:

(i) Training policies and procedures.

(ii) Instructor duties, functions and responsibilities.

(iii) The applicable regulations of this chapter and the certificate holder's policies and procedures.

(iv) Appropriate methods, procedures and techniques for conducting academic training to include performance drills.

(v) Evaluation of student performance.

(vi) Appropriate action in the case of unsatisfactory performance.

(vii) The approved methods, procedures and limitations for instructing and evaluating in the required normal, abnormal and emergency procedures applicable to the aircraft.

(viii) Curriculum review.

(b) A person who is a subject matter expert with specific technical knowledge on a subject may be used to conduct flight attendant training in accordance with the Flight Attendant QPS.

Flight Attendant

§ 121.1301 Flight attendant: Training and evaluation.

No certificate holder may use any person, nor may any person serve, as a required flight attendant in operations under this part unless that person has completed the required curriculum for that aircraft type and crewmember duty position.

(a) A curriculum consists of the programmed hours, including training and evaluation, as specified in § 121.1335 and in the flight attendant QPS, and the following training categories.

(1) New hire training as prescribed in § 121.1363.

(2) Initial training as prescribed in § 121.1369.

(3) Emergency training as prescribed in § 121.1373.

(4) Differences training as prescribed in § 121.1391.

(5) Transition training as prescribed in § 121.1369 for flight attendants eligible under § 121.1371.

(6) Recurrent training as prescribed in § 121.1375, according to the schedule prescribed in § 121.1303.

(7) Requalification training, if necessary, as prescribed in § 121.1309.

(8) Special training, if necessary, as prescribed in § 121.1337.

(b) *Continuity of training.* Within 120 days of beginning first time qualification

for the certificate holder, a person must have completed in the following order:

(1) New hire training as prescribed in § 121.1363.

(2) Initial training as prescribed in § 121.1369.

(3) Emergency training as prescribed in § 121.1373.

(c) *Failure to complete training within 120 days.* If a person fails to complete the required curriculum within the 120 days, as required by paragraph (b) of this section, the person must repeat the required training categories. No credit is given for any of the training previously completed if the entire curriculum is not completed within 120 days.

§ 121.1303 Flight attendant: Continuing qualification.

No certificate holder may use any person, nor may any person serve, as a flight attendant unless the person has completed the training required by paragraph (a), (b), or (c) of this section within the previous 12 months:

(a) New hire training, initial training, transition training, emergency training, and differences training, as applicable, as described in § 121.1301(a)(1) through (5).

(b) Recurrent training as required by § 121.1375.

(1) A flight attendant must complete recurrent academic and job performance training modules by the end of the eligibility period. The eligibility period consists of the base month, the month before the base month and the month after the base month.

(2) A flight attendant who has not completed recurrent training by the end of the base month may continue to serve until the end of the eligibility period.

(c) Requalification training as prescribed in § 121.1309.

§ 121.1305 Flight attendant: Aircraft operating experience.

No certificate holder may use any person, nor may any person serve, as a flight attendant, unless that person has completed, for the certificate holder, the aircraft operating experience required by this section and the Flight Attendant QPS.

(a) A person must complete aircraft operating experience for the aircraft type on which the person is to serve as a flight attendant within 90 days of completing initial training on that aircraft type.

(b) A person receiving aircraft operating experience may not serve as a required crewmember on that aircraft type.

(c) Aircraft operating experience must be completed in passenger carrying operations under this part or in proving flights conducted under part 91 of this chapter.

(d) A person may not begin aircraft operating experience for a specific aircraft type until the person has completed initial training for the aircraft type.

(e) A check flight attendant qualified under this part must supervise aircraft operating experience. In addition the following requirements apply:

(1) A check flight attendant may not supervise more than four persons receiving aircraft operating experience on any one operating cycle.

(2) Not more than two check flight attendants may supervise aircraft operating experience on any one operating cycle.

(3) The number of persons receiving aircraft operating experience on a particular aircraft may not exceed twice the number of flight attendants required by § 121.391 for that aircraft.

(f) A person receiving aircraft operating experience must perform the duties of a flight attendant on at least two operating cycles in the aircraft type with a check flight attendant on board.

(g) A person receiving aircraft operating experience must perform the assigned duties of a flight attendant for a combined total of at least 5 hours of aircraft operating experience.

(h) Flight attendants completing transition training are not subject to the aircraft operating experience requirements of this section.

§ 121.1307 Flight attendant: Recent experience.

(a) After a flight attendant has served for the first time in operations under this part for the certificate holder, no certificate holder may use that flight attendant, nor may any flight attendant continue to serve as a flight attendant, unless within the preceding 6 months the person has served as a flight attendant for at least one operating cycle for the certificate holder.

(b) If a person has not met the recent experience requirements of paragraph (a) of this section, the person must reestablish recent experience as follows:

(1) If it has been more than 6 months, but less than 36 months, since the person served as a flight attendant for at least one operating cycle for the certificate holder, the person must participate in a ground-based briefing on all policies, procedures, and security requirements pertinent to flight attendants that have been updated, modified, or implemented since the last time the person served as a flight attendant for the certificate holder. The briefing must be conducted by a knowledgeable person employed by the certificate holder.

(2) If it has been 36 months or more since the person served as a flight attendant for at least one operating cycle for the certificate holder, the person must do the following:

(i) Meet the briefing requirements of paragraph (b)(1) of this section.

(ii) Serve as a flight attendant for one operating cycle on any aircraft type for that certificate holder, but not as a required crewmember.

§ 121.1309 Flight attendant: Requalification.

No certificate holder may use any person, nor may any person serve, as a flight attendant if that person has become unqualified by failing to meet the recurrent training requirements of § 121.1303(b). The requalification requirements for each phase must be completed before the end of the applicable phase of requalification. To be requalified the person must repeat the training required by § 121.1301(a)(1), (a)(3), (a)(4), and (a)(5), or satisfy one of the following requirements:

(a) *Phase I Requalification program.* If less than 12 months have elapsed since the end of the person's base month for recurrent training, the person may be requalified by completing either of the following:

(1) If the part 119 certificate holder is presently conducting the recurrent flight attendant training cycle that the person missed, the person must complete that training. The base month for recurrent training does not change.

(2) If the part 119 certificate holder is not presently conducting the recurrent flight attendant training cycle that the person missed, the person must complete the requirements of paragraphs (a)(2)(i) and (a)(2)(ii) of this section, and if applicable paragraph (a)(2)(iii) of this section. The base month for recurrent training may be changed.

(i) The current recurrent flight attendant training cycle.

(ii) All missed training, including all study materials and evaluations from the previous recurrent flight attendant training cycle, which is still applicable but is not included in the current recurrent flight attendant training cycle.

(iii) Flight attendants qualified in extended overwater operations must participate in a cabin preparation and evacuation drill (water), if not part of the current recurrent flight attendant training cycle.

(b) *Phase II Requalification program.* If 12 months or more, but less than 24 months, have elapsed since the end of the person's base month for recurrent

training, the person may be requalified by completing the requirements of this paragraph. The base month may be changed.

(1) The current recurrent flight attendant training cycle.

(2) All missed training, including all study materials and evaluations from the previous recurrent flight attendant training cycle(s), which is still applicable but is not included in the current recurrent flight attendant training cycle.

(3) Flight attendants qualified in extended overwater operations must participate in a cabin preparation and evacuation drill (water), if not part of the current recurrent flight attendant training cycle.

(4) Attend a ground-based briefing to review all new policies, procedures, and security requirements, applicable to flight attendant duties that have been implemented since the last time the flight attendant completed recurrent training. The briefing must be conducted by a knowledgeable person employed by the certificate holder. The briefing must include all policies, procedures, and security requirements applicable to flight attendants that have been updated, modified, or implemented since the person last served as a flight attendant for that certificate holder.

(c) *Phase III Requalification program.* If 24 months or more have elapsed since the end of the person's base month for recurrent training, the person may be requalified by completing the requirements of this paragraph. The flight attendant's recurrent base month may be changed to correspond to the month in which the Phase III requirements were completed.

(1) New hire training, transition training, emergency training, and differences training, as applicable, as described in § 121.1301.

(2) The flight attendant must receive 5 hours of aircraft operating experience and two operating cycles on at least one aircraft type in accordance with the Phase III Requalification requirements in the Flight Attendant QPS.

(3) The Administrator determines the number of programmed hours required for each training category, but in no case will the programmed hours be less than the minimum hours required in the Flight Attendant QPS.

Check Flight Attendant Qualification

§ 121.1321 Check flight attendant: Eligibility, approval, qualification, and continuing qualification.

(a) *Eligibility for Training.* To be eligible for training as a check flight attendant for an aircraft type, a person must meet the following requirements:

(1) Have served as a flight attendant for at least the previous 12 months for the part 119 certificate holder.

(2) Be current and qualified to serve as a flight attendant on that aircraft type for the part 119 certificate holder.

(b) *Approval by the Administrator.* A check flight attendant must be approved by the Administrator for the specific duties to be performed on the aircraft type. To be approved as a check flight attendant, the flight attendant must meet the following requirements:

(1) Continue to meet the requirements of paragraph (a) of this section.

(2) Complete the check flight attendant training requirements in accordance with § 121.1381.

(c) *Initial qualification.* No certificate holder may use any person, nor may any person serve, as a check flight attendant for the first time on the aircraft type, unless the person meets the following requirements for the part 119 certificate holder:

(1) Meets the requirements of paragraphs (a) and (b) of this section.

(2) Supervises operating experience for at least one operating cycle on the aircraft type under the observation of a check flight attendant or an FAA inspector. The person undergoing operating experience must be signed off by the check flight attendant or the FAA inspector conducting the observation.

(3) Meets the recent experience requirements of § 121.1307(a) to serve as a flight attendant.

(d) *Continuing qualification.* No certificate holder may use a check flight attendant, nor may any check flight attendant serve as a check flight attendant, unless the check flight attendant meets the following requirements for the part 119 certificate holder:

(1) Maintains approval by the Administrator to perform specific duties of a check flight attendant, as specified in paragraph (b) of this section.

(2) Meets the recent experience requirements of § 121.1307(a) to serve as a flight attendant.

(3) Within the preceding 12 months, has completed recurrent check flight attendant training in accordance with § 121.1381(c)(1) and (c)(3).

(4) Within the preceding 12 months, has completed at least one operating cycle as a flight attendant or check flight attendant on that aircraft type.

(5) Within the preceding 12 months, supervised aircraft operating experience for at least one operating cycle.

(e) *Reestablishing recent experience.* If the requirements of paragraphs (d)(4) or (d)(5) of this section are not met, the person may not serve as a check flight attendant until the person is observed supervising aircraft operating experience in the aircraft type for at least one cycle by another check flight attendant or an FAA inspector.

§ 121.1323 Check flight attendant: Initial cadre.

(a) A certificate holder may use a person as a check flight attendant even though the person does not meet the experience or recency requirements of the subpart, if the person meets the initial cadre requirements of this section. The FAA will determine the period of initial cadre status and may terminate initial cadre status entirely or for an individual check flight attendant, if necessary. In no case will initial cadre status exceed a period of 24 months.

(b) To be an initial cadre check flight attendant for a part 119 certificate holder, and to continue to serve in that capacity for the authorized period, a person must meet all of the following requirements:

(1) Be employed by the part 119 certificate holder.

(2) Have served at least 3 years in the past 6 years as a flight attendant on an aircraft of the same group in which the person is to perform duties as an initial cadre check flight attendant.

(3) Have completed the training as specified in § 121.1301(a)(1) through (6), as appropriate.

(4) Be approved by the FAA for the specific duties to be performed.

(c) To be an initial cadre check flight attendant for a part 119 certificate holder, a person must:

(1) Meet all of the requirements of paragraph (b) of this section; and

(2) Perform the duties of a check flight attendant for the new part 119 certificate holder or a certificate holder transitioning to a new aircraft type under the observation of an FAA inspector. This observation check can be conducted during operations under this part or during proving flights conducted under part 91 of this chapter. When an observed activity must be made part of a training record, the people undergoing the observed activities must be signed off by the FAA inspector as the evaluator of record.

(d) If the certificate holder wants FAA approval for a person to be an initial cadre check flight attendant but that person has not met the requirements of § 121.1305, he or she can satisfy those requirements by meeting the following:

(1) Being observed by the FAA while supervising other flight attendants, while supervising other check flight attendants, or while performing the duties of a flight attendant; and

(2) During operations conducted under this part or during proving flights conducted under part 91 of this chapter.

(e) Only employees of a part 142 certificate holder, part 119 certificate holder, or the aircraft manufacturer may administer the training and evaluation activities for initial cadre check flight attendants, in accordance with the Flight Attendant QPS and as approved by the FAA. In addition, current and qualified check flight attendants for the part 119 certificate holder that is adding a new aircraft type do not need to meet the observation requirements of paragraph (c)(2) of this section for the new aircraft type.

General Training Program Requirements

§ 121.1331 Training program: General.

(a) Each certificate holder must establish and maintain a current training program for each aircraft type used. Each curriculum in a training program must be kept current with respect to any changes in the requirements of this chapter or the certificate holder's policies and operation. Each certificate holder must obtain initial and final approval of its training program, as specified in § 121.1337.

(b) The training program must contain all of the following:

(1) The requirements of this subpart.

(2) The requirements of the crewmember QPS, as applicable.

(3) The operating procedures for each required task in the crewmember's QPS. These operating procedures are contained in the information, duties, and responsibilities of crewmembers that are contained in the manual required by § 121.133.

(4) For flight crewmembers, the procedures, limitations, and performance information from the Flight Crew Operating Manual required by §§ 121.133 and 121.135.

(c) Each certificate holder is responsible for ensuring that its crewmembers are adequately trained and crewmember training and evaluation is conducted in accordance with the certificate holder's approved training program.

(d) Persons other than employees of the certificate holder may be trained by the certificate holder for the purpose of instructing in the certificate holder's training program, conducting evaluations in the certificate holder's training program, or conducting evaluations of the certificate holder's training program.

(e) A certificate holder's training program must provide the following, as applicable:

(1) Curricula, categories of training, segments of training, modules, and lessons applicable for use for the specific certificate holder as required by this subpart and approved by the Administrator.

(2) A sufficient number of academic and job performance instructors, trained and qualified in accordance with this subpart, to provide the approved training and evaluation.

(3) A sufficient number of check pilots, check flight engineers and check flight attendants, trained and qualified in accordance with this subpart, to complete the training and evaluations required by this subpart.

(4) Flight simulation training devices required by this subpart, qualified under part 60 of this chapter, and approved for use by the Principal Operations Inspector responsible for approving the certificate holder's training program. Flight simulation training devices must be available in sufficient quantity to conduct the training program as approved.

(5) Training equipment other than flight simulation training devices in accordance with § 121.1351. This training equipment must be available in sufficient quantity to conduct the training program as approved.

(6) Adequate academic and job performance training facilities.

(7) Current training materials, examinations, forms, instructions, and procedures for use in conducting the training and evaluation required by this part with respect to each aircraft type, and if applicable, the particular variations within that aircraft type.

(f) No certificate holder may use a person as a crewmember, unless the person responsible for instructing or evaluating an academic training subject or job performance training task or environment, has certified in writing or electronically that the crewmember is knowledgeable and proficient in the specific subject, task, or environment.

(1) The documentation required by this paragraph must be made a part of the crewmember's record required by subpart V of this part.

(i) For flight attendants, the record must show if the individual satisfactorily or unsatisfactorily completed each of the training categories in § 121.1301, as appropriate.

(ii) For flight crewmembers, the record must show if the individual satisfactorily or unsatisfactorily completed each of the training categories in § 121.1221, as appropriate. In addition, the record must show if the individual satisfactorily or unsatisfactorily completed each of the proficiency tests, proficiency checks, or proficiency reviews required by this part. Records of unsatisfactory results must include the specific items for which performance was unsatisfactory.

(2) When the record of certification required by this paragraph is made by an entry in a computerized recordkeeping system, the identity of the certifying instructor, check pilot, check flight engineer, or check flight attendant must be recorded, and the record of the certification must be completed by a means approved by the Administrator.

§ 121.1333 Training program: General curriculum by aircraft type.

(a) Each certificate holder must establish and maintain a current written training program curriculum for each aircraft type operated by that certificate holder under this part. Curricula must be available for each crewmember position required for that aircraft type. Each curriculum must include categories of training with segments containing the appropriate subjects, tasks, and environments required by this subpart and the appropriate QPS. The curriculum will be provided for approval in accordance with paragraphs (c)(1) through (c)(7) of this section.

(b) Each training program curriculum must provide training and evaluation as necessary to ensure that each crewmember:

(1) Remains trained and proficient with respect to each aircraft type, crewmember position, and type of operation in which the crewmember serves.

(2) Remains trained and proficient in the duties and responsibilities for the aircraft type that are contained in the manual required by § 121.133 as outlined in § 121.135.

(3) For each flight crewmember, remains trained and knowledgeable in the current operating limitations, procedures, loading, and performance sections of the current Flight Crew Operating Manual or any FAA approved alternative.

(4) Qualifies in new equipment, facilities, procedures, and techniques, including modifications to aircraft. Pilots must also qualify in designated special airports and navigation routes and areas as required by § 121.1235.

(5) Understands the nature and effects of safety hazards, and for flight crewmembers, periodic weather extremes and their effect on operations.

(6) Knows and is able to apply, through all phases of flight, crew resource management skills identified in the QPS.

(c) Each training program curriculum must include all of the following:

(1) A list of academic training and evaluation modules including the subjects that are provided.

(2) A list of all job performance training and evaluation modules including the tasks and environments. The list must include the level(s) of FSTD in which each job performance task must be performed and in which each environment may be encountered, unless the certificate holder has been granted a deviation from the FSTD requirements of this subpart in accordance with § 121.1345.

(3) Detailed descriptions or pictorial displays of the approved standard operating procedures, abnormal procedures, non-normal procedures, and emergency procedures that will be performed during job performance training and evaluation. For a certificate holder that has been granted a deviation under § 121.1345, detailed descriptions or pictorial displays of the approved normal, abnormal, and emergency maneuvers, procedures, and functions that will be performed during each job performance training module or during each proficiency test, check, or review, indicating those maneuvers, procedures and functions that are to be performed during job performance training and during each proficiency test, check, or review.

(4) An outline of the curriculum that includes academic and job performance training and evaluation modules by subject, task, and environment, as applicable.

(5) Differences that relate to the variations of a particular aircraft type to be included in all academic and job performance training segments for purposes of training and evaluation.

(6) A list of all the FSTD, and other training and evaluation equipment that the certificate holder will use, including approval for particular tasks or functions.

(7) The approved programmed hours for each training segment.

(8) A copy of each statement issued by the Administrator under § 121.1335(c) for reduction of baseline programmed hours.

§ 121.1335 Training program: Category of training programmed hours.

(a) Each certificate holder's training program submitted for initial approval under this subpart must have at least the programmed baseline hours of training as specified in the applicable crewmember QPS. Training programmed hours include training and evaluation.

(1) Academic training hours must be in a classroom provided by the certificate holder unless otherwise approved by the Administrator. Proposals for a training environment other than a classroom provided by the certificate holder must be accompanied by a plan for assessing the knowledge and cognitive skill requirements to be supported by the proposed alternative environment, and for providing the testing of each student to ensure the knowledge and skill requirements are met.

(2) Programmed hours for flight crewmember job performance training are for FSTD lessons for a specific duty position.

(3) Programmed hours for flight attendant job performance training must be completed in an environment that complies with the requirements of the Flight Attendant QPS.

(b) The certificate holder must have programmed hours approved by the Principal Operations Inspector. A certificate holder may apply for a reduction of training programmed hours based on the factors outlined in § 121.1337(f). The Administrator will not approve a reduction of programmed hours below the minimum hours set forth in the applicable crewmember QPS.

(c) If approval of a reduction in training programmed hours is granted, the Administrator provides the certificate holder with a statement of the basis for the approval.

(d) The Administrator may grant a deviation to certificate holders described in § 135.3 (b) and (c) of this chapter to allow reduced programmed hours of academic training if the Administrator determines that a reduction is warranted based on the certificate holder's operations and the complexity of the make, model, and series of the aircraft used.

(e) The certificate holder must have the required programmed hours approved by the Principal Operations Inspector for initial, transition, and recurrent academic training for flight instructors, check pilots, check flight engineers, check flight attendants, flight attendant instructors, and persons authorized to conduct flight attendant proficiency checks.

§ 121.1337 Training program: Approval and amendment process.

(a) Each training program described in this subpart must be approved by the Administrator. To obtain initial or final approval of a training program, or to request a revision to an approved training program, each certificate holder must provide the Administrator the following information in a form acceptable to the Administrator:

(1) An outline of the proposed program or revision, including an outline of the proposed or revised curriculum required in § 121.1333, that provides all of the information needed for a preliminary evaluation of the proposed training program or revised training program.

(2) Curricula, categories of training, and segments of training applicable for use by the certificate holder as required by this subpart.

(3) The number of academic and job performance instructors trained and qualified in accordance with this subpart to provide the approved training and evaluation.

(4) The number of check pilots, check flight engineers, and check flight attendants, trained and qualified in accordance with this subpart to conduct the required evaluations.

(5) A list of the FSTD that are to be used in the training program.

(6) A list of training equipment, other than FSTD, that is to be used in the training program.

(7) A description of the academic and job performance training facilities.

(8) A synopsis of the materials, examinations, forms, instructions, and procedures to be used for the training and evaluation required by this subpart with respect to each aircraft type, and if applicable, the particular variations within that aircraft type.

(9) A statement as to whether training will be provided by persons other than the part 119 certificate holder's employees in accordance with § 121.1339.

(10) A copy of the Flight Crew Operating Manual and Flight Attendant Operating Manual for each aircraft type to be included in the training program. The Flight Crew Operating Manual and Flight Attendant Operating Manual must be current at the time of submission. Amendments must be made as required.

(11) A copy of the current manual required by § 121.133 as outlined in § 121.135.

(12) Additional relevant information requested by the Administrator.

(b) If the proposed training program or proposed revision complies with this subpart, the Administrator grants initial approval in writing, after which the certificate holder may conduct the training and evaluation in accordance with that program. The Administrator then evaluates the effectiveness of the initially approved training program and advises the certificate holder of any deficiencies that must be corrected.

(c) A revision to an approved training program may be proposed as a special training category that reflects changes to

the certificate holder's operation, or as a differences training category that reflects differences in configuration within an aircraft type.

(1) The proposed special training category will include modules of training and evaluation for training segments within existing training categories. These modules will be initially approved and evaluated. Upon satisfactory evaluation, the special training category modules will receive final approval and be integrated into the training segments of the existing training categories. Once integrated, it will no longer be called a special training category, but will be part of the approved training program. The Principal Operations Inspector will determine the number of programmed hours.

(2) The proposed differences training category will include modules of training and evaluation for applicable segments of training. These modules will be initially approved, evaluated and upon satisfactory evaluation, added to the previously approved differences training. The Principal Operations Inspector will determine the number of programmed hours.

(d) The Administrator grants final approval of a training program if the certificate holder shows that the training and evaluation conducted under the initial approval obtained under paragraph (b) of this section ensures that each person who completes the training and evaluation is adequately trained to perform his or her assigned duties.

(e) The Administrator may require revisions to an approved training program anytime the FAA finds that revisions are necessary in the interest of safety or security. If the FAA finds that revisions are necessary for the continued adequacy of a training program that has been granted initial or final approval, the certificate holder must, after notification by the FAA, make all changes in the program that the FAA finds necessary.

(1) Within 30 days after the certificate holder receives a notice to revise the program, it may file a petition with the Director of Flight Standards to reconsider the notice. The filing of a petition to reconsider stays the notice pending a decision by the Director of Flight Standards.

(2) If the FAA finds that there is an emergency that requires immediate action in the interest of safety or security, the FAA may, upon a statement of the reasons, require a change effective without stay.

(f) The Administrator considers the following factors in approving revisions or requiring revisions to a training program:

(1) The pass and fail rate in the curriculum under consideration.

(2) The quality and effectiveness of the teaching-learning process (e.g., quality of instructors, training equipment, methods, and procedures listed in the certificate holder's curriculum required by § 121.1333).

(3) The experience levels of the student population.

(4) The experience levels of the instructors and check persons.

(5) The type and scope of operations conducted by the certificate holder.

(6) The complexity of make, model, and series of aircraft used.

§ 121.1339 Training program: Special rules.

A certificate holder may contract with, or otherwise arrange to use the services of, another certificate holder certificated under part 119 of this chapter or a training center certificated under part 142 of this chapter as allowed by this subpart if all of the following conditions are satisfied:

(a) The curriculum, categories of training, segments, modules, lessons, programmed hours, manuals, and checklists are approved by the Administrator of the certificate holder seeking training services in accordance with this subpart.

(b) The facilities, personnel, FSTD, other training equipment, and courseware meet the applicable requirements of this subpart.

(c) The instructors and check persons selected by the certificate holder must meet the following criteria:

(1) Qualified under this subpart.

(2) Approved by the Administrator for specific training and evaluation duties.

§ 121.1341 Training program: Administering training, evaluation, and operating experience.

(a) No certificate holder may use a person to administer, nor may any person administer, training, evaluation, or operating experience, except:

(1) In accordance with this section; or

(2) If applicable, as provided in the initial cadre requirements of §§ 121.1257 and 121.1323.

(b) Persons who administer academic or job performance training must be knowledgeable in the facilities, equipment, and procedures.

(c) Persons who administer academic training, job performance training, or evaluation must use only the equipment and the facilities that are specifically approved for the certificate holder's training program.

(d) Training and evaluation for crewmembers must be administered as follows:

(1) In accordance with this subpart, including the appropriate QPS.

(2) In accordance with the approved training program.

(e) Operating experience for crewmembers and observation of check pilots, check flight engineers, check flight attendants, and aircrew program designees must be administered as follows:

(1) In accordance with this subpart, including the appropriate QPS.

(2) In accordance with the approved training program.

(f) Training and evaluation activities must be administered by the persons listed in the appropriate QPS.

(g) For flight crewmembers, the certificate holder must maintain a record of failures of proficiency tests, proficiency checks, and proficiency reviews. This record must be maintained for a period of 2 years.

(h) Credit will not be given for any training, evaluation, observation, or supervision activities when the certificate holder—

(1) Uses facilities, equipment, and materials that are not specifically approved for that activity as part of the certificate holder's approved training program; or

(2) Uses persons to administer the activity who are not authorized in accordance with the applicable crewmember QPS or who do not meet the requirements of this subpart.

(i) A person will not be given credit for completing a proficiency test or proficiency check if the person did not complete all required portions of the training curriculum before taking the proficiency test or proficiency check.

§ 121.1343 Training program: Knowledge and comprehension assessment.

(a) The certificate holder must develop a knowledge and comprehension assessment program that is approved by the Administrator as part of the approved training program. The knowledge and comprehension assessment program must include development and maintenance of the examination, methods to establish the validity of the examination, required student remediation, and adjustment of instruction when required.

(b) The QPS provides job tasks and related areas of required instruction. Each area of instruction is provided with subjects that must be trained and evaluated. A knowledge and comprehension assessment examination must include the minimum number of questions indicated in the QPS for each

subject. Students must achieve a performance of 100% in each area of instruction. Student performance of at least 80% in an area of instruction must be corrected to 100%, but the student is not required to undergo retraining and reevaluation. Student performance below 80% in an area of instruction must be corrected to 100% after the student is retrained and reevaluated in each area of instruction where the student missed one or more questions.

(c) An examination question repository must be developed to include a minimum number of questions for each subject, as required by the QPS.

(d) The certificate holder must use the repository to create tests that allow random selection of questions from which alternative examinations will be created.

(e) The certificate holder must ensure that each student receives a different test each time the student is tested on an area of instruction.

§ 121.1345 Training program: Mandatory use of flight simulation training devices.

(a) All flight training and evaluation must be completed in FSTD approved by the Administrator in accordance with the applicable Pilot or Flight Engineer QPS. No credit will be given in the QPS for training and evaluation conducted in an aircraft.

(b) A certificate holder may request a deviation from paragraph (a) of this section to conduct training and evaluation activities in an aircraft only if one of the following applies:

(1) The certificate holder has an approved program or has submitted a training program for review and approval prior to [date 120 days after publication of final rule]. The certificate holder must request the deviation no later than [date 40 months after the publication date of the final rule].

(2) The certificate holder requests the deviation as part of a request for approval of an initial cadre program. If approved, the deviation will become effective at the same time as the initial cadre program.

(c) Deviation requests must be submitted to the FAA for review and approval, and must include:

(1) The number of FSTD training hours the certificate holder's flight crewmembers would need to meet the training requirements in this part.

(2) An FSTD availability assessment, including hours by specific FSTD and location of the FSTD.

(3) An FSTD shortfall analysis that includes the tasks and environments that cannot be completed in an FSTD qualified at the level specified in the applicable QPS.

(4) Proposed alternative means to address the shortfall in task and environment training and evaluation. The requester must identify the tasks and environments the requester believes:

(i) Can be completed in an FSTD qualified at a lower level than that specified in the applicable QPS.

(ii) Can be completed in the aircraft.

(5) An alternative training program for using the airplane instead of an FSTD or using an airplane in combination with an FSTD, including methods of achieving an acceptable level of safety.

(d) A certificate holder may request an extension of a deviation issued under this section.

(e) Deviations or extensions to deviations will be issued for a period not to exceed 12 months.

§ 121.1347 Training program: Qualification and approval of flight simulation training devices.

(a) Each aircraft flight simulation training device used in an approved training program required under this part must be evaluated, qualified, and maintained in accordance with part 60 of this chapter and approved by the Administrator for training or evaluating tasks required by the applicable QPS.

(b) The qualification level of the FSTD required to be used by an applicant to demonstrate flight crewmember task proficiency is specified in the applicable QPS.

(c) The level of FSTD that may be used for initial training and evaluation is dependent on the pilot's experience requirements as specified in the Pilot QPS.

§ 121.1349 Training program: Limitations on the use of flight simulation training devices.

(a) An FSTD may not be used for credit for the following:

(1) The pilot-in-command line check required by § 121.1233.

(2) Exterior preflight checks.

(3) The pilot and flight engineer operating experience required by § 121.1225.

(4) Consolidation required by § 121.1227.

(b) To receive credit for training and evaluation of required tasks and LOFT, the flight crewmember must complete these activities in FSTD that are approved for those tasks and LOFT as part of the certificate holder's training program.

§ 121.1351 Training program: Training equipment other than flight simulation training devices.

Training equipment, other than FSTD qualified under part 60 of this chapter, used in an approved training program required under this part must be approved and used in accordance with the following:

(a) The FAA must approve training equipment used to functionally replicate aircraft equipment or furnishings for the certificate holder and the crewmember duty or procedure involved.

(b) The certificate holder must demonstrate that the training equipment meets all of the following:

(1) The form, fit, function, and weight, as appropriate, of the equipment as installed in the aircraft, including all equipment and furnishings that may affect the operation of that equipment.

(2) Normal operation (and abnormal and emergency operation, if appropriate) including the following:

(i) The required force and travel of the equipment.

(ii) Variations in equipment operated by the certificate holder, if applicable.

(3) Operation of the equipment under adverse conditions, if appropriate.

(c) Training equipment must be modified to ensure that it maintains the performance and function of the aircraft type or aircraft equipment replicated.

(d) All training equipment must have a discrepancy log in close proximity. The discrepancy log must be readily available for review by each instructor or check person prior to conducting training or evaluation with that equipment.

(1) Each instructor or check person conducting training or evaluation, and each person conducting an inspection of the equipment who discovers a discrepancy, including any missing, malfunctioning, or inoperative components, must write or cause to be written a description of that discrepancy into the discrepancy log at the end of the inspection or the training session.

(2) All corrections to discrepancies must be recorded when the corrections are made, and the dates of the discrepancies and corrections must be recorded.

(3) A discrepancy log must be maintained for at least 60 days.

(e) No person may use, allow the use of, or offer the use of training equipment with a missing, malfunctioning, or inoperative component to meet the crewmember training or evaluation requirements of this chapter for tasks that require the use of the correctly operating component.

§ 121.1353 Training program: Line Oriented Flight Training (LOFT) and Flight Simulation Training Device (FSTD) Course of Instruction.

(a) *Line Oriented Flight Training (LOFT).* Qualification and recurrent

LOFT must meet the following requirements:

(1) The LOFT must be administered by a pilot flight instructor or a check pilot qualified in accordance with this subpart. A flight engineer flight instructor or a check flight engineer may assist the pilot flight instructor or check pilot.

(2) LOFT must be accomplished in an FFS that is qualified in accordance with part 60 of this chapter and that has the qualification level specified in the applicable QPS.

(3) Each LOFT must include at least two operating cycles. Each cycle must be representative of the certificate holder's operation.

(4) LOFT must be conducted with a complete flight crew, with each duty position filled by a person who is qualified or in student status to serve in that duty position.

(5) LOFT must be conducted as a line operation without interruption by the instructor during the session, except for a non-disruptive acceleration of uneventful en route segments.

(6) Any person serving in a flight crewmember position during a LOFT who does not perform satisfactorily, may not serve as a required crewmember in operations under this part without receiving training to correct the deficiencies and demonstrating that the deficiencies have been corrected. The training must occur during a separate training session.

(7) The LOFT must include at least 4 hours of training. For pilots, 2 hours of the training must be with the pilot flying and 2 hours of the training must be with the pilot monitoring, plus briefing(s) before or after the training.

(b) *Flight Simulation Training Device (FSTD) Course of Instruction.*

(1) An FSTD course of instruction must be administered by a pilot flight instructor or a check pilot qualified in accordance with this subpart. A flight engineer flight instructor or a check flight engineer may assist the pilot flight instructor or check pilot.

(2) An FSTD course of instruction must be accomplished in an FFS or FTD that is qualified in accordance with part 60 of this chapter and that has the qualification level specified in the applicable QPS.

(3) An FSTD course of instruction must be conducted with a complete flight crew, with each duty position filled by a person who is qualified or in student status to serve in that duty position.

(4) Any person serving in a flight crewmember position during an FSTD course of instruction who does not perform satisfactorily, may not serve as a required crewmember in operations under this part without receiving training to correct the deficiencies and demonstrating that the deficiencies have been corrected. The training must occur during a separate training session.

(5) An FSTD course of instruction must provide an opportunity to practice the tasks and operate in the environments addressed in the pilot QPS, and to demonstrate or practice tasks identified as areas of concern related to fleet operations, route structure, environmental conditions, aircraft type operations, or other circumstances.

(6) An FSTD course of instruction must include at least 4 hours of training. For pilots, 2 hours of the training must be with the pilot flying and 2 hours of the training must be with the pilot monitoring, plus briefing(s) before or after the training.

§ 121.1355 Training program: Continuous analysis process.

(a) Each certificate holder must establish and maintain a process for the continuous analysis of the performance and effectiveness of its training program and operation that will allow the certificate holder the ability to evaluate the effectiveness of the training program. This process must:

(1) Incorporate procedures to ensure that the training program and the standards of qualification for each duty position are documented, and provide a means for updating as changes are required.

(2) Provide for the review of training program content, application, and results through semiannual standardization meetings for each aircraft type.

(3) Continually measure and monitor the outcome of the training program in terms of crewmember's performance and qualification, and provide a means to identify and correct deficiencies in the crewmember performance and qualification and in the training program and operation. Procedures must include correction of deficiencies by the certificate holder(s) or by persons providing training and evaluation in the certificate holder's training program and operation.

(b) The FAA will notify the certificate holder in writing when it finds that the continuous analysis process described in paragraph (a) of this section does not contain adequate procedures and standards to meet the requirements of this section. The certificate holder must make any changes that are necessary to meet the requirements of this section.

(c) A certificate holder may petition the FAA to reconsider the notice to make a change to the continuous analysis process. The petition must be filed with the FAA certificate holding district office charged with the overall inspection of the certificate holder's operations within 30 days after the certificate holder receives the notice. Except in the case of an emergency requiring immediate action in the interest of safety, the filing of the petition stays the notice pending a decision by the FAA.

Training Category Requirements

§ 121.1361 Training category requirements: Standards used in academic and job performance training segments.

The certificate holder must include the training, evaluation, and qualification requirements set forth in the applicable QPS for academic and job performance training segments.

§ 121.1363 Training category requirements: Crewmember new hire.

(a) Each training program must include new hire training for all of the following:

(1) Each person who is qualifying for the first time as a pilot or flight engineer for the certificate holder.

(2) Each person who is qualifying for the first time as flight attendant for the certificate holder.

(3) Each person who is required to complete Flight Attendant Phase III Requalification training in accordance with § 121.1309(c) and the Flight Attendant QPS.

(b) The content of the new hire training category must include the following:

(1) The subjects required in the applicable QPS.

(2) A knowledge and comprehension assessment of the new hire training subjects administered in accordance with the applicable QPS.

§ 121.1365 Training category requirements: Pilot and flight engineer initial, conversion, transition, and upgrade, academic and job performance training.

(a) *Academic training.* Initial, conversion, transition, and upgrade academic training segments for flight crewmember must include training in all of the subjects specified in the applicable QPS for a flight crewmember's assigned duties.

(b) *Job performance training.* Initial, conversion, transition, and upgrade job performance training segments for pilots and flight engineers must include all of the following:

(1) Training and evaluation in the tasks and environments set forth in the applicable QPS. Following training, the pilot or flight engineer must

demonstrate the knowledge and skills required for the aircraft type and duty position. The demonstration must be accomplished by a proficiency test that also may be used for airman certification or type rating. This proficiency test must be conducted by a check pilot, a check flight engineer, a pilot APD, or a flight engineer APD, as appropriate, who is an employee of the certificate holder and who is a line qualified pilot or line qualified flight engineer, as appropriate, for the certificate holder.

(2) Qualification LOFT is conducted after a person completes the proficiency test at the end of initial, conversion, transition, or upgrade training. Qualification LOFT must meet the requirements of § 121.1353 and must contain at least two operating cycles with routes and airports approved by the Principal Operations Inspector. These cycles must meet the following requirements:

(i) One cycle contains normal line operations and the other cycle contains abnormal, non-normal, and emergency flight operations.

(ii) The pilot in command and second in command share pilot flying and pilot monitoring duties during each cycle.

(c) A pilot or flight engineer is qualified after completing the proficiency test prescribed in paragraph (b)(1) of this section and the Qualification LOFT.

§ 121.1367 Training category requirements: Pilot and flight engineer recurrent academic, recurrent job performance, and recurrent aircraft emergency equipment training.

(a) Each recurrent academic training module must include:

(1) Training in the subjects prescribed in the applicable QPS for the training category last completed.

(2) A knowledge and comprehension assessment of the flight crewmember's knowledge of the subjects in which training has occurred.

(b) Each recurrent job performance training module must include at least 8 hours for pilots, and at least 4 hours for flight engineers, of job performance training in the tasks and environments, and at the intervals specified in the applicable QPS. The FSTD used must be qualified in accordance with part 60 of this chapter and approved at the level required by the applicable QPS. This job performance training must:

(1) Include a recurrent LOFT or an FSTD course of instruction as prescribed in § 121.1353 addressing the applicable tasks and environments in accordance with the applicable QPS. The first recurrent job performance training module following the proficiency test required by § 121.1365(b)(1) must include a recurrent LOFT. Subsequent 9-month recurrent job performance training modules may include either a recurrent LOFT or an FSTD course of instruction. After the second recurrent job performance training module, neither the recurrent LOFT nor the FSTD course of instruction may be repeated in 2 successive 9-month recurrent job performance training modules.

(2) Include a proficiency test, a proficiency check, or a proficiency review addressing the applicable tasks and environments in accordance with the applicable QPS. The first recurrent job performance training module following the proficiency test required by § 121.1365(b)(1) must include a proficiency test. Subsequent 9-month recurrent job performance training modules may include a proficiency test, a proficiency check, or a proficiency review. After the second job performance training module, a proficiency review may not be repeated in 2 successive 9-month recurrent job performance training modules.

(3) Be conducted with a complete flight crew. Each person assigned a duty position in the FSTD must be qualified to serve in that duty position in the aircraft.

(c) Each recurrent aircraft emergency equipment training drill must be completed once every 36 months.

§ 121.1369 Training category requirements: Flight attendant initial and transition training.

Initial and transition training for flight attendants must include all of the following:

(a) Training in the subjects and tasks specified in the Flight Attendant QPS.

(b) A test of the flight attendant's knowledge with respect to the aircraft and crewmember duty position.

(c) Practice in the performance of specific tasks in accordance with the Flight Attendant QPS to determine ability to perform assigned duties and responsibilities for each aircraft type on which the flight attendant is to serve.

(d) For newly hired flight attendants, the initial training required by this section may not begin until the new hire training required by § 121.1363 is complete.

§ 121.1371 Training category requirements: Flight attendant eligibility for transition training.

No person is eligible for flight attendant transition training unless that person has been qualified for at least 180 days and served in the previous 180 days on an aircraft as a flight attendant for that certificate holder.

§ 121. 1373 Training category requirements: Flight attendant emergency training.

Each emergency training program given after new hire training and initial training must include the following:

(a) The emergency training requirements as specified in the Flight Attendant QPS with respect to each aircraft type, model, and configuration, and each kind of operation conducted by the certificate holder.

(b) A test of the flight attendant's knowledge with respect to the aircraft type and crewmember duty position involved.

(c) Completion of proficiency tests to determine the flight attendant's ability to perform assigned duties and responsibilities for each aircraft type on which the flight attendant is to serve.

§ 121.1375 Training category requirements: Flight attendant recurrent training.

Recurrent training for flight attendants must include the following:

(a) Training in the subjects and tasks specified in the Flight Attendant QPS.

(b) A test of the flight attendant's knowledge with respect to the aircraft type and crewmember duty position involved.

(c) Completion of proficiency tests in accordance with the Flight Attendant QPS to determine the flight attendant's ability to perform assigned duties and responsibilities for each aircraft type on which the flight attendant is to serve.

§ 121.1377 Training category requirements: Flight instructor initial, transition, and recurrent academic training.

(a) *Initial flight instructor academic training.* A 4-hour block of instruction that includes the following:

(1) Training policies and procedures.

(2) Flight instructor duties, functions, and responsibilities.

(3) Appropriate provisions of the regulations of this chapter and the certificate holder's policies and procedures.

(4) The appropriate methods, procedures, and techniques for conducting flight instruction.

(5) Proper evaluation of student performance including the detection of the following:

(i) Improper or insufficient training.

(ii) Student behaviors that could adversely affect safety.

(6) The corrective action in the case of unsatisfactory training progress.

(7) The approved methods, procedures, and limitations for instructing in the required standard

operating procedures, abnormal procedures, non-normal procedures, and emergency procedures applicable to the aircraft.

(8) Except for holders of a flight instructor certificate, the following:

(i) The fundamental principles of the teaching-learning process.

(ii) Teaching methods and procedures.

(iii) The instructor-student relationship.

(9) Use of FSTD for training and evaluation.

(i) Operation of FSTD controls.

(ii) FSTD limitations.

(iii) Minimum FSTD equipment required for each task and environment.

(b) *Transition flight instructor academic training.* Transition academic training for flight instructors must include the approved methods, procedures, and limitations for instructing in the required standard operating procedures, abnormal procedures, non-normal procedures, and emergency procedures applicable to the aircraft to which the flight instructor is transitioning.

(c) *Recurrent flight instructor academic training.* The recurrent flight instructor academic training must be a 4-hour block of instruction completed every 18 months and must include the following:

(1) The subjects required in paragraph (a) of this section, if applicable.

(2) FSTD operations, limitations, and minimum required equipment.

(3) Changes in crewmember qualification curricula.

§ 121.1379 Training category requirements: Flight instructor initial and transition job performance training.

Initial and transition job performance training for flight instructors must include training to ensure competence in conducting flight instruction as required by this part and the applicable QPS.

(a) For pilot flight instructors, the methods for conducting the required training from either pilot seat and the instructor's operating station (IOS), as well as the operation of the FSTD from the IOS or either pilot seat if the FSTD is so equipped.

(b) For flight engineer flight instructors, the methods for conducting the required training from the IOS, as well as the operation of the FSTD from the IOS.

§ 121.1381 Training category requirements: Check pilot, check flight engineer, or check flight attendant initial, transition, and recurrent academic training.

(a) The initial academic training for check pilots, check flight engineers, or check flight attendants must include the following:

(1) Evaluation policies and procedures.

(2) Check pilot, check flight engineer, or check flight attendant duties, functions, and responsibilities, as applicable.

(3) The applicable regulations of this chapter and the certificate holder's policies and procedures.

(4) The appropriate methods, procedures, and techniques for conducting the required evaluations.

(5) Proper evaluation of student performance including the detection of:

(i) Improper or insufficient training; and

(ii) Student behaviors that could adversely affect safety.

(6) The appropriate action in the case of unsatisfactory performance.

(7) The approved methods, procedures, and limitations for performing the required standard operating procedures, abnormal procedures, non-normal procedures, and emergency procedures applicable to the aircraft type.

(8) FSTD and other training equipment, as applicable, operations, limitations, and minimum equipment required for tasks and environments.

(b) The transition academic training for check pilots, check flight engineers, or check flight attendants must include approved methods, procedures, and limitations for performing the required standard operating procedures, abnormal procedures, non-normal procedures, and emergency procedures applicable to the aircraft type to which the check person is transitioning.

(c) The recurrent academic training for check pilots and check flight engineers must be completed every 18 months. The recurrent academic training for check flight attendants must be completed every 12 months. The recurrent academic training for check pilots, check flight engineers, and check flight attendants must include the following:

(1) The subjects required in paragraph (a) of this section, as applicable.

(2) FSTD and other training equipment, as applicable, operations, limitations, and minimum equipment required for tasks and environments.

(3) Changes in crewmember qualification curricula.

§ 121.1383 Training category requirements: Check pilot and check flight engineer initial, transition, and recurrent job performance training.

Initial, transition, and recurrent job performance training for check pilots and check flight engineers must include the following:

(a) Training to ensure competence in conducting job performance evaluation in each of the tasks specified in the applicable QPS.

(b) Each check pilot must have completed the following:

(1) The requirements for qualification and training for flight instructors described in § 121.1379(a).

(2) Training on the methods for conducting required evaluations in an FSTD, including conducting the evaluation from either pilot seat and from the IOS, as well as operation of the FSTD from the IOS or either pilot seat if the FSTD is so equipped.

(c) Check pilots authorized to conduct operating experience or line checks, must do the following in an FSTD:

(1) Learn the safety measures to be taken from either pilot seat for emergency situations that are likely to develop during flight operations.

(2) Learn the potential consequences of improper, untimely or unexecuted safety measures during flight operations.

(3) Complete the seat dependent task training described in the QPS.

(d) Each check flight engineer must have been trained on the methods for conducting the flight engineer evaluation described in paragraph (a) of this section in an FSTD from either the IOS or a flight engineer operating station if the FSTD is so equipped.

§ 121.1385 Qualification requirements: Check pilots authorized to conduct line checks.

Prior to authorizing a person to become a check pilot authorized to conduct line checks from one of the pilot operating seats, the person must, initially, and thereafter once each 24 months, complete the following qualification requirements:

(a) At least two operating cycles in the aircraft during line operations, one operating cycle in each pilot seat, under the supervision of a check pilot authorized to conduct operating experience and line checks, who must occupy the opposite pilot seat.

(b) At least one operating cycle in the aircraft during line operations under the supervision of an FAA inspector or an APD designated to conduct the observation of a check pilot conducting PIC line checks.

§ 121.1387 Training category requirements: Initial, transition, and recurrent academic training for persons authorized to administer flight attendant proficiency tests.

(a) Initial academic training instruction for persons authorized to administer flight attendant proficiency tests must include the following:

(1) Training policies and procedures.

(2) Duties, functions, and responsibilities of persons authorized to administer flight attendant proficiency tests.

(3) The applicable regulations of this chapter and the certificate holder's policies and procedures.

(4) The appropriate methods, procedures, and techniques for conducting the required checks.

(5) Proper evaluation of student performance including the detection of—

(i) Improper and insufficient training; and

(ii) Student behaviors that could adversely affect safety.

(6) The appropriate corrective action in the case of unsatisfactory tests.

(7) The approved methods, procedures, and limitations for instructing and evaluating in the required normal, abnormal, and emergency procedures applicable to the aircraft.

(8) Simulator and trainer operations, limitations, and minimum required equipment, as appropriate.

(b) Transition academic training instruction for persons authorized to administer flight attendant proficiency tests must include approved methods, procedures, and limitations for evaluating the required normal, abnormal, and emergency procedures applicable to the aircraft to which the person authorized to conduct proficiency tests is in transition.

(c) The recurrent academic training for persons authorized to administer proficiency tests must be completed every 12 months. Recurrent academic training instruction for persons authorized to administer proficiency tests must include the following:

(1) The subjects, as necessary, required in paragraph (a) of this section.

(2) Simulator and trainer operations, limitations, and minimum required equipment, as appropriate.

(3) Changes in crewmember qualification curricula.

Other Training Requirements

§ 121.1391 Differences training and evaluation.

(a) A difference category of training must be included in each curriculum when the Administrator finds that differences between aircraft of the same type operated by the certificate holder necessitate additional training, evaluation, or both to ensure that each crewmember is adequately trained to perform their assigned duties.

(b) A certificate holder must consider the differences between two or more aircraft of the same type and report such differences to the Administrator with recommendations for the training needed to provide for these differences.

(c) Differences training and evaluation for all variations of a particular aircraft type must be included in paragraph (c)(1) or (c)(2) of this section as follows:

(1) Initial, transition, conversion, upgrade, and recurrent training categories for the aircraft, and flight attendant emergency training curricula for the aircraft if applicable.

(2) Academic and job performance training segments as required for each differences training category.

(d) Differences training and evaluation for crewmembers must consist of at least the following as applicable to their assigned duties and responsibilities:

(1) Each appropriate subject or task required for the academic training segment for the aircraft unless the Administrator finds that particular subjects are not necessary.

(2) Each appropriate maneuver or procedure required for the job performance training segment for the aircraft unless the Administrator finds that particular maneuvers or procedures are not necessary.

(3) The number of programmed hours of academic and job performance training and evaluation determined by the Administrator to be necessary for the aircraft, the operation, and the duty position. The programmed hours required for differences training and evaluation are in addition to other required programmed hours.

29. Add subpart CC of part 121 to read as follows:

Subpart CC—Aircraft Dispatcher Qualifications

General

Sec.

Qualification

General Training Program Requirements

Training Category Requirements

Other Training Requirements

Subpart CC—Aircraft Dispatcher Qualifications

General

§ 121.1401 Applicability.

(a) This subpart provides the following:

(1) Qualification requirements for aircraft dispatchers for certificate holders conducting domestic or flag operations.

(2) Requirements applicable to each certificate holder for establishing, obtaining approval of, and maintaining a training program to qualify certificated aircraft dispatchers and an optional program to certificate aircraft dispatcher candidates.

(b) Any person qualified in a duty position for the certificate holder before [date 120 days after publication of the final rule] or under the provisions of subparts N and O of this part in effect on or before [date 119 days after publication of the final rule] may continue to serve in that duty position for that certificate holder without complying with initial training under § 121.1453.

§ 121.1402 Interim requirements for training programs transitioning from the requirements of subparts N and O.

(a) Contrary provisions of this subpart notwithstanding, a person who has submitted a training program for approval before [date 120 days after publication of the final rule] that was constructed in accordance with the applicable provisions of subparts N and P of this part in effect on or before [date 119 days after publication of the final rule], may complete the approval and implementation process and conduct operations in compliance with the applicable provisions of subparts N and P of this part instead of the provisions of this subpart.

(b) A certificate holder must submit a transition plan to the FAA no later than [date 4 years and 120 days after publication of the final rule]. The transition plan must include the following:

(1) Subpart CC training program(s), as applicable;

(2) Plan for transition for crewmembers and aircraft dispatchers from the applicable provisions of subparts N and P of this part to the provisions of this subpart; and

(3) A transition completion date that is before [date 5 years and 120 days after the publication of the final rule].

(c) During the transition, the certificate holder may use people to conduct operations under this part provided those people are trained under the applicable provisions of subparts N and P of this part, or this subpart. While a certificate holder may simultaneously operate training programs in compliance with the applicable provisions of subparts N and P of this part and this subpart, each aircraft dispatcher must be trained and qualified.

(d) A certificate holder may not use an aircraft dispatcher, nor may an aircraft dispatcher serve, in a duty position unless that person is current and qualified to perform the duties to which he or she is assigned. If more than one aircraft dispatcher is required for an operation, and one aircraft dispatcher is current and qualified in accordance with the applicable provisions of subparts N and P of this part, and the other aircraft dispatcher is current and qualified in accordance with this subpart, then the lesser operating requirements apply for that operation.

§ 121.1403 Certificate holder responsibility for compliance with this subpart.

(a) Each certificate holder is responsible for ensuring that its approved training program, including all portions of the training program that are conducted by individuals other than employees of the part 119 certificate holder, meets the requirements of this subpart.

(b) Each certificate holder is responsible for ensuring that all procedures, manuals, and other materials submitted to obtain initial or final approval of a training program are kept up to date and followed.

§ 121.1405 Definitions.

For the purpose of this subpart, the following terms and their definitions apply:

Base month. The month in which a recurrent activity is due.

Categories of training or training categories. Within a curriculum, categories of training relate to aircraft dispatcher certification requirements, first time qualification for a certificate holder, configuration differences within aircraft type or series, maintaining and regaining qualification, and to changes in operations. Categories include: initial, combined certification and initial, recurrent, requalification, transition, special, and differences.

(1) *Initial training.* A category of training that must be successfully completed to qualify an aircraft dispatcher to serve as an aircraft dispatcher for a certificate holder in operations under this part.

(2) *Combined Certification and Initial training.* An optional category specifically approved under part 121 that integrates an approved certificate holder's initial training category with part 65 requirements. The category allows for both the issuance of an aircraft dispatcher certificate and qualification of the individual to serve as an aircraft dispatcher for the certificate holder. The aircraft dispatcher's certificate is issued under 14 CFR part 65, not part 121.

(3) *Recurrent training.* A category of training that must be successfully completed within the eligibility period to maintain aircraft dispatcher qualification.

(4) *Requalification training.* A category of training that must be successfully completed to restore qualified status to an aircraft dispatcher previously qualified for the certificate holder when qualification is lost due to failure to meet recurrent training requirements.

(5) *Transition training.* A category of training to be completed by an aircraft dispatcher who is presently qualified on an aircraft type in operations under this part for the certificate holder to allow that aircraft dispatcher to serve as an aircraft dispatcher for a different aircraft type.

(6) *Special training.* A category of training necessary to address changes to the certificate holder's operations or to correct deficiencies identified by the certificate holder's continuous analysis process. Special training is temporary and is integrated into the approved training program.

(7) *Differences training.* A category of training on a particular aircraft type and operation when the Administrator finds additional training is necessary before that aircraft dispatcher serves in the same capacity on a particular variation within a series of an aircraft type or a different series within an aircraft type.

Certificate holder. A person certificated under part 119 of this chapter that conducts operations under part 121.

Combined certification and initial training. See definition of *Category of Training.*

Current. Current means satisfying the initial training and evaluation requirements prescribed in § 121.1453 or the recurrent training and evaluation requirements prescribed in § 121.1455, as applicable.

Curriculum. A curriculum is the training agenda to qualify a person for an aircraft dispatcher duty position or a training or evaluation duty position for an aircraft type or operation. The curriculum for each duty position includes categories of training.

Differences training. See definition of *Category of Training.*

Duty Position. A duty position is the position held by an Aircraft Dispatcher that requires unique qualification and currency requirements to serve in operations under this part. The term duty position includes the variations within a position, such as check dispatcher, dispatcher instructor, or dispatch program designee.

Eligibility Period. The eligibility period consists of the month in which the recurrent activity is due (the ''base month''), the month before and the month after (the ''grace month'').

Environment. A combination of external, physical, and surrounding conditions that affect aircraft performance, aircraft and equipment operation, and decisionmaking.

Evaluation. Any testing, checking, or observation activities in which a person's skills and knowledge are assessed by a person authorized to perform that evaluation.

Initial Cadre. The specific persons approved by the FAA for the time frame necessary, not to exceed 24 months, for a new part 119 certificate holder to initiate operations under part 119, or for a current part 119 certificate holder to initiate operations of a new aircraft type

not operated previously or to initiate a new type of operation.

Initial training. See definition of *Category of Training.*

Module. Modules of instruction are subsets of a training segment that include major subject areas for training and evaluation.

Month. Calendar month.

Practical test: The final test required for certification of a person as an aircraft dispatcher.

Proficiency: Demonstrated awareness of existing circumstances, competence in the necessary knowledge and skills, and performance of the relevant task within the operating range of environments to the established standards of performance identified and required by the Aircraft Dispatcher QPS.

Proficiency check. An assessment of dispatcher proficiency during which limited training or practice is allowed. The assessment is of knowledge and skill in tasks to the standards identified and required by the Aircraft Dispatcher QPS.

Proficiency test. An assessment of dispatcher proficiency during which additional training or practice is not allowed. The assessment is of knowledge and skill in tasks to the standards identified and required by the Aircraft Dispatcher QPS.

Programmed hours. The required number of hours (baseline and minimum) set forth in this subpart for categories of training identified and required by the Aircraft Dispatcher QPS.

Qualification Performance Standards (QPS). FAA standards providing all of the tasks, areas of instruction, and evaluation, including activities, procedures, and knowledge needed to certify, qualify, retain currency, and requalify dispatchers for performing in operations under this part. The QPS for dispatchers is part 121 appendix T: Aircraft Dispatcher Qualification Performance Standards.

Qualified. When used in reference to an individual, means an individual who has completed the certificate holder's FAA-approved curriculum under this part and holds an aircraft dispatcher certificate.

Recurrent training. See definition of *Category of Training.*

Requalification training. See definition of *Category of Training.*

Serve. Performing the duties of an aircraft dispatcher, dispatcher instructor, check dispatcher, or dispatch program designee for a certificate holder.

Special training. See definition of *Category of Training.*

Supervised Operating Experience (SOE). Training and other supervised activities conducted for the purpose of demonstrating the ability to perform the duties of an aircraft dispatcher prior to the proficiency test or proficiency check.

Training. Instruction and practice.

Training program. A certificate holder's training curricula, personnel, facilities, equipment, and other resources used to meet the training requirements of this subpart.

Transition training. See definition of *Category of Training.*

§ 121.1407 English language requirement.

No certificate holder may use any person, nor may any person serve, as an aircraft dispatcher under this part, unless that person has demonstrated to an individual qualified to conduct evaluations under this part, the ability to do the following:

(a) Read, write, speak, and understand the English language.

(b) Have their English language and writings understood.

§ 121.1409 Acceptable time for completing recurrent requirements.

(a) An aircraft dispatcher must complete recurrent training, evaluation or operating familiarization during the eligibility period.

(b) An aircraft dispatcher who has not completed recurrent training by the end of the base month may continue to perform dispatcher duties until the end of the eligibility period.

Qualification

§ 121.1411 Aircraft dispatcher: Employment and certificate.

No certificate holder may use any person, nor may any person serve, as an aircraft dispatcher in domestic or flag operations, unless that person is an employee of the part 119 certificate holder and has in his or her possession an aircraft dispatcher certificate issued to the person by the FAA without limitations, in accordance with part 65 subpart C of this chapter.

§ 121.1413 Aircraft dispatcher: Training and evaluation.

No certificate holder may use any person, nor may any person serve, as an aircraft dispatcher in domestic or flag operations, unless that person meets the following requirements:

(a) *Training and evaluation.* The person has successfully completed, in a training program approved under this subpart for the certificate holder, the following:

(1) Training in accordance with the Aircraft Dispatcher QPS, and the associated programmed hours required by § 121.1435, as follows:

(i) Within the preceding 12 months, initial, combined certification and initial, transition, or recurrent training categories as prescribed in § 121.1453 or § 121.1455 as applicable.

(A) An aircraft dispatcher is eligible for transition training only if the aircraft dispatcher is otherwise qualified as an aircraft dispatcher for the certificate holder on another aircraft type in operations under this part.

(B) To be eligible for recurrent training, an aircraft dispatcher must be otherwise qualified and have successfully completed the initial, combined certification and initial, or transition training for the certificate holder.

(ii) Differences training, if necessary, as prescribed in § 121.1471.

(iii) Requalification training, if necessary, as prescribed in § 121.1419.

(iv) Special training, if necessary, as prescribed in § 121.1437.

(2) A proficiency test or check in accordance with § 121.1453(a)(2), § 121.1453(b)(2), or § 121.1455(c), as applicable.

(3) Supervised operating experience, as prescribed in § 121.1417.

(b) *Continuity of training.*

(1) *Initial for certificated dispatchers.* A certificated aircraft dispatcher must successfully complete all of the required initial training category, including the proficiency test, prescribed in § 121.1453(a)(2) within 120 days of beginning the initial training category.

(2) *Combined certification and initial for non-certificated person.* A non-certificated person must successfully complete all of the required combined certification and initial training category, including the practical test and proficiency test, prescribed in § 121.1453(b)(2) within 180 days of beginning the combined certification and initial category.

(c) *Failure to complete training.* If a person fails to successfully complete the training in the time required by paragraph (b) of this section, the person must repeat the initial training, or combined certification and initial training, as required by paragraph (a) of this section within the time period required in paragraph (b) of this section.

(d) *Operating familiarization.* The person has successfully completed operating familiarization every 12 months in accordance with § 121.1415. For domestic operations, the operating familiarization must be conducted within a geographic area into which the person dispatches. For flag operations, the operating familiarization must be conducted within a flag area of operation for which the person

dispatches in accordance with the Aircraft Dispatcher QPS.

(1) If the person dispatches in either domestic operations or flag operations, but not both, the person must have completed operating familiarization in the type of operation, domestic or flag, and in an aircraft type that the person dispatches within the preceding 12 months.

(2) If the person dispatches in both domestic and flag operations, the person must have completed operating familiarization in both domestic and flag operations in an aircraft type that the person dispatches within the preceding 24 months.

(3) If the person dispatches both propeller driven (including reciprocating powered and turbopropeller powered) and turbojet powered aircraft, the person must have completed operating familiarization in both propeller driven and turbojet powered aircraft within the preceding 24 months.

§ 121.1415 Aircraft dispatcher: Operating familiarization.

(a) Except as provided in paragraphs (b) and (c) of this section, the operating familiarization required by § 121.1413(d) must consist of at least 5 hours of observing operations under this part from the flight deck. This observation must be made from the flight deck or, for airplanes without an observer seat on the flight deck, from a forward passenger seat with headset or speaker. This requirement may be reduced by one hour for each additional takeoff and landing, but the reduction must not exceed 2½ hours.

(b) The requirement of paragraph (a) of this section may be satisfied by observation of simulated flight time during a Line Oriented Flight Training (LOFT) session required by subpart BB of this part. The observation must occur in a Full Flight Simulator (FFS) approved in accordance with part 60 of this chapter for the aircraft type and operation. The actual observed simulated flight time must not be reduced below 5 hours.

(c) If the requirement of paragraph (a) and (b) of this section cannot be met, the certificate holder may request a deviation to complete operating familiarization through a ground training program approved by the Administrator.

(d) A person may serve as an aircraft dispatcher for a new type of operation (domestic or flag) without meeting the requirements of this section for 90 days after the certificate holder introduces a new type of operation.

§ 121.1417 Aircraft dispatcher: Supervised operating experience.

(a) No certificate holder may use any person, nor may any person serve, as an aircraft dispatcher unless that person meets all of the following requirements:

(1) The person has been supervised by a current and qualified dispatcher who meets the experience requirements of § 121.1421(b)(1) through (4).

(2) The person has been supervised for the minimum hours prescribed in the Aircraft Dispatcher QPS for each type of operation (domestic or flag) in which the person serves.

(3) The person has successfully completed a proficiency test or check, as appropriate.

(b) No person is eligible to receive the supervised operating experience required in paragraph (a) of this section unless that person has satisfactorily completed initial, combined certification and initial, requalification training, and operating familiarization, as applicable, in accordance with the requirements listed in the Aircraft Dispatcher QPS.

(c) An aircraft dispatcher administering operating experience may not supervise more than one person at a time.

(d) During the supervised operating experience session, the supervising dispatcher must be the dispatcher of record for each flight dispatched or released.

§ 121.1419 Aircraft dispatcher: Requalification.

(a) No certificate holder may use any person, nor may any person serve, as an aircraft dispatcher if that person has become unqualified by not satisfactorily completing recurrent training, including proficiency checks as required by § 121.1413(a).

(b) To be requalified, the person must complete:

(1) The initial training requirements of § 121.1453(a) in accordance with the Aircraft Dispatcher QPS, including supervised operating experience, operating familiarization, and proficiency test, or

(2) All missed recurrent training modules that were not completed by the end of the person's eligibility period and the additional requirements for the applicable phase of requalification training in accordance with the Aircraft Dispatcher QPS, including all applicable proficiency checks or proficiency tests.

(c) The requalification requirements for each phase must be completed:

(1) Within 60 days of beginning the requalification training; and

(2) Before the end of the applicable phase of requalification.

(d) To qualify for:

(1) *Phase I Requalification.* A person may requalify under the Phase I Requalification program if less than 6 months have elapsed since the end of the person's base month for recurrent training. The aircraft dispatcher's base month for recurrent training does not change.

(2) *Phase II Requalification.* A person may requalify under the Phase II Requalification program if at least 6 months, but less than 12 months, have elapsed since the end of the person's base month for recurrent training. The aircraft dispatcher's base month for recurrent training does not change.

(3) *Phase III Requalification.* A person may requalify under the Phase III Requalification program if at least 12 months, but less than 24 months, have elapsed since the end of the person's base month for recurrent training. The aircraft dispatcher's base month for recurrent training must change to the month in which the requalification proficiency check is successfully completed.

(4) *Phase IV Requalification.* A person may requalify under the Phase IV Requalification program if at least 24 months, but less than 36 months, have elapsed since the end of the person's base month for recurrent training. The aircraft dispatcher's base month for recurrent training must change to the month in which the requalification proficiency check is successfully completed.

(5) *Phase V Requalification.* A person may requalify under the Phase V Requalification program if 36 months or more have elapsed since the end of the person's base month for recurrent training. The aircraft dispatcher's base month for recurrent training must change to the month in which the requalification proficiency test is successfully completed.

§ 121.1421 Dispatcher instructor and check dispatcher: Eligibility, training, and evaluation.

(a) *Dispatcher Instructor.* No certificate holder conducting domestic or flag operations may use any person, nor may any person serve, as a dispatcher instructor in a training program established under this part unless the person meets one of the following:

(1) The person must meet the applicable requirements of § 121.1439 and hold an aircraft dispatcher certificate. The person must maintain aircraft dispatcher currency in accordance with the certificate holder's approved training program. Within the preceding 12 months, the person has

successfully completed an initial training curriculum or a recurrent training curriculum in accordance with § 121.1457.

(2) A person who does not meet the requirements of paragraph (a)(1) of this section, but who is a subject matter expert with specific technical knowledge on a subject may be used to conduct training in the subjects specified in the Aircraft Dispatcher QPS. The subject matter expert must be acceptable to the FAA.

(b) *Check dispatcher.* No certificate holder conducting domestic or flag operations may use any person, nor may any person serve, as a check dispatcher in a training program established under this subpart unless the person has been approved by the FAA and meets the following requirements:

(1) The person meets the applicable requirements of § 121.1439 and holds an aircraft dispatcher certificate. The person must maintain aircraft dispatcher currency in accordance with the certificate holder's approved training curriculum.

(2) The person has performed the duties of an aircraft dispatcher for at least 8 hours within a 24-hour period in the preceding 60 days.

(3) Within the preceding 12 months, the person has successfully completed an initial training curriculum or a recurrent training curriculum in accordance with § 121.1459.

(4) The person has been current and qualified as an aircraft dispatcher for a part 121 domestic or flag operation for at least 3 of the previous 5 years.

§ 121.1423 Dispatch program designee: Eligibility and qualification.

If the certificate holder elects to establish a combined certification and initial training category, the FAA may approve one or more dispatch program designees to represent the FAA for the purpose of issuing aircraft dispatcher certificates.

(a) To be eligible to become a dispatch program designee and to remain qualified to serve as a dispatch program designee, a person must meet the following requirements:

(1) Be an employee of the certificate holder.

(2) Be a check dispatcher in accordance with § 121.1421 and be currently serving as an aircraft dispatcher for the certificate holder for the aircraft type and operation.

(3) Be a designated aircraft dispatcher examiner in accordance with § 183.25 of this chapter.

(4) Conduct a practical test under the observation of the FAA and be designated as a dispatch program designee by the FAA. The person undergoing the practical test for this purpose must be signed off by the FAA inspector as the evaluator of record.

(5) A designee may continue to conduct practical tests if, within the preceding 12 months, the designee has done one of the following under the observation of the FAA:

(i) Conducted a practical test.

(ii) Conducted a proficiency test.

(iii) Conducted a proficiency check.

(b) The dispatch program designee is only approved to perform the duties of a dispatch program designee for the certificate holder.

§ 121.1425 Check dispatcher: Initial cadre.

(a) *Purpose of this section.* This section is used to qualify an initial cadre of check dispatchers in lieu of the experience and recency requirements of §§ 121.1417 and 121.1421. A certificate holder may use a person as a check dispatcher even though the person does not meet the experience or recency requirements of the subpart, if the person meets the initial cadre requirements of this section.

(b) *Duration of initial cadre status.* The FAA will determine the period of initial cadre status, and may terminate initial cadre status for the certificate holder or for an individual check dispatcher, if necessary. In no case will initial cadre status exceed a period of 24 months.

(c) *Eligibility for initial cadre status for check dispatcher.* To be eligible to become an initial cadre check dispatcher for a part 119 certificate holder, and to continue to serve in that capacity for the authorized period, a person must meet all of the following requirements:

(1) Be an employee of the part 119 certificate holder (or applicant).

(2) Have served at least 3 years in the past 6 years as a dispatcher for the aircraft type for which the person is to perform duties as an initial cadre check dispatcher.

(3) Have an aircraft dispatch certificate without restrictions.

(4) Have successfully completed initial, transition, or differences training, as appropriate, as approved by the FAA for the part 119 certificate holder (or applicant) that is required to serve as an aircraft dispatcher.

(5) Have conducted activities for which the person is to perform duties as a check dispatcher under the observation of an FAA inspector. When an observed activity must be made part of a training record, the people undergoing the observed activities must be signed off by the FAA inspector as the evaluator of record.

(6) Be approved by the FAA for the specific duties to be performed.

(d) *Operating experience for initial cadre check dispatchers.*

(1) An initial cadre check dispatcher may receive credit for his or her own operating experience while administering operating experience to another initial cadre check dispatcher.

(2) Initial cadre check dispatchers may obtain operating experience only if at least one of the other initial cadre check dispatchers has:

(i) Experience with the aircraft type on which the person is to perform duties as a check dispatcher or has received training for the aircraft type in accordance with the QPS.

(ii) Experience within the type of operation, domestic or flag, in which the person is to perform duties as a check dispatcher or has the received training for the type of operation in accordance with the QPS.

(e) *Persons authorized to administer training and evaluation.* As approved by the FAA:

(1) Employees of a part 142 certificate holder, another part 119 certificate holder, or the aircraft manufacturer may administer the training for initial cadre check dispatchers.

(2) Only a person who holds an aircraft dispatcher certificate issued under part 65 who is an employee of the part 119 certificate holder, or the FAA, may administer the evaluation for initial cadre check dispatchers.

(3) Check dispatchers who are employees of an existing part 119 certificate holder that is adding a new aircraft type or operation may continue to serve as check dispatchers for the new aircraft type or operation during the initial cadre period.

General Training Program Requirements

§ 121.1431 Training program: General.

(a) Each certificate holder must establish and keep current an aircraft dispatcher training program. Each curriculum in a training program must be current and must be kept current with respect to any changes in the certificate holder's policies, operations, and requirements of this chapter. Each certificate holder must obtain the appropriate initial and final approval of its training program, as specified in § 121.1437.

(b) The aircraft dispatcher training program must address all of the following:

(1) The requirements of this subpart.

(2) The requirements of the Aircraft Dispatcher QPS.

(c) Each certificate holder is responsible for ensuring that its aircraft

dispatchers are adequately trained and that aircraft dispatcher training and evaluation is conducted in accordance with the certificate holder's approved training program.

(d) As part of its training program, a certificate holder must provide to each student, as applicable, the following:

(1) Curricula, categories of training, and segments of training applicable for use by the certificate holder as required by this subpart and approved by the Administrator.

(2) A sufficient number of dispatcher instructors, trained and qualified in accordance with this subpart, to provide the approved training.

(3) A sufficient number of check dispatchers trained and qualified in accordance with this subpart, to complete the applicable evaluation of knowledge and skills in tasks in accordance with the Aircraft Dispatcher QPS.

(4) Adequate training facilities.

(5) Appropriate and current training materials, examinations, forms, instructions, and procedures for use in conducting the training, evaluation, and supervised operating experience required by this part with respect to each aircraft type and operation, and if applicable, the particular variations within that aircraft type.

(e) No certificate holder may use a person as an aircraft dispatcher unless each dispatcher instructor or check dispatcher who is responsible for a training curriculum, training category, or evaluation under this part has certified in writing or electronically the proficiency and knowledge of the individual being trained or evaluated.

(1) The certification required by this paragraph must be made a part of the aircraft dispatcher's record required by subpart V of this part. The record must indicate whether the individual successfully completed each of the training and evaluation requirements for the specific curriculum listed in this paragraph.

(2) When the record of the certification required by this paragraph is made by an entry in a computerized recordkeeping system, the dispatcher instructor or check dispatcher making the certification must be identified with that entry, and the record must be in a form approved by the Administrator.

§ 121.1433 Training program: General curriculum by aircraft type and operation.

(a) Each certificate holder must prepare and keep current a training curriculum for each aircraft type and operation conducted by that certificate holder under this part. The curriculum must be available to each aircraft dispatcher required for that aircraft type and operation. Each curriculum must include the categories of training and the ground training modules required by this subpart and the Aircraft Dispatcher QPS.

(b) Each training category must provide training and evaluation as necessary to ensure that each aircraft dispatcher meets the following requirements:

(1) Maintains proficiency with respect to each aircraft type and operation (domestic and flag operations) in which the aircraft dispatcher serves.

(2) Maintains proficiency in the duties and responsibilities for the aircraft type and operation that are contained in the § 121.133 manual as outlined in § 121.135.

(3) Is trained and knowledgeable as to the current operating limitations sections of the applicable FCOM.

(4) Remains trained and knowledgeable on the procedures and performance sections of the applicable FCOM.

(5) Qualifies in new equipment, facilities, procedures, techniques, computer applications, and technology required to perform the duties of an aircraft dispatcher.

(6) Understands the nature and effects of safety hazards, weather extremes, and the effects of these on operations.

(7) Knows and is able to apply Dispatch Resource Management (DRM) skills identified in the Aircraft Dispatcher QPS.

(c) Each training category must include the following:

(1) The areas of instruction with subjects and the tasks required by the Aircraft Dispatcher QPS.

(2) A list of all equipment used by the certificate holder for training and evaluation.

(3) An outline of the training category that includes ground training and evaluation modules by subject matter.

(4) The approved programmed hours of training that will be applied to each required training category.

(5) Differences that relate to the variations of a particular aircraft type to be included in all ground training modules for purposes of training and evaluation, as applicable.

(6) A copy of each statement issued by the Administrator under § 121.1435 for a reduction of baseline programmed hours of training and evaluation.

(7) A list of qualified instructors and the letter of authorization from the FAA for the check dispatcher and dispatch program designee.

§ 121.1435 Training program: Curriculum programmed hours.

(a) Each certificate holder's training program submitted for initial approval under this subpart must have at least the baseline programmed hours specified in the Aircraft Dispatcher QPS. Programmed hours include training and evaluation.

(b) The Administrator will not approve a reduction in the baseline programmed hours specified in this subpart during the initial approval of training programs. For a training program that has final approval, a certificate holder may apply for a reduction of programmed hours based on the factors outlined in § 121.1437(e). The Administrator will not approve a reduction of programmed hours below the minimum hours in the Aircraft Dispatcher QPS.

(c) When the Administrator approves a reduction in programmed hours, the Administrator will provide the certificate holder with a statement of the basis for the approval.

(d) The Administrator will determine the required programmed hours for the requalification training category as specified in the Aircraft Dispatcher QPS.

§ 121.1437 Training program: Approval and amendment process.

(a) Each training program described in this subpart must be approved by the Administrator. To obtain initial or final approval of a training program, or to request a revision to an approved training program, each certificate holder must provide the Administrator the following information in a form acceptable to the Administrator:

(1) An outline of the proposed program or proposed revision, including an outline of the proposed or revised curriculum required in § 121.1433, that provides all the information needed for a preliminary evaluation of the proposed program or proposed revision.

(2) Curricula, categories of training, and segments of training applicable for use by the certificate holder as required by this subpart.

(3) The number of dispatcher instructors trained and qualified in accordance with § 121.1421(a)(1) to provide the approved training and evaluation, and the number of dispatcher instructors used in accordance with § 121.1421(a)(2), to provide the approved training.

(4) The number of check dispatchers trained and qualified in accordance with this subpart, to complete the evaluations and observations that are required by this subpart.

(5) A description of the ground training facilities.

(6) A synopsis of the materials, examinations, forms, instructions, and procedures to be used for the training and evaluation required by this subpart with respect to each aircraft type, and if applicable, the particular variations within that aircraft type.

(7) A statement as to whether training will be provided by persons other than the certificate holder's employees in accordance with § 121.1439.

(8) A copy of the Flight Crew Operating Manual for each aircraft type to be included in the training program. The Flight Crew Operating Manual must be current at the time of submission. Amendments must be made as required.

(9) A copy of the current § 121.133 manual as outlined in § 121.135.

(10) Documentation of the certificate holder's continuous analysis process established in accordance with § 121.1441.

(11) Additional relevant information required by the Administrator.

(b) If the proposed training program or proposed revision complies with this subpart, the Administrator grants initial approval in writing, after which the certificate holder may conduct the training and evaluation in accordance with that program. The Administrator then evaluates the effectiveness of the initially approved training program and advises the certificate holder of any deficiencies that must be corrected.

(c) A revision to an approved training program may be proposed as a special training category that reflects changes to the certificate holder's operation, or as a differences training category that reflects differences in configuration within an aircraft type.

(1) The proposed special training category will include modules of training and evaluation for training segments within existing training categories. These modules will be initially approved and evaluated. Upon satisfactory evaluation, the special training category modules will receive final approval and be integrated into the training segments of the existing training categories. Once integrated, it will no longer be called a special training category, but will be part of the approved training program. The Principal Operations Inspector will determine the number for programmed hours.

(2) The proposed differences training category will include modules of training and evaluation for applicable segments of training. These modules will be initially approved, evaluated, and upon satisfactory evaluation, added to the previously approved differences training. The Principal Operations Inspector will determine the number of programmed hours.

(d) The Administrator grants final approval of a training program if the certificate holder shows that the training and evaluation conducted under the initial approval obtained under paragraph (b) of this section ensures that each person who completes the training and evaluation is adequately trained to perform his or her assigned duties.

(e) The Administrator may require revisions to an approved training program anytime the FAA finds that revisions are necessary in the interest of safety or security. If the Administrator finds that revisions are necessary for the continued adequacy of a training program that has been granted initial or final approval, the certificate holder must, after notification by the Administrator, make all changes in the program that the Administrator finds necessary.

(1) Within 30 days after the certificate holder receives a notice to revise the program, it may file a petition with the Director of Flight Standards to reconsider the notice. The filing of a petition to reconsider stays the notice pending a decision by the Director of Flight Standards.

(2) If the Administrator finds that there is an emergency that requires immediate action in the interest of safety or security, the Administrator may, upon a statement of the reasons, require a change effective without stay.

(f) The Administrator considers the following factors in approving revisions or requiring revisions to a training program:

(1) The pass and fail rate in the curriculum under consideration.

(2) The quality and effectiveness of the teaching-learning process (e.g., quality of instructors, training equipment, methods, and procedures listed in the certificate holder's curriculum required by § 121.1433).

(3) The experience levels of the student population.

(4) The experience levels of the instructors and check persons.

(5) The type and scope of operations conducted by the certificate holder.

(6) The complexity of make, model, and series of aircraft used.

§ 121.1439 Training program: Administering training and evaluation.

(a) Persons administering training must be acceptable to the FAA.

(b) Persons who administer evaluation must be approved by the FAA and knowledgeable about the certificate holder's facilities, equipment, and procedures.

(c) Persons who administer training or evaluation must use only the equipment and the facilities that are specifically approved for the certificate holder's training program.

(d) Training, proficiency tests, proficiency checks, and practical tests for aircraft dispatchers must be administered in accordance with the Aircraft Dispatcher QPS.

(e) A dispatch program designee or the FAA must administer the aircraft dispatcher practical test.

(f) The certificate holder must report a failure of a proficiency test, practical test, or proficiency check to the FAA.

(g) A proficiency test, proficiency check, or practical test is not successfully completed if the individual did not successfully complete all required portions of the training curriculum before taking the proficiency test, proficiency check, or practical test.

(h) Training and evaluation is not successfully completed, even if the individual successfully completed the activity, when the certificate holder does one of the following:

(1) Uses facilities, equipment, and materials that are not specifically approved for that activity as part of the certificate holder's approved training program.

(2) Uses persons who are not authorized to administer the activity as specified in the Aircraft Dispatcher QPS, or who do not meet the requirements of this subpart.

§ 121.1441 Training program: Continuous analysis process.

(a) Each certificate holder must establish and maintain a process for the continuous analysis of the performance and effectiveness of its training program and operation that will allow the certificate holder the ability to recognize where improvements are needed. This process must:

(1) Incorporate procedures to ensure that the training program and the standards of qualification for each duty position are documented, and provide a means for updating as changes are required.

(2) Provide for the review of training program content, application, and results for each aircraft type and operation.

(3) Continually measure and monitor the outcome of the training program and operation in terms of the aircraft dispatcher's performance and qualification, and provide a means to identify and correct deficiencies in the aircraft dispatcher's performance and qualification and in the training program and operation. Procedures must include correction of deficiencies

by the certificate holder or by persons providing training and evaluation in the certificate holder's training program and operation.

(b) The FAA will notify the certificate holder in writing when it finds that the continuous analysis process described in paragraph (a) of this section does not contain adequate procedures and standards to meet the requirements of this section. The certificate holder must make any changes in the training program that are necessary to meet the requirements of this section.

(c) A certificate holder may petition the FAA to reconsider the notice to make a change in the continuous analysis process. The petition must be filed with the FAA certificate holding district office charged with the overall inspection of the certificate holder's operations within 30 days after the certificate holder receives the notice. Except in the case of an emergency requiring immediate action in the interest of safety, the filing of the petition stays the notice pending a decision by the FAA.

Training Category Requirements

§ 121.1451 Training category requirements: Standards used in aircraft dispatcher training.

(a) The certificate holder must include in the training categories the subjects, tasks, and standards set forth in the Aircraft Dispatcher QPS.

(b) The QPS requirements for aircraft dispatcher training and evaluation include all of the following:

(1) The subjects and areas of instruction listed in the Aircraft Dispatcher QPS for initial, combined certification and initial, recurrent, transition, differences, and requalification training.

(2) The Dispatch Resource Management (DRM) skills listed in the Aircraft Dispatcher QPS.

(3) The requirements for administering specific evaluations.

(4) The requirements and performance standards for each task and environment.

§ 121.1453 Training category requirements: Aircraft dispatcher initial, combined certification and initial, and transition training.

(a) Initial and transition training for aircraft dispatchers must include all of the following:

(1) Training and evaluation in the subjects listed in the Aircraft Dispatcher QPS.

(2) Successful completion of a proficiency test in accordance with the Aircraft Dispatcher QPS for each aircraft type and operation, and the particular variations within the aircraft type.

(b) Combined certification and initial training must include all of the following:

(1) Training and evaluation in the subjects listed in the Aircraft Dispatcher QPS.

(2) Successful completion of a practical test and proficiency test in accordance with the Aircraft Dispatcher QPS for each aircraft type and operation, and the particular variations within the aircraft type. The FAA or dispatch program designee must administer the practical test.

§ 121.1455 Training category requirements: Aircraft dispatcher recurrent training.

Recurrent training for aircraft dispatchers must include all of the following:

(a) Instruction in the subjects specified in the Aircraft Dispatcher QPS.

(b) An evaluation of the aircraft dispatcher's knowledge with respect to the aircraft type and operation involved.

(c) Successful completion of a proficiency check in accordance with the Aircraft Dispatcher QPS for each aircraft type and operation, and the particular variations within the aircraft type.

§ 121.1457 Training category requirements: Dispatcher instructor initial and recurrent training.

(a) *Initial training.* Initial training for a dispatcher instructor must consist of a 4-hour block of instruction that includes the following subjects:

(1) Aircraft dispatcher instructor duties, functions, and responsibilities.

(2) Appropriate provisions of the regulations of this chapter and the certificate holder's policies and procedures.

(3) Appropriate methods, procedures, and techniques for conducting aircraft dispatcher instruction.

(4) Evaluation of student performance, including recognition of the following:

(i) Improper and insufficient training; and

(ii) Personal characteristics of a student that could adversely affect safety.

(5) Corrective action in the case of unsatisfactory training progress.

(6) Approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures in the dispatch facility.

(7) Principles of the teaching-learning process.

(8) Teaching methods and procedures.

(9) Instructor-student relationship.

(b) *Recurrent training.* Recurrent training for a dispatcher instructor must consist of a 2-hour block of instruction every 12 months that includes the following:

(1) Subjects required in paragraph (a) of this section.

(2) Instructional and evaluation methods and techniques.

(3) Changes in aircraft dispatcher qualification curricula.

(4) Continuous analysis process review based on the factors addressed in § 121.1441.

§ 121.1459 Training category requirements: Check dispatcher initial and recurrent training.

(a) *Initial training.* Initial training for a check dispatcher must consist of a 4-hour block of instruction that includes the following subjects:

(1) Check dispatcher duties, functions, and responsibilities.

(2) Appropriate provisions of the regulations of this chapter and the certificate holder's policies and procedures.

(3) Appropriate methods, procedures, and techniques for conducting the required tests and checks.

(4) Evaluation of student performance, including recognition of the following:

(i) Improper and insufficient training; and

(ii) Personal characteristics of a student that could adversely affect safety.

(5) Corrective action in the case of unsatisfactory evaluations.

(6) Approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures in the dispatch facility.

(b) *Recurrent training.* Recurrent training for a check dispatcher must consist of a 2-hour block of instruction every 12 months that includes the following:

(1) Subjects required in paragraph (a) of this section.

(2) Instructional and evaluation methods and techniques.

(3) Changes in aircraft dispatcher qualification curricula.

(4) Continuous analysis process review based on the factors addressed in § 121.1441.

Other Training Requirements

§ 121.1471 Differences training and evaluation.

Each aircraft dispatcher training program must provide differences training if the Administrator finds that, due to differences between aircraft of the same type operated by the certificate holder, additional training is necessary to ensure that each aircraft dispatcher is adequately trained to perform the

assigned duties. The Administrator will determine the number of additional training hours and subjects necessary for the aircraft type and operation.

31. Add appendix Q of part 121 to read as follows:

Appendix Q to Part 121—Pilot, Qualification Performance Standards

Table of Contents

BEGIN INFORMATION

Introduction

A. What is contained in the Pilot QPS?

This QPS contains Information and QPS Requirements.

1. Information: Explanations that clarify or support regulatory requirements found in the Code of Federal Regulations or in this Pilot QPS. Explanations are provided as guidance and are not regulatory. This guidance appears under the heading ''BEGIN INFORMATION'' and uses the terms ''should'' or ''may'' to indicate that it is not mandatory.

2. QPS Requirements: Pilot Qualification Performance Standards contained in this appendix are regulatory and mandatory. These requirements appear under the heading ''BEGIN QPS REQUIREMENTS'' and use the terms ''must,'' ''may not,'' and ''will.''

B. Can the reader rely solely on this document for pilot qualification and training requirements?

No, do not rely solely on this document for regulatory requirements in these areas. The reader must also use 14 CFR part 91 and part 121, subparts G, T, V, X, and BB.

C. How can I get answers to questions about the contents of this appendix?

1. You may mail questions to: U.S. Department of Transportation, Federal Aviation Administration, Flight Standards Service, Air Transportation Division, AFS–210,800 Independence Avenue, SW., Washington, DC 20591,*Telephone:* (202) 267–816, *Fax:* (202) 267–5229.

2. You may find answers to questions on the Flight Standards Internet Web Site address is: ''*http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afs/*.'' On this Web Site you will find Flight Standards Programs, Aviation Safety Inspector Handbooks and Documents, the current Aviation Regulations (14 CFR), Advisory Circulars, and other sources of FAA information.

D. Why do we need a QPS for pilots?

1. To provide objective standards for pilot performance and for relating these standards to simulation equipment qualification levels.

2. To provide routine and periodic update capability. This capability is needed to respond to accidents, incidents, or rapidly occurring changes to equipment and operations. All changes made to this appendix will be subject to public notice and comment, unless good cause exists to support a finding that notice and comment would be impracticable, unnecessary, or contrary to the public interest.

3. To provide the certificate holder with a minimum set of standards for developing the following:

(a) Training and certification programs,

(b) Performance standards, and

(c) Evaluation criteria as they relate to the pilot job function.

E. Where can each type of standard be found in the QPS?

1. Attachment 1 contains the programmed hour requirements for new hire, initial, transition, conversion, upgrade, differences, requalification, recurrent, and special training categories.

2. Attachment 2 contains the academic training requirements for new hire, initial, transition, conversion, upgrade, requalification, recurrent, differences, and special training categories.

3. Attachment 3 contains:

(a) The job performance training requirements for initial, transition, upgrade, conversion, requalification, recurrent, difference, and special categories of training.

(b) How evaluations are administered.

(c) What level FSTD must be used for each task or environment.

4. Attachment 4 contains the generic pilot performance standards for each task and environment.

F. [Reserved]

G. Where can definitions and acronyms be found?

You can find definitions in § 121.1205. Acronyms are as follows:

AFD Airport Facility Directory
AFE Above field elevation
AFS–210 Air Carrier Training Branch, Air Transportation Division,Flight Standards Service
AFM Airplane Flight Manual
AGL Above Ground Level
AIM Aeronautical Information Manual
APD Aircrew Program Designee
ASAP Aviation Safety Action Program
ASR Airport Surveillance Radar
ASRS Aviation Safety Reporting System
ATC Air Traffic Control
ATIS Automated Terminal Information System
ATP Airline Transport Pilot
CDI Course Deviation Indicator
CDL Critical Design List
CFIT Controlled Flight into Terrain
COM Crewmember Operating Manual
CRM Crew Resource Management
DA Decision Altitude
DH Decision Height
DME Distance Measurement Equipment
EFIS Electronic Flight Indicating Systems
EGPWS Enhanced Ground Proximity Warning System

EGT Exhaust Gas Temperature
ETOPS Extended Operations (replaces EROPS) (Extended Range Operations)
EFVS Enhanced Flight Vision System
EVAS Emergency Vision Assurance System
FAF Final Approach Fix
FDC Flight Data Center
FE Flight Engineer
FFS Full Flight Simulator
FMS Flight Management System
FOQA Flight Operational Quality Assurance
FSTD Flight Simulation Training Device
FTD Flight Training Device
GPS Global Positioning System
GPWS Ground Proximity Warning System
GS Ground Speed
HUD Head-Up Display
IAP Initial Approach Point
ICAO International Civil Aviation Organization
INS Inertial Navigation System
IOS Instructor's Operating Station
LAHSO Land and Hold Short Operations
LOFT Line Operational Flight Training
LORAN Long Range Navigation
MEA Minimum Enroute Altitude
MEL Minimum Equipment List
MDA Minimum Descent Altitude
METAR Aviation Routine Weather Report
PAR Precision Approach Radar
PBE Protective Breathing Equipment
PF Pilot Flying
PIC Pilot in Command
PM Pilot Monitoring
POI Principal Operations Inspector
PRM Precision Radar Monitor(used as part of a Simultaneous Close Parallel approach)
PTS Practical Test Standards
QFE Corrected Barometric Altitude relative to field elevation
QNE Barometric pressure used for standard altimeter setting(29.92 inHg or 1013 hPa)
QNH Corrected Barometric Altitude relative to sea level
QPS Qualification Performance Standards
QRH Quick Reference Handbook
RA Resolution Alert
RMI Radio Magnetic Indicator
RNAV Area Navigation
RNP Required Navigation Performance
RPM Revolutions Per Minute
SAR Search and Rescue
SIC Second In Command
SID Standard Instrument Departure
SOIR Simultaneous Operations on Intersecting Runways
STAR Standard Terminal Arrival
TA Traffic Alert
TAA Terminal Arrival Area
TAS True Airspeed
TAWS Terrain Avoidance Warning System
TCAS Traffic Collision Avoidance System
TCE Training Center Evaluator
TSA Transportation Security Administration
V_1 Takeoff Decision Speed
V_2 Takeoff Safety Speed
V_{MCA} Minimum Control Speed Air
V_{MCG} Minimum Control Speed Ground
V_R Rotation Speed
V_{REF} Reference Speed
V_{SO} Stall Speed, Landing Configuration
V_{S1} Stall Speed, Specific Configuration
XLS Other Landing System

H. What references are recommended?

The following references (as amended) support the knowledge and skill standards for tasks. They are strongly recommended for providing further details for lesson development. To find 14 CFR parts go to *http://ecfr.gpoaccess.gov*; to find Advisory Circulars go to: *http://www.faa.gov/regulations_policies/advisory_circulars*; and to find FAA handbooks go to: *http://www.faa.gov/other_visit/aviation_industry/airline_operators/handbooks/*.

1. 14 CFR part 1, Definitions and Abbreviations
2. 14 CFR part 60, Qualification of Flight Simulation Devices
3. 14 CFR part 61, Certification: Pilots, Flight Instructors, and Ground Instructors
4. 14 CFR part 91, General Operating and Flight Rules
5. 14 CFR part 121, Operating Requirements: Domestic, Flag, and Supplemental Operations
6. AC 00–6, Aviation Weather
7. AC 0045, Aviation Weather Services
8. AC 25.1581–1, Airplane Flight Manual
9. AC 60–22, Aeronautical Decision Making
10. AC 60–28, English Language Skill Standards
11. AC 61–21, Flight Training Handbook
12. AC 61–27, Instrument Flying Handbook
13. AC 61–84, Role of Preflight Preparation
14. AC 120–28, Criteria for Approval of Category III Landing Weather Minima for Takeoff, Landing, and Rollout
15. AC 120–29, Criteria for Approving Category I and Category II Landing Minima for Approach
16. AC 120–51, Crew Resource Management Training
17. AC 120–53, Crew Qualification and Pilot Type Rating Requirements for Transport Category Aircraft Operated Under part 121
18. AC 120–54, Advanced Qualification Program
19. AC 120–55, TCAS II Operational Approval for Air Carriers
20. AC 120–59, Air Carrier Internal Evaluation Programs
21. AC 120–71, Standard Operating Procedures for Flight Deck Crewmembers
22. Aeronautical Information Manual (AIM)
23. AC 120–88, Preventing Injuries Caused by Turbulence
24. FAA H–8083–15, Instrument Flying Handbook
25. En Route Low and High Altitude Charts
26. Profile Descent Charts
27. Standard Instrument Departure (SID)
28. Standard Terminal Arrival Routes (STAR)
29. Airport Facility Directory (AFD) and Standard Instrument Approach Procedure Charts (SIAP)
30. National Flight Data Center Notices to Airmen (FDC NOTAM)
31. Integrated Measurement of Crew Resource Management and Technical Flying Skills, DOT/FAA/RD–93/26
32. Transportation Security Regulations (TSRs)
33. HMR 175, Hazardous Materials Regulations, Carriage by Aircraft
34. FAA Order 8040.4, Safety Risk Management
35. Air Transportation Operations Inspector's Handbook, 8400.10

I. What training aids and guides should be used to develop instructional materials?

The FAA and the industry periodically publish training aids and guides in specific technical performance areas (*http://www.faa.gov/other_visit/aviation_industry/airline_operators/training/index.cfm* and *http://www.faa.gov/education_research/training/*). These aids and guides are accepted as the industry standard for their specific technical area. The following training aids and guides are not regulatory, but contain valuable information about safety of flight operations that should be considered when developing instructional materials for the tasks to which each apply.

1. Takeoff Safety Training Aid.
2. Wake Vortex Training Aid.
3. Windshear Training Aid.
4. Upset Recovery Training Aid.
5. Winter Operations Guide to Air Carriers.
6. Controlled Flight Into Terrain.

END INFORMATION

BEGIN QPS REQUIREMENT

J. How must Crew Resource Management (CRM) training be administered?

The pilot must demonstrate knowledge and skills in the technical and CRM competencies for each particular task.

1. Certain CRM-related procedures must be associated with flight tasks and their related pilot performance requirements, as shown in Attachment 4 of this appendix. These procedures must be evaluated during job performance training programs.

2. In addition to the CRM-related procedures, situational awareness must

be evaluated as an integral part of each flight task and environment. A task is not completed unless the evaluator has determined that the pilot has demonstrated knowledge and skills in the technical and CRM competencies.

3. Additionally, the following CRM behaviors are required knowledge to be taught and tested during academic training, as shown in Attachment 2 of this appendix:

(a) Task: Authority of the Pilot In Command

(1) The Captain's authority, including responsibility for the safety of flight in routine and emergency conditions

(2) Chain of command and importance of chain of command

(b) Task: Communication Processes and Decisions

(1) Briefing

(2) Inquiry, advocacy, and assertiveness

(3) Self-critique

(4) Communication with appropriate personnel

(5) Decisionmaking

(6) Conflict resolution

(c) Task: Building and Maintenance of a Flight Team

(1) Leading and following, including the importance of crewmembers functioning as a team

(2) Use of interpersonal skills and leadership styles in a way that fosters crew effectiveness

(3) Significance of cultural differences

(d) Task: Workload Management and Situational Awareness

(1) Preparation and planning

(2) Vigilance

(3) Workload distribution

(4) Distraction avoidance

(e) Task: Communication and Coordination

(1) Flight deck and cabin chimes and interphone signals for routine situations

(2) Flight attendant notification to flight crew that aircraft is ready for movement on the surface.

(3) Flight crew notification to flight attendant to be seated prior to take-off

(4) Flight attendant recognition of critical phases of flight

(5) Crewmember coordination and notification regarding access to flight deck

(6) Notification to flight attendants of turbulent air conditions

(7) Notification between flight crew and flight attendants of emergency or unusual situations

(8) Notification between flight crew and flight attendants of inoperative equipment that is pertinent to flight attendant duties and responsibilities

(9) Normal and emergency communication procedures to be used in the event of inoperative communication equipment

(f) Task: Crewmember Briefing

(1) Crewmember responsibilities regarding briefings

(2) Flight crew briefing

(3) Flight crew to flight attendant(s) briefings

(4) Flight attendant to flight attendant(s) briefings

(5) Required information

(6) Security procedures

(7) Communication procedures

(8) Emergency procedures

(9) MELs affecting flight operations and cabin safety equipment and procedures

(10) Flight information

(g) Task: Communication and Coordination During a Passenger Interference Situation

(1) Certificate holder's written program regarding the handling of passenger interference, including crewmember communication and coordination

(2) Techniques for diffusing a passenger interference situation

(3) Importance of crewmembers and other employees working as a team

(4) Role of management and crewmember in follow-up

(5) Actions to report an occurrence of passenger interference

(h) Task: Communication and Coordination During an Emergency Situation

(1) Actions for each emergency situation

(2) Importance of notification and who must be notified

(3) Alternate actions if unable to notify

(4) Communication during preparation for a planned emergency evacuation, including the time available, type of emergency, signal to brace, and special instructions

END QPS REQUIREMENT

BEGIN INFORMATION

4. CRM refers to the effective use of all available resources, including, human resources, hardware, and information. Human resources include all other groups routinely working with the flight crewmembers who are involved in decisions that are required to operate a flight safely. CRM is not a single task. CRM is a set of competencies that must be evident in all tasks in this QPS as applied to the individual and the multi-crew operation.

5. CRM deficiencies usually contribute to the unsatisfactory technical performance of a task. Therefore, the CRM competencies are valuable for debriefing. For debriefing purposes, an amplified list of these competencies, expressed as behavioral markers, is in AC 120–51, as amended.

6. Certificate holders should conduct flight crewmember and flight attendant CRM scenarios together. When this is not possible, certificate holders should include information in flight crewmember training that addresses the roles of flight attendants during emergency situations.

K. What is the continuous analysis process and how is it incorporated in this QPS? (see § 121.1355)

1. The continuous analysis process is a certificate holder internal evaluation and improvement process. The continuous analysis process will enable the certificate holder to maintain and refine the training process by continually monitoring the effectiveness and efficiency of the process. Various assessment tools (testing, checking, inspection, documenting, evaluation, and analysis) will be used to validate the effectiveness of a training program or the need to change a training program.

END INFORMATION

BEGIN QPS REQUIREMENT

2. A continuous analysis process is incorporated in this QPS through integration with the qualification and training program. The certificate holder is responsible for designating responsibility for the process. The certificate holder must ensure appropriate and adequate assessment tools (testing, checking, critique, inspection, observation, documenting, evaluation, and analysis) are utilized to enable the certificate holder to validate the effectiveness of the qualification and training program, or the need to change that program. The certificate holder must describe the attributes of the continuous analysis process in the certificate holder's FAA approved training program.

END QPS REQUIREMENT

BEGIN INFORMATION

3. Components of a Continuous Analysis Process.

(a) Qualification and training program as approved by the Administrator. Attributes of the continuous analysis process:

(1) Who is responsible?

(2) Who has authority to change the process?

(3) Description of the process.

(4) Controls. policy, procedure, training, evaluation.

(5) Documenting and measurement.

(6) Interfaces between Departments. Consistency (policy, procedures, manuals):

(i) Across Departments

(ii) Across Divisions

(b) Assessment tools (adequate and appropriate)

(1) Testing

(2) Checking

(3) Critique

(4) Inspection and observation

(6) Documenting

(7) Evaluation and analysis

(c) Modification and adjustment of the qualification and training program

(d) Approval for modification and adjustment

END INFORMATION

Attachment 1 of Appendix Q to Part 121

Programmed Hour Requirements for New Hire, Initial, Transition, Conversion, Upgrade, Differences, Requalification, Recurrent, and SpecialTraining Categories

BEGIN QPS REQUIREMENT

A. Programmed Hour Requirements: Pilots (PIC and SIC). (see §§ 121.1205; 121.1331; 121.1333; 121.1335)

1. *Baseline and Minimum Programmed Hours.* Table 1A sets out the baseline and minimum programmed hours for each category of training by segment (academic and job performance). The FAA may approve a reduction in baseline programmed hours if the certificate holder demonstrates that the reduction is warranted. The FAA will not approve a reduction in the programmed hours below the minimum programmed hours.

2. *Required hours for requalification training.* The hours established for requalification training (§ 121.1239) are for individuals in specific circumstances. Therefore, there are no programmed hours in Table 1A for requalification training.

3. *Required hours for differences and special training.* The hours established for differences and special training are in addition to the previously approved programmed hours for the approved training program. For differences training (§ 121.1391), the hours remain in the differences training category. For special training (§ 121.1337(c)), the certificate holder integrates the training into the existing categories in Table 1A. Therefore, there are no programmed hours in Table 1A for differences and special training.

TABLE 1A—PROGRAMMED HOUR REQUIREMENTS: PILOTS (PIC AND SIC)

Training categories	Training segments		
	Academics	Job performance	
	Ground training	Flight training	Emergency equipment drills and demonstrations
NEW HIRE	Baseline 116	N/A	Baseline 4.
	Minimum 20		Minimum 4.
INITIAL	Baseline 116	Baseline 36	Baseline 8.
	Minimum 80	Minimum 36	Minimum 8.
FULL CONVERSION	Baseline 68	Baseline 20	Baseline 4.
	Minimum 52	Minimum 20	Minimum 4.
CORE CONVERSION	Baseline 52	Baseline 20	Baseline 4.
	Minimum 36	Minimum 20	Minimum 4.
TRANSITION	Baseline 92	Baseline 24	Baseline 4.
	Minimum 62	Minimum 24	Minimum 4.
FULL UPGRADE	Baseline 68	Baseline 20	Baseline 4.
	Minimum 52	Minimum 20	Minimum 4.
CORE UPGRADE	Baseline 52	Baseline 20	Baseline 4.
	Minimum 36	Minimum 20	Minimum 4.
RECURRENT	Baseline 18 (each 9-month Recurrent training period).	Baseline 8 (each 9-month Recurrent training period).	Baseline 8. (each 36-month period).
	Minimum 14	Minimum 8	Minimum 8.
REQUALIFICATION	Determined by Administrator	Determined by Administrator	Determined by Administrator.
DIFFERENCES	Determined by Administrator	Determined by Administrator	Determined by Administrator.
SPECIAL	Developed by Certificate Holder, Approved by the Administrator.	Developed by Certificate Holder, Approved by the Administrator.	Determined by Administrator.

END QPS REQUIREMENT

BEGIN INFORMATION

B. Recurrent Training (see § 121.1367)

Recurrent training modules are required each 9 months. Recurrent training modules also will contain academic subjects, job performance tasks and environments, and emergency drills and demonstrations that may be required once each 9 months, once each 18 months, or once each 36 months. The certificate holder may distribute these recurrent training requirements in a manner that best suits its training program structure while ensuring that the required items are included at the appropriate intervals.

Example 1: A 9-month recurrent period includes all of the academic subjects and job performance tasks and environments that are required at each 9-month interval. The certificate holder may decide to include one-half of those academic subjects and job performance tasks and environments that are required every 18 months during this particular 9-month training period, and leave the balance to be completed at the next 9-month period. Also, the certificate holder may decide to include one-fourth of the emergency equipment drills and demonstrations during this 9-month interval, and leave the other three-fourths of those drills and demonstrations to be completed during subsequent 9-month periods.

Example 2: A 9-month recurrent period includes all of the academic subjects and job performance tasks and environments that are required every 9 months. During the next 9-month recurrent period, the certificate holder must include all of the academic subjects and

job performance tasks and environments that are required every 9 months, as well as all of the academic subjects and job performance tasks and environments that are required every 18 months. At the following 9-month interval (27-month point), the certificate holder must include all those academic subjects and job performance tasks and environments that are required every 9 months. Then, at the 36-month point, the certificate holder must include all of the academic subjects and job performance tasks and environments that are required every 9 months, all of the academic subjects and job performance tasks and environments that are required every 18 months, and all of the academic subjects, job performance tasks, and all the emergency equipment drills and demonstrations that are required every 36 months.

END INFORMATION

Attachment 2 of Appendix Q to part 121

Academic Training Segment Requirements—Subjects and Tests—for New Hire, Initial Transition, Conversion, Upgrade, Requalification, Recurrent, Differences, and Special Training Categories

BEGIN INFORMATION

A. Required Academic Training Subjects by Category of Training.

(See §§ 121.1221; 121.1223; 121.1225; 121.1227; 121.1229; 121.1333; 121.1335; 121.1341; 121.1343; 121.1361; 121.1363; 121.1365; 121.1367; 121.1377; 121.1381; and 121.1391)

1. Attachment 2 contains the Academic Training Segment requirements.

2. When differences and special training are required for academic training, they will be additional training modules or new subjects. For more information about differences and special training categories see attachment 1 of this appendix.

3. How to read Table 2A:

(a) Table 2A contains the Required Academic Training Subjects by Category of Training. In the table, an ''X'' indicates that the subject must be included in the category of training. A ''9'' indicates that the subject must be trained every 9 months. An ''18'' indicates that the subject must be trained every 18 months.

(b) Table 2A item (c)(3) addresses the training subject ''Coordination, communication, and methodology for the performance of each normal, abnormal, and emergency procedure contained in the FCOM.'' For core upgrade, core conversion, phase I requalification, and recurrent training all abnormal and emergency procedures are required. However, only selected normal procedures are required. The selection of normal procedures should be based on procedural changes, feedback from observed procedural irregularities, and system safety initiatives.

END INFORMATION

BEGIN QPS REQUIREMENT

TABLE 2A—REQUIRED ACADEMIC TRAINING SUBJECTS BY CATEGORY OF TRAINING

Subject	New hire	Initial and phase III requalification	Transition	Full upgrade, full conversion, and phase II requalification	Core upgrade, core conversion, and phase I requalification	Recurrent
(a) General Subjects:						
(1) Duties and responsibilities of flight crewmembers	X					
(2) Appropriate requirements of the Federal Aviation Regulations		X	X	X	X	18
(3) General relationship of FAA to the certificate holder	X					
(4) General overview of the contents of the certificate holder's Operating Certificate and Operations Specifications	X					
(5) Meteorology to ensure a practical knowledge of weather phenomena, including the principles of frontal systems, icing, fog, thunderstorms, and high altitude weather situations. Recognizing and avoiding severe weather situations and other hazards	X					
(6) Air traffic control systems, airspace, procedures, and phraseology	X					
(7) Navigation and the use of navigation aids, including instrument approach procedures including how to use the information available on approach charts and maps and on airport diagrams		X	X	X	X	18
(8) Development of and operating in the National Airspace System	X					

TABLE 2A—REQUIRED ACADEMIC TRAINING SUBJECTS BY CATEGORY OF TRAINING—Continued

	New hire	Initial and phase III requalification	Transition	Full upgrade, full conversion, and phase II requalification	Core upgrade, core conversion, and phase I requalification	Recurrent
(9) General Concepts of TCAS Operation (i) The meaning of Traffic Alerts (TAs). (ii) The meaning of preventive Resolution Advisories (RAs). (iii) The meaning of corrective RAs. TCAS equipment components controls, displays, audio alerts, and annunciations; interfaces and compatibility with other aircraft systems; TCAS surveillance range versus display range; altitude ceiling operators; when an intruder will not be displayed; and TCAS performance on the ground.	.....	X	X	X	X	18
(10) High Altitude Physiology—Operations above 10,000 ft.—Aircraft Decompression; Causes and Recognition of cabin pressure loss; Physiological Effects and time of useful consciousness; Immediate Actions; Altitude and Flight Level requiring the wearing of oxygen masks	X	.....	.....	.....	.....	.....
(11) Mechanical and Incident Reporting Procedures	X	.....	.....	.....	.....	.....
(12) Voluntary Safety Program and Participation, including ASAP, FOQA, LOSA, and other government and industry accident prevention programs	X	.....	.....	.....	.....	.....
(13) Normal and emergency communications	X	X	X	X	X	18
(14) General content, control, and maintenance of applicable portions of the certificate holder's operating manual, including the Flight Crewmember Operating Manual (FCOM). Relationship of FCOM to the Airplane Flight Manual	X	.....	.....	.....	.....	.....
(15) Dispatch and flight release procedures. Flight planning as applicable	X	X	.....	.....	X (Upgrade and Conversion training only)	.....
(b) Crew Resource Management (CRM):						
(1) Task: Authority of the Pilot In Command (i) The Captain's Authority, including responsibility for the safety of flight in routine and emergency conditions. (ii) Chain of command and importance of chain of command.	X	X	.....	.....	.....	.....
(2) Task: Communication Processes and Decisions (i) Briefing.	X	X	.....	.....	.....	.....

TABLE 2A—REQUIRED ACADEMIC TRAINING SUBJECTS BY CATEGORY OF TRAINING—Continued

	New hire	Initial and phase III requalification	Transition	Full upgrade, full conversion, and phase II requalification	Core upgrade, core conversion, and phase I requalification	Recurrent
(ii) Inquiry, advocacy, and assertiveness. (iii) Self-critique. (iv) Communication with available personnel. (v) Decisionmaking. (vi) Conflict resolution.						
(3) Task: Building and Maintenance of a Flight Team (i) Leading and following, including the importance of crewmembers functioning as a team. (ii) Use of interpersonal skills and leadership styles in a way that fosters crew effectiveness. (iii) Significance of cultural differences.	X	X	.....	.....	.....	.....
(4) Task: Workload Management and Situational Awareness (i) Preparation and planning. (ii) Vigilance. (iii) Workload distribution. (iv) Distraction avoidance.	X	X	.....	.....	.....	.....
(5) Task: Communication and Coordination (i) Flight deck and cabin chimes and interphone signals for routine situations. (ii) Flight attendant notification to flight crew that aircraft is ready for movement on the surface. (iii) Flight crew notification to flight attendant to be seated prior to take-off. (iv) Flight attendant recognition of critical phases of flight. (v) Crewmember coordination and notification regarding access to flight deck. (vi) Notification to flight attendants of turbulent air conditions. (vii) Notification between flight crew and flight attendants of emergency or unusual situations. (viii) Notification between flight crew and flight attendants of inoperative equipment that is pertinent to flight attendant duties and responsibilities. (ix) Normal and emergency communication procedures to be used in the event of inoperative communication equipment.	X	X	.....	.....	.....	.....
(6) Task: Crewmember Briefing (i) Crewmember responsibilities regarding briefings. (ii) Flight crew briefing. (iii) Flight crew to flight attendant(s) briefings.	X	X	.....	.....	.....	.....

TABLE 2A—REQUIRED ACADEMIC TRAINING SUBJECTS BY CATEGORY OF TRAINING—Continued

	New hire	Initial and phase III requalification	Transition	Full upgrade, full conversion, and phase II requalification	Core upgrade, core conversion, and phase I requalification	Recurrent
(iv) Flight attendant to flight attendant(s) briefings. (v) Required information. (vi) Security procedures. (vii) Communication procedures. (viii) Emergency procedures. (ix) MELs affecting flight operations and cabin safety equipment and procedures. (x) Flight information.						
(7) Task: Communication and Coordination During a Passenger Interference Situation ..	X	X	.....	.....	.....	.....
(i) Certificate holder's written program regarding the handling of passenger interference, including crewmember communication and coordination. (ii) Techniques for diffusing a passenger interference situation. (iii) Importance of crewmembers and other employees working as a team. (iv) Role of management and crewmember in follow-up. (v) Actions to report an occurrence of passenger interference.						
(8) Task: Communication and Coordination During an Emergency Situation	X	X	.....	.....	.....	.....
(i) Actions for each emergency situation. (ii) Importance of notification and who must be notified. (iii) Alternate actions if unable to notify. (iv) Communication during preparation for a planned emergency evacuation, including the time available, type of emergency, signal to brace, and special instructions.						
(c) Aircraft Type Specific:						
(1) Contents of the certificate holder's operating manual, including the FCOM. Use of any FCOM-based quick reference handbook (QRH)	.....	X	X	X	X	18
(2) Operating limitations	.....	X	X	X	X	18
(3) Coordination, communication, and methodology for the performance of each normal, abnormal, and emergency procedure contained in the FCOM ..	.....	X	X	X	[1] X	[1] 18
(4) Aircraft systems as described in the FCOM	.....	X	X	X	X	18
(5) Instrument procedures and low visibility operations	.....	X	X	X	X	18

TABLE 2A—REQUIRED ACADEMIC TRAINING SUBJECTS BY CATEGORY OF TRAINING—Continued

	New hire	Initial and phase III requalification	Transition	Full upgrade, full conversion, and phase II requalification	Core upgrade, core conversion, and phase I requalification	Recurrent
(6) Aircraft performance determinations and flight planning for all phases of flight, including takeoff and landing requirements considering aircraft, crew, airport, and weather requirements for takeoff, departure, and landing	.....	X	X	X	X	18
(7) Operations Specifications authorizations and limitations	.....	X	X	X	X	18
(8) MMEL, MEL, CDL	.....	X	X	X	X	18
(9) Emergency communications with passengers and other crewmembers	X	X	X	X	X	18
(10) Storage of and how to administer medicinal oxygen	X	.....	.....	X	.....	18
(11) The certificate holder's policy and FCOM procedures on the use of command and control automation and criteria for selecting and deselecting appropriate levels of automation (including manual control of flight) must be included in the lateral and vertical modes of takeoff, approach, and landing	.....	X	X	X	X	18
(d) Special Hazards:						
(1) Preventing controlled flight into terrain (CFIT) and approach and landing accidents	.....	X	X	X	X	18
(2) Recovery from loss of control due to airplane design, airplane malfunction, human performance, and atmospheric conditions	.....	X	X	X	X	18
(3) Low altitude windshear	.....	X	X	X	X	9
(i) Recognition and avoidance.						
(ii) Recovery from inadvertent encounter.						
(4) Takeoff safety: Decision-making and high speed aborts, including propulsion system malfunction analysis, causes, symptoms, recognition, and the effects on aircraft performance and handling	.....	X	X	X	X	18
(5) Airport surface movement safety and runway incursion prevention	.....	X	X	X	X	18
(6) Hazards of operating in or near thunderstorms, turbulent air, icing, hail, volcanic ash, and other potentially hazardous conditions	.....	X	X	.....	.....	.....
(7) Land and hold short operations (LAHSO)	.....	X	X	X	X	9
(8) Ground anti-icing and deicing	.....	X	X	X	X	18
(9) Ice accumulation in flight	.....	X	X	X	X	18
(e) Special Operations Areas:						
(1) Close simultaneous parallel precision approach operations with Precision Radar Monitor (PRM)	.....	X	X	X	X	18
(2) Special routes, areas and airports	.....	X	X	X	X	18
(f) International Operations:						
(1) Area and route characteristics	X	X	X	X	X	18

TABLE 2A—REQUIRED ACADEMIC TRAINING SUBJECTS BY CATEGORY OF TRAINING—Continued

	New hire	Initial and phase III requalification	Transition	Full upgrade, full conversion, and phase II requalification	Core upgrade, core conversion, and phase I requalification	Recurrent
(2) Flight planning, charts, course plotting, and tables	X	X	X	X	X	18
(3) Class II Navigation	X	X	X	X	X	18
(4) Communications	X	X	X	X	X	18
(5) ETOPS or EROS, as applicable	X	X	X	X	X	18
(6) International rules and regulations	X	X	X	X	X	18
(7) Abnormal Operations	X	X	X	X	X	18
(g) Emergency Equipment Training:						
(1) Emergency communications with passengers and other crewmembers	X	X	X	X	X	18
(2) Crewmember-specific roles in dealing with crewmember and passenger injury and illness, and disruptive passengers	X					9
(3) Location and familiarization of contents for first aid and medical kits		X	X	X		9
(4) Location and use of defibrillator		X	X	X		
(5) Certificate holders bloodborne pathogen awareness program	X					9
(6) Location and use of emergency exits		X	X	X		18
(7) Location and use of emergency equipment. Equipment must include:		X	X	X		18
(i) For over water operations: life preservers, flotation seat cushions, life rafts, slides, and slide rafts		X	X	X		18
(ii) For ground or water evacuation: escape ropes, megaphones, flashlight, emergency lighting, emergency locator transmitters, first aid kit, slides, slide rafts, fire extinguishers (each type used), smoke and fume protection (such as PBE and smoke goggles), megaphones, oxygen (portable, passenger oxygen system, flight crew masks), supplemental (flight deck key, demonstration equipment, smoke detectors, trash containers, seat belt extensions)		X	X	X		18
(8) Fires—in flight and on the ground						
(i) Procedures and strategies for fire prevention		X	X			
(ii) Classes of fires and correct methods of extinguishing each		X				
(iii) Flight attendant role in exterior, APU, jetway, and ramp fire		X	X	X		18

[1] All abnormal and emergency procedures are required. Only selected normal procedures are required. *See* paragraph A.(3)(b) of this attachment for information about selecting normal procedures.

END QPS REQUIREMENT

BEGIN QPS REQUIREMENT

B. Knowledge Assessment. (see §§ 121.1341 and 121.1343)

1. Knowledge and understanding of each subject within each area of instruction must be evaluated by written or computer based testing at the end of academic training. When written or computer based methods are used:

(a) A score of 80% or better on each instructional area is required to be satisfactory.

(b) A minimum of 5 questions must be developed for each subject.

(c) Two questions for each subject must be randomly selected for each test.

(d) The form and content of each test must be approved by the Administrator.

(e) The test must be corrected to 100% by a person administering the test.

(f) Correction of missed questions must include a discussion of which answer is correct and why, and why the person's original answer was incorrect.

(g) Retraining is required for each instructional area in which a score of 80% or better is not achieved.

(h) Examination after retraining of the student is required for each instructional area in which retraining was completed.

2. The knowledge assessment for the specific aircraft subjects of limitations, systems, and performance and loading may be used for the oral portion of the proficiency test if completed no more than 60 days prior to the flight portion of the proficiency test (see attachment 3, E.2.(a) of this appendix).

3. The following standards are for evaluating the pilot performance in limitation, systems, and performance and loading subjects.

(a) Limitations—The pilot must know all of the limitations appropriate to the aircraft with respect to:

(1) Systems and components.

(2) Performance.

(b) Systems—The pilot must understand and be knowledgeable about the following subjects (systems and components) and be able to explain their operation as described in the FCOM and their applicability, as appropriate, to the Minimum Equipment List (MEL), Configuration Deviation List (CDL), and the operations specifications:

(1) Landing gear: including, as appropriate, extension and retraction system(s), indicators, brakes, anti-skid, tires, nose-wheel steering, and shock absorbers.

(2) Engine(s): including controls and indications, induction system, carburetor and fuel injection, turbo-charging, cooling, fire detection and protection, mounting points, turbine wheels, compressors, deicing, anti-icing, and other related components.

(3) Propellers (if appropriate): including type, controls, feathering and unfeathering, auto feather, negative torque sensing, synchronizing, and synchro-phasing.

(4) Fuel system: including capacity, drains, pumps, controls, indicators, cross-feeding, transferring, jettison, fuel grade, color and additives, fueling and de-fueling procedures, and allowable fuel substitutions, if applicable.

(5) Oil system: including capacity, grade, quantities, and indicators.

(6) Hydraulic system: including capacity pumps, pressure, reservoirs, grade, and regulators.

(7) Electrical system: including alternators, generators, battery, circuit breakers and protection devices, controls, indicators, and external and auxiliary power sources and ratings.

(8) Environmental systems: including heating, cooling, ventilation, oxygen and pressurization, controls, indicators, and regulating devices.

(9) Avionics and communications: including autopilot; flight director; Electronic Flight Indicating Systems (EFIS); Flight Management System(s) (FMS); Long Range Navigation (LORAN) systems; Doppler Radar, Inertial Navigation Systems (INS); Global Positioning System (GPS/DGPS/WGPS); VOR, NDB, ILS/MLS, RNAV systems and components; indicating devices; transponder; and emergency locator transmitter.

(10) Ice protection (anti-ice and de-ice): including pitot-static system, propeller (if appropriate), windshield, wing and tail surfaces.

(11) Crewmember and passenger emergency equipment and procedures: including oxygen system, survival gear, emergency exits, evacuation procedures with crew duties, and quick donning oxygen mask for crewmembers and passengers.

(12) Flight controls: including ailerons, elevator(s), rudder(s), control tabs, balance tabs, stabilizer, flaps, spoilers, leading edge flaps and slats, and trim systems.

(13) Flightdeck automation: including the certificate holder's written automation policy and written operating procedures for selecting and deselecting appropriate levels of automation. This must include the certificate holder's policy for conducting CAT II and CAT III approaches when authorized.

(14) Pneumatic system.

(c) Performance and loading—The pilot must understand and be proficient in the use of (as appropriate to the aircraft) performance charts, tables, graphs, and other data relating to items such as:

(1) Accelerate—stop distance.

(2) Accelerate—go distance.

(3) Balanced field.

(4) Takeoff performance, all engines and with engine(s) inoperative, as appropriate.

(5) Climb performance including segmented climb performance; with all engines operating; with one or more engines inoperative; and with other engine malfunctions as appropriate.

(6) Service ceiling, all engines, with engines(s) inoperative, including drift down, if appropriate.

(7) Cruise performance.

(8) Fuel consumption, range, and endurance.

(9) Descent performance.

(10) Go-around from rejected landings.

(11) The effects of meteorological conditions on performance characteristics with correct application of these factors to a specific chart, table, graph or other performance data.

(12) How to determine longitudinal and lateral center-of-gravity location for a specific load condition, including how to add, remove, or shift weight to meet longitudinal (forward and aft), and lateral balance limits for takeoff, cruise, and landing.

(13) Correct planning and knowledge of procedures in applying operational factors affecting airplane performance.

(14) Meteorological effects on performance.

(15) METAR and ATIS weather data.

(16) Planning and application of operational factors affecting aircraft performance such as high altitude airports, cluttered and contaminated runways, ground and inflight icing.

(17) Other performance data (appropriate to the aircraft).

END QPS REQUIREMENTS

Attachment 3 of Appendix Q to part 121

Job Performance Training Requirements for All Categories of Training (Tasks, Environments, Drills, and Observations With Instruction, Evaluation, and Simulation Credits)

BEGIN QPS REQUIREMENT

A. Determining the Job Performance (Flight Training) Tasks and Environments Required for Instruction and Evaluation for Each Category of Training

(*see* §§ 121.133; 121.135; 121.1221; 121.1223; 121.1225; 121.1227; 121.1229; 121.1333; 121.1335; 121.1337; 121.1339; 121.1341; 121.1343; 121.1345; 121.1347; 121.1349; 121.1351; 121.1353; 121.1361; 121.1363; 121.1365; 121.1367; 121.1377; 121.1379; 121.1381; 121.1383; 121.1385; and 121.1391)

1. Certificate holder responsibilities with respect to the FCOM and Table 3A.

(a) The certificate holder must use Table 3A of this Attachment to determine the tasks and environments on which each pilot must be instructed and evaluated for each training category in accordance with an FAA approved job performance (flight operations) training program. The tasks listed in the FCOM must reflect the tasks included in the table, as amended and include standard operating procedures, abnormal procedures, non-normal procedures, and emergency procedures, as well as the authorizations contained in the certificate holder's operations specifications.

(b) If the certificate holder adds tasks or environments to those listed in Table 3A, it must further develop the tasks or environments to include the requirement and frequency for training and evaluation in each additional task or environment. These changes must be submitted to the POI for approval.

(c) If the certificate holder's operation does not permit, or the operation of the aircraft flown by the certificate holder does not require one or more of the tasks listed in Table 3A, those tasks must not be included in the FCOM.

(d) The recurrent requirements in Table 3A also include the frequency during which each pilot must be trained and evaluated in each task and environment.

(e) Changes to the FCOM must be submitted to the POI for approval.

2. Job Performance Training Requirements.

When differences and special training are required for job performance training, they will be additional training modules or new tasks or environments. For more information about differences and special training categories see attachment 1 of this appendix.

END QPS REQUIREMENT

BEGIN INFORMATION

3. Deviation from § 121.1345 Training program: Mandatory use of flight simulation training devices. If a certificate holder receives a deviation in accordance with § 121.1345, and the certificate holder wants to extend the deviation, the certificate holder should submit the request for an extension at least 60 days before the termination date of the deviation.

END INFORMATION

BEGIN QPS REQUIREMENT

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Table 3A – Job Performance Tasks and Environments

CATEGORIES OF TRAINING	INITIAL, TRANSITION, CONVERSION, UPGRADE, AND REQUALIFICATION				RECURRENT				
	INSTRUCTION AND PRACTICE			*EVALUATION*	*INSTRUCTION and PRACTICE*			*EVALUATION*	
					In a LOFT, or in an FSTD Course of Instruction				
Tasks	INITIAL TRANSITION, and PHASE III REQUAL	FULL CONVERSION/ UPGRADE, and PHASE II REQUAL	CORE CONVERSION/ UPGRADE, and PHASE I REQUAL	PROFICIENCY TESTS	Every 9 Months	Every 18 Months	Every36 Months	PROFICIENCY TEST or CHECK	PROFICIENCY REVIEW
1.0 All Operations									
1.1 Normal, Abnormal, and Emergency Procedures	X	X	X	X	X			X	X
1.2 Operation of Systems and Controls at the Flight Engineer's Panel	X	X(1)	X(1)			X			
1.3 Human Factors and CRM	X	X	X	X	X			X	X
1.4 Aircraft Handling Standards	X	X	X	X	X			X	X
1.5 ATC Communications and Procedures	X	X	X	X	X			X	X
1.6 Seat Dependent Training	X	X	X			X			
2.0 Preflight Procedures									
2.1 Planning	X	X(1)	X(1)	X		X		X	
2.2 Flight deck Inspection	X	X(1)	X(1)	X		X		X	
2.3 Cabin Inspection	X	X(1)	X(1)						
2.4 Exterior Inspection	X	X(1)	X(1)	X		X		X	
2.5 Navigation System Setup	X	X	X	X	X			X	

Table 3A – Job Performance Tasks and Environments

CATEGORIES OF TRAINING	INITIAL, TRANSITION, CONVERSION, UPGRADE, AND REQUALIFICATION				RECURRENT				
	INSTRUCTION AND PRACTICE			*EVALUATION*	*INSTRUCTION AND PRACTICE*			*EVALUATION*	
					In a LOFT, or in an FSTD Course of Instruction				
Tasks	INITIAL, TRANSITION, and PHASE III REQUAL	FULL CONVERSION/ UPGRADE, and PHASE II REQUAL	CORE CONVERSION/ UPGRADE, and PHASE I REQUAL	PROFICIENCY TESTS	Every 9 Months	Every 18 Months	Every 36 Months	PROFICIENCY TEST or CHECK	PROFICIENCY REVIEW
3.0 Ground Operations									
3.1 Engine Start									
3.1.1 Normal	X			Select One			X	Select One	
3.1.2 Non-normal	X	X(1)	X(1)			X			X
3.2 Pushback and Powerback	X	X(1)	X(1)				X		
3.3 Taxi	X	X	X	X	X			X	
3.4 Pre-Takeoff Procedures	X	X	X	X	X			X	X
3.5 After Landing	X				X			X	
3.6 Parking and Securing	X						X		
4.0 Takeoff									
4.1 Normal and Crosswind – With All Engines Operating	X	X	X	X	X			X	X
4.2 Instrument with Lowest Authorized RVR	X	X	X	X	X			X	
4.3 With Engine Failure -									
4.3.1 Between V_1 and V_R	X	X	X	Select One	X			Select One	Select One
4.3.2 Between V_R and 500 ft. above field elevation	X	X	X		X				
4.4 Rejected With Lowest Authorized RVR	X	X	X	X	X			X	

Table 3A – Job Performance Tasks and Environments

CATEGORIES OF TRAINING	INITIAL, TRANSITION, CONVERSION, UPGRADE, AND REQUALIFICATION				RECURRENT				
	INSTRUCTION AND PRACTICE			*EVALUATION*	*INSTRUCTION AND PRACTICE*			*EVALUATION*	
					In a LOFT, or in an FSTD Course of Instruction				
Tasks	INITIAL, TRANSITION, and PHASE III REQUAL	FULL CONVERSION/ UPGRADE, and PHASE II REQUAL	CORE CONVERSION/ UPGRADE, and PHASE I REQUAL	PROFICIENCY TESTS	Every 9 Months	Every 18 Months	Every36 Months	PROFICIENCY TEST or CHECK	PROFICIENCY REVIEW
5.0 Departure, Climb, Cruise, Descent, and Arrival									
5.1 Instrument Departure	X	X	X	A		X		A	A
5.2 Climb	X	X					X		
5.3 One Engine Inoperative En route	X	X	X				X		
5.4 En route Navigation	X	X(1)	X(1)			X			
5.5 Descent	X	X					X		
5.6 Instrument Arrival	X	X	X	A		X		A	A
5.7 Holding	X	X	X	B		X		B	
5.8 Approach Transition	X	X	X	X		X		X	X

Table 3A – Job Performance Tasks and Environments

CATEGORY of TRAINING	INITIAL, TRANSITION, CONVERSION, UPGRADE, AND REQUALIFICATION				RECURRENT				
	INSTRUCTION AND PRACTICE			*EVALUATION*	*INSTRUCTION AND PRACTICE*			*EVALUATION*	
					In a LOFT, or in an FSTD Course of Instruction				
Tasks	INITIAL, TRANSITION, and PHASE III REQUAL	FULL CONVERSION/ UPGRADE, and PHASE II REQUAL	CORE CONVERSION/ UPGRADE, and PHASE I REQUAL	PROFICIENCY TESTS	Every 9 Months	Every 18 Months	Every36 Months	PROFICIENCY TEST or CHECK	PROFICIENCY REVIEW
6.0 Aircraft Handling									
6.1 Recognition of, and Recovery from, Approach to Stall									
6.1.1 Clean	X	X	X	Select One	Select at least One	Select at least one other.		Select One	Select One
6.1.2 Takeoff and Maneuvering	X	X	X						
6.1.3 Landing	X	X	X						
6.1.4 Landing with Auto Pilot Engaged.	X	X	X						
6.2 Asymmetric Thrust									
6.2.1 Engine Shutdown	X								
6.2.2 Maneuvering with One Engine Inoperative	X	X	X			X			
6.2.3 Engine Restart	X					X			

Table 3A – Job Performance Tasks and Environments

CATEGORY of TRAINING	INITIAL, TRANSITION, CONVERSION, UPGRADE, AND REQUALIFICATION				RECURRENT				
	INSTRUCTION AND PRACTICE			*EVALUATION*	*INSTRUCTION AND PRACTICE*			*EVALUATION*	
					In a LOFT, or in an FSTD Course of Instruction				
Tasks	INITIAL, TRANSITION, and PHASE III REQUAL	FULL CONVERSION/ UPGRADE, and PHASE II REQUAL	CORE CONVERSION/ UPGRADE, and PHASE I REQUAL	PROFICIENCY TESTS	Every 9 Months	Every 18 Months	Every 36 Months	PROFICIENCY TEST or CHECK	PROFICIENCY REVIEW
6.3 Runaway Trim and Stabilizer	X	X(1)	X(1)				X		
6.4 Jammed Trim and Stabilizer	X	X(1)	X(1)				X		
6.5 Upset Recognition and Recovery	X	X	X		X				
6.6 Slow Flight	X	X	X				X		
6.7 Turns with and without Spoilers	X	X(1)	X(1)						
6.8 Stability Augmentation Inoperative	X	X(1)	X(1)						
6.9 Mach Tuck and Mach Buffet	X	X(1)	X(1)						
6.10 High Sink Rate	X	X	X				X		
6.11 Flight Envelope Protection Demonstration	X	X(1)	X(1)						

Table 3A – Job Performance Tasks and Environments

CATEGORIES OF TRAINING	INITIAL, TRANSITION, CONVERSION, UPGRADE, AND REQUALIFICATION				RECURRENT				
	INSTRUCTION AND PRACTICE			*EVALUATION*	*INSTRUCTION AND PRACTICE*			*EVALUATION*	
					In a LOFT, or in an FSTD Course of Instruction				
Tasks	INITIAL, TRANSITION, and PHASE III REQUAL	FULL CONVERSION/ UPGRADE, and PHASE II REQUAL	CORE CONVERSION/ UPGRADE, and PHASE I REQUAL	PROFICIENCY TESTS	Every 9 Months	Every 18 Months	Every36 Months	PROFICIENCY TEST or CHECK	PROFICIENCY REVIEW
6.12 Windshear Avoidance and Encounter									
6.12.1 Takeoff	X	X	X		Select One				
6.12.2 Departure	X	X	Select One						
6.12.3 Approach	X	X							
6.13 Traffic Avoidance (TCAS)	X	X	X				X		
6.14 Terrain Avoidance (EGPWS or TAWS)	X	X	X			X			

Table 3A – Job Performance Tasks and Environments

CATEGORIES OF TRAINING	INITIAL, TRANSITION, CONVERSION, UPGRADE, AND REQUALIFICATION				RECURRENT				
	INSTRUCTION AND PRACTICE			*EVALUATION*	*INSTRUCTION AND PRACTICE*			*EVALUATION*	
					In a LOFT, or in an FSTD Course of Instruction				
Tasks	INITIAL, TRANSITION, and PHASE III REQUAL	FULL CONVERTION/ UPGRADE, and PHASE II REQUAL	CORE CONVERSION/ UPGRADE, and PHASE I REQUAL	PROFICIENCY TESTS	Every 9 Months	Every 18 Months	Every 36 Months	PROFICIENCY TEST or CHECK	PROFICIENCY REVIEW
7.0 Instrument Approaches									
7.1 All Engines Operating - Autopilot Coupled	X	X	X	X	X			Select one	Select One
7.2 All Engines Operating – Manually Flown	X	X	X			X			
7.3 One Engine Inoperative – Manually Flown	X	X	X	X	X				
7.4 Approach Type									
7.4.1 Category II and III	X	X	X	X	X			X	
7.4.2 Precision Groups[D]	C	C	C	X	X			X	X
7.4.3 Non-Precision Groups[D]	C	C	C	X(2)	X			X(2)	X
7.4.4 Ground Based Radar Approach	X	X	X	X			X		X

Table 3A – Job Performance Tasks and Environments

CURRICULUM	INITIAL, TRANSITION, CONVERSION, UPGRADE, AND REQUALIFICATION				RECURRENT				
	INSTRUCTION AND PRACTICE			*EVALUATION*	*INSTRUCTION AND PRACTICE*			*EVALUATION*	
					In a LOFT, or in an FSTD Course of Instruction				
Tasks	INITIAL, TRANSITION, and PHASE III REQUAL FULL	CONVERSION/ UPGRADE, and PHASE II REQUAL CORE	CONVERSION/ UPGRADE, and PHASE I REQUAL	PROFICIENCY TESTS	Every 9 Months	Every 18 Months	Every36 Months	PROFICIENCY TEST or CHECK	PROFICIENCY REVIEW
8.0 Visual Approach									
8.1 All Engines Operating (Normal)	X	X	X	Select One		X		Select One	
8.2. One Engine Inoperative	X	X	X			X			
8.3 Two Engines Inoperative (3 and 4 Engine Aircraft)	X	X	X			X			
9.0 Missed Approach									
9.1 All Engines Operating	X	X	X	X		X		X	Select One
9.2 One Engine Inoperative	X	X	X	X	X			X	
9.3 From a Circling Approach (when authorized)	X	X	X	X		X		X	
9.4 Descending Break-Out Maneuver from PRM Approach (when authorized)	X	X	X			X			

Table 3A – Job Performance Tasks and Environments

CATEGORIES OF TRAINING	INITIAL, TRANSITION, CONVERSION, UPGRADE, AND REQUALIFICATION				RECURRENT				
	INSTRUCTION AND PRACTICE			*EVALUATION*	*INSTRUCTION AND PRACTICE*			*EVALUATION*	
					In a LOFT, or in an FSTD Course of Instruction				
Tasks	INITIAL, TRANSITION, and PHASE III REQUAL FULL	CONVERSION/ UPGRADE, and PHASE II REQUAL CORE	CONVERSION/ UPGRADE, and PHASE I REQUAL	PROFICIENCY TESTS	Every 9 Months	Every 18 Months	Every36 Months	PROFICIENCY TEST or CHECK	PROFICIENCY REVIEW
10.0 Landing									
10.1 All Engines Operating	X	X	X	X	X			X	
10.2 Crosswind	X	X	X	X	X			X	
10.3.1 One Engine Inoperative	X	X	X	X		X		X	X
10.3.2 Two Engines Inoperative (3 and 4 Engine Aircraft)	X	X	X			X			
10.4 Landing Transition									
10.4.1 From a Precision Approach	X	X	X	X	X			X	Select One
10.4.2 From a Non-Precision Approach	X	X	X	X	X			X	
10.4.3 From a Visual Approach	X	X	X	X			X	X	
10.4.4 From a Circling Approach	X	X	X			X			
10.5 Rejected Landing	X	X	X	X	X				
10.6 Zero or Partial Flaps	X	X		X		X			
10.7 Auto-Land	X	X	X	X		X			X
10.8 Enhanced Flight Vision System (EFVS)	X	X	X	X		X			X
10.9 Head-up Display (HUD)	X	X	X	X		X		X	

Table 3A – Job Performance Tasks and Environments

CATEGORIES OF TRAINING	INITIAL, TRANSITION, CONVERSION, UPGRADE, AND REQUALIFICATION				RECURRENT				
	INSTRUCTION AND PRACTICE			*EVALUATION*	*INSTRUCTION AND PRACTICE*			*EVALUATION*	
					In a LOFT, or in an FSTD Course of Instruction				
Tasks	INITIAL, TRANSITION, and PHASE III REQUAL FULL	CONVERSION/ UPGRADE, and PHASE II REQUAL CORE	CONVERSION/ UPGRADE, and PHASE I REQUAL	PROFICIENCY TESTS	Every 9 Months	Every 18 Months	Every36 Months	PROFICIENCY TEST or CHECK	PROFICIENCY REVIEW
11.0 Abnormal Procedures									
11.1 Un-Annunciated	All	All	All	I		F		I	I
11.2.0 Systems (ATA Code)									
11.2.1. Air Conditioning (21)	F	G	H	I			G	I	I
11.2.2 Auxiliary Power Unit (49)	F	G	H	I			G	I	I
11.2.3. Autopilot (22)	F	G	H	I			G	I	I
11.2.4 Brakes (32)	F	G	H	I			G	I	I
11.2.5 Communications (23)	F	G	H	I		F		I	I
11.2.6 Doors (52)	F	G	H	I			G	I	I
11.2.7 Electrical Power (24)	F	G	H	I			G	I	I
11.2.8 Emergency Equipment (25)	F	G	H	I			G	I	I
11.2.9 Engine (72)	F	G	H	I		F		I	I
11.2.10 Fire Protection (26)	F	G	H	I			G	I	I

Table 3A – Job Performance Tasks and Environments

CATEGORIES OF TRAINING	INITIAL, TRANSITION, CONVERSION, UPGRADE, AND REQUALIFICATION				RECURRENT				
	INSTRUCTION AND PRACTICE			*EVALUATION*	*INSTRUCTION AND PRACTICE*			*EVALUATION*	
					In a LOFT, or in an FSTD Course of Instruction				
Tasks	INITIAL, TRANSITION, and PHASE III REQUAL FULL	CONVERSION/ UPGRADE, and PHASE II REQUAL CORE	CONVERSION/ UPGRADE, and PHASE I REQUAL	PROFICIENCY TESTS	Every 9 Months	Every 18 Months	Every 36 Months	PROFICIENCY TEST or CHECK	PROFICIENCY REVIEW
Abnormal Procedures									
11.2.11 Flaps (27)	F	G	H	I			G	I	I
11.2.12 Flight Controls (27)	F	G	H	I		F		I	I
11.2.13 Fuel (28)	F	G	H	I			G	I	I
11.2.14 EGPWS or TAWS (34)	F	G	H	I			G	I	I
11.2.15 HUD	F	G	H	I			G	I	I
11.2.16 Hydraulic Power (29)	F	G	H	I			G	I	I
11.2.17 Ice and Rain Protection (30)	F	G	H	I			G	I	I
11.2.18 Instruments (31)	F	G	H	I			G	I	I
11.2.19 Landing Gear (32)	F	G	H	I			G	I	I
11.2.20 Navigation (34)	F	G	H	I		F		I	I
11.2.21 Oxygen (35)	F	G	H	I			G	I	I
11.2.22 Pneumatic (36)	F	G	H	I			G	I	I
11.2.23 Propellers (61)	F	G	H	I		F		I	I
11.2.24 Stall Warning (27)	F	G	H	I			G	I	I
11.2.25 Thrust Reversers (78)	F	G	H	I			G	I	I
11.2.26 Warning Systems (various)	F	G	H	I		F		I	I

Table 3A – Job Performance Tasks and Environments

CATEGORIES OF TRAINING	INITIAL, TRANSITION, CONVERSION, UPGRADE, AND REQUALIFICATION				RECURRENT				
	INSTRUCTION AND PRACTICE			*EVALUATION*	*INSTRUCTION AND PRACTICE*			*EVALUATION*	
					In a LOFT, or in an FSTD Course of Instruction				
Tasks	INITIAL, TRANSITION, and PHASE III REQUAL	FULL CONVERSION/ UPGRADE, and PHASE II REQUAL	CORE CONVERSION/ UPGRADE, and PHASE I REQUAL	PROFICIENCY TESTS	Every 9 Months	Every 18 Months	Every36 Months	PROFICIENCY TEST or CHECK	PROFICIENCY REVIEW
12.0 Emergency Procedures									
12.1 Fire and Smoke in Aircraft	X	X(1)	X(1)	Select any Two		X		Select any Two	
12.2 Un-annunciated Fire in Flight	X	X(1)	X(1)			X			
12.3 Ditching	X	X(1)	X(1)						
12.4 Emergency Descent (Maximum Rate)	X	X(1)	X(1)				X		
12.5 Rapid Decompression	X	X(1)	X(1)				X		
12.6 Emergency Evacuation	X	X(1)	X(1)			X			
12.7 Engine Fire, Severe Damage, or Separation	X	X(1)	X(1)			X			
12.8 Landing with Degraded Flight Controls	X	X(1)	X(1)			X			
12.9 Pilot Incapacitation	X	X(1)	X(1)			X			
12.10 All other emergencies in accordance with the FCOM	X	X(1)	X(1)	X		X			X

Table 3A – Job Performance Tasks and Environments

CATEGORIES OF TRAINING	INITIAL, TRANSITION, CONVERSION, UPGRADE, AND REQUALIFICATION				RECURRENT				
	INSTRUCTION AND PRACTICE			*EVALUATION*	*INSTRUCTION AND PRACTICE*			*EVALUATION*	
					In a LOFT, or in an FSTD Course of Instruction				
Tasks	INITIAL, TRANSITION, and PHASE III REQUAL	FULL CONVERSION/ UPGRADE, and PHASE II REQUAL	CORE CONVERSION/ UPGRADE, and PHASE I REQUAL	PROFICIENCY TESTS	Every 9 Months	Every 18 Months	Every36 Months	PROFICIENCY TEST or CHECK	PROFICIENCY REVIEW
13.0 Line Oriented Operations Environments									
13.1 Anti-Icing and Deicing Before Takeoff	X	X	X			X			
13.2 Structural Icing, Airborne	X	X				X			
13.3 Thunderstorm Avoidance	X	X				X			
13.4 Contaminated Runway Operations	X	X	X			X			
13.5 High Density Altitude Runway Operations	X	X	X			X			
13.6 CFIT and Terrain Avoidance	X	X	X			X			
13.7 ETOPS Procedures	X	X	X				X		
13.8 Altimeter settings (U.S. and International operations)	X	X	X				X		
13.9 Air Hazard Avoidance	X	X	X			X			

NOTES:

X – Task must be completed X(1) means the task is required only for Conversion X(2) means that the task must be completed twice.

A – Either Departure (5 1) or Arrival (5 6) is required.

B – May be waived for pilots who maintain landing recency on the line

C – MEL relief will be in accordance with the certificate holders specific MEL

D – Trained to proficiency in each specific approach authorized in operations specifications for this airplane group

E – Reserved

F – Select at least one procedure from the indicated system.

G – Select at least 50% of the systems and complete a minimum of one procedure for each.

H – Select at least 30% of the systems and complete a minimum of one procedure for each

I – Select as many of the systems and devices necessary for the applicant to demonstrate that he or she has a practical knowledge of the use of the systems and devices appropriate to the aircraft type.

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B. Aircraft Emergency Equipment Training Requirements. Aircraft Emergency Procedures Drills and Observations. (see §§ 121.1205; 121.1233; 121.1255; 121.1333; 121.1337; 121.1351; 121.1365; 121.1367; 121.1337; 121.1381; 121.1383; 121.1387; and 121.1391)

1. An individual performance drill is a hands on training and evaluation demonstration that is performed by each flight crewmember using the specified emergency equipment.

2. A group performance drill allows a flight crewmember to participate as part of a group of persons completing a specific drill. During these situations, it is not necessary for each flight crewmember to complete each task in the performance drill. However, each flight crewmember participant must observe the actions and activities of the other persons who are completing the performance drill tasks.

3. An observation drill is one during which a flight crewmember observes a specific procedural drill being conducted by other persons in a live setting or through an audio-visual medium.

4. Table 3B provides a list of the drills and observations that are required in each training curriculum. The frequency for recurrent drills and observations is every 36 months. Attachment 4 of this appendix contains the performance standards for each drill and observation.

5. Each flight crewmember must operate each exit on each aircraft type on which the flight crewmember is to serve in both the normal and emergency modes, including the actions and forces required in the deployment of emergency evacuation slides.

6. Each flight crewmember must complete the required emergency training drills during the specified training periods, using those items of installed emergency equipment for each aircraft type on which the flight crewmember is to serve.

7. Each piece of emergency equipment and training device must be in its fully secured, pinned, bracketed, or stowed condition, as installed on the aircraft, prior to being operated by each flight crewmember during each performance drill. The removal and stowage of each piece of emergency equipment may be completed separately from the performance drill as part of the equipment mountings drill.

8. Flight crewmembers must demonstrate proficiency by completing each performance drill without reference to any guidance material or instruction.

9. Individual evaluations of each flight crewmember's performance by an instructor is required. Flight crewmembers who do not complete emergency training drills must be retrained in accordance with the certificate holder's approved training program prior to reevaluation.

TABLE 3B—AIRCRAFT EMERGENCY EQUIPMENT TRAINING REQUIREMENTS

Emergency equipment training drills	New hire	Initial, transition, conversion, upgrade, and Phase II and III requalification	Recurrent every 36 months
No certificate holder may use nor may any person serve as a flight crewmember unless the following training has been completed by that person.			
(a) Performance Drills			
Individual			
(1) Fire Extinguishers		X	X
(2) Oxygen Systems		X	
(3) Equipment Mountings		X (only required if mountings differ by equipment)	
(4) Flight Deck Oxygen Systems		X	X
(5) Firefighting (Actual Fire)	X		
(6) Emergency Exits		X	X
(7) Emergency Evacuation (with Escape Slide)		X	X
(8) Emergency Evacuation (without Escape Slide)		X	X
(9) Flotation Devices		X	X
Group			
(10) Ditching Survival (Dry Training Environment)		X	X
(11) Ditching Survival (Wet Training Environment)	X		
(b) Observation Drills			
(1) Preparation of Emergency Exits in Emergency Mode		X	X
(2) Emergency Evacuation Using an Escape Slide		X	X
(3) Deployment, Inflation, and Detachment of Slide, Raft, or Slide-Raft		X	X

See attachment 4 for the Performance Standards for the Emergency Equipment Training Drills.

C. Determining the Level of Flight Simulation Training Device That Must Be Used for Training, Evaluation, and Recent Experience (See §§ 121.1345; 121.1347; 121.1349; and 121.1351)

To use an FSTD for training, evaluation, and recent experience the following general requirements must be met. The code shown in Table 3C for the task or environment indicates the lowest FSTD qualification level that may be used.

1. *General Requirements.* In addition to the approval of the POI required by part 121, to be used for any task or environment, an FSTD must:

(a) Have a qualification level assigned in accordance with part 60 of this chapter.

(b) Be maintained in accordance with part 60 of this chapter.

(c) Have all of the aircraft and FSTD systems installed and operating that are necessary to complete the task or environment.

(d) Be operated in accordance with § 60.25 of this chapter. Operation with missing, malfunctioning, or inoperative components.

(e) Have the qualification level indicated in Table 3C, or a higher qualification level, for the task or environment and the category of training indicated. Certain tasks may be trained in an FSTD at a different level than required for evaluating that specific task. The instructor must observe the pilot perform the task to proficiency in the level of FSTD required for the evaluation prior to the evaluation by a check person.

2. *Loft Requirements.* For Qualification LOFT, a level C or D FFS is required. For Recurrent LOFT, a level B, C, or D may be used.

3. *Takeoff and Landing 90-Day Recency of Experience.* The three takeoffs and three landings required for maintaining or regaining 90-day recency of experience must include at least one takeoff with a simulated failure of the most critical engine, at least one landing from a precision category approach to the lowest minimums authorized for the certificate holder, at least one landing to a full stop, and at least one visual traffic pattern and landing. For maintaining recency of experience in a FFS, a level B, C, or D must be used. For regaining recency of experience, a level C or D is required.

4. *FSTD Requirements for the Proficiency Test, Check, or Review.*

(a) The proficiency test administered at the conclusion of initial, transition, conversion, upgrade, or requalification training must be conducted in no more than two levels of FSTD.

(b) The proficiency test, check, or review administered as part of the recurrent qualification requirements may only be conducted in a Level B or higher FFS.

5. *Experience Requirements for Allowing Credit for Level C Full Flight Simulators.* Where a Level D FFS is indicated in Table 3C, a Level C FFS may be used to complete the training and the proficiency test if the pilot applicant meets the following prerequisite experience requirements:

(a) For first time qualification in group, the pilot must have a minimum of 1500 hours of flight time as a pilot in an aircraft, including a minimum of 750 hours of multiengine time.

(b) For upgrade to PIC, the pilot must have a minimum of 200 hours in the aircraft type.

(c) For SIC training and evaluation, the pilot must have a minimum of 1500 hours as a pilot, 500 hours of multiengine time, and 500 hours in the aircraft type as a flight crewmember.

6. *Seat Dependent Task Training.* Seat dependent task training must be provided for all check pilots, check captains, pilot flight instructors, and for PIC and SIC if a certificate holder authorizes the PIC to operate the aircraft from the right hand pilot seat and the SIC to operate the aircraft from the left hand pilot seat. Seat dependent task training must include all of the following:

(a) At least one LOFT scenario operating from the opposite pilot seat with qualified flight crewmember(s) occupying the remaining flight deck positions.

(b) The use of systems that involve the flight path or speed of the aircraft; or

(c) The use of systems that have controls not centrally located, or are accessible or operable from only the left or from the right pilot seat.

(d) Each of the following tasks in the opposite pilot seat.

(1) Preflight, including engine start.

(2) Push back or power back, as appropriate for the certificate holder.

(3) Taxi.

(4) Normal takeoff.

(5) Rejected takeoff.

(6) Takeoff with the failure of an engine.

(7) Climb to, cruise at, or descent from an intermediate operating altitude.

(8) Precision instrument approach and landing.

(9) Non-precision instrument approach and landing with an engine failed.

(10) Parking at a gate or jetway if appropriate for the certificate holder.

(11) For check pilots and pilot flight instructors authorized to conduct training or evaluation functions, training and practice in conducting flight training or flight checks from the left hand and right hand pilot seats, including the required standard operating procedures, abnormal procedures, non-normal procedures, and emergency procedures sufficient to ensure competence to conduct the pilot training and flight checks required by this sub-part; and

(12) For check pilots and check captains who are authorized to conduct operating experience or line checks in the airplane during flight, the safety measures to be taken from either pilot seat for emergency situations that are likely to develop during flight operations.

(13) Training and evaluation in the airplane is limited to certificate holders operating in accordance with the deviation described in § 121.1345(b) through (e).

7. The level of FSTD authorized for each of the tasks described in paragraph C.6 of this attachment is the same as the level of FSTD authorized for the same tasks during the proficiency test, check, or review as outlined in Table 3C in this appendix.

END QPS REQUIREMENT

BEGIN INFORMATION

8. Tasks or environments that are not dependent on the pilot's seat occupied, that do not use systems involved with the flight path or speed of the aircraft, and have controls that are centrally located and completely accessible and operable from both the left and right pilot seats, are not required to be addressed in seat dependent task training.

9. If the certificate holder adds tasks or environments to those listed in Table 3C, it must further develop the tasks or environments to include the requirement and frequency for training and evaluation in each specific category of training listed in the table. These changes must be submitted to the POI for approval.

END INFORMATION

BEGIN QPS REQUIREMENT

TABLE 3C—MINIMUM FSTD REQUIRED FOR CREDIT

Training category	Initial, transition, conversion, upgrade, and requalification		Recurrent	
Tasks Each task may be performed in the FSTD level specified or any higher level of FSTD.	Training [1]	At least one training session and the proficiency test [2]	Training [1]	Proficiency test, check, or review [3]
1.0 General				
1.1 Operation of Systems and Controls at the Flight Engineer's Panel	4	A	4	B
1.2 Human Factors and CRM	Must be incorporated throughout training and evaluation.			
1.3 Aircraft Handling Standards	As authorized for each task or environment.			
1.4 ATC Communications and Procedures	As authorized for each task or environment.			
1.5 Seat Dependent Training	Each task as authorized under the "Proficiency Test, Check, or Review" column set out in this table. See paragraph C.6 of this attachment.			
2.0 Preflight Procedures				
2.1 Flight Deck (Inspection or Preflight)	4	A	4	B
2.2 Cabin Inspection	Aircraft or approved pictorial means.			
2.3 Exterior Inspection	Aircraft or approved pictorial means.			
2.4 Navigation System Setup	4	A	4	B
3.0 Ground Operations				
3.1 Engine Start	4	A	4	B
3.2 Pushback and Powerback	A	A	A	B
3.3 Taxi	A	[4] D	A	B
3.4 Pre-Takeoff Procedures	4	A	4	B
3.5 After Landing	4	A	4	B
3.6 Parking and Securing	A	A	A	B
4.0 Takeoff				
4.1 Normal and Crosswind—All Engines Operating	A	D	A	B
4.2 Instrument with Lowest Authorized RVR	A	A	A	B
4.3 With Engine Failure	A	A	A	B
4.4 Rejected With Lowest Authorized RVR	A	A	A	B
5.0 Departure, Climb, Cruise, Descent, and Arrival				
5.1 Instrument Departure	6	[4] D	6	B
5.2 Climb	6	A	6	B
5.3 One Engine Inoperative En Route	6	A	6	B
5.4 En Route Navigation	6	A	6	B
5.5 Descent	6	A	6	B
5.6 Instrument Arrival	6	[4] D	6	B
5.7 Holding	6	A	6	B
5.8 Approach Transition	6	[4] D	6	B
6.0 Aircraft Handling				
6.1 Recognition of, and Recovery from, Approach to Stall.				
6.1.1 Clean configuration	A	[4] D	A	B
6.1.2 Takeoff or maneuvering configuration	A	[4] D	A	B
6.1.3 Landing configuration	A	[4] D	A	B
6.1.4 Landing configuration with autopilot engaged	A	D	A	B
6.2 Asymmetric Thrust	A	A	A	B
6.3 Runaway Trim and Stabilizer	A	A	A	B
6.4 Jammed Trim and Stabilizer	A	A	A	B
6.5 Upset Recognition and Recovery	A	[4] D	A	B
6.6 Slow Flight	A	[4] D	A	B
6.7 Turns With and Without Spoilers	A	A	A	B
6.8 Stability Augmentation Inoperative	A	A	A	B
6.9 Mach Tuck and Mach Buffet	A	A	A	B
6.10 High Sink Rate	A	[4] D	A	B
6.11 Flight Envelope Protection Demonstration	A	A	A	B
6.12 Windshear Avoidance and Encounter	A	A	A	B
6.13 Traffic Avoidance (TCAS)	[#5] 6	A	[#5] 6	B
7.0 Instrument Approaches				
7.1 All Engines Operating—Autopilot Coupled	5	[4] D	5	B
7.2 All Engines Operating—Manually Flown	5	[4] D	5	B
7.3 One Engine Inoperative—Manually Flown	A	[4] D	A	B
7.4 Approach Type				

TABLE 3C—MINIMUM FSTD REQUIRED FOR CREDIT—Continued

Tasks Each task may be performed in the FSTD level specified or any higher level of FSTD.	Training category: Initial, transition, conversion, upgrade, and requalification — Training [1]	Training category: Initial, transition, conversion, upgrade, and requalification — At least one training session and the proficiency test [2]	Training category: Recurrent — Training [1]	Training category: Recurrent — Proficiency test, check, or review [3]
7.4.1 Category II and III	A	[4] D	A	B
7.4.2 Precision Groups	A	A	A	B
7.4.3 Non-Precision Groups	A	A	A	B
7.4.4 Ground Based Radar Approach (ASR and PAR)	6	6	6	B
8.0 Visual Approach				
8.1 All Engines Operating (Normal)	A	[4] D	A	B
8.2 One Engine Inoperative	A	A	A	B
8.3 Two Engines Inoperative (3 and 4 Engine Aircraft)	A	[4] D	A	B
9.0 Missed Approach				
9.1 All Engines Operating	A	[4] D	A	B
9.2 One Engine Inoperative	A	A	A	B
9.3 From a Circling Approach	A	A	A	B
9.4 Descending Break-Out Maneuver from PRM Approach	A	A	A	B
10.0 Landing				
10.1 All Engines Operating	A	[4] D	A	B
10.2 Crosswind	A	B	A	B
10.3 Engine(s) Inoperative	A	[4] D	A	B
10.4 Landing Transition	A	B	A	B
10.5 Rejected Landing	A	A	A	B
10.6 Zero or Partial Flaps	A	A	A	B
10.7 Auto-Land	**6	*A	**6	B
10.8 EFVS	*A	*A	*A	B
10.9 HUD	*A	*A	*A	B
11.0 Abnormal Procedures [6]				
11.1 Un-annunciated	4	A	4	B
11.2.0 Systems (ATA Code)				
11.2.1 Air Conditioning (21)	4	A	4	B
11.2.2 APU (49)	4	A	4	B
11.2.3 Autopilot (22)	5	A	5	B
11.2.4 Brakes (32)	4	A	4	B
11.2.5 Communications (23)	4	A	4	B
11.2.6 Doors (52)	4	A	4	B
11.2.7 Electrical Power (24)	4	A	4	B
11.2.8 Emergency Equipment (25)	4	A	4	B
11.2.9 Engine (72)	4	A	4	B
11.2.10 Fire Protection (26)	4	A	4	B
11.2.11 Flaps (27)	4	A	4	B
11.2.12 Flight Controls (27)	5	A	5	B
11.2.13 Fuel (28)	4	A	4	B
11.2.14 EGPWS or TAWS (34)	5	A	5	B
11.2.15 HUD	5	A	5	B
11.2.16 Hydraulic Power (29)	4	A	4	B
11.2.17 Ice and Rain Protection (30)	4	A	4	B
11.2.18 Instruments (31)	5	A	5	B
11.2.19 Landing Gear (32)	4	A	4	B
11.2.20 Navigation (34)	5	A	5	B
11.2.21 Oxygen (35)	4	A	4	B
11.2.22 Pneumatic (36)	4	A	4	B
11.2.23 Propellers (61)	4	A	4	B
11.2.24 Stall Warning (27)	5	A	5	B
11.2.25 Thrust Reversers (78)	4	A	4	B
11.2.26 Warning Systems (various)	4	A	4	B
12.0 Emergency Procedures				
12.1 Fire or Smoke in Aircraft	4	A	4	B
12.2 Un-annunciated Fire in Flight	4	A	4	B
12.3 Ditching	4	A	4	B
12.4 Emergency Descent (Maximum Rate)	5	A	5	B
12.5 Rapid Decompression	4	A	4	B
12.6 Emergency Evacuation	4	A	4	B
12.7 Engine Fire, Severe Damage, or Separation	A	A	A	B
12.8 Landing with Degraded Flight Controls	*A	*A	*A	*B
12.9 Pilot Incapacitation	5	A	5	B
12.10 All other emergencies in accordance with the FCOM	5	*A	5	*B
13.0 Line Oriented Operations Environments				
13.1 Anti-Icing and Deicing Before Takeoff	4	A	4	B

TABLE 3C—MINIMUM FSTD REQUIRED FOR CREDIT—Continued

Training category	Initial, transition, conversion, upgrade, and requalification		Recurrent	
Tasks Each task may be performed in the FSTD level specified or any higher level of FSTD.	Training [1]	At least one training session and the proficiency test [2]	Training [1]	Proficiency test, check, or review [3]
13.2 Structural Icing, Airborne	A	A	A	B
13.3 Thunderstorm Avoidance	A	A	A	B
13.4 Contaminated Runway Operations	A	A	A	B
13.5 Low Air Density, High Altitude Runway Operations	A	A	A	B
13.6 CFIT and Terrain Avoidance	6	A	6	B
13.7 ETOPS Procedures	6	A	6	B
13.8 Altimeter settings (U.S. and International operations)	6	A	6	B
13.9 Air Hazard Avoidance	[5] [#] 6	A	[5] [#] 6	B
13.10 Terrain Avoidance (EGPWS or TAWS)	4	A	4	B

Footnotes:
[1] Where Level 4 or 5 FTD is shown, all systems (and systems interoperability) necessary for the task must be installed in the FTD and operating correctly.
[2] A maximum of 2 levels of FSTD may be used to complete the proficiency test following initial, transition, conversion, upgrade, or requalification training.
[3] A maximum of 1 level of FFS may be used to complete the recurrent proficiency test, check, or review.
[4] See paragraph C.6 of this attachment for requirements to use Level C FFS in place of Level D FFS.
[5] Interactive Computer Based Instruction is an acceptable method for training.
[6] The pilot must demonstrate the proper use of as many of the systems and devices listed as the person administering the test, check, or review finds are necessary to determine that the pilot has a practical knowledge of the use of the systems and devices installed on the aircraft.

Legend:
* Check for appropriate system installation and for FSTD qualification for this task.
** The FTD may be used, but a visual system meeting Level C FFS requirements must be installed and working properly.
# The FTD may be used, but a visual system meeting Level A FFS requirements must be installed and working properly.

END QPS REQUIREMENT

BEGIN INFORMATION

D. Persons Authorized To Administer Pilot Training, Evaluation, and Observation Activities Under Subpart BB. (see §§ 121.1347; 121.1349; 121.1251; 121.1253; 121.1255; 121.1257; 121.1271; 121.1281; 121.1341; 121.1377; 121.1379; 121.1381; 121.1383; 121.1385; and 121.1391)

Table 3D identifies who must administer certain required training and evaluation for pilots, and who must supervise and observe instructors and check pilots.

END INFORMATION

BEGIN QPS REQUIREMENT

TABLE 3D—PERSONS ELIGIBLE TO BE AUTHORIZED TO ADMINISTER PILOT TRAINING, EVALUATION, AND OBSERVATION ACTIVITIES UNDER SUBPART BB FOR THE PART 119 CERTIFICATE HOLDER *

Pilot training, evaluation, and observation activities under subpart BB (by aircraft type)	Affiliation and Position							
	Contractor			The part 119 certificate holder				
	Other than part 142 or other part 119 certificate holder	Part 142 or other part 119 certificate holder						
	Ground instructor	Ground instructor	Flight instructor	Ground instructor	Flight instructor	Check pilot	Aircrew program designee	Check captain
Academic (Ground School) Training	X	X	X	X				
Job Performance (Flight) Training			X		X			
Certificate or Rating Examination							X	
Proficiency Test (Initial, Transition, Conversion, Upgrade, Recurrent, Requalification)						X [1]	X	

TABLE 3D—PERSONS ELIGIBLE TO BE AUTHORIZED TO ADMINISTER PILOT TRAINING, EVALUATION, AND OBSERVATION ACTIVITIES UNDER SUBPART BB FOR THE PART 119 CERTIFICATE HOLDER *—Continued

Pilot training, evaluation, and observation activities under subpart BB (by aircraft type)	Affiliation and Position							
	Contractor			The part 119 certificate holder				
	Other than part 142 or other part 119 certificate holder	Part 142 or other part 119 certificate holder						
	Ground instructor	Ground instructor	Flight instructor	Ground instructor	Flight instructor	Check pilot	Aircrew program designee	Check captain
Qualification LOFT	.....	.....	.....	.....	X [2]	X		
Supervision of Operating Experience	.....	.....	.....	.....	.....	X	.....	X
PIC Initial Line Observation	.....	.....	.....	.....	.....	.....	X	
PIC Line Check (all flight crew observed)	.....	.....	.....	.....	.....	X		
Proficiency Check	.....	.....	.....	.....	.....	X		
Proficiency Review	.....	.....	.....	.....	X [2]	X		
Observation of:								
• Flight Instructor—Initial	.....	.....	.....	.....	.....	X		
• Flight Instructor—Recurring	.....	.....	.....	.....	.....	X		
• Check Pilot—Initial	.....	.....	.....	.....	.....	.....	X [3]	
• Check Pilot—Recurring	.....	.....	.....	.....	.....	X	X [3]	
• Check Pilot—PIC Line Check	.....	.....	.....	.....	.....	.....	X [3]	

* *See* § 121.1343 for special limited authorizations for Initial Cadre Personnel. When POI authorization is required, the designation will specifically state the authorizations granted to the instructor, check pilot, or APD. Part 142 TCEs and other part 119 certificate holders' check pilots may be qualified and authorized as check pilots or APDs by the part 119 certificate holders' POI in accordance with subpart BB of this part. When qualified and authorized, these check pilots and APDs are considered a component of the part 119 certificate holders' training program resources.

[1] When the proficiency test does not involve the issuance of a certificate or rating, a check pilot may conduct a Proficiency Test.

[2] With POI authorization, employees of the part 119 certificate holder who are specifically designated flight instructors may conduct Qualification LOFT and Proficiency Reviews.

[3] With POI authorization, employees of the part 119 certificate holder who are designated as APDs and specifically designated to do so, may conduct the Initial or Recurring Check Pilot Observation.

END QPS REQUIREMENT

BEGIN QPS REQUIREMENT

E. Administering Evaluations. (see §§ 121.1221; 121.1253; 121.1255; 121.1257; 121.1271; 121.1281; 121.1341; 121.1343; 121.1361; 121.1363; 121.1365; 121.1367; 121.1377; 121.1379; 121.1381; 121.1383; 121.1385; and 121.1391)

The following requirements apply to the evaluation activity indicated. Refer to Table 3D of this attachment for who may administer each type of evaluation.

1. *Line Checks.* A line check must be completed in accordance with § 121.1233.

2. *Proficiency Tests.*

(a) Proficiency tests must be administered for first time qualification in a duty position. They also must be administered at the end of the first 9-month recurrent training period following the proficiency test required by § 121.1365(b)(1), and for phase II and III requalification. Employees of the certificate holder who are used or will be used in the certificate holder's operations and who have completed all of the required training may use the proficiency test obtain a certificate or rating.

(b) When conducting a proficiency test, the evaluator (FAA, APD, or check pilot), must evaluate the success of each task as it is performed. If the proficiency test is a second attempt, and the first attempt was within the previous 60 days, the only tasks the evaluator is required to assess are those that were failed or were not assessed on the first attempt. However, during this retest, and at the discretion of the evaluator, any task may be reevaluated, including those previously judged satisfactory.

(c) During a proficiency test, a task is judged as either satisfactory or unsatisfactory. However, in limited circumstances, the evaluator may judge a task to be incomplete or may not be certain about the outcome of the task. In these limited circumstances, the evaluator may require the applicant to repeat that task, or portions of that task; however, this provision does not authorize instruction or practice. The remaining tasks of the proficiency test must be completed before repeating the questionable task. If the second attempt to perform a questionable task is not clearly satisfactory, the evaluator must consider it unsatisfactory.

(d) Unsatisfactory performance is demonstrated by consistently exceeding the parameters set out for the specific task, consistently exceeding the parameters for aircraft handling standards, or failing to take prompt, corrective action when those parameters are exceeded. If the pilot fails a task, the evaluator must decide if the entire test must be repeated or if the test can continue. If the entire proficiency test must be repeated, the evaluation must be terminated. If a single task has been judged unsatisfactory, and both the pilot and the evaluator agree, the test may continue, but only the tasks that have not been evaluated may be attempted. If

the pilot fails a second task, the evaluator must terminate the test.

(e) If the proficiency test must be terminated for unsatisfactory performance, the FAA notification (and notice of disapproval, if appropriate) must list the tasks or areas of operation that have not been evaluated and which tasks or areas of operation that have been found unsatisfactory. These tasks and areas of operation must be evaluated, or re-evaluated, on any subsequent proficiency test.

(f) If a proficiency test is discontinued for reasons other than unsatisfactory performance (e.g., equipment failure, weather, sickness), the evaluator must complete one of the following:

(1) If the test is part of an application for an FAA-issued certificate or rating, the evaluator must appropriately annotate FAA Form 8710–1, ''Airman Certificate and/or Rating Application.'' The evaluator must return FAA Form 8710–1 and, if applicable, AC Form 8080–2, Airman Written Test Report to the pilot. The evaluator must also issue a Letter of Discontinuance to the pilot. The Letter of Discontinuance must identify the portions of the test that were successfully completed. The pilot must present the Letter of Discontinuance to the evaluator when the test is resumed. The Letter of Discontinuance must become part of the certification file.

(2) If the test is not part of an application for an FAA-issued certificate or rating, the evaluator must properly annotate the pilot's training record to indicate the tasks and areas of operation that were satisfactorily completed and the tasks and areas of operation that were not evaluated.

(g) If the proficiency test is conducted as part of an application for an FAA-issued certificate or rating the pilot must have completed training for and demonstrated satisfactory performance on the rejected takeoff task as the pilot flying from either the left-hand or right-hand pilot's seat and satisfactorily completed the training for and demonstrated satisfactory performance on the remaining required tasks and environments listed in this QPS for a proficiency test.

(h) If the proficiency test is conducted as part of an application for an FAA-issued certificate or rating, and the pilot has not completed training for and demonstrated satisfactory performance on the circle to land task as the pilot flying from either the left-hand or right-hand pilot's seat, but has satisfactorily completed the training for and demonstrated satisfactory performance on the remaining required tasks and environments listed in this QPS for a proficiency test, the evaluator must annotate any certificate or rating issued with one of the following limitations:

(1) If the airline transport pilot certificate is issued coincident with a type rating, the certificate must be annotated, ''ATP CIRC. APCH. VMC ONLY, (insert aircraft type) CIRC. APCH–VMC ONLY.''

(2) If the airplane type rating is added to an airline transport pilot certificate, the certificate must be annotated, ''(insert aircraft type) CIRC. APCH–VMC ONLY.''

(i) The evaluator must submit FAA Form 8081.5C, ''Airman Performance Report, Airline Transport Pilot and Aircraft Type Rating for Airplane,'' to the FAA for all tests administered under subpart BB of part 121.

3. *Proficiency Checks and Reviews.*

(a) Proficiency checks and reviews must include job performance evaluation of the tasks identified in Table 3B and an equipment knowledge assessment outlined in section B of Attachment 2 of this appendix. The equipment knowledge assessment may be replaced by the academic knowledge test as outlined in Attachment 2 of this appendix if the pilot completes the proficiency test within 60 days of the knowledge test. If the pilot does not complete the academic knowledge test in these areas within 60 days of the proficiency test, the pilot must complete a test of these knowledge areas in conjunction with the proficiency check or review. This test may be completed with oral, written, or computer based methodology. A passing score of 80% is required in each of the three areas of:

(1) Aircraft systems;

(2) Handbooks, manuals, MEL, CDL, and operations specifications; and

(3) Aircraft performance and limitations.

(b) Evaluators who conduct proficiency checks and reviews and instructors who conduct proficiency reviews may provide limited training to a pilot. The limits are:

(1) No more than two tasks may be trained, and no more than a total of three attempts (including the first unsatisfactory, a rehearsal, and a final assessment) in each of the two tasks is allowed.

(2) The pilot has not satisfactorily completed the check or review if the pilot has three or more unsatisfactory tasks, or fails to demonstrate satisfactory performance in three attempts at any one task.

(3) The check or review must be completed within the approved scheduled time period.

4. *Other Assessments.*

(a) After qualification, the pilot's performance in all job performance training activities (including LOFT) must be assessed for a satisfactory level of task proficiency based upon this QPS.

(b) During a scheduled FSTD course of instruction, if a task is performed unsatisfactorily the pilot may retrain on the unsatisfactory task; however, all scheduled tasks, including any retraining, must be completed within the approved scheduled time period.

(c) Unsatisfactory task performance during LOFT may not be retrained and reevaluated during that scheduled time period.

5. *Satisfactory or Unsatisfactory Performance.*

(a) No evaluator or instructor may assess the pilot's performance as satisfactory unless that pilot:

(1) Performs the tasks in accordance with the standards and tolerances established in the QPS.

(2) Demonstrates mastery of the aircraft or simulated aircraft with the successful outcome of each task never in doubt.

(3) Demonstrates performance such that no corrective or instructive action is required by another pilot to maintain safe flight.

(4) Demonstrates CRM competencies in accordance with duties outlined in the FCOM requiring crew interactions, including in a crew briefing before each takeoff and before each approach.

(5) Demonstrates sound judgment.

(b) The evaluator or instructor must assess a pilot's performance as unsatisfactory if the pilot consistently exceeds tolerances established in this QPS or fails to take prompt corrective action when tolerances are exceeded.

6. *Recording, Reporting and Correcting Unsatisfactory Performance.* The certificate holder must report a failure of a test, check, or review to the FAA in accordance with § 121.1331(f)(1). The pilot must be retrained and reevaluated to a satisfactory level before the pilot may begin or be returned to line operations.

END QPS REQUIREMENT

Attachment 4 of Appendix Q to Part 121

Generic Pilot Performance Standards for Each Task and Environment

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BEGIN QPS REQUIREMENT

A. Developing Pilot Performance Requirements for Each Task and Environment. (see §§ 121.133; 121.135; 121.1201; 121.1203; 121.1205; 121.1221; 121.1253; 121.1255; 121.1257; 121.1271; 121.1281; 121.1341; 121.1343; 121.1361; 121.1363; 121.1365; 121.1367; 121.1377; 121.1379; 121.1381; 121.1383; 121.1385; and 121.1391)

1. *General Requirements.*

(a) Certificate holders must develop training curricula and performance requirements for each required task and environment that include:

(1) Conditions: Environmental conditions and circumstances, including those that compound the difficulty of the task when encountered.

(2) Awareness criteria: Identify specific aspects of the task and environment that indicate proper operation, a need to seek further information, or a need to take action to prevent encountering a hazard or compounding the difficulty unnecessarily.

(3) Action criteria: Procedures for completing a task, including operations in or near a critical environment, when appropriate. Provide relevant parameters with tolerances to reflect satisfactory levels of performance.

(b) This attachment describes performance requirements and generic procedures for completing a task or operating in or near a critical environment. The certificate holder must tailor these performance requirements to the specific aircraft type and the certificate holder's approved operations. The FAA approved procedures for each task must include duties that apply to the pilot flying (PF) the aircraft and the pilot monitoring (PM) the aircraft in accordance with the procedures the certificate holder uses in operations under this part. The certificate holder must include the PF and PM procedures in the FCOM required by § 121.133(c).

2. [Reserved]

B. Generic Tasks and Environments. (see §§ 121.133; 121.135; 121.1201; 121.1203; 121.1205; 121.1221; 121.1253; 121.1255; 121.1257; 121.1271; 121.1281; 121.1341; 121.1343; 121.1361; 121.1363; 121.1365; 121.1367; 121.1377; 121.1379; 121.1381; 121.1383; 121.1385; and 121.1391)

1.0 AREA: All Operations

The pilot must demonstrate the awareness criteria and action criteria under the prescribed conditions. The certificate holder must train pilots in all authorized conditions. Any selected condition may be evaluated unless a particular condition is specified.

1.1 Task: Normal, Abnormal, and Emergency Procedures

(a) Condition(s). All.

(b) Awareness criteria.

(1) Maintain situational awareness of the events and circumstances at all times.

(2) Demonstrate ability to continuously monitor and to identify any potential hazards or threats to the safety of the flight.

(3) Demonstrate ability to communicate and manage available resources.

(4) Maintain adequate lookout and traffic avoidance for the conditions.

(5) Maintain awareness of aircraft position relative to a ''nearest suitable airport.''

(6) Monitor system indications to ensure normal operation or identify abnormal situations.

(c) Action criteria.

(1) Ensure operation of the aircraft within the limitations established by the FCOM.

(2) Comply with the provisions of the FCOM, SOP, and MEL (if appropriate) as they pertain to the particular aircraft, through all phases of flight and all operations.

(3) Make correct use of instruments, flight director, autopilot, and navigation and communication equipment as prescribed by the FCOM and as appropriate to the phase of flight.

(4) Plan and brief automation modes and configurations.

(5) Follow guidelines for PF and PM duties for operation of automated systems.

(6) Plan workload and allow sufficient time for programming FMS.

(7) Verbalize entries and changes made to automated systems. The pilot not making changes must ask for these verbalizations and verbalize that crosscheck is completed.

(8) Change level of automation to correspond to situational awareness and workload requirements.

(9) Call for and complete the proper normal, abnormal, or emergency checklist(s).

(10) Alert ATC and the certificate holder as necessary and obtain appropriate level of service.

(11) Ensure proper crew and passenger briefings are completed.

(12) The PF must conduct the takeoff briefing according to the FCOM prior to taking the active runway.

(13) The PF must ensure that the approach is briefed according to the FCOM prior to initial descent.

(14) Ensure potential terrain or obstacle threats are included in departure and arrival briefings.

(15) Ensure that passengers, crew, and cargo are properly secured for take-off or landing.

(16) Locate and proceed to the nearest suitable airport when necessary.

(17) Determine the best course of action when an immediate landing is required, but not possible.

1.2 Task: Operation of Systems and Controls at the Flight Engineer's Panel

(a) Condition(s). All.

(b) Awareness criteria

(1) Demonstrate an understanding and proper use of the systems, controls and displays represented on the flight engineer's panel.

(2) Demonstrate an understanding of the relationship of the aircraft's phase of flight, how to assess the status of the aircraft's systems, and when to take necessary corrective actions.

(c) Action criteria. Properly exercise the controls and systems represented at the flight engineer's panel during all phases of flight.

1.3 Task: Human Factors and CRM

(a) Condition(s). All.

(b) Awareness criteria

(1) Demonstrate terrain awareness.

(2) Demonstrate orientation, division of attention, and proper planning.

(3) Observe indication of situation, condition, or problem.

(4) Consider the risks of alternate courses of action.

(5) Demonstrate an awareness of environmental factors that are potentially hazardous to safety of flight operations.

(c) Action criteria

(1) Demonstrate sound judgment and operating practices in those instances where specific instructions or checklist items are not published.

(2) Confirm fault diagnosis with crew and review possible causes.

(3) Identify alternative course(s) of action; discuss with crew; monitor the course of action selected by evaluating progress toward a goal.

(4) Involve other crewmembers, aircraft dispatchers, and maintenance control personnel in option analysis.

(5) Demonstrate effective communications with other crewmembers.

(6) Coordinate actions with other crewmembers prior to execution, except where safety of flight would be in jeopardy.

(7) Ensure that coordination with flight or ground crew is completed where necessary.

(8) Acknowledge any ATC clearance (after it has been read back) or crew callout.

(9) Demonstrate the necessary flight crew coordination required for the tasks being completed.

1.4 Task: Aircraft Handling Standards

(a) Condition(s). All.

(b) Awareness criteria.

(1) Demonstrates awareness of the aircraft's trim condition.

(2) Demonstrates awareness of the aircraft's configuration.

(3) Demonstrates awareness of the auto-flight mode when in use.

(4) Demonstrates awareness of the aircraft's flight path and speed with respect to the horizon.

(5) Demonstrates awareness of the dangerous combinations of sideslip angles, rudder positions, or other flight parameters resulting from maximum, indiscriminate, uncoordinated, or rapid deflection of the rudder.

(c) Action criteria.

(1) General.

(i) Maintain smooth, positive aircraft attitude control in pitch, roll, and yaw to achieve and maintain appropriate flight path.

(ii) Maintain an airspeed appropriate to the aircraft configuration and flight conditions.

(iii) Use the appropriate aircraft configuration for normal and abnormal situations and procedures.

(iv) Properly trim for the configuration or condition, if not automatic.

(v) The outcome of a procedure or maneuver must never be in doubt.

(vi) Continuously correct back to the target parameter.

(2) Speed. Maintain the appropriate airspeed within ±10 knots, but never less than V_2–5 knots during takeoff or V_{REF}–5 knots during approach.

(3) Pitch attitude must not exceed the maximum established in the FCOM (if applicable).

(4) Roll (Bank).

(i) The angle of bank must not exceed 30° +5°.

(ii) The bank angle must be limited to 15° until an airspeed is reached that will safely permit bank angles larger than 15°.

(iii) With an engine inoperative, if appropriate and recommended by the FCOM, establish a bank of approximately 5° toward the operating engine(s).

(5) Altitude.

(i) Maintain altitude within ±100 feet (30 meters), when a constant altitude is specified and is within the capability of the aircraft.

(ii) An error of more than 100 feet, but less than 200 feet, which is promptly corrected, is acceptable.

(6) Rate of Descent.

(i) Maintain a stabilized rate of descent not to exceed 2,000 feet per minute below an altitude of 2,000 feet AGL.

(ii) Maintain a stabilized rate of descent not to exceed 1,000 feet per minute below an altitude of 1,000 feet AGL.

(iii) Maintain a stabilized rate of descent not to exceed 1,000 feet per minute unless the instrument approach procedure or an abnormal condition requires a higher descent rate, and the approach is briefed accordingly.

(7) Maintain heading within ±10° of the specified heading.

(8) Course. Maintain the specified course within one-quarter scale deflection of the CDI, ±5° on the RMI or bearing pointer, ±1 Nm on a DME arc, or RNAV course within a cross-track error not to exceed the specified RNP.

(9) Track (Ground track flown without electronic navigation aid guidance). Maintain the specified track within ±5°.

(10) Final approach segment, maintain a stabilized approach.

(i) Have the aircraft in the desired configuration for landing with the engines spooled and stable.

(ii) Maintain a constant pitch attitude.

(iii) Maintain a constant heading (within ±10°) or maintain electronic navigation indication with no more than one-quarter scale deviation vertically and laterally.

(iv) Maintain a constant airspeed within +5 and − 0 knots.

(v) Maintain a constant rate of descent (not to exceed 2,000 fpm below 2,000 ft AGL or 1,000 fpm below 1,000 ft AGL).

(vi) Keep the aircraft trimmed.

(vii) Maintain altitude at MDA, when reached within +50 to − 0 ft.

(viii) For constant angle non-XLS approaches, execute a missed approach when reaching the MDA, DA, or DH (as appropriate).

(ix) Except where the required visual references for the runway are distinctly visible and identifiable, going below the MDA, DA, or DH prior to the initiation of the missed approach procedure, is unsatisfactory performance.

1.5 Task: ATC Communication and Procedures

(a) Condition(s). All.

(b) Awareness criteria.

(1) Interpret all ATC clearances received and, when necessary, request clarification, verification, or change.

(2) Recognize the indication(s) of navigational station or waypoint passage.

(3) Recognize navigation signal loss or RNP-related alerting.

(4) Demonstrate the necessary flight crew coordination required for the tasks.

(c) Action criteria.

(1) Select and use the appropriate communication frequencies.

(2) Establish communications with ATC, using proper phraseology or data link procedures.

(3) Comply with all ATC clearances, instructions, or airspace restrictions.

(4) Advise ATC when unable to comply with a clearance.

(5) Comply with ATC reporting requirements.

(6) Demonstrate competency in two-way radio communications or ATC data link failure procedures.

(7) Use the current and appropriate navigation publications for the proposed flight.

(8) Identify the navigation aids associated with non-XLS approach procedures.

(9) Select and correctly identify the appropriate navigation frequencies and facilities associated with navigation if not using RNAV.

(10) Select, tune, identify, and confirm the operational status of ground and aircraft navigation equipment to be used for the approach. Low frequency (NDB) identification must be continuously monitored when used as the primary navigation reference. Where applicable, check automatic navigational aid identification on the navigation display.

(11) Set the correct RNP reference prior to any procedure where the default RNP is not appropriate.

(12) Locate the aircraft position using radials, bearing, DME range, coordinates, or navigation displays, as appropriate.

(13) Adhere to airspeed restrictions and adjustments.

(14) Intercept all courses, radials, bearings, or DME arcs appropriate to the procedure, route, and clearance in a timely manner.

(15) Comply with the procedures for the instrument or circling approach (terminal instrument procedures chart).

(16) Perform correct altimetry procedures, in accordance with the regulations, FCOM operational procedures, and ATC requirements.

END QPS REQUIREMENT

BEGIN INFORMATION

(d) The AIM is a reference to the generally accepted practices of basic flight rules and instrument flight operations.

END INFORMATION

BEGIN QPS REQUIREMENT

1.6 Seat Dependent Task Training

(a) Condition(s). All.

(b) Awareness criteria. Demonstrate awareness of the restrictions, limitations or modifications to procedures or maneuvers due to seat-dependency.

(c) Action criteria. Complete seat-dependent procedures or maneuvers.

1.7 Task: MEL Relief

(a) Condition(s). All.

(b) Awareness criteria.

(1) Understand MEL application.

(2) Consider factors that restrict aircraft operation.

(c) Action criteria. Apply the provisions of the appropriate MEL entry for operation restrictions.

END QPS REQUIREMENT

BEGIN INFORMATION

(d) The purpose of this task is to require specific training that addresses safe operation of the aircraft while carrying an MEL item that requires training to take advantage of the relief.

END INFORMATION

BEGIN QPS REQUIREMENT

2.0 AREA: Preflight Procedures

2.1 Task: Planning

(a) Condition(s). All.

(b) Awareness criteria.

(1) Consider factors such as wind, wake turbulence, aircraft gross weight, temperature, obstructions, pressure altitude, density altitude, possible windshear, runway surface condition and length, and other related factors in calculating or selecting proper performance data.

(2) Consider factors to be applied to the approach and landing such as displaced thresholds, meteorological conditions, NOTAMs, and ATC instructions.

(c) Action criteria.

(1) Apply the provisions of the appropriate operations specifications, operating limitations, FCOM, MEL or CDL, weight and balance data, and the maintenance logbook as they pertain to the planned operation described in the dispatch release.

(2) Apply the necessary adjustments to the published DA or DH and visibility criteria for the aircraft approach category as required:

(i) FDC NOTAMS.

(ii) Inoperative aircraft and ground navigation equipment.

(iii) Inoperative visual aids associated with the landing environment.

(iv) Weather service reporting factors and criteria.

2.2 Task: Flight deck (Inspection or Preflight)

(a) Condition(s). All.

(b) Awareness criteria.

(1) Coordinate with ground crew and ensure adequate clearance prior to supplying power to, or operating, any devices such as doors, hatches, or flight control surfaces.

(2) Know the maintenance or system tests that the pilot or other designated crewmember must perform.

(c) Action criteria.

(1) Demonstrate proper operation of applicable aircraft systems.

(2) Note any discrepancies and take proper corrective action.

(3) Determine that the aircraft is airworthy and safe for flight.

(4) Locate the documents required for flight, including airworthiness and registration certificates, operations specifications (if appropriate), FCOM, MEL, CDL, weight and balance data, and the maintenance logbook.

(d) The pilot must verify that the aircraft is safe for flight by examining and, if appropriate, servicing items such as:

(1) Engine(s), including controls and indicators.

(2) Fuel quantity (if interior inspection is appropriate to the aircraft).

(3) Oil quantity (if interior inspection is appropriate to the aircraft).

(4) Hydraulic fluid quantity (if interior inspection is appropriate to the aircraft).

(5) Oxygen quantity and pressures for crew and passengers (if interior inspection is appropriate to the aircraft).

(6) Fire protection and detection systems for proper operation, pressures, and discharge indications.

(7) Pneumatic system pressures (if interior inspection is appropriate to the aircraft).

(8) Ground environmental systems for proper operation.

(9) Auxiliary power unit (APU).

(10) Anti-ice and de-ice systems.

2.3 Task: Cabin Inspection

(a) Condition(s).

(1) All.

(2) The pilot must prepare the cabin for a positioning flight with no cabin crew aboard. The pilot is not required to prepare the cabin for passenger safety in revenue service.

(b) Awareness criteria. Awareness of emergency equipment location and stowage, emergency exit location and operation, and noticeable inoperative cabin equipment.

(c) Action criteria.

(1) Visually inspect the aircraft cabin to ensure the aircraft is safe for flight.

(2) Take necessary actions prescribed by the FCOM for safe flight or crew evacuation.

2.4 Task: Exterior Inspection

(a) Condition(s).

(1) All.

(2) An approved pictorial must realistically portray the location and detail of inspection items, and may be used instead of the aircraft to conduct an actual exterior inspection.

(3) Flight Instructors, Check Pilots, and Check Captains may be approved to certify a pilot's proficiency in exterior inspections.

END QPS REQUIREMENT

BEGIN INFORMATION

(4) The exterior inspection is a demonstration of a pilot's ability to perform appropriate safety checks. It is not an extension of the systems knowledge evaluation.

The person conducting the evaluation should limit questions to those necessary to determine if a pilot can properly conduct the inspection and recognize an unsafe condition.

END INFORMATION

BEGIN QPS REQUIREMENT

(b) Awareness criteria. Check the general area around the aircraft for hazards to the safety of the aircraft and personnel.

(c) Action criteria.

(1) Note any discrepancies and take proper corrective action.

(2) Determine that the aircraft is airworthy and safe for flight.

(d) The pilot must verify that the aircraft is safe for flight by examining and, if appropriate, servicing items such as:

(1) Engines, for closed and latched access panels, leaks other than normal drainage, intake and exhaust areas for freedom from FOD hazards, and pylon alignment marks, as appropriate.

(2) Fuel quantity (if exterior inspection is appropriate to the aircraft).

(3) Oil quantity (if exterior inspection is appropriate to the aircraft).

(4) Hydraulic fluid quantity (if exterior inspection is appropriate to the aircraft).

(5) Oxygen quantity and pressures for crew and passengers (if exterior inspection is appropriate to the aircraft).

(6) Landing gear, brakes, and steering system.
(7) Tires for condition, inflation, and correct mounting, where applicable.
(8) Fire protection and detection systems for pressures and absence of discharge indications (if exterior inspection is appropriate to the aircraft).
(9) Pneumatic system pressures (if exterior inspection is appropriate to the aircraft).
(10) Auxiliary power unit (APU).
(11) Flight control systems including trim, spoilers, ailerons, leading and trailing edge slats and flaps, elevator, stabilizer, and rudder, as appropriate.
(12) Anti-ice and de-ice systems.
(13) General airframe and structural integrity, including scratches, tears, holes, or dents and the fit and security of panels, doors, and hatches.

2.5 Task: Navigation System Setup

(a) Condition(s).
(1) All.
(2) This includes, but is not limited to, FMC, INS, and GPS navigation systems.
(b) Awareness criteria.
(1) Monitor the navigation system for fault indication, or for the results of self-tests.
(2) Ensure the system is operating normally.
(c) Action criteria.
(1) Verify aircraft, engine, and other data for accuracy.
(2) Enter or recall the planned route of flight.
(3) Enter performance-related data, such as thrust levels, planned speeds and other vertical navigation profile information.
(4) Perform crosschecks and crew verification procedures in accordance with the FCOM.

3.0 AREA: Ground Operations

(a) Condition(s). All.
(b) Awareness criteria.
(1) Maintain constant vigilance and lookout of the general area around the aircraft for hazards to the safety of the aircraft, personnel, other aircraft, vehicles, equipment, and structures.
(2) Properly divide attention inside and outside flight deck.
(3) Consider effect of jet blast on personnel, other aircraft, vehicles, ground equipment, and structures.
(4) Use airport diagram (surface movement) chart to aid in maintaining positional awareness.
(5) Comply with sterile flight deck requirements.
(c) Action criteria.
(1) Use the minimum thrust necessary to breakaway and to maintain taxi speed.
(2) Maintain proper spacing from other aircraft, obstructions, and personnel.
(3) Obtain appropriate clearance before crossing or entering active runways.
(4) Observe runway hold lines, localizer and glide slope critical areas, beacons, and other surface movement guidance control markings and lighting.
(d) The certificate holder must provide crewmembers with specific requirements for unique parking situations, or unique crewmember responsibilities that must be completed before the door closes or after it is opened in accordance with the FCOM. The certificate holder must also submit these unique requirements to the FAA for acceptance or approval as required.

END QPS REQUIREMENT

BEGIN INFORMATION

(e) Ground operations begin when the aircraft door is closed and includes all activities until the brakes are released for the takeoff roll. Ground operations resume again when the landing roll has been completed to a safe taxi speed just as the aircraft exits the landing runway, and continues until the aircraft has been parked and the door opened.
END INFORMATION

BEGIN QPS REQUIREMENT

3.1 Task: Engine Start

(a) Condition(s).
(1) All.
(2) Includes hot or cold weather, tailwinds, icing conditions, low density altitude.
(b) Awareness criteria. Ensure the ground safety procedures are followed during the before-start, start, and after-start phases of ground operations.
(c) Action criteria. Use required ground crew personnel during the before-start, start, and after-start phases (as appropriate).

3.1.1 Task: Engine Start—Normal

(a) Condition(s). All.
(b) Awareness criteria.
(1) Monitor appropriate RPM and EGT indicators.
(2) Be able to identify abnormal RPM and EGT indications.
(c) Action criteria.
(1) Start the engine(s):
(2) Under varying environmental conditions;
(3) Using normal, auxiliary power unit, external power, pneumatic sources, or cross-bleed, as appropriate.

3.1.2 Task: Engine Start—Abnormal

(a) Condition(s). All
(b) Awareness criteria.
(1) Monitor appropriate RPM and EGT indicators.
(2) Be able to identify abnormal RPM and EGT indications.
(c) Action criteria.
(1) Start the engine(s):
(2) Take appropriate action in the event of a malfunction during the start process.

3.2 Task: Pushback or Powerback

(a) Condition(s). All.
(b) Awareness criteria.
(1) Maintain communications with ground crew.
(2) Avoid use of brakes unless requested by ground crew.
(c) Action criteria.
(1) Exhibit adequate knowledge of pushback or powerback procedures (as appropriate to the aircraft).
(2) [Reserved]

3.3 Task: Taxi

(a) Condition(s).
(1) All.
(2) Training must be conducted in taxi operations at the lowest visibility (RVR) authorized. Evaluation can be in any conditions.
(b) Awareness criteria.
(1) Comply with low visibility procedures, as applicable.
(2) [Reserved]
(c) Action criteria. Demonstrate safe taxi procedures.

3.4 Task: Pre-Takeoff Procedures

(a) Condition(s). All.
(b) Awareness criteria. Be aware of the operational factors that could affect the takeoff such as takeoff warning inhibit systems or other aircraft characteristics, runway length, surface conditions, wind, wake turbulence, obstructions, and other related factors that could adversely affect safety.
(c) Action criteria.
(1) Interpret information and clearances received and ensure all instrument references, flight director and autopilot controls, and navigation and communications equipment have been set.
(2) Confirm that the aircraft trim and wing high lift devices are configured properly.
(3) Obtain (or acknowledge, as appropriate) the takeoff and departure clearance as issued by ATC.

3.5 Task: After Landing

(a) Condition(s). All.
(b) Awareness criteria. Promptly clear the runway, avoiding an incursion on any other runway in the process.
(c) Action criteria. Take no other action until the aircraft is clear of the

runway and a suitable ATC clearance has been received.

3.6 Task: Parking and Securing

(a) Condition(s). All.
(b) Awareness criteria. Be aware of or acknowledge other aircraft and ground vehicles that might be a hazard to your operation.
(c) Action criteria.
(1) Use available visual docking system and marshaller to properly park the aircraft.
(2) Complete the post-flight entries in the maintenance logbook, including any discrepancies encountered during the flight.

4.0 AREA: Takeoff

(a) Condition(s). All.
(b) Awareness criteria.
(1) Monitor engine and other aircraft controls, settings, and instruments during takeoff to ensure all predetermined parameters are maintained.
(2) Monitor aircraft airspeed to determine normal acceleration during take-off ground roll.
(3) Assess take-off and climb hazards particularly those related to obstacles.
(4) Consider the effect of LAHSO or SOIR if conducted on a runway that crosses the takeoff runway.
(c) Action criteria.
(1) The flight crewmembers must ensure takeoff clearance is received and that the correct runway is being entered for takeoff prior to crossing the hold short line.
(2) Taxi into position to maximize the available runway.
(3) Align the aircraft on the runway centerline.
(4) Apply the controls correctly to maintain longitudinal alignment on the centerline of the runway prior to and during the takeoff.
(5) Maintain aircraft alignment with the runway centerline during the takeoff roll.
(6) Adjust the engine controls for the existing conditions and verify the expected engine performance.
(7) Maintain a wings-level attitude during the takeoff roll and during the rotation to proper pitch attitude.
(8) Rotate at the proper airspeed, at the proper rate, to the proper pitch attitude for the aircraft configuration.
(9) Maintain a positive rate of climb throughout the takeoff and initial climb.
(10) Adjust to the desired pitch attitude at the predetermined airspeed or V-speed to attain the desired performance for the particular takeoff segment.
(11) Use the applicable noise abatement and wake turbulence avoidance procedures, as required.

END QPS REQUIREMENT

BEGIN INFORMATION

(d) Takeoff begins at brake release (or the application of thrust with the intention of flight for those aircraft not using brakes). Takeoff ends when the aircraft is airborne, or in the event of a rejected takeoff, when the aircraft has reached a safe taxi speed.

END INFORMATION

BEGIN QPS REQUIREMENT

4.1 Task: Normal and Crosswind—With All Engines Operating

(a) Condition(s).
(1) All.
(2) Takeoffs must be demonstrated and practiced to proficiency during training at the maximum demonstrated crosswind for the aircraft. For evaluation purposes the crosswind component need not exceed 12 knots.
(b) Awareness criteria.
(1) All awareness criteria listed in Area 4.0(b), Takeoff.
(2) Assess the changing effect of the crosswind component to make control corrections as required.
(c) Action criteria.
(1) All action criteria listed in Area 4.0(c), Takeoff.
(2) Transition smoothly and accurately into a stabilized climb.
(3) After liftoff, maintain required ground track or heading, as appropriate, until a turn is required.

4.2 Task: Instrument With Lowest Authorized RVR

(a) Condition(s).
(1) All.
(2) Takeoff must be demonstrated and practiced to proficiency in training under the lowest visibility authorized for takeoff.
(b) Awareness criteria. All awareness criteria listed in Area 4.0(b), Takeoff.
(c) Action criteria.
(1) Transition smoothly and accurately from outside visual reference(s) to instrument meteorological conditions.
(2) Transition smoothly and accurately into a stabilized climb.
(3) After liftoff maintain required heading or assigned navigation radial, as appropriate, until a turn is required.

4.3 Task: With Engine Failure

(a) Condition(s).
(1) All.
(2) Takeoff must be demonstrated and practiced to proficiency in training with the failure of the most critical engine.
(b) Awareness criteria.
(1) Observe flight and engine instruments or divergence from the runway centerline to assess loss of thrust.
(2) Identify those situations that require a rejected takeoff and make timely decision to continue the takeoff or reject the takeoff.
(3) Identify the side of the aircraft on which the failure has occurred.
(c) Action criteria.
(1) Apply rudder as required to counteract asymmetric thrust, keeping the inclinometer reference (''the ball'') centered.
(2) Maintain wings level.
(3) Maintain the aircraft alignment with the runway.

4.3.1 Task: Takeoff With Engine Failure Between V_1 and V_R

(a) Condition(s).
(1) All
(2) Takeoff must be demonstrated and practiced to proficiency in training with the engine failure after V_1 and prior to V_2; or as close as possible after V_1 when V_1 and V_2, or V_1 and V_R are identical.
(b) Awareness criteria.
(1) All awareness criteria in Task 4.3.Takeoff with Engine Failure.
(2) [Reserved]
(c) Action criteria.
(1) All action criteria in Task 4.3. Takeoff with Engine Failure.
(2) Continue the takeoff if abnormality or emergency (in accordance with FCOM procedures) occurs at or after V_1 speed.
(3) Transition smoothly and accurately into a stabilized climb.
(4) Maintain required ground track (or heading) and attitude appropriate for climb performance and terrain clearance as appropriate, until a turn is required.
(5) Make suitable decision to return to airport or divert, as appropriate.

4.3.2 Task: Takeoff with Engine Failure Between V_R and 500 ft Above Field Elevation

(a) Condition(s).
(1) All
(2) Takeoff must be demonstrated and practiced to proficiency in training with the failure after V_R such that nosewheel steering provides no directional control assistance and that visual cues for lateral direction are not available.
(b) Awareness criteria. All awareness criteria in Task 4.3. Takeoff with Engine Failure.
(c) Action criteria.
(1) All action criteria in Task 4.3. Takeoff with Engine Failure.
(2) Maintain a stabilized climb with wings level.
(3) Maintain required ground track (or heading) and attitude appropriate for

climb performance and terrain clearance as appropriate, until a turn is required.

(4) Make suitable decision to return to airport or divert, as appropriate.

4.4 Task: Rejected With Lowest Authorized RVR

(a) Condition(s).

(1) All

(2) The takeoff must be demonstrated and practiced to proficiency in training with the cause (for the decision to reject) presented so that the decision may be made prior to V_1 speed.

(b) Awareness criteria.

(1) All awareness criteria in Task 4.3.Takeoff with Engine Failure.

(2) Abort the takeoff if abnormality or emergency (in accordance with FCOM procedures) occurs prior to V_1 speed.

(3) Identify critical situation and make timely decision to reject the take-off.

(c) Action criteria.

(1) Reduce the power promptly to idle and simultaneously apply maximum wheel brakes when an engine failure or other cause for aborting the takeoff is recognized.

(2) Use spoilers, thrust or propeller reverse, and other drag or braking devices, as appropriate, to bring the aircraft to a safe stop on the runway or stopway surface.

5.0 AREA: Departure, Climb, Cruise, Descent, and Arrival

5.1 Task: Instrument Departure

(a) Condition(s). All.

(b) Awareness criteria. Understand the requirements of the climb profile, departure profile, or any other authorized departure procedure(s).

(c) Action criteria.

(1) Maintain assigned heading, course, or track, or comply with ATC clearance.

(2) Comply with the provisions of the climb profile, departure profile, or any other authorized departure procedure(s).

(3) Conduct the departure to a point where the transition to the en route environment is complete.

5.2 Task: Climb

(a) Condition(s). All.

(b) Awareness criteria.

(1) Monitor the climb profile to ensure intermediate crossing altitudes and the ATC clearance can be met.

(2) Understand speed restrictions as dictated by airspace, procedure, or ATC.

(c) Action criteria.

(1) Select and maintain an airspeed (best angle, best rate, best economy, or cost index) suitable for the conditions and in compliance with speed and crossing restrictions as dictated by airspace, procedure, or ATC.

(2) Perform correct altimetry procedures, setting QNE at the transition altitude or as dictated by airspace or ATC.

5.3 Task: One Engine Inoperative En route

(a) Condition(s). All

(b) Awareness criteria.

(1) Review route segments for proximity of high terrain and the MEA.

(2) Compare climb capability with MEA and high terrain.

(c) Action criteria.

(1) Maintain an appropriate thrust setting in the remaining engine(s).

(2) Maintain the airspeed for drift-down or engine-out (cruise) climb.

(3) Select the proper flight altitude for the configuration and environmental conditions (e.g., icing, thunderstorms, terrain).

5.4 Task: En route Navigation

(a) Condition(s). All

(b) Awareness criteria.

(1) Monitor fuel burn, cruise speed, and thrust to achieve planned performance.

(2) Monitor navigation system performance.

(3) Understand maximum operating altitude and optimum cruise altitude.

(c) Action criteria.

(1) Use Class I or Class II navigation procedures as authorized by the operations specifications and prescribed by the FCOM.

(2) Navigate to the degree of accuracy required by the airspace in which the aircraft is being operated.

(3) Conduct required navigation system crosschecks.

(4) Perform correct altimetry procedures and monitor flight level or altitude clearances.

(5) Report equipment failure that may degrade navigation as dictated by airspace or regional differences.

(6) Determine the optimum cruise altitude for a given gross weight and desired airspeed or Mach.

(7) Use appropriate on-board reference to determine the maximum cruise altitude for the gross weight that affords the required maneuver buffet margin.

(8) Determine the correct airspeed for both maximum endurance and maximum range for the gross weight and altitude.

5.5 Task: Descent

(a) Condition(s). All

(b) Awareness criteria. Monitor the descent profile to ensure crossing altitudes, speed restrictions, and ATC clearances can be met.

(c) Action criteria.

(1) At the appropriate point, begin a rate of descent consistent with safe aircraft operating characteristics and company procedures.

(2) Maintain or adjust rate of descent, airspeed, and aircraft configuration for the conditions and to comply with speed and crossing restrictions as dictated by airspace, procedure, or ATC.

(3) Perform correct altimetry procedures, setting QNH (or QFE, as required or appropriate) at the transition level or as dictated by airspace or regional differences.

5.6 Task: Instrument Arrival

(a) Condition(s). All.

(b) Awareness criteria.

(1) Monitor the descent profile to ensure crossing altitudes, speed restrictions, and ATC clearances can be met.

(2) Comply with the provisions of the profile descent, STAR, or other arrival procedure(s).

(c) Action criteria. Conduct the arrival to a point where the transition from the en route environment to the terminal environment is complete.

5.7 Task: Holding

(a) Condition(s). All.

(b) Awareness criteria.

(1) Recognize arrival at the clearance limit or holding fix.

(2) Be aware of winds as they affect wind-drift correction techniques to maintain the desired radial, track, or bearing.

(3) Apply knowledge of holding endurance, including fuel on board, fuel flow while holding, and fuel required to alternate.

(c) Action criteria.

(1) Select holding airspeed appropriate for the aircraft configuration and holding altitude.

(2) Adjust airspeed to cross the holding fix at or below maximum holding airspeed.

(3) Follow appropriate entry procedures for a standard, non-standard, published, or non-published holding pattern.

(4) Use the proper timing criteria required by the holding altitude and ATC, or comply with the navigation system holding procedure, as appropriate.

(5) Comply with the holding pattern leg length when a DME distance is specified.

(6) Arrive over the holding fix as close as possible to the Expect Further Clearance (EFC) time.

5.8 Task: Approach Transition

(a) Condition(s). All.

(b) Awareness criteria. Monitor the navigation instruments and ensure that airspeeds, aircraft configurations,

crossing altitudes will meet approach procedures or ATC clearance requirements.

(c) Action criteria. Complete a procedure turn, DME arc, RNAV transition, TAA, or follow ATC radar vectors to align with the intermediate or final approach course as applicable.

6.0 AREA: Aircraft Handling

(a) Condition(s). All.

(b) Awareness criteria.

(1) Recognize the deviation from normal flight (such as buffeting, stick shaker, visual or aural flight deck annunciations or warnings, decay of control effectiveness, or any other cues related to the specific aircraft design characteristics).

(2) Practice maneuvering the aircraft and experience how the aircraft performs and responds to flight control inputs in various pitch, power, and configuration combinations.

(c) Action criteria. Return the aircraft to a safe state.

END QPS REQUIREMENT

BEGIN INFORMATION

(d) The purpose of these maneuvers is to provide familiarity with the handling behavior of the aircraft, including operations outside the normal flight envelope. The intent is to teach the pilot to recognize the deviation from normal flight, and to practice the return of the aircraft to a safe state. In this context a safe state is considered an aircraft attitude (pitch, bank, yaw), airspeed, trim, and thrust setting appropriate for the aircraft configuration, altitude, and geographic location, and at which the pilot is able to maintain control of the aircraft. The pilot should not be expected to execute the procedures to enter a maneuver. If the instructor requires the assistance of the pilot to maneuver or configure the aircraft, to fly a particular airspeed, or to set a particular power or trim setting, the instructor should provide progressive instructions to the student to achieve the desired ''set up'' position for the task. Additionally, recoveries from such situations should not be taught or practiced as regimented procedures. Returning the aircraft to a safe state requires that the pilot continue to control the aircraft away from attitudes and airspeeds that are outside of the normal flight envelope without exceeding critical performance parameters (e.g., engine temperature or RPM limits and ''g'' loading) until that safe state is reached. The only meaningful criterion for satisfactory demonstration of these tasks is the return of the aircraft to a safe state without exacerbating the condition.

END INFORMATION

BEGIN QPS REQUIREMENT

6.1 Task: Recognition of and Recovery From Approach to Stall

(a) Condition(s).

(1) All

(2) At least one recovery from Approach-to-Stall must be completed while in a turn using a bank angle of 15° to 30°.

(b) Awareness criteria.

(1) Recognize the first indication of an impending stall.

(2) Awareness of the current position and circumstance:

(i) The immediately preceding change in aircraft configuration, trim, or attitude.

(ii) The potential of sacrificing altitude for airspeed.

(iii) The proximity of terrain, laterally and vertically.

(c) Action criteria.

(1) Announce the first indication of an impending stall.

(2) Adjust pitch, bank, and thrust to recover from the approach-to-stall.

(3) Maintain heading control throughout the recovery, including:

(i) At low altitudes (traffic pattern altitude and below), minimum airspeed and altitude loss.

(ii) At intermediate and higher altitudes, loss of airspeed or altitude not necessary for the safe and expeditious recovery must be avoided.

(4) Recover to an airspeed appropriate for the configuration and establish the appropriate altitude and heading.

(5) Recovery is complete when straight and level, un-accelerated flight is achieved.

END QPS REQUIREMENT

BEGIN INFORMATION

(d) It is preferable to conduct slow flight training tasks in section 6.6 prior to training recovery from approaches to stall (stall avoidance) in section 6.1.2 through 6.1.4. The clean configuration scenario in section 6.1.1 should be used to practice the cruise configuration or holding pattern stall, typically at intermediate and higher altitudes, where there is usually more altitude available to use for recovery. The configuration scenarios in sections 6.1.2 through 6.1.4 should be used to practice the low energy and high drag configurations, typically at very low altitudes, where there is very little altitude available to use for recovery. One or more of these should be practiced at an altitude between 300 and 500 feet AGL.

END INFORMATION

BEGIN QPS REQUIREMENT

6.1.1 Task: Clean Configuration

(a) Condition(s). Altitudes, airspeeds, aircraft configurations, and environmental conditions representative of normal operations outside of departures or arrivals, including en route portion of flight.

(b) Awareness criteria. All awareness criteria described in Task 6.1. Recognition of and Recovery from Approach to Stall.

(c) Action criteria. All action criteria described in Task 6.1. Recognition of and Recovery from Approach to Stall.

6.1.2 Task: Takeoff or Maneuvering Configuration

(a) Condition(s). Altitudes, airspeeds, aircraft configurations, and environmental conditions representative of normal operations during departures or arrivals.

(b) Awareness criteria. All awareness criteria described in Task 6.1. Recognition of and Recovery from Approach to Stall.

(c) Action criteria. All action criteria described in Task 6.1. Recognition of and Recovery from Approach to Stall.

6.1.3 Task: Landing Configuration

(a) Condition(s). Altitudes, airspeeds, aircraft configuration, and environmental conditions representative of normal operations immediately after takeoff or inside the final approach fix prior to landing.

(b) Awareness criteria. All awareness criteria described in Task 6.1. Recognition of and Recovery from Approach to Stall.

(c) Action criteria. All action criteria described in Task 6.1. Recognition of and Recovery from, Approach to Stall.

6.1.4 Task: Landing Configuration With Auto Pilot Engaged

(a) Condition(s). Altitudes, airspeeds, aircraft configuration, and environmental conditions representative of normal operations inside the final approach fix prior to landing, with the autopilot engaged.

(b) Awareness criteria. All awareness criteria described in Task 6.1. Recognition of and Recovery from, Approach to Stall.

(c) Action criteria. All action criteria described in Task 6.1. Recognition of and Recovery from, Approach to Stall.

6.2 Task: Asymmetric Thrust

(a) Condition(s).
(1) All
(2) The most critical engine must be shut down and a restart must be demonstrated.
(b) Awareness criteria.
(1) Exhibit adequate knowledge of the flight characteristics and controllability associated with maneuvering with engine(s) inoperative (as appropriate to the aircraft).
(2) Maintain the operating engine(s) within acceptable operating limits.
(c) Action criteria.
(1) Establish the proper configuration, and properly set all engine controls for the conditions, taking into account, wind, turbulence, and icing conditions.
(2) Maintain straight and level flight at the required speed throughout the shutdown and restart.
(3) Experience the roll and yaw handling change(s) due to the engine shutdown and startup transient(s).

6.2.1 Task: Engine Shutdown

(a) Condition(s). All
(b) Awareness criteria. All awareness criteria described in Task 6.2., Asymmetric Thrust.
(c) Action criteria.
(1) All action criteria described in Task 6.2., Asymmetric Thrust.
(2) Use the prescribed FCOM procedures for identifying, verifying, and securing the engine that should be shut down.

6.2.2 Task: Maneuvering With One Engine Inoperative

(a) Condition(s).
(1) All
(2) Altitudes, airspeeds, aircraft configurations, and environmental conditions representative of engine inoperative operations after departure or prior to arrival.
(b) Awareness criteria. All awareness criteria described in Task 6.2., Asymmetric Thrust.
(c) Action criteria.
(1) All action criteria described in Task 6.2., Asymmetric Thrust.
(2) Practice maneuvering in the clean, approach and landing configurations, with normal turns, thrust and speed changes, and climbs and descents.

6.2.3 Task: Engine Restart

(a) Condition(s).
(1) All
(2) Altitudes, airspeeds, aircraft configurations, and environmental conditions representative of engine inoperative operations after departure or prior to arrival.
(b) Awareness criteria.
(1) Determine if it is appropriate to attempt a restart.
(2) [Reserved]
(c) Action criteria.
(1) Demonstrate proper restart procedures in accordance with FCOM.
(2) [Reserved]

6.3 Task: Runaway Trim or Stabilizer

(a) Condition(s). All.
(b) Awareness criteria.
(1) Experience the pitch handling qualities of the aircraft with runaway stabilizer or runaway pitch trim, and pitch mistrim during takeoff or landing and during cruise flight.
(2) Observe the effects of early versus late detection and de-activation or correction.
(c) Action criteria. Practice the prescribed FCOM procedures for recovery.

6.4 Task: Jammed Trim or Stabilizer

(a) Condition(s). All
(b) Awareness criteria.
(1) Experience the pitch handling qualities of the aircraft with jammed stabilizer or pitch trim during cruise flight and carry the scenario through to landing.
(2) Observe the effect of an increase and decrease in airspeed.
(3) Recognize the insidious nature of the failure during periods of un-accelerated flight.
(c) Action criteria. Practice operating the aircraft without the availability of a movable stabilizer or pitch trim, following the procedures described in the FCOM.

6.5 Task: Upset Recognition and Recovery

(a) Condition(s).
(1) All
(2) Altitudes, airspeeds, aircraft configurations, and environmental conditions representative of normal operations including departures, arrivals, and en route portion of flight.
(b) Awareness criteria.
(1) Recognize situations that may lead to aircraft upsets so they can be prevented.
(2) Recognize aircraft upset.
(3) Apply flight control knowledge about pitch, roll and yaw rates, and the interrelationship with thrust, particularly for under-wing-mounted engines.
(4) Understand the risk of catastrophic damage caused by rapidly reversing controls, including rapidly reversing controls at speeds below the design maneuvering speed.
(5) Understand that as speed increases, the maximum available rudder deflection can be obtained with comparatively light pedal forces and comparatively small pedal movements.
(6) Assess the energy and ''G''-loading.
(7) Control the aircraft before seeking to determine the cause of the upset.
(8) Recognize the relationship between what is seen outside the aircraft and the instrument indications, to help better understand the actual attitude of the aircraft and overcome the possibly counter-intuitive vestigial sense.
(9) Understand the proper direction (and magnitude) of control and thrust input necessary to recover.
(c) Action criteria.
(1) Callout the situation.
(2) Disengage the autopilot and autothrottle.
(3) Confirm attitude by reference to other instruments.
(4) Deliberately and promptly use up to full control inputs, as may be required to regain control of each axis.
(5) Practice recovering from a nose-high aircraft upset.
(6) Practice recovering from a nose-low aircraft upset.
(7) Practice recovering from low-speed and high-speed accelerated stall.
(8) Practice recovering from a nose-high, low-energy aircraft upset.

END QPS REQUIREMENT

BEGIN INFORMATION

(d) Reference the most current version of the Industry's Airplane Upset Recovery Training Aid. An aircraft upset is almost universally described as exceeding one or more of the following:
(1) Pitch attitude greater than 25° nose up.
(2) Pitch attitude greater than 10° nose down.
(3) Bank angle greater than 45°.
(4) Pilots completing any training category, except recurrent training, should train and practice maneuvers such as:
(i) Roll rate with full aileron and spoiler input.
(ii) Roll rate with rudder input.
(iii) Pitch change with use of only stabilizer trim.
(iv) Pitch change with the use of thrust adjustments.
(v) Pitch change with the use of speedbrakes.
(vi) Yaw motion and resultant roll due to asymmetric thrust with autopilot.
(vii) Yaw motion and resultant roll due to asymmetric thrust without autopilot.
(viii) Approach to stall recovery using only pitch control.

END INFORMATION

BEGIN QPS REQUIREMENT

6.6 Task: Slow Flight

(a) Condition(s).

(1) All

(2) The pilot must demonstrate slow flight in the landing configuration at maximum landing gross weight, with minimum maneuvering airspeed for the configuration and weight.

(b) Awareness criteria. Recognize the low energy or high drag configuration and the slow response to flight control and thrust inputs.

(c) Action criteria.

(1) While maintaining altitude, slowly establish the pitch attitude (using trim or elevator or stabilizer), bank angle, and power setting that will allow a controlled reduction to establish the desired, target airspeed.

(2) Maneuver in straight and level flight to stabilize speed and trim.

(3) Turn through 90° left and right, using only 15° of bank.

(4) Climb and descend at 500 FPM while in a turn.

(5) Recover to an airspeed appropriate for the configuration and establish the appropriate altitude and heading.

(6) Recovery is complete when straight and level un-accelerated flight is achieved.

(d) This task is required only for pilots completing initial, transition, or conversion categories of training on the aircraft type. Performing this task during other categories of training is optional.

(e) Target speeds must be below the speeds that are appropriate for the various configurations, ending with a speed below V_{REF}. The maximum speed must not exceed 20% above V_{SO} to avoid stick shaker.

END QPS REQUIREMENT

BEGIN INFORMATION

(f) This training should be conducted from a clean configuration, slowing to landing configuration, and illustrating the concept on minimum maneuvering speed for the configuration along the way.

END INFORMATION

BEGIN QPS REQUIREMENT

6.7 Task: Turns with and without Spoilers

(a) Condition(s). All.

(b) Awareness criteria. Experience the handling qualities of the aircraft without spoilers.

(c) Action criteria.

(1) Make turns left and right with a normal flight control configuration.

(2) Deploy the spoilers to a position one-half extended and make turns left and right.

(3) Deploy the spoilers to a fully deployed position and make turns left and right.

END QPS REQUIREMENT

BEGIN INFORMATION

(d) This training should focus on the turning characteristics of some aircraft with partial in-flight spoilers (speedbrakes) deployed, rather than on the remote mechanical failure leading to loss of the spoilers. The pilot should experience an increase in spoiler deployment on the down wing and a decrease in spoiler deployment on the up wing, which causes a markedly different roll characteristic than with full or no spoiler deployment.

END INFORMATION

BEGIN QPS REQUIREMENT

6.8 Task: Stability Augmentation System Inoperative

(a) Condition(s). All.

(b) Awareness criteria.

(1) Awareness of the mechanical and aerodynamic circumstances involved in the phenomenon known as ''Dutch Roll.''

(2) This maneuver is only applicable to swept wing, turbojet powered, transport category aircraft.

(c) Action criteria.

(1) If Dutch roll is encountered and the yaw dampers are off, rather than inoperative, the pilot must turn on the damper(s). The pilot must be able to stop the rolling tendency without prolonging the Dutch roll or aggravating the yaw.

(2) If Dutch roll is encountered and the yaw dampers are inoperative, the pilot must:

(i) ''Freeze'' the rudder pedals in position and give one firm correction on the aileron control against the upcoming wing.

(ii) Move the aileron correction immediately to the neutral position.

(3) If Dutch roll is still present, maintain the rudder pedals in a constant position and again apply one firm aileron control input against the upcoming wing and immediately move the aileron control to the neutral position. Apply this correction in this manner until the Dutch roll is corrected.

END QPS REQUIREMENT

BEGIN INFORMATION

(d) This maneuver is designed to acquaint the pilot with the adverse characteristics of a swept wing turbojet transport category aircraft at relatively high altitudes and airspeeds; e.g., at or above FL250 at an appropriate cruise airspeed for the altitude selected. Typically, a Dutch roll would only be experienced when (all) the yaw damper(s) is (are) inoperative or turned off, and could be initiated as a result of an uncoordinated roll or an adverse yaw input. Recovery from a Dutch roll may be accomplished by turning on the yaw damper or executing the aileron technique described here. The aileron technique involves more advanced skills and additional practice. This method ensures that the proper control inputs will be applied to stop the rolling motion. In addition to practicing the task at relatively high altitudes, the task should be demonstrated at an intermediately low altitude and airspeed; e.g., between 10,000 and 15,000 feet at an airspeed of 250 to 300 knots.

END INFORMATION

BEGIN QPS REQUIREMENT

6.9 Task: Mach Tuck and Mach Buffet

(a) Condition(s). All.

(b) Awareness criteria. Experience the handling qualities of the aircraft at high MACH numbers.

(c) Action criteria.

(1) Increase airspeed slowly.

(2) Observe the performance of the compensating device or system, if installed.

(3) Disable the compensating device or system, if installed, and continue to accelerate until the tuck or buffet occurs.

(4) Observe the airframe vibration or flight instrument indications.

(5) Make small aileron inputs and feel for the increase in buffet.

6.10 Task: High Sink Rate

(a) Condition(s). All.

(b) Awareness criteria. Experience the handling qualities of the aircraft at high sink rates.

(c) Action criteria.

(1) The pilot must demonstrate a hazardous landing approach profile, conducted as close to maximum gross landing weight as possible. The descent must be entered at sufficient altitude to stabilize airspeed and vertical speed. The maneuver must be performed at normal approach altitudes.

(2) The pilot must use the following configuration: flaps or slats (as

appropriate) set to landing configuration; landing gear down; throttles at idle; establish and maintain threshold airspeed. When configuration is established, the pilot must trim and maintain proper airspeed with power at idle thrust and a high rate of descent.

(3) The pilot must perform the following two separate recoveries from a high rate of descent:

(i) After descent rate is established, the instructor will announce the designated altitude at which level off is to occur. When the designated altitude is reached, the pilot must initiate recovery to level flight in the landing configuration using maximum permissible thrust while maintaining threshold airspeed. At the completion of the maneuver, the instructor must discuss with the pilot the loss of altitude during recovery.

(ii) The second recovery must be initiated in the same manner as in paragraph (a) of this section to the point of reaching the designated altitude. When the designated altitude is reached, the pilot must initiate recovery to level flight in the landing configuration and leaving the throttles at idle. The pilot must observe loss of airspeed below threshold airspeed. The pilot must recover using FCOM recommended stall recovery procedures. At the completion of the maneuver, the instructor must discuss with the pilot the loss of altitude during recovery.

(4) The pilot must demonstrate a basic understanding and knowledge of the hazards associated with the high sink rates near the ground on the landing approach.

6.11 Task: Flight Envelope Protection Demonstration

(a) Condition(s). All.

(b) Awareness criteria. Awareness of aircraft programming for attitudes outside of the protected envelope.

(c) Action criteria.

(1) Practice maneuvering the aircraft and experience how the aircraft performs and responds to flight control inputs in various pitch, power and configuration combinations that are beyond the protected envelope.

(2) Release control to observe aircraft return to within protected envelope.

(3) Hold control beyond protected limits to observe control input required to maintain attitude.

(4) Return the aircraft to a safe state.

6.12 Task: Windshear Avoidance and Encounter—

(a) Condition(s). All.

(b) Awareness criteria.

(1) Know the sources of information that indicate the possible presence of windshear or turbulence.

(2) Observe the visual indications that usually indicate the presence of windshear or turbulence.

(3) Understand the effect of windshear or turbulence on the performance of the aircraft during low altitude operations.

(c) Action criteria.

(1) Avoid indicated areas of possible windshear or turbulence, if possible.

(2) Be able to recognize the indications of windshear or turbulence during takeoff and landing profiles.

(3) Execute the FCOM procedure for avoiding windshear; and, if not possible to avoid, execute the FCOM procedure for escaping windshear or turbulence during low altitude operations.

(4) Practice avoiding and escaping windshear or turbulence during low altitude operations to include:

(i) Takeoff.

(ii) Departure.

(iii) Approach.

END QPS REQUIREMENT

BEGIN INFORMATION

(d) Refer to the most current version of the FAA Windshear Training Aid. Demonstrations and practice are primarily for the purpose of enabling pilots to avoid windshear encounters. However, this practice will also enable pilots to execute the proper escape maneuver should windshear be encountered.

END INFORMATION

BEGIN QPS REQUIREMENT

6.12.1 Task: Takeoff

(a) Condition(s). All.

(b) Awareness criteria. All awareness criteria described in Task 6.12., Windshear Avoidance and Encounter.

(c) Action criteria. All action criteria described in Task 6.12., Windshear Avoidance and Encounter.

6.12.2 Task: Departure

(a) Condition(s). All.

(b) Awareness criteria. All awareness criteria described in Task 6.12., Windshear Avoidance and Encounter.

(c) Action criteria. All awareness criteria described in Task 6.12., Windshear Avoidance and Encounter.

6.12.3 Task: Approach

(a) Condition(s). All.

(b) Awareness criteria. All awareness criteria described in Task 6.12., Windshear Avoidance and Encounter.

(c) Action criteria. All awareness criteria described in Task 6.12., Windshear Avoidance and Encounter.

6.13 Task: Traffic Avoidance (TCAS)

(a) Condition(s).

(1) All

(2) The pilot must demonstrate each type of Traffic Alert (TA) and Resolution Alerts (RA) described in the FCOM.

(b) Awareness criteria. Understand the capabilities and limitations of TCAS equipment.

(c) Action criteria.

(1) Use TCAS equipment to determine the proximity of other aircraft.

(2) Respond immediately to RAs by quickly executing the proper evasive maneuver within 5 seconds of displayed command.

7.0 AREA: Instrument Approaches

(a) Condition(s). All.

(b) Awareness criteria.

(1) Awareness of the gross weight of the aircraft, the aircraft condition, the appropriate configuration for that condition, and the proper airspeeds for the approach.

(2) Awareness of the weather conditions, including winds (and the potentials for wind shifts or windshear) and limitations to forward and lateral visibility.

(3) Awareness of the requirements for navigation aid tuning, identifying, and monitoring; including proper and complete instrument set up for the approach.

(4) Awareness of the requirements for determining which pilot is to fly and which pilot is to monitor, and of the respective duties and responsibilities of the PF and the PM.

(5) Awareness of the approach profile, including the method(s) used to determine the missed approach point and the requirements for complete crew briefing (including missed approach procedures) prior to initiation of the approach.

(c) Action criteria.

(1) Select and comply with the appropriate precision instrument approach procedure to be performed.

(2) Select and correctly identify the appropriate navigation frequencies and facilities associated with the arrival.

(3) Establish the appropriate aircraft configuration and airspeed or V-speed considering turbulence, windshear, microburst conditions, or other meteorological and operating conditions.

(4) Apply the necessary adjustments to the published DH or DA and visibility criteria for the aircraft approach category.

(5) Apply the necessary adjustments to the published MDA and visibility criteria for the aircraft approach category as required.

(6) Cross the final approach fix, or the point at which the final approach begins, at the proper altitude, in the proper aircraft configuration, with the proper airspeed for the approach.

(7) Maintain a stabilized final approach through transition to missed approach or transition to landing.

(8) Insure a timely decision at DA or DH to either initiate a missed approach or proceed to a landing with suitable visual reference.

(9) Initiate the missed approach procedure, when at the DH or DA, and the required visual references for the runway, or the intended landing area, are not distinctly visible or identifiable.

(10) Transition to a normal landing approach only when the required visual references for the runway, or the intended landing area, are distinctlyvisible and identifiable, and the aircraft is in a position from which a descent to a landing on the runway, or the intended landing area, can be at a normal rate of descent using normal maneuvering.

END INFORMATION

BEGIN INFORMATION

(d) Instrument approaches begin when the aircraft is over the initial approach fix for the procedure being used and end when the aircraft touches down on the runway or landing area, or when transition to a missed approach configuration is completed.

END INFORMATION

BEGIN QPS REQUIREMENT

7.1 Task: All Engines Operating—Autopilot Coupled

(a) Condition(s). All.

(b) Awareness criteria.

(1) All awareness criteria listed in Task 7.0, Instrument Approaches.

(2) Awareness of the requirements and limitations for an Autopilot Coupled approach.

(c) Action criteria.

(1) All action criteria listed in Task 7.0, Instrument Approaches.

(2) Engage (and disengage, if appropriate) the flight director(s) and autopilot(s) at the appropriate points during the approach.

7.2 Task: All Engines Operating—Manually Flown

(a) Condition(s). All.

(b) Awareness criteria.

(1) All awareness criteria listed in Task 7.0., Instrument Approaches.

(2) Awareness of the requirements and limitations for a manually flown instrument approach.

(c) Action criteria.

(1) All action criteria listed in Task 7.0., Instrument Approaches.

(2) Engage (and disengage, if appropriate) the flight director(s) at the appropriate points during the approach.

7.3 Task: One Engine Inoperative—Manually Flown

(a) Condition(s). All.

(b) Awareness criteria.

(1) All awareness criteria listed in Task 7.0, Instrument Approaches.

(2) Awareness of the requirements and limitations for a manually flown instrument approach with an engine inoperative.

(3) Monitor the operating engine(s) and make adjustments as necessary.

(4) Maintain coordinated flight with thrust changes.

(5) Coordinate between PF and PM regarding rudder trim application and removal.

(c) Action criteria.

(1) All action criteria listed in Task 7.0., Instrument Approaches.

(2) Establish and maintain the recommended flight attitude and configuration for optimum performance during all maneuvering necessary for the instrument approach procedure.

7.4 Task: Approach Type

7.4.1 Task: Category II or III

(a) Condition(s). All.

(b) Awareness criteria. All awareness criteria for Task 7.1, All Engines Operating—Autopilot Coupled, or, if appropriate, Task 7.2, All Engines Operating—Manually Flown.

(c) Action criteria. All action criteria for Task 7.1, All Engines Operating—Autopilot Coupled, or, if appropriate, Task 7.2, All Engines Operating—Manually Flown.

7.4.2 Task: Precision Group

(a) Condition(s).

(1) All

(2) Use aircraft navigational aid equipment for centerline and glideslope guidance.

(3) Two precision approaches must be completed in simulated instrument conditions to the minimums appropriate for the type of approach being flown.

(4) When the precision instrument approach is flown with an engine failure, the engine failure must occur before initiating the final approach segment and must continue to touchdown or throughout the missed approach procedure.

(b) Awareness criteria. All awareness criteria for Task 7.1, All Engines Operating—Autopilot Coupled, or, if appropriate, Task 7.2, All Engines Operating—Manually Flown.

(c) Action criteria.

(1) All action criteria for Task 7.1, All Engines Operating—Autopilot Coupled, or, if appropriate, Task 7.2, All Engines Operating—Manually Flown.

(2) Establish a rate of descent at the point where the electronic glide slope begins which approximates that required for the aircraft to follow the glide slope.

7.4.3 Task: Non-Precision Group

(a) Condition(s).

(1) All

(2) Non-precision instrument approaches must be completed in simulated instrument conditions to the minimums appropriate for the type of approach being flown.

(3) When the non-precision instrument approach is flown with a failure of one engine, the engine failure must occur before initiating the final approach segment and must continue to touchdown or throughout the missed approach procedure.

(b) Awareness criteria.

(1) All awareness criteria listed in Task 7.0, Instrument Approaches.

(2) Awareness of the requirements and limitations for Task 7.1, Autopilot Coupled instrument approach, or of the requirements and limitations for Task 7.2, Manually Flown instrument approach, as appropriate.

(c) Action criteria.

(1) Cross the final approach fix at the appropriate altitude, airspeed, and configuration.

(2) After passing the final approach fix, establish a stabilized rate of descent that will ensure arrival at MDA at, or prior to, a point from which a descent to a landing on the intended runway or landing area can be made at a normal rate using normal maneuvering.

END QPS REQUIREMENT

BEGIN INFORMATION

(3) The rate of descent should be established as soon as possible (immediately) after passing the final approach fix. Final approach fix passage may be determined by radial passage, radar fix, marker beacon, or navigation aid passage (e.g. VOR, NDB). This will help ensure that the pilot does not have to descend at a much higher rate or execute a missed approach.

END INFORMATION

BEGIN QPS REQUIREMENT

(4) Maintain the MDA, when reached, to the missed approach point or until descent is initiated toward the runway of intended landing.

(5) Execute the missed approach procedure if the required visual references for the intended runway are not distinctly visible and identifiable at the missed approach point.

7.4.4 Task: Ground-Based Radar Approaches (ASR and PAR)

(a) Condition(s). All.
(b) Awareness criteria. All the awareness criteria in Task 7.0., Instrument Approaches; and
(1) For ASR, all the awareness criteria in Task 7.4.3., Non-Precision Group.
(2) For PAR, all the awareness criteria in Task 7.4.2., Precision Group.
(c) Action criteria. All the action criteria in Task 7.0., Instrument Approaches; and
(1) For ASR, all the action criteria in Task 7.4.3., Non-Precision Group.
(2) For PAR, all the action criteria in Task 7.4.2., Precision Group.

8.0 AREA: Visual Approach

(a) Condition(s). All.
(b) Awareness criteria.
(1) Understand and apply wake turbulence and traffic separation requirements.
(2) Understand and apply altitude, airspeed, configuration, and associated requirements and limitations for the airport of intended landing as applied to the aircraft being flown.
(c) Action criteria.
(1) Establish the aircraft on downwind, base leg, or straight-in final approach at the proper altitude, at the proper airspeed, and in the proper configuration, making appropriate adjustments to all three factors as the approach continues to landing.
(2) Maintain a ground track that ensures the desired traffic pattern is flown, accounting for any obstructions, other traffic, and ATC instructions.
(3) Use XLS, RNAV, and other guidance, including visual guidance (as available), to maintain a normal vertical descent path to the runway.
(4) The visual approach ends in the landing transition phase, described in Task 10.4.3, when the landing is assured. The pilot must use all available lateral and vertical approach aids, and the pilot must be prepared to transition to flight using flight instruments due to darkness or other restrictions to visibility.

END QPS REQUIREMENT

BEGIN INFORMATION

(5) The visual approach phase begins after reporting the airport or traffic to follow as ''in sight,'' and receiving clearance for a visual approach.

END INFORMATION

BEGIN QPS REQUIREMENT

8.1 Task: All Engines Operating (Normal)

(a) Condition(s). All.
(b) Awareness criteria. All awareness criteria for Task 8.0, Visual Approach.
(c) Action criteria. All action criteria for Task 8.0, Visual Approach.

8.2 Task: One Engine Inoperative

(a) Condition(s). All.
(b) Awareness criteria. All awareness criteria for Task 8.0, Visual Approach.
(c) Action criteria. All action criteria for Task 8.0, Visual Approach.

8.3 Task: Two Engines Inoperative (3 and 4 Engine Aircraft)

(a) Condition(s). All.
(b) Awareness criteria. All awareness criteria for Task 8.0, Visual Approach.
(c) Action criteria. All action criteria for Task 8.0, Visual Approach.

9.0 AREA: Missed Approach

(a) Condition(s).
(1) All.
(2) The pilot must perform at least one missed approach from an XLS approach.
(3) The pilot must perform at least one missed approach from a non-XLS approach.
(4) The pilot must perform at least one complete, published missed approach procedure.
(5) The pilot must perform at least one missed approach with an engine inoperative.
(b) Awareness criteria.
(1) If a stabilized approach is not achieved by the required height, initiate a go-around without prompting from another crewmember.
(2) Comply with the appropriate missed approach procedure or ATC clearance.
(3) Know the aircraft position with respect to the missed approach point (MAP).
(c) Action criteria.
(1) Initiate the missed approach procedure promptly.
(2) Apply go-around thrust promptly; establish the proper pitch attitude; and reconfigure the aircraft for the missed approach in accordance with the approved procedures.
(3) Follow the published missed approach procedure (or follow the assigned clearance), maintaining proper airspeed and altitude for the configuration.
(4) Request clearance for another approach, to a holding fix, or to the alternate airport.
(5) If the approach is abandoned prior to reaching the MAP, begin a climb, but continue to navigate to the MAP before complying with the published procedure.
(6) Certificate holders must train to proficiency using all instrument approaches for which they hold Operations Specification approval.

END QPS REQUIREMENT

BEGIN INFORMATION

(d) The missed approach phase begins when the decision to abandon the approach is made, and ends when the aircraft has been reconfigured to allow maneuvering for a second approach or a return to the en route environment.
(e) Certificate holders are required to train on all instrument approaches for which they hold operations specification approval, but this does not need to be done during each recurrent training period.

END INFORMATION

BEGIN QPS REQUIREMENT

9.1 Task: All Engines Operating

(a) Condition(s). All.
(b) Awareness criteria. All awareness criteria for Task 9.0., Missed Approach.
(c) Action criteria. All action criteria for Task 9.0., Missed Approach.

9.2 Task: One Engine Inoperative

(a) Condition(s). All.
(b) Awareness criteria.
(1) All awareness criteria for Task 9.0., Missed Approach.
(2) Monitor the operating engine(s) and make adjustments as necessary.
(3) Establish and maintain the recommended flight attitude and configuration for optimum performance during all necessary maneuvering.
(c) Action criteria.
(1) All action criteria for Task 9.0., Missed Approach.
(2) As the power is advanced for the missed approach, maintain coordinated flight with rudder as required to counter asymmetric thrust, and maintain wings level.

9.3 Task: From a Circling Approach

(a) Condition(s). All.
(b) Awareness criteria. Maintain awareness of the positional relationship between the MAP, the aircraft, and the center of the airport.
(c) Action criteria. If a missed approach is needed after starting the circle-to-land maneuver, turn in the appropriate direction and climb according to the published missed approach procedure.

9.4 Task: Descending Break-Out Maneuver From Instrument Landing System and Precision Radar Monitor (PRM) Approach

(a) Condition(s). All.
(b) Awareness criteria.
(1) Awareness of the prerequisite PRM training to accept a PRM approach.
(2) Understand the requirements when issued a ''breakout'' command from ATC.
(i) Understand that when another aircraft penetrates the ''no transgression zone,'' the threatened aircraft will be instructed to ''breakout.''
(ii) Understand that ''descent'' commands issued as part of a ''breakout'' instruction will not be issued to fly below an altitude that provides a minimum of 1,000 feet of obstacle clearance protection.
(c) Action criteria.
(1) All PRM ''breakouts'' must be hand flown.
(2) Initiate a ''breakout'' immediately on receiving breakout instructions and follow the turn and climb or descent commands issued by ATC.

10.0 Area: Landing

(a) Condition(s).
(1) All
(2) When a proficiency test will result in issuance of an airline transport pilot certificate or a type rating, the pilot must make at least three landings.
(b) Awareness criteria.
(1) Apply gust and wind factors, and take into account meteorological phenomena such as windshear, microburst, and other related safety of flight factors.
(2) Verify existing wind conditions, make proper corrections for drift, and maintain a precise ground track.
(3) Use the appropriate aircraft configuration for normal and abnormal situations and procedures, including becoming airborne again after touching down.
(4) Consider the takeoff traffic aspects of LAHSO or SOIR.
(c) Action criteria.
(1) Establish the approach and landing configuration appropriate for the runway and meteorological conditions, and adjust the engine controls as required.
(2) Maintain a stabilized approach; see Task 1.4(c)(10) of this attachment.
(3) Touchdown must be 500 to 3,000 feet (150 to 900 meters) past the runway threshold, not to exceed one-third of the runway length, with the runway centerline between the main gear, and with the airplane tracking parallel to the runway centerline.
(4) Use spoilers, propeller reverse or thrust reverse, and wheel brakes in a manner that ensures bringing the aircraft to a safe speed considering the point of touchdown and the runway remaining.
(5) Maintain positive directional control and crosswind correction during the after-landing roll.

10.1 Task: All Engines Operating (Normal)

(a) Condition(s). All.
(b) Awareness criteria. All awareness criteria in Area 10.0., Landing.
(c) Action criteria. All action criteria in Area 10.0., Landing.

10.2 Task: Crosswind

(a) Condition(s).
(1) All
(2) Landings must be demonstrated and practiced to proficiency during training at the maximum demonstrated crosswind for the aircraft. For evaluation purposes, the crosswind component must not exceed 12 knots.
(b) Awareness criteria.
(1) Assess the changing effect of the crosswind component and adjust controls as required.
(2) Assess the relationship between the aircraft limitation(s), performance data and any surface contaminant(s).
(c) Action criteria.
(1) Maintain positive directional control using an approved means of controlling the effects of the crosswind.
(2) Touchdown with the airplane tracking parallel to the runway centerline. Maximum bank angles must not be exceeded.

10.3 Task: Engine Inoperative

(a) Condition(s). All.
(b) Awareness criteria. Monitor the operating engine(s) and make adjustments as necessary.
(c) Action criteria.
(1) Maneuver with inoperative engine(s).
(2) Maintain coordinated flight by application of rudder as required to counter asymmetric thrust.
(3) Maintain wings level.
(4) Use reverse thrust symmetrically, or as described in the FCOM.

10.3.1 Task: One Engine Inoperative (2 Engine Aircraft)

(a) Condition(s). All.
(b) Awareness criteria. All awareness criteria in Task 10.3., Engine Inoperative.
(c) Action criteria. All action criteria in Task 10.3., Engine Inoperative.

10.3.2 Task: Two Engines Inoperative (3 and 4 Engine Aircraft)

(a) Condition(s). All.
(b) Awareness criteria. All awareness criteria in Task 10.3., Engine Inoperative.
(c) Action criteria. All action criteria in Task 10.3., Engine Inoperative.

10.4 Task: Landing Transition

(a) Condition(s). All.
(b) Awareness criteria.
(1) Decide to reject or continue the landing.
(2) Ensure an aircraft or vehicle does not occupy the runway.
(c) Action criteria.
(1) Transition to outside visual references.
(2) Determine that a landing is assured.
(3) Complete a smooth, positively controlled transition from descent flight path to touchdown.
(i) Achieve and maintain the longitudinal axis of the aircraft parallel with the runway centerline and the centerline between the main landing gear.
(ii) At the flare initiation point, begin to increase the pitch attitude to that necessary to achieve level flight in the present circumstances.
(iii) Reduce power to bring the throttles to the idle position as the main landing gear touch the runway.
(iv) As the aircraft slows, apply additional backpressure to maintain the level flight attitude, allowing the aircraft to continue a shallow rate of descent and a shallow rate of airspeed reduction.
(v) As touchdown occurs, ensure that the throttles are at idle; ensure that the spoilers have deployed; and without delay, fly the nose gear onto the runway.
(vi) Apply wheel brakes, select reverse thrust as appropriate for the conditions, maintain directional control with aerodynamic controls throughout the landing roll, until the ground speed allows directional control with rudder pedal steering or nose wheel steering, as appropriate.

10.4.1 Task: From a Precision Approach

(a) Condition(s). All.
(b) Awareness criteria. All awareness criteria in Task 10.4., Landing Transition.
(c) Action criteria. All action criteria in Task 10.4., Landing Transition.

10.4.2 Task: From a Non-Precision Approach

(a) Condition(s). All
(b) Awareness criteria. All awareness criteria in Task 10.4., Landing Transition.
(c) Action criteria. All action criteria in Task 10.4., Landing Transition.

10.4.3 Task: From a Visual Approach

(a) Condition(s). All.

(b) Awareness criteria. All awareness criteria in Task 10.4., Landing Transition.

(c) Action criteria. All action criteria in Task 10.4., Landing Transition.

10.4.4 Task: From a Circling Approach

(a) Condition(s). All.

(b) Awareness criteria.

(1) Consider the environmental, operational, and meteorological factors that affect landing from a circling approach.

(2) Respect the circling maneuvering area for the category of aircraft and do not exceed the associated visibility criteria.

(3) All awareness criteria in Task 10.4., Landing Transition.

(c) Action criteria.

(1) Avoid excessive maneuvering.

(2) Avoid descent below the appropriate circling MDA until in a position from which a descent to a normal landing can be made.

(3) All awareness criteria in Task 10.4., Landing Transition.

10.5 Task: Rejected Landing

(a) Condition(s). All.

(b) Awareness criteria. Decide to reject the landing, if appropriate.

(c) Action criteria.

(1) Apply the appropriate thrust setting for the flight condition and establish the correct pitch attitude necessary to obtain the desired performance, assuming the aircraft may touch down.

(2) Establish a positive rate of climb.

(3) Retract the landing gear and wing flaps (and other drag devices if appropriate), in the correct sequence and at a safe altitude and airspeed.

(4) Maintain the proper ground track or heading during the rejected landing procedure.

(5) Combined with instrument, circling, or missed approach procedures.

(6) Initiate between 30 feet and 50 feet above the runway.

10.6 Task: Zero or Partial Flaps

(a) Condition(s). All.

(b) Awareness criteria.

(1) Use runway of sufficient length for the zero or partial flap condition.

(2) Use the correct airspeeds or V-speeds for this configuration.

(c) Action criteria.

(1) Maintain the proper aircraft pitch attitude and flight path for the configuration, gross weight, and other applicable operational considerations.

(2) Adjust the attitude for touchdown only as prescribed by the FCOM.

10.7 Task: Auto-Land

(a) Condition(s). All.

(b) Awareness criteria. Demonstrate awareness of auto-flight annunciation(s).

(c) Action criteria.

(1) Guard flight controls throughout the maneuver.

(2) Respond to cues from the auto-flight annunciation(s).

10.8 Task: EFVS

(a) Condition(s). All.

(b) Awareness criteria.

(1) Awareness of the training requirements prior to initiating an approach and landing or takeoff using EFVS.

(2) Awareness of the existing weather conditions and the limitations of the EFVS system.

(c) Action criteria.

(1) Practice with the proper use of the system in visual conditions and in weather limiting conditions, including all instrument approach procedures authorized using the EFVS.

(2) Practice the transition to instrument flight due to interruption or malfunction of the EFVS system.

10.9 Task: HUD

(a) Condition(s). All.

(b) Awareness criteria. Demonstrate awareness of HUD symbology, including normal and failure annunciation(s).

(c) Action criteria.

(1) Respond to cues depicted in the HUD.

(2) Practice the transition to instrument flight due to interruption or malfunction of the HUD system.

11.0 Area: Abnormal Procedures

(a) Condition(s). All.

(b) Awareness criteria. Consider the impact of the abnormal condition on the safety of the flight and on the need to turn back, or continue to destination airport or another suitable airport.

(c) Action criteria.

(1) Complete immediate action (memory) items, if appropriate.

(2) Follow checklist requirements.

END QPS REQUIREMENT

BEGIN INFORMATION

(d) Operation of the systems, devices, and equipment in the aircraft through normal and abnormal procedures are concurrent tasks that may occur at some time during the tasks in any of the other areas of operation. These systems, devices, and equipment, with related normal and abnormal procedures, are contained in the FCOM. Crews should not ''troubleshoot.'' They are expected to observe, identify, use the FCOM, apply systems knowledge, and resolve the situation to the safest possible outcome.

END INFORMATION

BEGIN QPS REQUIREMENT

11.1 Task: Un-Annunciated

(a) Condition(s). All.

(b) Awareness criteria. All awareness criteria in Task 11.0, Abnormal Procedures.

(c) Action criteria. All action criteria in Task 11.0, Abnormal Procedures.

END QPS REQUIREMENT

BEGIN INFORMATION

(d) Unannunciated abnormal conditions include: Vibration, tailpipe fire, loss of engine thrust control, engine severe damage, volcanic ash, window damage, tail strike, various smoke or fumes, rapid depressurization, evacuation, jammed stabilizer, jammed or restricted flight controls, fuel leak on the engine, and engine stall.

END INFORMATION

BEGIN QPS REQUIREMENT

11.2.0 Task: System (ATA Code)

The following criteria apply to system tasks 11.2.1 through 11.2.26:

(a) Condition(s). All.

(b) Awareness criteria. All awareness criteria in Task 11.0, Abnormal Procedures.

(c) Action criteria. All action criteria in Task 11.0, Abnormal Procedures.

11.2.1 Air Conditioning (21)
11.2.2 APU (49)
11.2.3 Autopilot (22)
11.2.4 Brakes (32)
11.2.5 Communications (23)
11.2.6 Doors (52)
11.2.7 Electrical Power (24)
11.2.8 Emergency Equipment (25)
11.2.9 Engine (72)
11.2.10 Fire Protection (26)
11.2.11 Flaps (27)
11.2.12 Flight Controls (27)
11.2.13 Fuel (28)
11.2.14 EGPWS and TAWS (34)
11.2.15 HUD
11.2.16 Hydraulic Power (29)
11.2.17 Ice and Rain Protection (30)
11.2.18 Instruments (31)
11.2.19 Landing Gear (32)
11.2.20 Navigation (34)
11.2.21 Oxygen (35)
11.2.22 Pneumatic (36)
11.2.23 Propellers (61)
11.2.24 Stall Warning (27)
11.2.25 Thrust Reversers (78)
11.2.26 Warning Systems (various)

12.0 Area: Emergency Procedures

(a) Condition(s). All.

(b) Awareness criteria. Consider the impact of the emergency condition on the safety of the flight and on the need to turn back, or continue to destination airport or another suitable airport.

(c) Action criteria.

(1) Complete the immediate action (memory) items in proper sequence, if appropriate.

(2) Land as soon as possible.

END QPS REQUIREMENT

BEGIN INFORMATION

(d) An emergency condition that requires execution of a procedure(s) is a concurrent task(s) that may occur at some time during the normal tasks in any of the other areas of operation. These emergency procedures are contained in the FCOM. Crews should not ''troubleshoot.'' They are expected to observe, identify, use the FCOM, and apply systems knowledge only as required and resolve the emergency to the safest possible outcome.

END INFORMATION

BEGIN QPS REQUIREMENT

12.1 Task: Fire or Smoke in Aircraft

(a) Condition(s). All.

(b) Awareness criteria.

(1) Initiate emergency descent, diversion, or evacuation, as appropriate.

(2) Apply knowledge of fire detection and extinguishing systems, as necessary.

(c) Action criteria.

(1) Promptly acknowledge the smoke, fumes, or fire event.

(2) Direct the use of oxygen and smoke goggles or EVAS to keep crew functioning, and establish crew communications.

(3) Identify the source of smoke, fumes, or fire, if possible.

(4) Initiate correct procedure or checklist for the type of smoke, fumes, or fire.

(5) Descend, land, and evacuate as quickly as possible.

12.2 Task: Unannunciated Fire in Flight

(a) Condition(s). All.

(b) Awareness criteria. All awareness criteria in Task 12.0, Emergency Procedures.

(c) Action criteria. All action criteria in Task 12.0, Emergency Procedures.

12.3 Task: Ditching

(a) Condition(s). All.

(b) Awareness criteria.

(1) Awareness of the time requirements for cabin crew to prepare the cabin.

(2) Awareness and application of the procedures to be used to ditch the aircraft.

(c) Action criteria.

(1) Follow the appropriate descent and before landing checklists.

(2) Follow the appropriate ditching checklist, if available.

(3) Touch down:

(i) Between the crests of any wave activity, parallel to the wave crest:

(ii) At the slowest speed possible.

(iii) Tail first, if controllability allows.

(iv) With the landing gear retracted.

(4) Evacuate the aircraft.

12.4 Task: Emergency Descent (Maximum Rate)

(a) Condition(s). All.

(b) Awareness criteria.

(1) Consider the appropriate configuration for descent if aircraft damage is known or suspected.

(2) Choose an altitude for level-off suitable to the terrain and conditions.

(c) Action criteria.

(1) Apply knowledge of the descent maneuvering capabilities of the aircraft.

(2) Perform emergency descent in a smooth, positive, and timely manner without exceeding limitations.

12.5 Task: Rapid Decompression

(a) Condition(s). All.

(b) Awareness criteria.

(1) Promptly acknowledge the rapid decompression event.

(2) Consider the altitude of the aircraft and the need for an emergency descent or an alternative course of action, including the need for crew or passenger oxygen.

(c) Action criteria.

(1) Determine whether cabin pressure control can be regained.

(2) Direct use of oxygen by crew as necessary.

(3) Establish crew communications.

12.6 Task: Emergency Evacuation

(a) Condition(s). All.

(b) Awareness criteria.

(1) Consider the need for evacuation against the inherent risk of injury during its conduct.

(2) Consider the area around the aircraft and the direction from which SAR responders are approaching.

(c) Action criteria.

(1) Ensure the aircraft is depressurized before directing evacuation.

(2) Direct evacuation to the safest area in relation to the aircraft through exits with the minimum likelihood of post-evacuation injury.

12.7 Task: Engine Fire, Severe Damage or Separation

(a) Condition(s). All.

(b) Awareness criteria. All awareness criteria in Task 12.0, Emergency Procedures.

(c) Action criteria. All action criteria in Task 12.0, Emergency Procedures.

12.8 Task: Landing with Degraded Flight Controls

(a) Condition(s). All.

(b) Awareness criteria.

(1) Recognize the degraded control condition.

(2) Demonstrate and apply knowledge of the maneuvering capabilities of the aircraft in a non-standard or degraded configuration.

(c) Action criteria. Maintain speeds suitable for the degraded conditions or configurations.

12.9 Task: Pilot Incapacitation

(a) Condition(s). All.

(b) Awareness criteria.

(1) Maintain focus on the flying task and a safe flight path.

(2) Ensure the crewmember is clear of flight controls.

(c) Action criteria.

(1) Promptly acknowledge the incapacitation event.

(2) [Reserved]

12.10 Task: All Other Tasks described in the FCOM

(a) Condition(s). All.

(b) Awareness criteria. As described in the FCOM.

(c) Action criteria. As required in the FCOM.

13.0 Area: Line Oriented Operations Environments

The specific operational environments below must be integrated into instruction modules for initial, conversion, transition, upgrade, recurrent, and requalification training.

13.1 Task: Anti-Icing and Deicing Before Takeoff

(a) Condition(s). All.

(b) Awareness criteria.

(1) Understand the certificate holder's ground anti-icing and deicing program.

(2) Be able to determine the need for anti-icing or deicing prior to takeoff.

(c) Action criteria.

(1) Inspect the aircraft to ensure all surfaces are free of ice before flight.

(2) Correctly operate anti-icing and de-icing systems or equipment.

(3) Coordinate the application of a proper mix of anti-icing or deicing fluid.

(4) Determine hold over time.

(5) Comply with the hold over time restrictions for takeoff.

13.2 Task: Structural Icing, Airborne

(a) Condition(s). All.
(b) Awareness criteria.
(1) Know the conditions that can lead to structural ice.
(2) Understand the effects of structural icing on aircraft performance.
(3) Plan and execute ice avoidance if necessary.
(c) Action criteria.
(1) Know when and how to apply the procedures in the FCOM for operating in icing conditions or conditions that may lead to structural icing.
(2) Determine when structural icing is present.
(3) Monitor ice accretion during flight.
(4) Correctly operate anti-icing and de-icing systems and equipment.

13.3 Task: Thunderstorm Avoidance, Departure, and Arrival

(a) Condition(s). All.
(b) Awareness criteria. Know the weather information available to determine the probability of thunderstorm activity and its location.
(c) Action criteria. Use weather radar to identify thunderstorm activity and to avoid departing into the threat or circumnavigate in flight.

13.4 Task: Contaminated Runway Operations

(a) Condition(s). All.
(b) Awareness criteria. Identify runway conditions (standing water, slush, snow or ice) that require the use of contaminated runway procedures.
(c) Action criteria. Apply weight or other performance penalties or adjustments, as required.

13.5 Task: Low Air Density, High Altitude Runway Operations

(a) Condition(s). All.
(b) Awareness criteria.
(1) Recognize the higher TAS and GS, and the effect on maneuvering, takeoff, and landing techniques.
(2) Consider the effect on all facets of aircraft performance.
(c) Action criteria. Maneuver to compensate for the higher speeds, greater turn radius, and increased rate of descent.

13.6 Task: CFIT and Terrain Avoidance

(a) Condition(s). All.
(b) Awareness criteria. Recognize the alert modes (audio and visual) of the GPWS.
(c) Action criteria.
(1) Promptly acknowledge and react to ground proximity warnings.
(2) Execute the escape maneuver prescribed by the FCOM.

END QPS REQUIREMENT

BEGIN INFORMATION

(d) Refer to the most current version of the FAA CFIT Training Aid for generic escape maneuvers that may be used when the FCOM does not contain specific escape maneuvers.

END INFORMATION

BEGIN QPS REQUIREMENT

13.7 Task: ETOPS Procedures

(a) Condition(s). All.
(b) Awareness criteria.
(1) Awareness of the basis for ETOPS operations.
(2) Understand the definition of ''ETOPS portion of flight'' for aircraft with two engines and for aircraft with three or four engines.
(3) Understand the definition of and requirements for designation as an ''ETOPS Alternate'' airport.
(c) Action criteria. Practice at cruise altitude selection, including computing and achieving maximum range altitudes with an engine inoperative, including ''drift-down.''

13.8 Task: Altimeter Settings (US and International Operations)

(a) Condition(s). All.
(b) Awareness criteria.
(1) Awareness that QFE altimeter setting is the actual surface pressure, uncorrected for sea level.
(2) Awareness that QNH altimeter setting (always 29.92 inches of mercury or 1013 hectoPascals) is used when operating at, climbing through, or operating above the transition altitude.
(c) Action criteria. Practice operating with correct altimeter settings and demonstrate operations with incorrect altimeter settings.

13.9 Task: Air Hazard Avoidance

(a) Condition(s).
(1) All
(2) When FSTD equipped with functional TCAS simulation.
(b) Awareness criteria.
(1) Understand the parameters of the TCAS system installed in the aircraft.
(2) Understand the appropriate responses to aural and visual alerts for both TAs and RAs.
(c) Action criteria. Practice response according to the warning received.
(1) For operations in normal airspace.
(2) For operations in RVSM airspace.

13.10 Task: Terrain Avoidance (EGPWS or TAWS)

(a) Condition(s).
(1) All
(2) When FSTD equipped with functional EGPWS or TAWS simulation.
(b) Awareness criteria. Recognize the predictive alert modes (audio and visual) of the EGPWS or TAWS.
(c) Action criteria.
(1) Promptly acknowledge terrain avoidance alerts.
(2) Execute maneuvers appropriate to the conditions to avoid a GPWS or TAWS warning.

C. Performance Standards for the Emergency Training Drills (see §§ 121.133; 121.135; 121.1201; 121.1203; 121.1205; 121.1233; 121.1255; 121.1333; 121.1337; 121.1351; 121.1365; 121.1367; 121.1337; 121.1381; 121.1383; and 121.1391)

1. Emergency training equipment must be identical to that installed in the certificate holder's aircraft on which the flight crewmember is to be qualified with respect to weight, dimensions, appearance, features and operation. Equipment may be substituted when it is similar with respect to weight, dimensions, appearance, features, and operations, and the pilot has been provided with training on differences between the training equipment and the actual aircraft equipment.
2. Performance Drills—Individuals
(a) *Fire extinguishers*
(1) *Environment:* The hand fire extinguisher must be charged; but does not have to contain the actual extinguishing agent.
(2) *Crewmember Performance:* The flight crewmember must complete the following during the drill for each type of installed hand fire extinguisher:
(i) Prepare extinguisher for use (e.g., rotate handle to pressurize, break tamper seals, pull pin, release safety latch).
(ii) Operate extinguisher discharge mechanism.
(iii) Aim and discharge extinguisher at the base of the fire (actual or simulated) using proper discharge pattern, bottle position, and flight crewmember body position (appropriate to the location of the fire).

END QPS REQUIREMENT

BEGIN INFORMATION

(3) Effective training scenarios for firefighting should include realistic drills with emphasis on combating hidden fires. To provide realistic training, drills should simulate locations of hidden fires such as behind sidewall panels, in overhead areas and panels, or in air conditioning vents. The intent of the training is to provide

crewmembers with the typical obstacles that they would encounter onboard the aircraft, but it is not intended to have each student tear apart sidewall panels. A training program should incorporate a method to assess and combat a hidden fire, such as locating the exact source of the fire before applying an extinguishing agent. Depending on the sophistication of the training device, the flight crewmember could use a manual release tool that is designed to open the enclosed area to gain access to a fire that is suspected in that region.

(4) The hand fire extinguisher does not have to be positioned in the same location as installed in the aircraft. This drill is not required for the type of hand fire extinguisher used in the firefighting drill that is completed during the same training period.

END INFORMATION

BEGIN QPS REQUIREMENT

(b) *Oxygen Systems*

(1) *Crewmember Performance:* The flight crewmember must complete the following during the drill for each type of installed oxygen system equipment:

(i) Don and activate the oxygen and test for flow, position, seal, and security of the mask or hood to the face or head.

(ii) Demonstrate proper precautions.

(iii) Secure the oxygen bottle, canister, or cartridge (as appropriate) and position it to monitor the supply.

(iv) Demonstrate proper handling techniques if using portable solid state units.

(v) Deactivate and stow equipment.

END QPS REQUIREMENT

BEGIN INFORMATION

(2) This drill is not required for the type of protective breathing equipment used in the firefighting drill that is completed during the same training period.

END INFORMATION

BEGIN QPS REQUIREMENT

(c) *Equipment Mountings*

(1) *Environment:* Each piece of emergency equipment must be in its fully secured or pinned condition using the identical bracketing or mounting system that is used on the aircraft in which the equipment is installed.

(2) *Crewmember Performance:* The flight crewmember must complete the following during the drill:

(i) Completely remove each piece of emergency equipment from its bracketing or securing system.

(ii) Secure each piece of emergency equipment in its bracketing and securing system or properly stow according to certificate holder procedures.

END QPS REQUIREMENT

BEGIN INFORMATION

(3) Unless otherwise specified, it is not necessary to have the emergency equipment installed within locations or compartments as installed in the actual aircraft.

END INFORMATION

BEGIN QPS REQUIREMENT

(d) *Flight Deck Oxygen Systems*

(1) *Environment:* This drill must provide the flight crewmember with practice in donning and using the flight deck supplemental oxygen systems or related vision protection equipment as it would be used in a smoke-filled or fume-filled flight deck. The flight deck supplemental oxygen systems equipment must be identical to that installed in the aircraft with respect to dimensions, appearance, features, controls, charge duration, and operation.

(2) *Crewmember Performance:* The flight crewmember must complete the following during the drill for each type of installed oxygen system equipment:

(i) Remove the bottle, canister, hood, or mask from the bracket or stowage.

(ii) Don and activate the oxygen and test for flow, position, seal, and security of the mask or hood to the face or head. Additionally, if smoke goggles are separate from oxygen, they must be donned.

(iii) Demonstrate proper precautions.

(iv) Secure the oxygen bottle, canister, or cartridge (as appropriate) and position it to monitor the supply.

(v) Demonstrate proper handling techniques if using portable solid state units.

(vi) Deactivate and stow equipment.

(e) *Firefighting (actual fire)*

(1) *Environment:* The flight crewmember must complete the firefighting drill while combating an actual fire. The flight crewmember must combat the fire using at least one type of hand fire extinguisher that is appropriate for the type of fire being fought, while using the type of installed PBE.

(i) This is a one-time emergency drill requirement that the flight crewmember must complete for the certificate holder for which the flight crewmember is employed.

(ii) For the purpose of this drill, protective breathing equipment and the hand fire extinguisher must be installed in the appropriate bracket or stowage compartment or stowage pouch (if not completed during the equipment mountings drill).

(iii) The hand fire extinguisher must be charged; but does not have to contain the actual extinguishing agent.

END QPS REQUIREMENT

BEGIN INFORMATION

(iv) A self-contained PBE may be substituted with a training smoke hood which is not operational.

END INFORMATION

BEGIN QPS REQUIREMENT

(2) *Crewmember Performance:* The flight crewmember must complete the following during the drill:

(i) Recognize the type of fire.

(ii) Locate source of fire or smoke.

(iii) Remove PBE from stowage container and pouch (as appropriate).

(iv) Don the PBE and activate oxygen in proper sequence (activation of oxygen may be simulated).

(v) Verify seal.

(vi) Select appropriate hand fire extinguisher for the class of fire.

(vii) Prepare extinguisher for use (e.g., rotate handle to pressurize, break tamper seals, pull pin, release safety latch).

(viii) Approach fire or smoke.

(ix) Combat fire using proper techniques.

(x) Operate extinguisher discharge mechanism properly.

(xi) Aim and discharge extinguisher at the base of the fire using proper discharge pattern, bottle position, and flight crewmember body position.

(xii) Maintain an appropriate distance from the fire in order to complete the task and maintain personal safety.

(xiii) Be aware of PBE oxygen duration.

(xiv) Be aware of signals that PBE is no longer generating oxygen to wearer.

(xv) Use protective techniques to back away.

(xvi) Ensure fire is extinguished.

(xvii) Use proper techniques for PBE removal.

(xviii) Properly secure equipment.

(f) *Emergency Exits.*

(1) *Task (Normal Operation):* The flight crewmember must complete the following drill, with respect to the normal operation of each flight crewmember emergency exit:

(i) Identify conditions under which each exit should be opened or closed, if appropriate.

(ii) Assess the exterior and interior conditions for obstacles or hazards to persons or the exit during the opening or closing (e.g., jetway, stairs, barrier straps).

(iii) Follow procedure to ensure flight crewmember awareness at armed boarding door prior to aircraft pushback (if applicable to the exit).

(iv) Identify signal for arming and disarming.

(v) Coordinate and communicate with other crewmembers.

(vi) Properly arm and disarm the exit.

(vii) Verify girt bar is armed or disarmed as appropriate.

(viii) Verify exit is in the correct mode for intended operation.

(ix) Use proper techniques for the operating mechanism (such as handles to open exit and secure in locked position).

(x) Install safety strap. Stow safety strap.

(xi) Release locking mechanism and properly use control handles to close exit and secure in locked position.

END QPS REQUIREMENT

BEGIN INFORMATION

(2) *Environment:* The operation of each type of flight crewmember emergency exit may be conducted as an observation drill that includes the following tasks as applicable.

END INFORMATION

BEGIN QPS REQUIREMENT

(3) *Task (Emergency Operation):* The flight crewmember must complete the following drill, with respect to the emergency operation of each flight crewmember emergency exit:

(i) Position escape device (if applicable).

(ii) Verify that girt bar is armed or disarmed as appropriate.

(iii) Verify the exit is in the correct mode.

(iv) Identify conditions under which the exit is to be opened in the emergency mode.

(v) Use proper voice commands to passengers (as appropriate).

(vi) Assess conditions outside the exit to determine the exit usability (e.g., clear of obstruction, fire, aircraft attitude).

(vii) Open the exit in the armed mode (as applicable) and secure or stow the exit (as applicable) to ensure a fully open and unobstructed exit.

(viii) Hold onto assist handle (if applicable).

(ix) As applicable, pull the manual inflation handle(s) and verify deployment, inflation (e.g., ramp, slide).

(x) Maintain appropriate protective body and hand positions.

(xi) Follow crew coordination procedures (as appropriate).

(xii) Access release handle(s) (e.g., Slide disconnect, jettison tailcone, ventral stairs).

(xiii) Recognize when it is appropriate to exit the aircraft.

(xiv) Access escape tapes or escape ropes (if applicable).

(g) *Emergency evacuation (with slide).*

(1) *Environment:* This drill is required when the flight crewmember is qualifying on an aircraft that is equipped with emergency escape slides.

(i) This is a one-time emergency drill requirement that the flight crewmember must complete for the certificate holder for which the flight crewmember is employed.

(ii) Each flight crewmember must complete an emergency evacuation by egressing the aircraft or approved training device using at least one type of installed emergency escape slide from an aircraft on which the flight crewmember will be qualified to serve.

(2) *Crewmember Performance:* The flight crewmember must complete the following during the drill:

(i) Observe the airplane exit(s) being opened in the emergency mode and the associated exit slide, or slide raft being deployed and inflated or perform the tasks resulting in the completion of these actions.

(ii) Egress the aircraft or approved training device and descend the slide while using the proper method and technique.

(h) *Emergency evacuation (without slide)*

(1) *Environment:* This drill is required when the flight crewmember is qualifying on an aircraft that is not equipped with an emergency escape slide on any emergency exit.

(i) This is a one-time emergency drill requirement that the flight crewmember must complete for the certificate holder for which the flight crewmember will serve.

(ii) Each flight crewmember must complete an emergency evacuation by egressing the aircraft or approved training device through an emergency exit that is not designed to have an escape slide installed and is representative of the aircraft on which the flight crewmember will be qualified to serve.

(2) *Crewmember Performance:* The flight crewmember must satisfactorily accomplish the following during the drill:

(i) Observe the airplane exit(s) being opened in the emergency mode.

(ii) Egress the aircraft or approved training device while using the proper method and technique.

(i) *Flotation devices*

(1) *Environment:* The individual flotation means used for this drill must be identical to each type of life preserver, flotation device, and seat cushion installed in the aircraft with respect to weight, dimensions, controls, types and method of operation.

(2) *Crewmember Performance:* Each flight crewmember must complete the following during the drill:

(i) Life preservers:

(A) Recognize removal procedures for individual flotation devices and also recognize any equipment or furnishings that may complement or hinder the removal of the flotation device or seat cushion.

(B) Don and secure life preserver, and inflate using automatic inflation (if appropriate) of at least one chamber.

(C) Demonstrate proper arm placement and use of the life preserver,

(D) Partially inflate, or simulate inflation of, a second chamber (if appropriate) of life preserver orally.

(E) Practice deflation technique.

(F) Locate and describe light activation.

(ii) Flotation devices:

(A) Recognize removal procedures for flotation devices or seat cushions, and also recognize any equipment or furnishings that may complement or hinder the removal of the flotation device or seat cushion.

(B) Demonstrate proper arm placement and use of the flotation device or seat cushion.

END QPS REQUIREMENT

BEGIN INFORMATION

(3) The individual flotation means installed may consist of life preservers, flotation devices, and seat cushions.

END INFORMATION

BEGIN QPS REQUIREMENT

(j) *Ditching survival (wet and dry training environments)*

(1) *Environment:*

(i) Ditching survival drill in a dry training environment must be conducted on a surface with sufficient space to conduct the drill without interference from nearby objects or structures.

(ii) Ditching survival drill in a wet training environment must be conducted in water with sufficient

depth and width under and around the slide, raft or slide-raft that does not allow participants the ability to touch the bottom or sides of the water containment structure.

(A) Ditching survival drill in a wet training environment is a one-time emergency drill requirement that the flight crewmember must complete for the certificate holder for which the flight crewmember is to serve.

(B) Raft boarding and subsequent activities must be done in water for ditching survival drill in a wet training environment.

(2) *Crewmember Performance:* The flight crewmember must participate in the following ditching survival drill for both wet and dry training environments as applicable to the certificate holder's procedures and approved extended overwater operations:

(i) Identify boarding station and board raft.

(ii) Review the need to crawl and stay low.

(iii) Distribute the load.

(iv) Review the need to stay attached to the aircraft as long as possible, and operation of the quick disconnect.

(v) Review the need to get clear of fuel-covered water and debris.

(vi) Locate and deploy the sea anchor.

(vii) Discuss the importance of upwind and downwind.

(viii) Retrieve the survival kit and review contents.

(ix) Identify inflation valve and review operation of inflation pump and raft repair kit.

(x) Identify equipment for bailing raft dry (e.g., bailing bucket or sponge).

(xi) Install the canopy and discuss methods for collecting rain water and water purification techniques.

(xii) Demonstrate how canopy can be used in both hot and cold climates.

(xiii) Review the use of signaling devices located in survival kits.

(xiv) Discuss the cautions associated with flares and sea dye marker and proper use.

(xv) Point out raft lights.

(xvi) Review alternate signaling devices (e.g., mirrors).

(xvii) Locate and demonstrate use of heaving line. Review techniques to retrieve survivors.

(xviii) Review raft maintenance techniques.

END QPS REQUIREMENT

BEGIN INFORMATION

(3) Activities prior to raft boarding for both wet and dry training environments may be done in classroom, aircraft, or aircraft mockup.

END INFORMATION

BEGIN QPS REQUIREMENT

3. Observation Drills—During the observation drill, the flight crewmember observes the specific procedural drill being conducted by other persons in a live setting or through an audio-visual medium.

(a) Preparation of Emergency Exits In Emergency Mode. Crewmember Performance: Each flight crewmember must observe the preparation of each type of installed flight crewmember emergency exit in the emergency mode, as follows:

(1) Position escape device (if applicable).

(2) Verify that girt bar is armed or disarmed (as appropriate).

(3) Verify the exit is in the correct mode.

(4) Identify conditions under which the exit is to be opened in the emergency mode.

(5) Use proper voice commands to passengers (as appropriate).

(6) Assess conditions outside the exit to determine the exit usability (e.g., clear of obstruction, fire, aircraft attitude).

(7) Open the exit in the armed mode (as applicable) and secure and stow the exit (as applicable) to ensure a fully open and unobstructed exit.

(8) Hold onto assist handle (if applicable).

(9) Pull the manual inflation handle(s) and verify deployment and inflation (e.g., ramp, slide).

(10) Maintain appropriate protective body and hand positions.

(11) Follow crew coordination procedures (as appropriate).

(12) Access release handle(s) (e.g., slide disconnect, jettison tailcone, ventral stairs).

(13) Recognize when it is appropriate to exit the aircraft.

(14) Access escape tapes or escape ropes (if applicable).

(b) *Emergency Evacuation Utilizing an Escape Slide (if applicable).*

Crewmember Performance: Each flight crewmember qualifying on an aircraft equipped with evacuation slides must observe the evacuation of an aircraft with passengers using a slide. The observation must include:

(1) Correct methods of evacuation.

(2) Correct methods of entering the slide.

(3) Necessity for helpers at the bottom of slide.

(c) *Deployment, inflation, and detachment of slide, raft, or slide-raft.*

Crewmember Performance: Each flight crewmember must observe the deployment, inflation, and detachment from the airplane of each type of installed slide, raft, or slide-raft. This observation must include:

(1) Proper use of the exit operating handle.

(2) Location and color of the inflation handle.

(3) Demonstration of forces required to inflate slide or slide-raft.

(4) Attachment to aircraft (if applicable).

(5) Sound of inflating slide, raft, or slide-raft.

(6) Proper inflation and position of the slide, raft, or slide-raft.

(7) Location of the ditching handle or laces.

(8) Launching points (if required).

(9) Procedure to pull ditching handle including secondary actions that may be required.

(10) Lanyard and the removal or cutting of lanyard.

(11) Righting overturned rafts (if applicable).

END QPS REQUIREMENT

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32. Add appendix R of part 121 to read as follows:

Appendix R to Part 121—Flight Engineer, Qualification Performance Standards

Table of Contents

121.1225; 121.1331; 121.1341; 121.1343; 121.1361; 121.1363; 121.1365; 121.1367; 121.1377; 121.1381; and 121.1391)

Attachment 3. Job Performance Training Requirements for All Categories of Training (see §§ 121.133; 121.135; 121.1205; 121.1221; 121.1223; 121.1221; 121.1225; 121.1253; 121.1255; 121.1257; 121.1271; 121.1281; 121.1331; 121.1333; 121.1337; 121.1339; 121.1341; 121.1343; 121.1345; 121.1347; 121.1349; 121.1351; 121.1353; 121.1361; 121.1363; 121.1365; 121.1367; 121.1377; 121.1379; 121.1381; 121.1383; 121.1385; 121.1387; and 121.1391)

Attachment 4. Generic Flight Engineer Performance Standards for Each Task, Environment, Drill, and Demonstration (see §§ 121.133; 121.135; 121.1201; 121.1203; 121.1205; 121.1221; 121.1253; 121.1257; 121.1271; 121.1281; 121.1341; 121.1343; 121.1361; 121.1363; 121.1365; 121.1367; 121.1377; 121.1379; 121.1381; 121.1383; and 121.1391)

BEGIN INFORMATION

Introduction

A. What is contained in the Flight Engineer QPS?

This QPS contains Information and QPS Requirements.

1. Information: Explanations that clarify or support regulatory requirements found in the Code of Federal Regulations or in this Flight Engineer QPS. Explanations are provided as guidance and are not regulatory. This guidance appears under the heading ''BEGIN INFORMATION'' and uses the terms ''should'' or ''may'' to indicate that it is not mandatory.

2. QPS Requirements: Flight Engineer Qualification Performance Standards contained in this appendix are regulatory and mandatory. These requirements appear under the heading ''BEGIN QPS REQUIREMENTS'' and use the terms ''must,'' ''may not,'' and ''will.''

B. Can the reader rely solely on this document for pilot qualification and related training requirements?

No, do not rely solely on this document for regulatory requirements in these areas. The reader must also use 14 CFR part 91 and part 121, subparts G, T, V, X, and BB.

C. How can I get answers to questions about the contents of this appendix?

1. You may mail questions to:

U.S. Department of Transportation, Federal Aviation Administration, Flight Standards Service, Air Transportation Division, AFS–210,800 Independence Avenue, SW., Washington, DC 20591,*Telephone:* (202) 267–8166,*Fax:* (202) 267–5229.

2. You may find answers to questions on the Flight Standards Internet Web Site address is: *''http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afs/.''* On this Web Site you will find Flight Standards Programs, Aviation Safety Inspector Handbooks and Documents, the current Aviation Regulations (14 CFR), Advisory Circulars, and other sources of FAA information.

D. Why do we need a QPS for flight engineers?

1. To provide objective standards for flight engineer performance and for relating these standards to simulation equipment qualification levels.

2. To provide routine and periodic update capability. This capability is needed to respond to accidents, incidents, or rapidly occurring changes to equipment and operations. All changes made to this appendix will be subject to public notice and comment, unless good cause exists to support a finding that notice and comment would be impracticable, unnecessary, or contrary to the public interest.

3. To provide the certificate holder with a minimum set of standards for developing the following:

(a) Training and certification programs,

(b) Performance standards, and

(c) Evaluation criteria as they relate to the flight engineer job function.

E. Where can each type of standard be found in the QPS?

1. Attachment 1 contains the programmed hour requirements for new hire, initial, transition, conversion, differences, requalification, recurrent, and special training categories.

2. Attachment 2 contains the academic training requirements for new hire, initial, transition, conversion, requalification, recurrent, differences, and special training categories.

3. Attachment 3 contains:

(a) The job performance training requirements for initial, transition, conversion, upgrade, requalification, recurrent, differences, and special categories of training.

(b) How evaluations are administered.

(c) What level FSTD must be used for each task or environment.

4. Attachment 4 contains the generic flight engineer performance standards for each task and environment.

F. [Reserved]

G. Where can definitions and acronyms be found?

You can find definitions in § 121.1205. Acronyms are as follows:

AFD Airport Facility Directory
AFE Above Field Elevation
AFS–210 Air Carrier Training Branch, Air Transportation Division, Flight Standards Service
AFM Airplane Flight Manual
AGL Above Ground Level
AIM Aeronautical Information Manual
APD Aircrew Program Designee
ASR Airport Surveillance Radar
ATC Air Traffic Control
ATIS Automated Terminal Information System
ATP Airline Transport Pilot
CDI Course Deviation Indicator
CDL Critical Design List
CFIT Controlled Flight into Terrain
COM Crewmember Operating Manual
CRM Crew Resource Management
DA Decision Altitude
DH Decision Height
DME Distance Measurement Equipment
EFIS Electronic Flight Indicating Systems
EGPWS Enhanced Ground Proximity Warning System
EGT Exhaust Gas Temperature
ETOPS Extended Operations(replaces EROPS)
EFVS Enhanced Flight Vision System
EVAS Emergency Vision Assurance System
FAF Final Approach Fix
FDC Flight Data Center
FE Flight Engineer
FFS Full Flight Simulator
FMS Flight Management System
FSTD Flight Simulation Training Device
FTD Flight Training Device
GPS Global Positioning System
GPWS Ground Proximity Warning System
GS Ground Speed
HUD Head-Up Display
IAP Initial Approach Point
ICAO International Civil Aviation Organization
INS Inertial Navigation System
LAHSO Land and Hold Short Operations
LOFT Line Operational Flight Training
LORAN Long Range Navigation
MEA Minimum En route Altitude
MEL Minimum Equipment List
MDA Minimum Descent Altitude
METAR Aviation Routine Weather Report
PAR Precision Approach Radar
PBE Protective Breathing Equipment
PF Pilot Flying
PIC Pilot in Command
PMPOI Pilot Monitoring Principal Operations Inspector
PRM Precision Radar Monitor (used as part of a Simultaneous Close Parallel approach)
PTS Practical Test Standards
QFE Corrected Barometric Altitude relative to field elevation
QNE Barometric pressure used for standard altimeter setting (29.92 inHg or 1013 hPa)
QNH Corrected Barometric Altitude relative to sea level
QPS Qualification Performance Standards
QRH Quick Reference Handbook
RA Resolution Alert
RMI Radio Magnetic Indicator
RNAV Area Navigation
RNP Required Navigation Performance
RPM Revolutions Per Minute
SAR Search and Rescue
SIC Second In Command
SID Standard Instrument Departure

SOIR Simultaneous Operations on Intersecting Runways
STAR Standard Terminal Arrival
TA Traffic Alert
TAA Terminal Arrival Area
TAS True Airspeed
TAWS Terrain Avoidance Warning System
TCAS Traffic Collision Avoidance System
TSA Transportation Security Administration
V_1 Takeoff Decision Speed
V_2 Takeoff Safety Speed
V_{MCA} Minimum Control Speed Air
V_{MCG} Minimum Control Speed Ground
V_R Rotation Speed
V_{REF} Reference Speed
V_{SO} Stall Speed, Landing Configuration
V_{S1} Stall Speed, Specific Configuration
XLS Other Landing System

H. What references are recommended?

The following references (as amended) support the knowledge and skill standards for tasks. They are strongly recommended for providing further details for lesson development. To find 14 CFR parts go to *http://ecfr.gpoaccess.gov*; to find Advisory Circulars go to: *http://www.faa.gov/regulations_policies/advisory_circulars*; and to find FAA handbooks go to: *http://www.faa.gov/other_visit/aviation_industry/airline_operators/*.

1. 14 CFR part 1, Definitions and Abbreviations
2. 14 CFR part 60, Qualification of Flight Simulation Devices
3. 14 CFR part 61, Certification: Pilots, Flight Instructors, and Ground Instructors
4. 14 CFR part 63, Certification: Flight Crewmembers Other Than Pilots
5. 14 CFR part 91, General Operating and Flight Rules
6. 14 CFR part 121, Operating Requirements: Domestic, Flag and Supplemental Operations
7. AC 00–6, Aviation Weather
8. AC 0045, Aviation Weather Services
9. AC 25.1581–1, Airplane Flight Manual
10. AC 60–22, Aeronautical Decision Making
11. AC 60–28, English Language Skill Standards
12. AC 61–21, Flight Training Handbook
13. AC 61–27, Instrument Flying Handbook
14. AC 61–84, Role of Preflight Preparation
15. AC 120–28, Criteria for Approval of Category III Landing Weather Minima
16. AC 120–29, Criteria for Approving Category I and Category II Landing Minima for Approach
17 AC 120–51, Crew Resource Management Training
18. AC 120–53, Crew Qualification and Pilot Type Rating Requirements for Transport Category Aircraft Operated Under part 121
19. AC 120–54, Advanced Qualification Program
20. AC 120–55, TCASII Operational Approval for Air Carriers
21. AC 120–59, Air Carrier Internal Evaluation Programs
22. AC 120–71, Standard Operating Procedures for Flight Deck Crewmembers
23. Aeronautical Information Manual (AIM)
24. En Route Low and High Altitude Charts
25. Profile Descent Charts
26. Standard Instrument Departure (SID)
27. Standard Terminal Arrival Routes (STAR)
28. Airport Facility Directory (AFD) and Instrument Approach Procedure Charts (IAP)
29. National Flight Data Center Notices to Airmen (FDC NOTAM)
30. Integrated Measurement of Crew Resource Management and Technical Flying Skills, DOT/FAA/RD–93/26
31. Transportation Security Regulations (TSRs)
32 HMR 175, Hazardous Materials Regulations, Carriage by Aircraft
33. FAA Order 8040.4, Safety Risk Management
34. Air Transportation Operations Inspector's Handbook, 8400.10

I. What training aids and guides should be used to develop instructional materials?

The FAA and the industry periodically publish training aids and guides in specific technical performance areas (*http://www.faa.gov/other_visit/aviation_industry/airline_operators/training/index.cfm* and *http://www.faa.gov/education_research/training/*). These aids and guides are accepted as the industry standard for their specific technical area. The following training aids and guides are not regulatory, but contain valuable information about safety of flight operations that should be considered when developing instructional materials for the tasks to which each apply.

1. Takeoff Safety Training Aid.
2. Wake Vortex Training Aid.
3. Windshear Training Aid.
4. Upset Recovery Training Aid.
5. Winter Operations Guide to Air Carriers.
6. Controlled Flight Into Terrain.

END INFORMATION

BEGIN QPS REQUIREMENT

J. How must Crew Resource Management (CRM) training be administered?

The flight engineer must demonstrate knowledge and skills in the technical and CRM competencies for each particular task.

1. Certain CRM-related procedures must be associated with flight tasks and their related flight engineer performance requirements, as shown in Attachment 4 of this appendix. These procedures must be evaluated during job performance training programs.

2. In addition to the CRM-related procedures, situational awareness must be evaluated as an integral part of each flight task and environment. A task is not completed unless the evaluator has determined that the flight engineer has demonstrated knowledge and skills in the technical and CRM competencies.

3. Additionally, the following CRM behaviors are required knowledge to be taught and tested during academic training, as shown in Attachment 2 of this appendix:

(a) Task: Authority of the Pilot In Command
(1) The Captain's authority, including responsibility for the safety of flight in routine and emergency conditions
(2) Chain of command and importance of chain of command
(b) Task: Communication Processes and Decisions
(1) Briefing
(2) Inquiry, advocacy, and assertiveness
(3) Self-critique
(4) Communication with appropriate personnel
(5) Decisionmaking
(6) Conflict resolution
(c) Task: Building and Maintenance of a Flight Team
(1) Leading and following, including the importance of crewmembers functioning as a team
(2) Use of interpersonal skills and leadership styles in a way that fosters crew effectiveness
(3) Significance of cultural differences
(d) Task: Workload Management and Situational Awareness
(1) Preparation and planning
(2) Vigilance
(3) Workload distribution
(4) Distraction avoidance
(e) Task: Communication and Coordination
(1) Flight deck and cabin chimes and interphone signals for routine situations
(2) Flight attendant notification to flight crew that aircraft is ready for movement on the surface
(3) Flight crew notification to flight attendant to be seated prior to take-off

(4) Flight attendant recognition of critical phases of flight
(5) Crewmember coordination and notification regarding access to flight deck
(6) Notification to flight attendants of turbulent air conditions
(7) Notification between flight crew and flight attendants of emergency or unusual situations
(8) Notification between flight crew and flight attendants of inoperative equipment that is pertinent to flight attendant duties and responsibilities
(9) Normal and emergency communication procedures to be used in the event of inoperative communication equipment
(f) Task: Crewmember Briefing
(1) Crewmember responsibilities regarding briefings
(2) Flight crew briefing
(3) Flight crew to flight attendant(s) briefings
(4) Flight attendant to flight attendant(s) briefings
(5) Required information
(6) Security procedures
(7) Communication procedures
(8) Emergency procedures
(9) MELs affecting flight operations and cabin safety equipment and procedures
(10) Flight information
(g) Task: Communication and Coordination During a Passenger Interference Situation
(1) Certificate holder's written program regarding the handling of passenger interference, including crewmember communication and coordination
(2) Techniques for diffusing a passenger interference situation
(3) Importance of crewmembers and other employees working as a team
(4) Role of management and crewmember in follow-up
(5) Actions to report an occurrence of passenger interference
(h) Task: Communication and Coordination During an Emergency Situation
(1) Actions for each emergency situation
(2) Importance of notification and who must be notified
(3) Alternate actions if unable to notify
(4) Communication during preparation for a planned emergency evacuation, including the time available, type of emergency, signal to brace, and special instructions

END QPS REQUIREMENT

BEGIN INFORMATION

4. CRM refers to the effective use of all available resources, including, human resources, hardware, and information. Human resources include all other groups routinely working with the flight crewmembers who are involved in decisions that are required to operate a flight safely. CRM is not a single task. CRM is a set of competencies that must be evident in all tasks in this QPS as applied to the individual and the multi-crew operation.
5. CRM deficiencies usually contribute to the unsatisfactory technical performance of a task. Therefore, the CRM competencies are valuable for debriefing. For debriefing purposes, an amplified list of these competencies, expressed as behavioral markers, is in AC 120–51, as amended.
6. Certificate holders should conduct flight crewmember and flight attendant CRM scenarios together. When this is not possible, certificate holders should include information in flight crewmember training that addresses the roles of flight attendants during emergency situations.

END INFORMATION

K. What is the continuous analysis process and how is it incorporated in this QPS? (see § 121.1355)

1. The continuous analysis process is a certificate holder internal evaluation and improvement process. The continuous analysis process will enable the certificate holder to maintain and refine the training process by continually monitoring the effectiveness and efficiency of the process. Various assessment tools (testing, checking, inspection, documenting, evaluation, and analysis) will be used to validate the effectiveness of a training program or the need to change a training program.

END INFORMATION

BEGIN QPS REQUIREMENT

2. A continuous analysis process is incorporated in this QPS through integration with the qualification and training program. The certificate holder is responsible for designating responsibility for the process. The certificate holder must ensure appropriate and adequate assessment tools (testing, checking, critique, inspection, observation, documenting, evaluation, and analysis) are utilized to enable the certificate holder to validate the effectiveness of the qualification and training program, or the need to change that program. The certificate holder must describe the attributes of the continuous analysis process in the certificate holder's FAA approved training program.

END QPS REQUIREMENT

BEGIN INFORMATION

3. Components of a Continuous Analysis Process.
(a) Qualification and training program as approved by the Administrator.
(1) Attributes of the continuous analysis process.
(2) [Reserved]
(i) Who is responsible?
(ii) Who has authority to change the process?
(iii) Description of the process.
(iv) Controls. Policy, procedure, training, evaluation.
(v) Documenting and measurement.
(vi) Interfaces between Departments. Consistency (policy, procedures, manuals):
(A) Across Departments.
(B) Across Divisions.
(b) Assessment tools (adequate and appropriate).
(1) Testing.
(2) Checking.
(3) Critique.
(4) Inspection and observation.
(6) Documenting.
(7) Evaluation and analysis.
(c) Modification and adjustment of the qualification and training program.
(d) Approval for modification and adjustment.

END INFORMATION

Attachment 1 of Appendix R to part 121

Programmed Hour Requirements for New Hire, Initial, Transition, Conversion, Differences, Requalification, Recurrent, and Special Training Categories

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BEGIN QPS REQUIREMENT

A. Programmed Hour Requirements: Flight Engineers (see §§ 121.1205; 121.1331; 121.1333; 121.1335)

1. *Baseline and Minimum Programmed Hours.* Table 1A sets out the baseline and minimum programmed hours for each category of training by segment (academic and job performance). The FAA may approve a reduction in baseline programmed hours if the certificate holder demonstrates that the reduction is warranted. The FAA will not approve a reduction in the programmed hours below the minimum programmed hours.
2. *Required hours for requalification training.* The hours established for

requalification training (§ 121.1239) are for individuals in specific circumstances. Therefore, there are no programmed hours in Table 1A for requalification training.

3. *Required hours for differences and special training.* The hours established for differences and special training are in addition to the previously approved programmed hours for the approved training program. For differences training (§ 121.1391), the hours remain in the differences training category. For special training (§ 121.1337(c)), the certificate holder integrates the training into the existing categories in Table 1A. Therefore, there are no programmed hours in Table 1A for differences and special training.

TABLE 1A—PROGRAMMED HOUR REQUIREMENTS: FLIGHT ENGINEERS

Training categories	Training segments		
	Academics	Job performance	
	Ground training	Flight training	Emergency equipment drills and demonstrations
NEW HIRE	Baseline 24 Minimum 20	N/A	Baseline 4. Minimum 4.
INITIAL	Baseline 116 Minimum 80	Baseline 8 Minimum 8	Baseline 8. Minimum 8.
FULL CONVERSION	Baseline 68 Minimum 52	Baseline 6 Minimum 6	Baseline 4. Minimum 4.
CORE CONVERSION	Baseline 52 Minimum 36	Baseline 6 Minimum 6	Baseline 4. Minimum 4.
TRANSITION	Baseline 76 Minimum 58 Baseline 18	Baseline 6 Minimum 6 Baseline 4	Baseline 6. Minimum 6. Baseline 8.
RECURRENT	(each 9-month recurrent training period). Minimum 14	(each 9-month recurrent training period). Minimum 4	(each 36-month period). Minimum 8.
REQUALIFICATION	Determined by Administrator	Determined by Administrator	Determined by Administrator.
DIFFERENCES	Determined by Administrator	Determined by Administrator	Determined by Administrator.
SPECIAL	Developed by Certificate Holder, Approved by the Administrator.	Developed by Certificate Holder, Approved by the Administrator.	Determined by Administrator.

END QPS REQUIREMENT

BEGIN INFORMATION

B. Recurrent Training (see § 121.1367)

Recurrent training modules are required each 9 months. Recurrent training modules also will contain academic subjects, job performance tasks and environments, and emergency drills and demonstrations that may be required once each 9 months, once each 18 months, or once each 36 months. The certificate holder may distribute these recurrent training requirements in a manner that best suits its training program structure while ensuring that the required items are included at the appropriate intervals.

Example 1: A 9-month recurrent period includes all of the academic subjects and job performance tasks and environments that are required at each 9-month interval. The certificate holder may decide to include one-half of those academic subjects and job performance tasks and environments that are required every 18 months during this particular 9-month training period, and leave the balance to be completed at the next 9-month period. Also, the certificate holder may decide to include one-fourth of the emergency equipment drills and demonstrations during this 9-month interval, and leave the other three-fourths of those drills and demonstrations to be completed during subsequent 9-month periods.

Example 2: A 9-month recurrent period includes all of the academic subjects and job performance tasks and environments that are required every 9-months. During the next 9-month recurrent period, the certificate holder must include all of the academic subjects and job performance tasks and environments that are required every 9-months, as well as all of the academic subjects and job performance tasks and environments that are required every 18 months. At the following 9-month interval (27-month point), the certificate holder must include all those academic subjects and job performance tasks and environments that are required every 9-months. Then, at the 36-month point, the certificate holder must include all of the academic subjects and job performance tasks and environments that are required every 9-months, all of the academic subjects and job performance tasks and environments that are required every 18 months, and all of the academic subjects, job performance tasks, and all the emergency equipment drills and demonstrations that are required every 36 months.

END INFORMATION

Attachment 2 of Appendix R to Part 121

Academic Training Segment Requirements—Subjects and Tests—for New Hire, Initial, Transition, Conversion, Requalification, Recurrent, Differences, and Special Training Categories

BEGIN INFORMATION

A. Required Academic Training Subjects by Category of Training (See §§ 121.1221; 121.1223; 121.1225; 121.1331; 121.1343; 121.1361; 121.1363; 121.1365; 121.1367; 121.1377; 121.1381; and 121.1391)

1. Attachment 2 contains the academic training segment requirements.

2. When differences and special training are required for academic training, they will be additional training modules or new subjects. For more information about differences and special training categories see attachment 1 of this appendix.

3. How to read Table 2A.

(a) Table 2A contains the required academic training subjects by category of training. In the table, an ''X'' indicates that the subject must be included in the category of training. A ''9'' indicates that the subject must be

trained every 9 months. An ''18'' indicates that the subject must be trained every 18 months.

(b) Table 2A item (c)(3) addresses the training subject ''Coordination, communication, and methodology for the performance of each normal, abnormal, and emergency procedure contained in the FCOM.'' For core conversion, phase I requalification, and recurrent training all abnormal and emergency procedures are required. However, only selected normal procedures are required. The selection of normal procedures should be based on procedural changes, feedback from observed procedural irregularities, and system safety initiatives.

END INFORMATION

BEGIN QPS REQUIREMENT

TABLE 2A—REQUIRED ACADEMIC TRAINING SUBJECTS BY CATEGORY OF TRAINING

Subject	New hire	Initial and phase III requalification	Transition	Full coversion and phase II requalification	Core conversion and phase I requalification	Recurrent
(a) General Subjects						
(1) Duties and responsibilities of flight crewmembers ..	X					
(2) Appropriate requirements of the Federal Aviation Regulations.	.....	X	X	X	X	18
(3) General relationship of FAA to the certificate holder.	X	.....	.....	.....	.....	.....
(4) General overview of the contents of the certificate holder's Operating Certificate and Operations Specifications.	X	.....	.....	.....	.....	.....
(5) Meteorology to ensure a practical knowledge of weather phenomena, including the principles of frontal systems, icing, fog, thunderstorms, and high altitude weather situations. Recognizing and avoiding severe weather situations and other hazards.	X	.....	.....	.....	.....	.....
(6) Air traffic control systems, airspace, procedures, and phraseology.	X	.....	.....	.....	.....	.....
(7) Navigation and the use of navigation aids, including instrument approach procedures.	.....	X	X	X	X	18
(8) Development of and operating in the National Airspace System.	X	.....	.....	.....	.....	.....
(9) General Concepts of TCAS Operation						
(i) The meaning of Traffic Alerts (TAs).						
(ii) The meaning of preventive Resolution Advisories (RAs).						
(iii) The meaning of corrective RAs. TCAS equipment components controls, displays, audio alerts, and annunciations; interfaces and compatibility with other aircraft systems; TCAS surveillance range versus display range; altitude ceiling operators; when an intruder will not be displayed; and TCAS performance on the ground.	.....	X	X	X	X	18
(10) High Altitude Physiology—Operations above 10,000 feet—Aircraft Decompression; Causes and Recognition of cabin pressure loss; Physiological Effects and time of useful consciousness; Immediate Actions; Altitude and Flight Level requiring the wearing of oxygen masks.	X	.....	.....	.....	.....	18
(11) Mechanical and Incident Reporting Procedures ...	.....	X	X	X	X	18
(12) Voluntary Safety Program and Participation, including ASAP, FOQA, LOSA, and other government and industry accident prevention programs.	X	.....	.....	.....	.....	18
(13) Normal and emergency communications	X	X	X	X	X	18
(14) General content, control, and maintenance of applicable portions of the certificate holder's operating manual, to include the Flight Crewmember Operating Manual (FCOM). Relationship of FCOM to the Airplane Flight Manual.	X	.....	.....	.....	.....	.....
(15) Dispatch and flight release procedures. Flight planning as applicable.	X	X	X	X	X (Conversion training only).	18
(b) Crew resource management (CRM).						
(1) Task: Authority of the Pilot In Command						
(i) The Captain's Authority, including responsibility for the safety of flight in routine and emergency conditions.	X	X	.....	.....	.....	.....
(ii) Chain of command and importance of chain of command.						

TABLE 2A—REQUIRED ACADEMIC TRAINING SUBJECTS BY CATEGORY OF TRAINING—Continued

Subject	New hire	Initial and phase III requalification	Transition	Full coversion and phase II requalification	Core conversion and phase I requalification	Recurrent
(2) Task: Communication Processes and Decisions						
(i) Briefing.						
(ii) Inquiry, advocacy, and assertiveness.						
(iii) Self-critique.	X	X				
(iv) Communication with available personnel.						
(v) Decisionmaking.						
(vi) Conflict resolution.						
(3) Task: Building and Maintenance of a Flight Team						
(i) Leading and following, including the importance of crewmembers functioning as a team.	X	X				
(ii) Use of interpersonal skills and leadership styles in a way that fosters crew effectiveness.						
(iii) Significance of cultural differences.						
(4) Task: Workload Management and Situational Awareness						
(i) Preparation and planning.						
(ii) Vigilance	X	X				
(iii) Workload distribution.						
(iv) Distraction avoidance.						
(5) Task: Communication and Coordination						
(i) Flight deck and cabin chimes and interphone signals for routine situations.						
(ii) Flight attendant notification to flight crew that aircraft is ready for movement on the surface.						
(iii) Flight crew notification to flight attendant to be seated prior to take-off.						
(iv) Flight attendant recognition of critical phases of flight.	X	X				
(v) Crewmember coordination and notification regarding access to flight deck.						
(vi) Notification to flight attendants of turbulent air conditions.						
(vii) Notification between flight crew and flight attendants of emergency or unusual situations.						
(viii) Notification between flight crew and flight attendants of inoperative equipment that is pertinent to flight attendant duties and responsibilities.						
(ix) Normal and emergency communication procedures to be used in the event of inoperative communication equipment.						
(6) Task: Crewmember Briefing						
(i) Crewmember responsibilities regarding briefings.						
(ii) Flight crew briefing.						
(iii) Flight crew to flight attendant(s) briefings.						
(iv) Flight attendant to flight attendant(s) briefings.	X	X				
(v) Required information.						
(vi) Security procedures.						
(vii) Communication procedures.						
(viii) Emergency procedures.						
(ix) MELs affecting flight operations and cabin safety equipment and procedures.						
(x) Flight information.						
(7) Task: Communication and Coordination During a Passenger Interference Situation						
(i) Certificate holder's written program regarding the handling of passenger interference, including crewmember communication and coordination.	X	X				
(ii) Techniques for diffusing a passenger interference situation.						
(iii) Importance of crewmembers and other employees working as a team.						
(iv) Role of management and crewmember in follow-up.						
(v) Actions to report an occurrence of passenger interference.						

TABLE 2A—REQUIRED ACADEMIC TRAINING SUBJECTS BY CATEGORY OF TRAINING—Continued

Subject	New hire	Initial and phase III requalification	Transition	Full coversion and phase II requalification	Core conversion and phase I requalification	Recurrent
(8) Task: Communication and Coordination During an Emergency Situation						
(i) Actions for each emergency situation.						
(ii) Importance of notification and who must be notified.						
(iii) Alternate actions if unable to notify	X	X				
(iv) Communication during preparation for a planned emergency evacuation, including the time available, type of emergency, signal to brace, and special instructions.						
(c) Aircraft type specific.						
(1) Contents of the certificate holder's operating manual to include the FCOM. Use of any FCOM-based quick reference handbook (QRH).		X	X	X	X	18
(2) Operating limitations		X	X	X	X	18
(3) Coordination, communication, and methodology for the performance of each normal, abnormal, and emergency procedure contained in the FCOM.		X	X	X	X [1]	18 [1]
(4) Aircraft systems as described in the FCOM		X	X	X	X	18
(5) Instrument procedures and low visibility operations		X	X	X	X	18
(6) Airplane performance determinations and flight planning for all phases of flight.		X	X	X	X	18
(7) Operations Specifications authorizations and limitations.		X	X	X	X	18
(8) MMEL, MEL, CDL		X	X	X	X	18
(9) Emergency communications with passengers and other crewmembers.	X	X	X	X	X	18
(10) Storage of and how to administer medicinal oxygen.	X			X		18
(11) The certificate holder's policy and FCOM procedures on the use of command and control automation and criteria for selecting and deselecting appropriate levels of automation (including manual control of flight) must be included in the lateral and vertical modes of takeoff, approach, and landing.		X	X	X	X	18
(d) Special Hazards.						
(1) Preventing controlled flight into terrain (CFIT) and approach and landing accidents.		X	X	X	X	18
(2) Recovery from loss of control due to airplane design, airplane malfunction, human performance, and atmospheric conditions (or combinations thereof).		X	X	X	X	18
(3) Low altitude windshear.						
(i) Recognition and avoidance		X	X	X	X	9
(ii) Recovery from inadvertent encounter.						
(4) Takeoff safety: Decisionmaking and high speed aborts, including propulsion system malfunction analysis, causes, symptoms, recognition, and the effects on aircraft performance and handling.		X	X	X	X	18
(5) Airport surface movement safety and runway incursion prevention.		X	X	X	X	18
(6) Hazards of operating in or near thunderstorms, turbulent air, icing, hail, volcanic ash, and other potentially hazardous conditions.		X	X			
(7) Land and hold short operations (LAHSO)		X	X	X	X	9
(8) Ground anti-icing, deicing		X	X	X	X	18
(9) Ice accumulation in flight		X	X	X	X	18
(e) Special Operations Areas.						
(1) Close simultaneous parallel precision approach operations with Precision Radar Monitor (PRM).		X	X	X	X	18
(2) Special routes, areas, and airports		X	X	X	X	18
(f) International Operations.						
(1) Area and route characteristics	X	X	X	X	X	18
(2) Flight planning, charts, course plotting, and tables	X	X	X	X	X	18
(3) Class II Navigation	X	X	X	X	X	18
(4) Communications	X	X	X	X	X	18
(5) ETOPS or EROS, as applicable	X	X	X	X	X	18
(6) International rules and regulations	X	X	X	X	X	18
(7) Abnormal Operations	X	X	X	X	X	18

TABLE 2A—REQUIRED ACADEMIC TRAINING SUBJECTS BY CATEGORY OF TRAINING—Continued

Subject	New hire	Initial and phase III requalification	Transition	Full coversion and phase II requalification	Core conversion and phase I requalification	Recurrent
(g) Emergency Equipment Training.						
(1) Emergency communications with passengers and other crewmembers.	X	X	X	X	X	18
(2) Crewmember-specific roles in dealing with crewmember and passenger injury and illness, and disruptive passengers.	X					9
(3) Location and familiarization of contents for first aid and medical kits.		X	X	X		9
(4) Location and use of defibrillator		X	X	X		
(5) Certificate holders blood-borne pathogen awareness program.	X					9
(6) Location and use of emergency exits		X	X	X		18
(7) Location and use of emergency equipment. Equipment must include:.		X	X	X		18
(i) For over water operations: life preservers, flotation seat cushions, life rafts, slides, and slide rafts.		X	X	X		18
(ii) For ground or water evacuation: escape ropes, megaphones, flashlight, emergency lighting, emergency locator transmitters, first aid kit, slides, slide rafts, fire extinguishers (each type used), smoke and fume protection (such as PBE and smoke goggles), megaphones, oxygen (portable, passenger oxygen system, flight crew masks), supplemental (flight deck key, demonstration equipment, smoke detectors, trash containers, seat belt extensions).		X	X	X		18
(8) Fires—in flight and on the ground.						
(i) Procedures and strategies for prevention		X	X			
(ii) Classes of fires and correct methods of extinguishing each.		X				
(iii) Flight attendant role in exterior, APU, jetway, and ramp fire.		X	X	X		18

[1] All abnormal and emergency procedures are required. Only selected normal procedures are required. *See* paragraph A.(3)(b) of this attachment for information about selecting normal procedures.

END QPS REQUIREMENT

BEGIN QPS REQUIREMENT

B. Knowledge Assessment (See §§ 121.1341 and 121.1343)

1. Knowledge and understanding of each subject within each area of instruction must be evaluated by written or computer based testing at the end of academic training. When written or computer based methods are used:

(a) A score of 80% or better on each instructional area is required to be satisfactory.

(b) A minimum of 5 questions must be developed for each subject.

(c) Two questions for each subject must be randomly selected for each test.

(d) The form and content of each test must be approved by the Administrator.

(e) The test must be corrected to 100% by a person administering the test.

(f) Correction of missed questions must include a discussion of which answer is correct and why, and why the person's original answer was incorrect.

(g) Retraining is required for each instructional area in which a score of 80% or better is not achieved.

(h) Examination after retraining of the student is required for each instructional area in which retraining was completed.

2. The knowledge assessment for the specific aircraft subjects of limitations, systems, and performance and loading may be used for the oral portion of the proficiency test if completed no more than 60 days prior to the flight portion of the proficiency test (*see* attachment 3, E.1.(a) of this appendix).

3. The following standards are for evaluating the flight engineer performance in limitation, systems, and performance and loading subjects.

(a) Limitations—The flight engineer must know all of the limitations appropriate to the airplane with respect to:

(1) Systems and components.

(2) Performance.

(b) Systems—The flight engineer must understand and be knowledgeable about the following subjects (systems and components) and be able to explain their operation as described in the FCOM and their applicability, as appropriate, to the Minimum Equipment List (MEL), Configuration Deviation List (CDL), and the operations specifications:

(1) Landing gear: Including, as appropriate, extension and retraction system(s), indicators, brakes, anti-skid, tires, nose-wheel steering, and shock absorbers.

(2) Engine(s): Including controls and indications, induction system, carburetor and fuel injection, turbocharging, cooling, fire detection and protection, mounting points, turbine wheels, compressors, deicing, anti-icing, and other related components.

(3) Propellers (if appropriate): Including type, controls, feathering and unfeathering, auto feather, negative torque sensing, synchronizing, and synchro-phasing.

(4) Fuel system: Including capacity, drains, pumps, controls, indicators, cross-feeding, transferring, jettison, fuel grade, color and additives, fueling and

de-fueling procedures, and allowable fuel substitutions, if applicable.

(5) Oil system: Including capacity, grade, quantities, and indicators.

(6) Hydraulic system: Including capacity pumps, pressure, reservoirs, grade, and regulators.

(7) Electrical system: Including alternators, generators, battery, circuit breakers and protection devices, controls, indicators, and external and auxiliary power sources and ratings.

(8) Environmental systems: Including heating, cooling, ventilation, oxygen and pressurization, controls, indicators, and regulating devices.

(9) Avionics and communications: Including autopilot; flight director; Electronic Flight Indicating Systems (EFIS); Flight Management System(s) (FMS); Long Range Navigation (LORAN) systems; Doppler Radar, Inertial Navigation Systems (INS); Global Positioning System (GPS/DGPS/WGPS); VOR, NDB, ILS/MLS, RNAV systems and components; indicating devices; transponder; and emergency locator transmitter.

(10) Ice protection (anti-ice and de-ice): Including pitot-static system, propeller (if appropriate), windshield, wing and tail surfaces.

(11) Crewmember and passenger emergency equipment and procedures: Including oxygen system, survival gear, emergency exits, evacuation procedures with crew duties, and quick donning oxygen mask for crewmembers and passengers.

(12) Flight controls: Including ailerons, elevator(s), rudder(s), control tabs, balance tabs, stabilizer, flaps, spoilers, leading edge flaps and slats, and trim systems.

(13) Flightdeck automation: Including the certificate holder's written automation policy and written operating procedures for selecting and deselecting appropriate levels of automation. This must include the certificate holder's policy for conducting CAT II and CAT III approaches when authorized.

(14) Pneumatic system.

(c) Performance and Loading—The flight engineer must understand and be proficient in the use of (as appropriate to the airplane) performance charts, tables, graphs, and other data relating to items such as:

(1) Accelerate—stop distance.

(2) Accelerate—go distance.

(3) Balanced field.

(4) Takeoff performance, all engines and with engine(s) inoperative, as appropriate.

(5) Climb performance including segmented climb performance; with all engines operating; with one or more engines inoperative; and with other engine malfunctions as appropriate.

(6) Service ceiling, all engines, with engines(s) inoperative, including drift down, if appropriate.

(7) Cruise performance.

(8) Fuel consumption, range, and endurance.

(9) Descent performance.

(10) Go-around from rejected landings.

(11) The effects of meteorological conditions on performance characteristics with correct application of these factors to a specific chart, table, graph or other performance data.

(12) How to determine longitudinal and lateral center-of-gravity location for a specific load condition, including how to add, remove, or shift weight to meet longitudinal (forward and aft), and lateral balance limits for takeoff, cruise, and landing.

(13) Correct planning and knowledge of procedures in applying operational factors affecting airplane performance.

(14) Meteorological effects on performance.

(15) METAR and ATIS weather data.

(16) Planning and application of operational factors affecting aircraft performance such as high altitude airports, cluttered and contaminated runways, ground and inflight icing.

(17) Other performance data (appropriate to the aircraft).

END QPS REQUIREMENTS

Attachment 3 of Appendix R to Part 121

Job Performance Training Requirements for All Categories of Training

(Tasks, Environments, Drills, and Observations With Instruction, Evaluation, and Simulation Credits)

BEGIN QPS REQUIREMENT

A. Determining the Job Performance (Flight Training) Tasks and Environments Required for Instruction and Evaluation for Each Category of Training. (See §§ 121.133; 121.135; 121.1221; 121.1223; 121.1225; 121.1331; 121.1339; 121.1341; 121.1343; 121.1345; 121.1347; 121.1349; 121.1351; 121.1353; 121.1361; 121.1363; 121.1365; 121.1367; 121.1377; 121.1379; 121.1381; 121.1383; and 121.1391)

1. *Certificate holder responsibilities with respect to the FCOM and Table 3A.*

(a) The certificate holder must use Table 3A of this Attachment to determine the tasks and environments on which each flight engineer must be instructed and evaluated for each training category in accordance with an FAA approved job performance (flight operations) training program. The tasks listed in the FCOM must reflect the tasks included in the table, as amended, and include standard operating procedures, abnormal procedures, non-normal procedures, and emergency procedures, as well as the authorizations contained in the certificate holder's operations specifications.

(b) If the certificate holder adds tasks or environments to those listed in Table 3A, it must further develop the tasks or environments to include the requirement and frequency for training and evaluation in each additional task or environment. These changes must be submitted to the POI for approval.

(c) If the certificate holder's operation does not permit, or the operation of the aircraft flown by the certificate holder does not require one or more of the tasks listed in Table 3A, those tasks must not be included in the FCOM.

(d) The recurrent requirements in Table 3A also include the frequency during which each flight engineer must be trained and evaluated in each task and environment.

(e) Changes to the FCOM must be submitted to the POI for approval.

2. *Job Performance Training Requirements.*

When differences and special training are required for job performance training, they will be additional training modules or new tasks or environments. For more information about differences and special training categories see attachment 1 of this appendix.

END QPS REQUIREMENT

BEGIN INFORMATION

3. *Deviation from § 121.1345 Training program: Mandatory use of flight simulation training devices.*

If a certificate holder receives a deviation in accordance with § 121.1345, and the certificate holder wants to extend the deviation, the certificate holder should submit the request for an extension at least 60 days before the termination date of the deviation.

END INFORMATION

BEGIN QPS REQUIREMENT

Table 3A - Job Performance Tasks and Environments

CATEGORIES OF TRAINING	INITIAL, TRANSITION, CONVERSION, AND REQUALIFICATION				RECURRENT				
	INSTRUCTION AND PRACTICE			*EVALUATION*	*INSTRUCTION AND PRACTICE*			*EVALUATION*	
					In a LOFT, or in an FSTD Course of Instruction				
Tasks	INITIAL TRANSITION, and PHASE III REQUAL	FULL CONVERSION, and PHASE II REQUAL	CORE CONVERSION, and PHASE I REQUAL	PROFICIENCY TESTS	Every 9 Months	Every 18 Months	Every 36 Months	PROFICIENCY TEST or CHECK	PROFICIENCY REVIEW
1.0 All Operations									
1.1 Normal, Abnormal, and Emergency Procedures	X	X	X	X		X		X	
1.2 Human Factors and CRM	X	X	X	X		X		X	
2.0 Preflight Procedures									
2.1 Preflight Inspection-Flight deck Setup	X	X	X	X	X			X	
2.2 Preflight Inspection-Exterior	X	X	X	X		X			X
3.0 Ground Operation									
3.1 Engine Start	X	X	X	X	X				X
3.2 Pushback or Powerback	X	X	X	X	X				X
3.3 Taxi	X	X	X	X	X				X
3.4 Pre-Takeoff Procedures	X	X	X	X	X			X	
3.5 After Landing	X	X	X	X	X			X	
3.6 Parking and Securing	X	X	X	X	X			X	
4.0 Normal, Abnormal, and Emergency Procedures									
4.1 Takeoff	X	X	X	X	X			X	
4.2 Inflight	X	X	X	X		X		X	
4.3 Approach and Landing	X	X	X	X	X			X	
4.4 Engine and Systems Monitoring	X	X	X	X			X	X	
5.0 Line Oriented Environments									
5.1 Anti-icing, Deicing Before Takeoff	X	X	X				X		
5.2 Structural Icing Airborne	X	X	X				X		
5.3 Thunderstorm Avoidance on Departure or Arrival	X	X	X			X			
5.4 Windshear Avoidance and Encounter	X	X	X			X			

NOTES:
X - Task must be completed

B. Airplane Emergency Equipment Training Requirements. Airplane Emergency Procedures Drills and Observations (See §§ 121.1205; 121.1333; 121.1337; 121.1351; 121.1365; 121.1367; 121.1337; 121.1381; 121.1383; 121.1387; and 121.1391)

1. An individual performance drill is a hands on training and evaluation demonstration that is performed by each flight crewmember using the specified emergency equipment.

2. A group performance drill allows a flight crewmember to participate as part of a group of persons completing a specific drill. During these situations, it is not necessary for each flight crewmember to complete each task in the performance drill. However, each flight crewmember participant must observe the actions and activities of the other persons who are completing the performance drill tasks.

3. An observation drill is one during which a flight crewmember observes a specific procedural drill being conducted by other persons in a live setting or through an audio-visual medium.

4. Table 3B provides a list of the drills and observations that are required in each training curriculum. The frequency for recurrent drills and observations is every 36 months. Attachment 4 contains the performance standards for each drill and observation.

5. Each flight crewmember must operate each exit on each aircraft type on which the flight crewmember is to serve in both the normal and emergency modes, including the actions and forces required in the deployment of emergency evacuation slides.

6. Each flight crewmember must complete the required emergency training drills during the specified training periods, using those items of installed emergency equipment for each aircraft type on which the flight crewmember is to serve.

7. Each piece of emergency equipment and training device must be in its fully secured, pinned, bracketed, or stowed condition, as installed on the aircraft, prior to being operated by each flight crewmember during each performance drill. The removal and stowage of each piece of emergency equipment may be completed separately from the performance drill as part of the equipment mountings drill.

8. Flight crewmembers must demonstrate proficiency by completing each performance drill without reference to any guidance material or instruction.

9. Individual evaluation of each flight crewmember's performance by an instructor is required. Flight crewmembers who do not complete emergency training drills must be retrained in accordance with the certificate holder's approved training program prior to reevaluation.

TABLE 3B—AIRCRAFT EMERGENCY EQUIPMENT TRAINING REQUIREMENTS

No certificate holder may use nor may any person serve as a flight crewmember unless the following training has been completed by that person

Emergency equipment training drills	New hire	Initial, transition, conversion, and phase II and III requalification	Recurrent every 36 months
(a) Performance Drills:			
Individual			
(1) Fire Extinguishers	.....	X	X
(2) Oxygen Systems	.....	X	.....
(3) Equipment Mountings	.....	[1] X	.....
(4) Flight Deck Oxygen Systems	.....	X	X
(5) Firefighting (Actual Fire)	X	.....	.....
(6) Emergency Exits	.....	X	X
(7) Emergency Evacuation (with Escape Slide)	.....	X	X
(8) Emergency Evacuation (without Escape Slide)	.....	X	X
(9) Flotation Devices	.....	X	X
Group			
(10) Ditching Survival (Dry Training Environment)	.....	X	X
(11) Ditching Survival (Wet Training Environment)	X	.....	.....
(b) Observation Drills:			
(1) Preparation of Emergency Exits in Emergency Mode	.....	X	X
(2) Emergency Evacuation Using an Escape Slide	.....	X	X
(3) Deployment, Inflation, and Detachment of Slide, Raft, or Slide-Raft	.....	X	X

[1] Only required if mountings differ by equipment.

See attachment 4 for the Performance Standards for the Emergency Equipment Training Drills.

C. Determining the Level of Flight Simulation Training Device That Must Be Used for Training, Evaluation, and Recent Experience (See §§ 121.1345; 121.1347; 121.1349; and 121.1351)

To use an FSTD for training, evaluation, and recent experience the following general requirements must be met. The code shown in Table 3C for the task or environment indicates the lowest FSTD qualification level that may be used.

1. *General Requirements.*

In addition to the approval of the POI required by part 121, to be used for any task or environment, an FSTD must:

(a) Have a qualification level assigned in accordance with part 60 of this chapter.

(b) Be maintained in accordance with part 60 of this chapter.

(c) Have all of the aircraft and FSTD systems installed and operating that are necessary to complete the task or environment.

(d) Be operated in accordance with § 60.25 of this chapter, Operation with Missing, Malfunctioning, or Inoperative Components.

(e) Have the qualification level indicated in Table 3C, or a higher qualification level, for the task or environment and the category of training indicated. Certain tasks may be trained in an FSTD at a different level than required for evaluating that specific task. The instructor must observe the flight engineer perform the task to proficiency in the level of FSTD required for the evaluation prior to the evaluation by a check person.

2. *Loft Requirements.*

For Qualification LOFT, a level C or D FFS is required. For Recurrent LOFT, a level B, C, or D may be used.

3. *Takeoff and Landing 90 Day Recency of Experience.*

The three takeoffs and three landings required for maintaining or regaining 90 day recency of experience must include at least one takeoff with a simulated failure of the most critical engine, at least one landing from a precision category approach to the lowest minimums authorized for the certificate holder, at least one landing to a full stop, and at least one visual traffic pattern and landing. For maintaining recency of experience in a FFS, a level B, C, or D must be used. For regaining recency of experience, a level C or D is required.

4. *FSTD Requirements for the Proficiency Test, Check, or Review.*

(a) The proficiency test administered at the conclusion of initial, transition, conversion, or requalification training must be conducted in no more than two levels of FSTD.

(b) The proficiency test, check, or review administered as part of the recurrent qualification requirements may only be conducted in a Level B or higher FFS.

TABLE 3C—MINIMUM FSTD REQUIRED FOR CREDIT

Training category	Initial, transition, converson, and requalification		Recurrent	
Tasks Each task may be performed in the FSTD level specified or any higher level of FSTD.	Training	Proficiency test	Training	Proficiency test, check, or review
1.0 General				
1.1 Human Factors and CRM	Must be incorporated throughout training and evaluation.			

TABLE 3C—MINIMUM FSTD REQUIRED FOR CREDIT—Continued

Training category	Initial, transition, converson, and requalification		Recurrent	
Tasks Each task may be performed in the FSTD level specified or any higher level of FSTD.	Training	Proficiency test	Training	Proficiency test, check, or review
2.0 Preflight Procedures				
2.1 Flight Deck (Inspection or Preflight)	4	A	4	B
2.2 Cabin Inspection	Aircraft or approved pictorial means			
2.3 Exterior Inspection	Aircraft or approved pictorial means			
3.0 Ground Operations				
3.1 Engine Start	4	A	4	B
3.2 Pushback and Powerback	A	A	A	B
3.3 Taxi	A	A	A	B
3.4 Pre-Takeoff Procedures	4	A	4	B
3.5 After Landing	4	A	4	B
3.6 Parking and Securing	A	A	A	B
4.0 Normal, Abnormal, and Emergency Procedures				
4.1 Takeoff	6	A	6	B
4.2 Inflight	6	A	6	B
4.3 Approach and Landing	6	A	6	B
4.4 Engine and Systems Monitoring	4	A	4	B
5.0 Line Oriented Environments				
5.1 Anti-icing, Deicing Before Takeoff	4	A	4	B
5.2 Structural Icing Airborne	6	A	6	B
5.3 Thunderstorm Avoidance for departure and arrival	6	A	6	B
5.4 Windshear Avoidance and Encounter	6	A	6	B

END QPS REQUIREMENT

BEGIN QPS REQUIREMENT

D. Persons Authorized To Administer Flight Engineer Training, Evaluation, and Observation Activities Under Subpart BB. (see §§ 121.1347; 121.1349; 121.1251; 121.1253; 121.1255; 121.1257; 121.1271; 121.1281; 121.1341; 121.1377; 121.1379; 121.1381; 121.1383; 121.1385; and 121.1391)

Table 3D identifies who must administer certain required training and evaluation for flight engineers, and who must supervise and observe instructors and check flight engineers.

BEGIN QPS REQUIREMENT

TABLE 3D—PERSONS ELIGIBLE TO BE AUTHORIZED TO ADMINISTER FLIGHT ENGINEER TRAINING, EVALUATION, AND OBSERVATION ACTIVITIES UNDER SUBPART BB*

Flight engineer training, evaluation, and observation activities under Subpart BB (by aircraft type)	Affiliation and Position						
	Contractor			The part 119 certificate holder			
	Other than part 142 or other part 119 certificate holder	Part 142 or other Part 119 certificate holder					
	Ground instructor	Ground instructor	Flight instructor	Ground instructor	Flight instructor	Check flight engineer	Aircrew program designee
Academic (Ground School) Training	X	X	X	X			
Job Performance (Flight) Training			X		X		
Certificate or Rating Examination							X
Proficiency Test (Initial, Transition, Conversion, Recurrent, Requalification)						[1] X	X
Qualification LOFT					[2] X	X	
Supervision of Operating Experience						[3] X	
Proficiency Check						X	
Proficiency Review					[4] X	X	
Observation of:							
• Flight Engineer Instructor—Initial						X	

TABLE 3D—PERSONS ELIGIBLE TO BE AUTHORIZED TO ADMINISTER FLIGHT ENGINEER TRAINING, EVALUATION, AND OBSERVATION ACTIVITIES UNDER SUBPART BB*—Continued

Flight engineer training, evaluation, and observation activities under Subpart BB (by aircraft type)	Affiliation and Position						
	Contractor			The part 119 certificate holder			
	Other than part 142 or other part 119 certificate holder	Part 142 or other Part 119 certificate holder					
	Ground instructor	Ground instructor	Flight instructor	Ground instructor	Flight instructor	Check flight engineer	Aircrew program designee
• Flight Engineer Instructor—Recurring	.....	.....	.....	.....	.....	X	.....
• Check Flight Engineer—Initial	.....	.....	.....	.....	.....	.....	[5] X
• Check Flight Engineer—Recurring	.....	.....	.....	.....	.....	X	[5] X

See § 121.1343 for special limited authorizations for Initial Cadre Personnel. When POI authorization is required, the designation will specifically state the authorizations granted to the instructor, check flight engineer, or APD. Part 142 TCEs and other part 119 certificate holders' check flight engineers may be qualified and authorized as check flight engineers or APDs by the part 119 certificate holders' POI in accordance with subpart BB of this part. When qualified and authorized, these check flight engineers and APDs are considered a component of the part 119 certificate holders' training program resources.

[1] When the proficiency test does not involve the issuance of a certificate or rating, a check flight engineer may conduct a Proficiency Test.

[2] With POI authorization, employees of the part 119 certificate holder who are specifically designated flight engineer instructors may conduct Qualification LOFT and Proficiency Reviews.

[3] In addition to the Check Flight Engineer, supervision of flight engineer operating experience may also be conducted by a Check Pilot, a Check Captain, or a Flight Engineer who has been specifically authorized by the POI.

[4] With POI authorization, employees of the part 119 certificate holder who are specifically designated flight engineer instructors may conduct the flight engineer portion of Qualification LOFT and flight engineer Proficiency Reviews.

[5] With POI authorization, employees of the part 119 certificate holder who are designated as APDs and specifically designated to do so, may conduct the Initial or Recurring Check Flight Engineer Observation.

E. Administering Evaluations. (See §§ 121.1221; 121.1253; 121.1257; 121.1271; 121.1281; 121.1341; 121.1343; 121.1361; 121.1363; 121.1365; 121.1367; 121.1377; 121.1379; 121.1381; 121.1383; and 121.1391)

The following requirements apply to the evaluation activity indicated. Refer to Table 3D of this attachment for who may administer each type of evaluation.

1. *Proficiency Tests.*

(a) Proficiency tests must be administered for first time qualification in a duty position. They also must be administered at the end of the first 9-month recurrent period following the proficiency test required by § 121.1365(b)(1), and for phase II and III re-qualification. Employees of the certificate holder who are used or will be used in the certificate holder's operations and who have completed all of the required training may use the proficiency test to obtain a certificate or rating.

(b) When conducting a proficiency test, the evaluator (FAA, APD, or check flight engineer), must evaluate the success of each task as it is performed. If the proficiency test is a second attempt, and the first attempt was within the previous 60 days, the only tasks the evaluator is required to assess are those that were failed or were not assessed on the first attempt. However, during this retest, and at the discretion of the evaluator, any task may be reevaluated, including those previously judged satisfactory.

(c) During a proficiency test, a task is judged as either satisfactory or unsatisfactory. However, in limited circumstances, the evaluator may judge a task to be incomplete or may not be certain about the outcome of the task. In these limited circumstances, the evaluator may require the applicant to repeat that task, or portions of that task; however, this provision does not authorize instruction or practice. The remaining tasks of the proficiency test must be completed before repeating the questionable task. If the second attempt to perform a questionable task is not clearly satisfactory, the evaluator must consider it unsatisfactory.

(d) Unsatisfactory performance is demonstrated by consistently exceeding the parameters set out for the specific task, consistently exceeding the parameters for aircraft handling standards, or failing to take prompt, corrective action when those parameters are exceeded. If the flight engineer fails a task, the evaluator must decide if the entire test must be repeated or if the test can continue. If the entire proficiency test must be repeated, the evaluation must be terminated. If a single task has been judged unsatisfactory, and both the flight engineer and the evaluator agree, the test may continue, but only the tasks that have not been evaluated may be attempted. If the flight engineer fails a second task, the evaluator must terminate the test.

(e) If the proficiency test must be terminated for unsatisfactory performance, the FAA notification (and notice of disapproval, if appropriate) must list the tasks or areas of operation that have not been evaluated and which tasks or areas of operation that have been found unsatisfactory. These tasks and areas of operation must be evaluated, or re-evaluated, on any subsequent proficiency test.

(f) If a proficiency test is discontinued for reasons other than unsatisfactory performance (e.g., equipment failure, weather, sickness), the evaluator must complete one of the following:

(1) If the test is part of an application for an FAA-issued certificate or rating, the evaluator must appropriately annotate FAA Form 8710–1, ''Airman Certificate and/or Rating Application.'' The evaluator must return FAA Form 8710–1 and, if applicable, AC Form 8080–2, Airman Written Test Report to the flight engineer. The evaluator must also issue a Letter of Discontinuance to the flight engineer. The Letter of Discontinuance must identify the portions of the test that were successfully completed. The flight engineer must present the Letter of Discontinuance to the evaluator when the test is resumed. The Letter of Discontinuance must become part of the certification file.

(2) If the test is not part of an application for an FAA-issued certificate or rating, the evaluator must properly annotate the flight engineer's training record to indicate the tasks and areas of operation that were satisfactorily completed and the tasks and areas of operation that were not evaluated.

(g) The evaluator must annotate any certificate or rating issued as a result of a part 121, subpart BB proficiency test, with ''LIMITED TO AIR CARRIER OPERATIONS.''

(h) The evaluator must submit FAA Form 8081.5C, ''Airman Performance Report, Airline Transport Pilot and Aircraft Type Rating for Airplane,'' to the FAA for all tests administered under subpart BB of part 121.

2. *Proficiency Checks and Reviews.*

(a) Proficiency checks and reviews must include job performance evaluation of the tasks identified in Table 3B and an equipment knowledge assessment outlined in section B of Attachment 2. The equipment knowledge assessment may be replaced by the academic knowledge test as outlined in Attachment 2 if the flight engineer completes the proficiency test within 60 days of the knowledge test. If the flight engineer does not complete the academic knowledge test in these areas within 60 days of the proficiency test, the flight engineer must complete a test of these knowledge areas in conjunction with the proficiency check or review. This test may be completed with oral, written, or computer based methodology. A passing score of 80% is required in each of the three areas of:

(1) Aircraft Systems;

(2) Handbooks, manuals, MEL, CDL, and operations specifications; and

(3) Aircraft performance and limitations.

(b) Evaluators who conduct proficiency checks and reviews and instructors who conduct proficiency reviews may provide limited training to a flight engineer. The limits are:

(1) No more than two tasks may be trained, and no more than a total of three attempts (including the first unsatisfactory, a rehearsal, and a final assessment) in each of the two tasks is allowed.

(2) The flight engineer has not satisfactorily completed the check or review if the flight engineer has three or more unsatisfactory tasks, or fails to demonstrate satisfactory performance in three attempts at any one task.

(3) The check or review must be completed within the approved scheduled time period.

3. *Other Assessments.*

(a) After qualification, the flight engineer's performance in all job performance training activities (including LOFT) must be assessed for a satisfactory level of task proficiency based upon this QPS.

(b) During a scheduled FSTD course of instruction (other than LOFT), if a task is performed unsatisfactorily the flight engineer may retrain on the unsatisfactory task; however, all scheduled tasks, including any retraining, must be completed within the approved scheduled time period.

(c) Unsatisfactory task performance during LOFT may not be retrained and reevaluated during that scheduled time period.

4. Satisfactory or Unsatisfactory Performance

(a) No evaluator or instructor may assess the flight engineer's performance as satisfactory unless that flight engineer:

(1) Performs the tasks in accordance with the standards and tolerances established in the QPS.

(2) Demonstrates mastery of the aircraft or simulated aircraft with the successful outcome of each task never in doubt.

(3) Demonstrates performance such that no corrective or instructive action is required by another flight crewmember to maintain safe flight.

(4) Demonstrates CRM competencies in accordance with duties outlined in the FCOM requiring crew interactions, including in a crew briefing before each takeoff and before each approach.

(5) Demonstrates sound judgment.

(b) The evaluator or instructor must assess a flight engineer's performance as unsatisfactory if the flight engineer consistently exceeds tolerances established in this QPS or fails to take prompt corrective action when tolerances are exceeded.

5. Recording, Reporting and Correcting Unsatisfactory Performance

The certificate holder must report a failure of a test, check, or review to the FAA in accordance with § 121.1331(f)(1). The flight engineer must be retrained and reevaluated to a satisfactory level before the flight engineer may begin or be returned to line operations.

Attachment 4 of Appendix R to Part 121

Generic Flight Engineer Performance Standards for Each Task, Environment, Drill, and Demonstration

BEGIN QPS REQUIREMENT

A. Developing Flight Engineer Performance Requirements for Each Task and Environment. (See §§ 121.133; 121.135; 121.1201; 121.1203; 121.1205; 121.1221; 121.1253; 121.1257; 121.1271; 121.1281; 121.1341; 121.1343; 121.1361; 121.1363; 121.1365; 121.1367; 121.1377; 121.1379; 121.1381; 121.1383; and 121.1391)

1. General Requirements

(a) Certificate holders must develop training curricula and flight engineer performance requirements for each required task and environment that include:

(1) Conditions: Environmental conditions and circumstances, including those that compound the difficulty of the task when encountered.

(2) Awareness criteria: Identify specific aspects of the task and environment that indicate proper operation, a need to seek further information, or a need to take action to prevent encountering a hazard or compounding the difficulty unnecessarily.

(3) Action criteria: Procedures for completing a task, including operations in or near a critical environment, when appropriate. Provide relevant parameters with tolerances to reflect satisfactory levels of performance.

(b) This attachment describes performance requirements and generic procedures for completing a task or operating in or near a critical environment. The certificate holder must tailor these performance requirements to the specific aircraft type and the certificate holder's approved operations.

2. [Reserved]

B. Generic Tasks and Environments (See §§ 121.133; 121.135; 121.1201; 121.1203; 121.1205; 121.1221; 121.1253; 121.1257; 121.1271; 121.1281; 121.1341; 121.1343; 121.1361; 121.1363; 121.1365; 121.1367; 121.1377; 121.1379; 121.1381; 121.1383; and 121.1391)

1.0 Area: All Operations

The flight engineer must demonstrate the awareness criteria and action criteria under the prescribed conditions. The certificate holder must train flight engineers in all authorized conditions. Any selected condition may be evaluated unless a particular condition is specified.

1.1 Task: Normal, Abnormal, and Emergency Procedures

(a) Condition(s). All.

(b) Awareness criteria.

(1) Maintain situational awareness of the events and circumstances at all times.
(2) Demonstrate ability to continuously monitor and to identify any potential hazards or threats to the safety of the flight.
(3) Demonstrate ability to communicate and manage available resources.
(4) Maintain adequate lookout and traffic avoidance for the conditions.
(5) Maintain awareness of aircraft position relative to a ''nearest suitable airport.''
(6) Monitor system indications to ensure normal operation or identify abnormal situations.
(c) Action criteria.
(1) Ensure operation of the aircraft within the limitations established by the FCOM.
(2) Comply with the provisions of the FCOM, SOP, and MEL (if appropriate) as they pertain to the particular aircraft, through all phases of flight and all operations.
(3) Make correct use of instruments, flight director, autopilot, and navigation and communication equipment as prescribed by the FCOM, and as appropriate to the phase of flight.
(4) Plan workload.
(5) Complete the proper normal, abnormal, or emergency checklist(s).
(6) Alert ATC and the certificate holder as necessary and obtain appropriate level of service.
(7) Ensure proper crew and passenger briefings are completed.
(8) Ensure the takeoff briefing is conducted according to the FCOM prior to taking the active runway.
(9) Ensure that the approach is briefed prior to initial descent and conducted according to the FCOM.
(10) Ensure potential terrain or obstacle threats are included in departure and arrival briefings.
(11) Ensure that passengers, crew, and cargo are properly secured for take-off or landing.
(12) Assist PIC in determining the best course of action when an immediate landing is required, but not possible.

1.2 Task: Human Factors and CRM

(a) Condition(s). All.
(b) Awareness criteria.
(1) Demonstrate terrain awareness.
(2) Demonstrate orientation, division of attention, and proper planning.
(3) Observe indication of situation, condition, or problem.
(4) Consider the risks of alternate courses of action.
(5) Demonstrate an awareness of environmental factors that are potentially hazardous to safety of flight operations.
(c) Action criteria.
(1) Demonstrate sound judgment and operating practices in those instances where specific instructions or checklist items are not published.
(2) Confirm fault diagnosis with crew and review possible causes.
(3) Identify alternative course(s) of action; discuss with crew; monitor the course of action selected by evaluating progress toward a goal.
(4) Involve other crewmembers, aircraft dispatchers, and maintenance control personnel in option analysis.
(5) Demonstrate effective communications with other crewmembers.
(6) Coordinate actions with other crewmembers prior to execution, except where safety of flight would be in jeopardy.
(7) Ensure that coordination with flight or ground crew is completed where necessary.
(8) Demonstrate the necessary flight crew coordination required for the tasks being completed.

1.3 Task: MEL Relief

(a) Condition(s). All.
(b) Awareness criteria.
(1) Understand MEL application.
(2) Consider factors that restrict aircraft operation.
(c) Action criteria. Apply the provisions of the appropriate MEL entry for operation restrictions.

END QPS REQUIREMENT

BEGIN INFORMATION

(d) The purpose of this task is to require specific training that addresses safe operation of the aircraft while carrying an MEL item that requires training to take advantage of the relief.

END INFORMATION

BEGIN QPS REQUIREMENT

2.0 Area: Preflight Procedures

2.1 Task: Flight deck (Inspection or Preflight)

(a) Condition(s). All.
(b) Awareness criteria.
(1) Coordinate with ground crew and ensure adequate clearance prior to supplying power to, or operating, any devices such as doors, hatches, or flight control surfaces.
(2) Know the maintenance or system tests that must be performed.
(c) Action criteria.
(1) Demonstrate proper operation of applicable aircraft systems.
(2) Note any discrepancies and take proper corrective action.
(3) Determine that the aircraft is airworthy and safe for flight.
(4) Locate the documents required for flight, including airworthiness and registration certificates, operations specifications (if appropriate), FCOM, MEL, CDL, weight and balance data, and the maintenance logbook.
(d) Verify that the aircraft is safe for flight by examining and, if appropriate, servicing items such as:
(1) Engine(s), including controls and indicators.
(2) Fuel quantity (if interior inspection is appropriate to the aircraft).
(3) Oil quantity (if interior inspection is appropriate to the aircraft).
(4) Hydraulic fluid quantity (if interior inspection is appropriate to the aircraft).
(5) Oxygen quantity and pressures for crew and passengers (if interior inspection is appropriate to the aircraft).
(6) Fire protection and detection systems for proper operation, pressures, and discharge indications.
(7) Pneumatic system pressures (if interior inspection is appropriate to the aircraft).
(8) Ground environmental systems for proper operation.
(9) APU.
(10) Anti-ice and de-ice systems.

2.2 Task: Cabin Inspection

(a) Condition(s).
(1) All.
(2) The flight engineer must prepare the cabin for a positioning flight with no cabin crew aboard. The flight engineer is not required to prepare the cabin for passenger safety in revenue service.
(b) Awareness criteria. Awareness of emergency equipment location and stowage, emergency exit location and operation, and noticeable inoperative cabin equipment.
(c) Action criteria.
(1) Visually inspect the aircraft cabin to ensure the aircraft is safe for flight.
(2) Take necessary actions prescribed by the FCOM for safe flight or crew evacuation.

2.3 Task: Exterior Inspection

(a) Condition(s).
(1) All.
(2) An approved pictorial must realistically portray the location and detail of inspection items, and may be used instead of the aircraft to conduct an actual exterior inspection.
(3) Flight Instructors, Check Flight engineers, and Check Captains may be approved to certify an flight engineer's proficiency in exterior inspections.

END QPS REQUIREMENT

BEGIN INFORMATION

(4) The exterior inspection is a demonstration of a flight engineer's ability to perform appropriate safety checks. It is not an extension of the systems knowledge evaluation.

(5) The person conducting the evaluation should limit questions to those necessary to determine if a flight engineer can properly conduct the inspection and recognize an unsafe condition.

END INFORMATION

BEGIN QPS REQUIREMENT

(b) Awareness criteria. Check the general area around the aircraft for hazards to the safety of the aircraft and personnel.

(c) Action criteria.

(1) Note any discrepancies and take proper corrective action.

(2) Determine that the aircraft is airworthy and safe for flight.

(d) The flight engineer must verify that the aircraft is safe for flight by examining and, if appropriate, servicing items such as:

(1) Engines, for closed and latched access panels, leaks other than normal drainage, intake and exhaust areas for freedom from FOD hazards, and pylon alignment marks, as appropriate.

(2) Fuel quantity (if exterior inspection is appropriate to the aircraft).

(3) Oil quantity (if exterior inspection is appropriate to the aircraft).

(4) Hydraulic fluid quantity (if exterior inspection is appropriate to the aircraft).

(5) Oxygen quantity and pressures for crew and passengers (if exterior inspection is appropriate to the aircraft).

(6) Landing gear, brakes, and steering system.

(7) Tires for condition, inflation, and correct mounting, where applicable.

(8) Fire protection and detection systems for pressures and absence of discharge indications (if exterior inspection is appropriate to the aircraft).

(9) Pneumatic system pressures (if exterior inspection is appropriate to the aircraft).

(10) Auxiliary power unit (APU).

(11) Flight control systems including trim, spoilers, ailerons, leading and trailing edge slats and flaps, elevator, stabilizer, and rudder, as appropriate.

(12) Anti-ice and de-ice systems.

(13) General airframe and structural integrity, including scratches, tears, holes, or dents and the fit and security of panels, doors, and hatches.

3.0 Area: Ground Operations

(a) Condition(s). All.

(b) Awareness criteria.

(1) Properly divide attention inside and outside flight deck.

(2) Assist PIC in maintaining (surface movement) positional awareness.

(3) Comply with sterile flight deck requirements.

(c) Action criteria.

(1) Monitor and confirm clearance before crossing or entering active runways.

(2) Observe runway hold lines, localizer and glide slope critical areas, beacons, and other surface movement guidance control markings and lighting.

(d) The certificate holder must provide crewmembers with specific requirements for unique parking situations, or unique crewmember responsibilities that must be completed before the door closes or after it is opened in accordance with the FCOM. The certificate holder must also submit these unique requirements to the FAA for acceptance or approval as required.

END QPS REQUIREMENT

BEGIN INFORMATION

(e) Ground operations begin when the aircraft door is closed and includes all activities until the brakes are released for the takeoff roll. Ground operations resume again when the landing roll has been completed to a safe taxi speed just as the aircraft exits the landing runway, and continues until the aircraft has been parked and the door opened.

END INFORMATION

BEGIN QPS REQUIREMENT

3.1 Task: Engine Start

(a) Condition(s).

(1) All.

(2) Includes hot or cold weather, tailwinds, icing conditions, low density altitude.

(b) Awareness criteria. Ensure the ground safety procedures are followed during the before-start, start, and after-start phases of ground operations.

(c) Action criteria. Use required ground crew personnel during the before-start, start, and after-start phases (as appropriate).

3.1.1 Task: Engine Start—Normal

(a) Condition(s). All.

(b) Awareness criteria.

(1) Monitor appropriate RPM and EGT indicators.

(2) Be able to identify abnormal RPM and EGT indications.

(c) Action criteria.

(1) Start the engine(s):

(2) Under varying environmental conditions;

(3) Using normal, auxiliary power unit, external power, pneumatic sources, or cross-bleed, as appropriate.

3.1.2 Task: Engine Start—Abnormal

(a) Condition(s). All.

(b) Awareness criteria.

(1) Monitor appropriate RPM and EGT indicators.

(2) Be able to identify abnormal RPM and EGT indications.

(c) Action criteria.

(1) Start the engine(s):

(2) Take appropriate action in the event of a malfunction during the start process.

3.2 Task: Pushback or Powerback

(a) Condition(s). All.

(b) Awareness criteria.

(1) Maintain communications with ground crew.

(2) Avoid use of brakes unless requested by ground crew.

(c) Action criteria.

(1) Exhibit adequate knowledge of pushback or powerback procedures (as appropriate to the aircraft).

(2) [Reserved]

3.3 Task: Taxi

(a) Condition(s).

(1) All.

(2) Training must be conducted in taxi operations at the lowest visibility (RVR) authorized. Evaluation can be in any conditions.

(b) Awareness criteria.

(1) Comply with low visibility procedures, as applicable.

(2) Be aware of the operational factors that could affect the takeoff such as takeoff warning inhibit systems or other aircraft characteristics, runway length, surface conditions, wind, wake turbulence, obstructions, and other related factors that could adversely affect safety.

(c) Action criteria.

(1) Monitor and confirm clearances received and ensure all instrument references, flight director and autopilot controls, and navigation and communications equipment have been set.

(2) Confirm that the aircraft trim and wing high lift devices are configured properly.

(3) Monitor and confirm the takeoff and departure clearance as issued by ATC.

3.4 Task: Pre-Takeoff Procedures

(a) Condition(s). All.

(b) Awareness criteria. Be aware of the operational factors that could affect the takeoff such as takeoff warning inhibit systems or other aircraft characteristics, runway length, surface conditions,

wind, wake turbulence, obstructions, and other related factors that could adversely affect safety.

(c) Action criteria.

(1) Interpret information and clearances received and ensure all instrument references, flight director and autopilot controls, and navigation and communications equipment have been set.

(2) Confirm that the aircraft trim and wing high lift devices are configured properly.

(3) Obtain (or acknowledge, as appropriate) the takeoff and departure clearance as issued by ATC.

3.5 Task: After Landing

(a) Condition(s). All.

(b) Awareness criteria. Promptly clear the runway, avoiding an incursion on any other runway in the process.

(c) Action criteria. Take no other action until the aircraft is clear of the runway and a suitable ATC clearance has been received.

3.6 Task: Parking and Securing

(a) Condition(s). All.

(b) Awareness criteria. Be aware of or acknowledge other aircraft and ground vehicles that might be a hazard to your operation.

(c) Action criteria.

(1) Use available visual docking system and marshaller to properly park the aircraft.

(2) Complete the post-flight entries in the maintenance logbook, including any discrepancies encountered during the flight.

4.0 Area: Normal, Abnormal, and Emergency Procedures

4.1 Task: Takeoff

(a) Condition(s). All.

(b) Awareness criteria.

(1) Monitor engine and other aircraft controls, settings, and instruments during takeoff to ensure all predetermined parameters are maintained.

(2) Monitor aircraft airspeed to determine normal acceleration during take-off ground roll.

(3) Assess take-off and climb hazards particularly those related to obstacles.

(4) Consider the effect of LAHSO or SOIR if conducted on a runway that crosses the takeoff runway.

(c) Action criteria.

(1) The flight crewmembers must ensure takeoff clearance is received and that the correct runway is being entered for takeoff.

(2) Monitor correct alignment on the centerline of the runway prior to and during the takeoff.

(3) Adjust the engine controls for the existing conditions and verify the expected engine performance.

(4) Monitor rotation at the proper airspeed, at the proper rate, to the proper pitch attitude for the aircraft configuration.

(5) Complete after takeoff checklists.

END QPS REQUIREMENT

BEGIN INFORMATION

(d) Takeoff begins at brake release (or the application of thrust with the intention of flight for those aircraft not using brakes). Takeoff ends when the aircraft is airborne, or in the event of a rejected takeoff, when the aircraft has reached a safe taxi speed.

END INFORMATION

BEGIN QPS REQUIREMENT

4.2 Task: Inflight

(a) Condition(s).

(1) All

(2) Normal aircraft systems, controls, indications, and procedures.

(3) High altitude operations.

(b) Awareness criteria.

(1) Understand the requirements of the climb profile, normal cruise, and normal descent.

(2) Aware of high altitude performance and specific flight characteristics.

(3) Aware of aircraft systems, subsystems, and devices (e.g., fuel heat, air conditioning systems, hydraulic systems, pressurization).

(c) Action criteria.

(1) Complete appropriate checklists.

(2) Demonstrate or use aircraft systems, subsystems, and devices, appropriate to the aircraft, such as:

(i) Engines.

(ii) Fuel system.

(iii) Electrical system.

(iv) Hydraulic system.

(v) Environmental and pressurization systems.

(vi) Fire detection and extinguishing systems.

(vii) Navigation and avionics systems.

(viii) Automatic flight control system, electronic flight instrument system, and related subsystems.

(ix) Flight control systems.

(x) Anti-ice and deice systems.

(xi) Aircraft and personal emergency equipment.

(xii) Other systems, subsystems, and devices specific to the aircraft type, including make, model, and series.

(xiii) Pneumatic system(s).

4.3 Task: Approach and Landing

(a) Condition(s). All.

(b) Awareness criteria.

(1) Monitor the navigation instruments and be aware of correct airspeeds, aircraft configurations, crossing altitudes, and ATC clearance requirements.

(2) Awareness of other crewmembers and their activities during approach and landing.

(c) Action criteria.

(1) Correctly compute approach and landing performance requirements.

(2) Adjust engine controls and aircraft systems, as necessary.

(3) Complete appropriate checklist items, interacting with other crewmembers to ensure procedures are complete and aircraft systems are operating properly.

4.4 Task: Engine and Systems Monitoring

(a) Condition (s). Engine systems, controls and indications.

(b) Awareness criteria. Aware of aircraft systems within normal range, normal procedures, and checklists.

(c) Action criteria

(1) Adjust the engine controls and aircraft systems, as necessary.

(2) Complete appropriate checklist items, interacting with other crewmembers to ensure procedures are complete and aircraft systems are operating properly.

5.0 Area: Line Oriented Operations Environments

The specific operational environments below must be integrated into instruction modules for initial, conversion, transition, recurrent, and requalification training.

5.1 Task: Anti-Icing and Deicing Before Takeoff

(a) Condition(s). All.

(b) Awareness criteria.

(1) Understand the certificate holder's ground anti-icing and de-icing program.

(2) Be able to determine the need for anti-icing or de-icing prior to takeoff.

(c) Action criteria.

(1) Inspect the aircraft to ensure all surfaces are free of ice before flight.

(2) Correctly operate anti-icing and de-icing systems or equipment.

(3) Coordinate the application of a proper mix of anti-icing or deicing fluid.

(4) Determine hold over time.

(5) Comply with the hold over time restrictions for takeoff.

5.2 Task: Structural Icing, Airborne

(a) Condition(s). All.

(b) Awareness criteria.

(1) Know the conditions that can lead to structural ice.

(2) Understand the effects of structural icing on aircraft performance.

(c) Action criteria.

(1) Know when and how to apply the procedures in the FCOM for operating in icing conditions or conditions that may lead to structural icing.

(2) Determine when structural icing is present.

(3) Monitor ice accretion during flight.

(4) Correctly operate anti-icing and de-icing systems and equipment.

5.3 Task: Thunderstorm Avoidance, Departure, and Arrival

(a) Condition(s). All.

(b) Awareness criteria. Know the weather information available to determine the probability of thunderstorm activity and its location.

(c) Action criteria. Use weather radar to identify thunderstorm activity and to avoid departing into the threat or circumnavigate in flight.

5.4 Task: Windshear Avoidance and Encounter

(a) Condition(s). All.

(b) Awareness criteria.

(1) Know the sources of information that indicate the possible presence of windshear or turbulence.

(2) Observe the visual indications that usually indicate the presence of windshear or turbulence.

(3) Understand the effect of windshear or turbulence on the performance of the aircraft during low altitude operations.

(c) Action criteria.

(1) Avoid indicated areas of possible windshear or turbulence, if possible.

(2) Be able to recognize the indications of windshear or turbulence during takeoff and landing profiles.

(3) Execute the FCOM procedure for avoiding windshear; and, if not possible to avoid, execute the FCOM procedure for escaping windshear or turbulence during low altitude operations.

(4) Practice avoiding and escaping windshear or turbulence during low altitude operations to include:

(i) Takeoff.

(ii) Departure.

(iii) Approach.

END QPS REQUIREMENT

BEGIN INFORMATION

(d) Refer to the most current version of the FAA Windshear Training Aid. Demonstrations and practice are primarily for the purpose of enabling pilots to avoid windshear encounters. This practice will also enable pilots to execute the proper escape maneuver should windshear be encountered.

END INFORMATION

BEGIN QPS REQUIREMENT

C. Performance Standards for the Emergency Training Drills (See §§ 121.133; 121.135; 121.1201; 121.1203; 121.1205; 121.1333; 121.1337; 121.1351; 121.1365; 121.1367; 121.1381; 121.1383; and 121.1391)

1. Emergency training equipment must be identical to that installed in the certificate holder's aircraft on which the flight crewmember is to be qualified with respect to weight, dimensions, appearance, features and operation. Equipment may be substituted when it is similar with respect to weight, dimensions, appearance, features, and operations, and the pilot has been provided with training on differences between the training equipment and the actual aircraft equipment.

2. Performance Drills—Individuals

(a) *Fire Extinguishers*

(1) *Environment:* The hand fire extinguisher must be charged; but does not have to contain the actual extinguishing agent.

(2) *Crewmember Performance:* The flight crewmember must complete the following during the drill for each type of installed hand fire extinguisher:

(i) Prepare extinguisher for use (e.g., rotate handle to pressurize, break tamper seals, pull pin, release safety latch).

(ii) Operate extinguisher discharge mechanism.

(iii) Aim and discharge extinguisher at the base of the fire (actual or simulated) using proper discharge pattern, bottle position, and flight crewmember body position (appropriate to the location of the fire).

END QPS REQUIREMENT

BEGIN INFORMATION

(3) Effective training scenarios for firefighting should include realistic drills with emphasis on combating hidden fires. To provide realistic training, drills should simulate locations of hidden fires such as behind sidewall panels, in overhead areas and panels, or in air conditioning vents. The intent of the training is to provide crewmembers with the typical obstacles that they would encounter onboard the aircraft, but it is not intended to have each student tear apart sidewall panels. A training program should incorporate a method to assess and combat a hidden fire, such as locating the exact source of the fire before applying an extinguishing agent. Depending on the sophistication of the training device, the flight crewmember could use a manual release tool that is designed to open the enclosed area to gain access to a fire that is suspected in that region.

(4) The hand fire extinguisher does not have to be positioned in the same location as installed in the aircraft. This drill is not required for the type of hand fire extinguisher used in the firefighting drill that is completed during the same training period.

END INFORMATION

BEGIN QPS REQUIREMENT

(b) *Oxygen Systems*

(1) *Crewmember Performance:* The flight crewmember must complete the following during the drill for each type of installed oxygen system equipment:

(i) Don and activate the oxygen and test for flow, position, seal, and security of the mask or hood to the face or head.

(ii) Demonstrate proper precautions.

(iii) Secure the oxygen bottle, canister, or cartridge (as appropriate) and position it to monitor the supply.

(iv) Demonstrate proper handling techniques if using portable solid state units.

(v) Deactivate and stow equipment.

END QPS REQUIREMENT

BEGIN INFORMATION

(2) This drill is not required for the type of protective breathing equipment used in the firefighting drill that is completed during the same training period.

END INFORMATION

BEGIN QPS REQUIREMENT

(c) *Equipment Mountings.*

(1) *Environment:* Each piece of emergency equipment must be in its fully secured or pinned condition using the identical bracketing or mounting system that is used on the aircraft in which the equipment is installed.

(2) *Crewmember Performance:* The flight crewmember must complete the following during the drill:

(i) Completely remove each piece of emergency equipment from its bracketing or securing system.

(ii) Secure each piece of emergency equipment in its bracketing and securing system or properly stow according to certificate holder procedures.

END QPS REQUIREMENT

BEGIN INFORMATION

(3) Unless otherwise specified, it is not necessary to have the emergency equipment installed within locations or compartments as installed in the actual aircraft.

END INFORMATION

BEGIN QPS REQUIREMENT

(d) *Flight Deck Oxygen Systems.*

(1) *Environment:* This drill must provide the flight crewmember with practice in donning and using the flight deck supplemental oxygen systems or related vision protection equipment as it would be used in a smoke-filled or fume-filled flight deck. The flight deck supplemental oxygen systems equipment must be identical to that installed in the aircraft with respect to dimensions, appearance, features, controls, charge duration, and operation.

(2) *Crewmember Performance:* The flight crewmember must complete the following during the drill for each type of installed oxygen system equipment:

(i) Remove the bottle, canister, hood, or mask from the bracket or stowage.

(ii) Don and activate the oxygen and test for flow, position, seal, and security of the mask or hood to the face or head. Additionally, if smoke goggles are separate from oxygen, they must be donned.

(iii) Demonstrate proper precautions.

(iv) Secure the oxygen bottle, canister, or cartridge (as appropriate) and position it to monitor the supply.

(v) Demonstrate proper handling techniques if using portable solid state units.

(vi) Deactivate and stow equipment.

(e) *Firefighting (Actual Fire).*

(1) *Environment:* The flight crewmember must complete the firefighting drill while combating an actual fire. The flight crewmember must combat the fire using at least one type of hand fire extinguisher that is appropriate for the type of fire being fought, while using the type of installed PBE.

(i) This is a one-time emergency drill requirement that the flight crewmember must complete for the certificate holder for which the flight crewmember is employed.

(ii) For the purpose of this drill, protective breathing equipment and the hand fire extinguisher must be installed in the appropriate bracket or stowage compartment or stowage pouch (if not completed during the equipment mountings drill).

(iii) The hand fire extinguisher must be charged; but does not have to contain the actual extinguishing agent.

END QPS REQUIREMENT

BEGIN INFORMATION

(iv) A self-contained PBE may be substituted with a training smoke hood which is not operational.

END INFORMATION

BEGIN QPS REQUIREMENT

(2) *Crewmember Performance:* The flight crewmember must complete the following during the drill:

(i) Recognize the type of fire.

(ii) Locate source of fire or smoke.

(iii) Remove PBE from stowage container and pouch (as appropriate).

(iv) Don the PBE and activate oxygen in proper sequence (activation of oxygen may be simulated).

(v) Verify seal.

(vi) Select appropriate hand fire extinguisher for the class of fire.

(vii) Prepare extinguisher for use (e.g., rotate handle to pressurize, break tamper seals, pull pin, release safety latch).

(viii) Approach fire or smoke.

(ix) Combat fire using proper techniques.

(x) Operate extinguisher discharge mechanism properly.

(xi) Aim and discharge extinguisher at the base of the fire using proper discharge pattern, bottle position, and flight crewmember body position.

(xii) Maintain an appropriate distance from the fire in order to complete the task and maintain personal safety.

(xiii) Be aware of PBE oxygen duration.

(xiv) Be aware of signals that PBE is no longer generating oxygen to wearer.

(xv) Use protective techniques to back away.

(xvi) Ensure fire is extinguished.

(xvii) Use proper techniques for PBE removal.

(xviii) Properly secure equipment.

(f) Emergency Exits.

(1) *Task (Normal Operation):* The flight crewmember must complete the following drill, with respect to the normal operation of each flight crewmember emergency exit:

(i) Identify conditions under which each exit should be opened or closed, if appropriate.

(ii) Assess the exterior and interior conditions for obstacles or hazards to persons or the exit during the opening or closing (e.g., jetway, stairs, barrier straps).

(iii) Follow procedure to ensure flight crewmember awareness at armed boarding door prior to aircraft pushback (if applicable to the exit).

(iv) Identify signal for arming and disarming.

(v) Coordinate and communicate with other crewmembers.

(vi) Properly arm and disarm the exit.

(vii) Verify girt bar is armed or disarmed as appropriate.

(viii) Verify exit is in the correct mode for intended operation.

(ix) Use proper techniques for the operating mechanism (such as handles to open exit and secure in locked position).

(x) Install safety strap. Stow safety strap.

(xi) Release locking mechanism and properly use control handles to close exit and secure in locked position.

END QPS REQUIREMENT

BEGIN INFORMATION

(2) *Environment:* The operation of each type of flight crewmember emergency exit may be conducted as an observation drill that includes the following tasks as applicable.

END INFORMATION

BEGIN QPS REQUIREMENT

(3) *Task (Emergency Operation):* The flight crewmember must complete the following drill, with respect to the emergency operation of each flight crewmember emergency exit:

(i) Position escape device (if applicable).

(ii) Verify that girt bar is armed or disarmed as appropriate.

(iii) Verify the exit is in the correct mode.

(iv) Identify conditions under which the exit is to be opened in the emergency mode.

(v) Use proper voice commands to passengers (as appropriate).

(vi) Assess conditions outside the exit to determine the exit usability (e.g., clear of obstruction, fire, aircraft attitude).

(vii) Open the exit in the armed mode (as applicable) and secure or stow the exit (as applicable) to ensure a fully open and unobstructed exit.

(viii) Hold onto assist handle (if applicable).

(ix) As applicable, pull the manual inflation handle(s) and verify deployment, inflation (e.g., ramp, slide).

(x) Maintain appropriate protective body and hand positions.

(xi) Follow crew coordination procedures (as appropriate).

(xii) Access release handle(s) (e.g., Slide disconnect, jettison tailcone, ventral stairs)

(xiii) Recognize when it is appropriate to exit the aircraft.

(xiv) Access escape tapes or escape ropes (if applicable).

(g) *Emergency Evacuation (With Slide)*

(1) *Environment:* This drill is required when the flight crewmember is qualifying on an aircraft that is equipped with emergency escape slides.

(i) This is a one-time emergency drill requirement that the flight crewmember must complete for the certificate holder for which the flight crewmember is employed.

(ii) Each flight crewmember must complete an emergency evacuation by egressing the aircraft or approved training device using at least one type of installed emergency escape slide from an aircraft on which the flight crewmember will be qualified to serve.

(2) *Crewmember Performance:* The flight crewmember must complete the following during the drill:

(i) Observe the airplane exit(s) being opened in the emergency mode and the associated exit slide, or slide raft being deployed and inflated or perform the tasks resulting in the completion of these actions.

(ii) Egress the aircraft or approved training device and descend the slide while using the proper method and technique.

(h) *Emergency Evacuation (Without Slide)*

(1) *Environment:* This drill is required when the flight crewmember is qualifying on an aircraft that is not equipped with an emergency escape slide on any emergency exit.

(i) This is a one-time emergency drill requirement that the flight crewmember must complete for the certificate holder for which the flight crewmember will serve.

(ii) Each flight crewmember must complete an emergency evacuation by egressing the aircraft or approved training device through an emergency exit that is not designed to have an escape slide installed and is representative of the aircraft on which the flight crewmember will be qualified to serve.

(2) *Crewmember Performance:* The flight crewmember must satisfactorily accomplish the following during the drill:

(i) Observe the airplane exit(s) being opened in the emergency mode.

(ii) Egress the aircraft or approved training device while using the proper method and technique.

(i) *Flotation Devices*

(1) *Environment:* The individual flotation means used for this drill must be identical to each type of life preserver, flotation device, and seat cushion installed in the aircraft with respect to weight, dimensions, controls, types and method of operation.

(2) *Crewmember Performance:* Each flight crewmember must complete the following during the drill:

(i) Life preservers:

(A) Recognize removal procedures for individual flotation devices and also recognize any equipment or furnishings that may complement or hinder the removal of the flotation device or seat cushion.

(B) Don and secure life preserver, and inflate using automatic inflation (if appropriate) of at least one chamber.

(C) Demonstrate proper arm placement and use of the life preserver.

(D) Partially inflate, or simulate inflation of, a second chamber (if appropriate) of life preserver orally.

(E) Practice deflation technique.

(F) Locate and describe light activation.

(ii) Flotation devices:

(A) Recognize removal procedures for flotation devices or seat cushions, and also recognize any equipment or furnishings that may complement or hinder the removal of the flotation device or seat cushion.

(B) Demonstrate proper arm placement and use of the flotation device or seat cushion.

END QPS REQUIREMENT

BEGIN INFORMATION

(3) The individual flotation means installed may consist of life preservers, flotation devices, and seat cushions.

END INFORMATION

BEGIN QPS REQUIREMENT

(j) Ditching Survival (Wet and Dry Training Environments)

(1) *Environment:*

(a) Ditching survival drill in a dry training environment must be conducted on a surface with sufficient space to conduct the drill without interference from nearby objects or structures.

(b) Ditching survival drill in a wet training environment must be conducted in water with sufficient depth and width under and around the slide, raft or slide-raft that does not allow participants the ability to touch the bottom or sides of the water containment structure.

(i) Ditching survival drill in a wet training environment is a one-time emergency drill requirement that the flight crewmember must complete for the certificate holder for which the flight crewmember is to serve.

(ii) Raft boarding and subsequent activities must be done in water for ditching survival drill in a wet training environment.

(2) *Crewmember Performance:* The flight crewmember must participate in the following ditching survival drill for both wet and dry training environments as applicable to the certificate holder's procedures and approved extended overwater operations:

(i) Identify boarding station and board raft.

(ii) Review the need to crawl and stay low.

(iii) Distribute the load.

(iv) Review the need to stay attached to the aircraft as long as possible, and operation of the quick disconnect.

(v) Review the need to get clear of fuel-covered water and debris.

(vi) Locate and deploy the sea anchor.

(vii) Discuss the importance of upwind and downwind.

(viii) Retrieve the survival kit and review contents.

(ix) Identify inflation valve and review operation of inflation pump and raft repair kit.

(x) Identify equipment for bailing raft dry (e.g., bailing bucket or sponge).

(xi) Install the canopy and discuss methods for collecting rain water and water purification techniques.

(xii) Demonstrate how canopy can be used in both hot and cold climates.

(xiii) Review the use of signaling devices located in survival kits.

(xiv) Discuss the cautions associated with flares and sea dye marker and proper use.

(xv) Point out raft lights.

(xvi) Review alternate signaling devices (e.g., mirrors).

(xvii) Locate and demonstrate use of heaving line. Review techniques to retrieve survivors.

(xviii) Review raft maintenance techniques.

END QPS REQUIREMENT

BEGIN INFORMATION

(3) Activities prior to raft boarding for both wet and dry training environments may be done in classroom, aircraft, or aircraft mockup.

END INFORMATION

BEGIN QPS REQUIREMENT

3. Observation Drills—During the observation drill, the flight crewmember observes the specific procedural drill

being conducted by other persons in a live setting or through an audio-visual medium.

(a) *Preparation of Emergency Exits in Emergency Mode.*

(1) *Crewmember Performance:* Each flight crewmember must observe the preparation of each type of installed flight crewmember emergency exit in the emergency mode, as follows:

(i) Position escape device (if applicable).

(ii) Verify that girt bar is armed or disarmed (as appropriate).

(iii) Verify the exit is in the correct mode.

(iv) Identify conditions under which the exit is to be opened in the emergency mode.

(v) Use proper voice commands to passengers (as appropriate).

(vi) Assess conditions outside the exit to determine the exit usability (e.g., clear of obstruction, fire, aircraft attitude).

(vii) Open the exit in the armed mode (as applicable) and secure and stow the exit (as applicable) to ensure a fully open and unobstructed exit.

(viii) Hold onto assist handle (if applicable).

(ix) Pull the manual inflation handle(s) and verify deployment and inflation (e.g., ramp, slide).

(x) Maintain appropriate protective body and hand positions.

(xi) Follow crew coordination procedures (as appropriate).

(xii) Access release handle(s) (e.g., slide disconnect, jettison tailcone, ventral stairs).

(xiii) Recognize when it is appropriate to exit the aircraft.

(xiv) Access escape tapes or escape ropes (if applicable).

(b) Emergency Evacuation Utilizing an Escape Slide (if applicable).

(1) *Crewmember Performance:* Each flight crewmember qualifying on an aircraft equipped with evacuation slides must observe the evacuation of an aircraft with passengers using a slide. The observation must include:

(i) Correct methods of evacuation.

(ii) Correct methods of entering the slide.

(iii) Necessity for helpers at the bottom of slide.

(c) Deployment, inflation, and detachment of slide, raft, or slide-raft.

(1) *Crewmember Performance:* Each flight crewmember must observe the deployment, inflation, and detachment from the airplane of each type of installed slide, raft, or slide-raft. This observation must include:

(i) Proper use of the exit operating handle.

(ii) Location and color of the inflation handle.

(ii) Demonstration of forces required to inflate slide or slide-raft.

(v) Attachment to aircraft (if applicable).

(v) Sound of inflating slide, raft, or slide-raft.

(vi) Proper inflation and position of the slide, raft, or slide-raft.

(vii) Location of the ditching handle or laces.

(viii) Launching points (if required).

(ix) Procedure to pull ditching handle including secondary actions that may be required.

(x) Lanyard and the removal or cutting of lanyard.

(xi) Righting overturned rafts (if applicable).

END QPS REQUIREMENT

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33. Add appendix S of part 121 to read as follows:

Appendix S to Part 121—Flight Attendant Qualification Performance Standards

Table of Contents

BEGIN INFORMATION

Introduction

A. What is contained in the Flight Attendant QPS?

This QPS contains Information and QPS Requirements.

1. *Information:* Explanations that clarify or support regulatory requirements found in the Code of Federal Regulations or in this Flight Attendant QPS. Explanations are provided as guidance and are not regulatory. This guidance appears under the heading ''BEGIN INFORMATION'' and uses the terms ''should'' or ''may'' to indicate that it is not mandatory.

2. *QPS Requirements:* Flight Attendant Qualification Performance Standards, contained in this appendix, are regulatory and mandatory. These requirements appear under the heading ''BEGIN QPS REQUIREMENTS'' and use the terms ''must,'' and ''may not.''

B. Can the reader rely solely on this document for flight attendant qualification and related training requirements?

No, do not rely solely on this document for regulatory requirements in these areas. The reader must also use 14 CFR part 91 and part 121, subparts G, T, V, X, and BB.

C. How can I get answers to questions about the contents of this appendix?

1. You may contact: U.S. Department of Transportation, Federal Aviation Administration Flight Standards Service, Air Transportation Division, AFS–210, 800 Independence Avenue, SW, Washington, DC 20591, *Telephone:*(202) 267–8166, *Fax:* (202) 267–5229.

2. You may find answers to questions on the:

(a) Flight Standards Internet Web Site: ''*http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afs/*.'' On this Web Site you will find Flight Standards Programs, Aviation Safety Inspector Handbooks, the current Aviation Regulations (14 CFR), Advisory Circulars, and other sources of FAA information.

(b) Flight Standards Cabin Safety Web Site: *http://www.faa.gov/safety/programs_initiatives/aircraft_aviation/cabin_safety/*. On this Web Site you will find links to FAA rules and guidance documents, legal interpretations and other sources of FAA information that are pertinent to cabin safety. Also linked from this site are additional Department of Transportation information sources.

D. Why do we need a QPS for flight attendants?

1. To provide an objective means of establishing performance based standards for flight attendant training and qualification.

2. To provide routine and periodic update capability. This capability is needed to respond to accidents, incidents, or rapidly occurring changes to equipment and operations. All changes made to this appendix will be subject to public notice and comment, unless good cause exists to support a finding that notice and comment would be impracticable, unnecessary, or contrary to the public interest.

3. To provide the certificate holder with a minimum set of standards for developing the following:

(a) Training programs,

(b) Performance standards, and

(c) Evaluation criteria as they relate to the flight attendant job function.

E. Where can each type of standard be found in the QPS?

1. Attachment 1 contains general evaluation requirements and programmed hours for flight attendant training.

2. Attachment 2 contains tasks for flight attendant training by area of instruction.

3. Attachment 3 contains specific instruction and evaluation requirements for flight attendant training curricula (basic qualification), categories (new hire, initial, transition, emergency, recurrent, and requalification), and aircraft operating experience.

F. [Reserved]

G. Where can definitions and acronyms be found?

You can find definitions in § 121.1205. Acronyms are as follows:

Acronyms

AED Automated External Defibrillator
AFS 200 Air Transportation Division, Flight Standards Service
ASAP Aviation Safety Action Program
ASRS Aviation Safety Reporting System
CIA Central Intelligence Agency
CPR Cardiopulmonary Resuscitation
CRM Crew Resource Management
CRS Child Restraint System
CSI Aviation Safety Inspector—Cabin Safety
DOT Department of Transportation
ELT Emergency Locator Transmitter
EMK Emergency Medical Kit
FAOM Flight Attendant Operating Manual
FBI Federal Bureau of Investigations
FOQA Flight Operational Quality Assurance
NTSB National Transportation Safety Board
MEL Minimum Equipment List
PBE Protective Breathing Equipment
PED Portable Electronic Devices
PIC Pilot in Command
POC Portable Oxygen Concentrator
POI Principal Operations Inspector
QPS Qualification Performance Standards
TSA Transportation Security Administration

H. What references are recommended?

The following references (as amended) support the knowledge and skill standards for tasks. They are strongly recommended for providing further details for lesson development. To find 14 CFR parts go to *http://ecfr.gpoaccess.gov;* to find Advisory Circulars go to: *http://www.faa.gov/regulations_policies/advisory_circulars*; and to find FAA handbooks go to: *http://www.faa.gov/other_visit/aviation_industry/airline_operators/handbooks/.*

1. 14 CFR part 1, Definitions and Abbreviations

2. 14 CFR part 121, Operating Requirements: Domestic, Flag, and Supplemental Operations

3. FAA Order 8400.10, Volume 3, Air Transportation Operations Inspector's Handbook

4. AC 60–28, English Language Skill Standards

5. AC 120–51, Crew Resource Management Training

6. AC 120–54, Advanced Qualification Program

7. AC 120–44A, Air Carrier First Aid Programs

8. AC 120–47, Survival Equipment for Use in Overwater Operations

9. AC 120–59, Air Carrier Internal Evaluation Programs

10. AC 121–29B, Carry-On Baggage

11. AC121–24B, Passenger Safety Information Briefing and Briefing Cards

12. AC 121–33B, Emergency Medical Equipment

13. AC 121–34B, Emergency Medical Equipment Training

14. AC 121–35, Management of Passengers During Ground Operations Without Cabin Ventilation

15. AC 121–36, Management of Passengers Who May Be Sensitive to Allergens

16. AC 120–87, Use of Child Restraint Systems on Aircraft

17. AC 120–88 A, Preventing Injuries Caused by Turbulence

END INFORMATION

BEGIN QPS REQUIREMENT

I. How must Crew Resource Management (CRM) training be administered?

The flight attendant must demonstrate knowledge and skills in the technical and CRM competencies for each particular task.

1. Certain CRM-related knowledge and skills must be associated with one or more flight attendant performance tasks and must be evaluated during flight attendant training as shown in Attachment 2 of this appendix.

2. The flight attendant must demonstrate knowledge and skills in both the technical and CRM competencies for each task. A task is not completed unless the evaluator has determined that the flight attendant has demonstrated knowledge and skills in the technical and CRM competencies.

END QPS REQUIREMENT

BEGIN INFORMATION

3. CRM refers to the effective use of all available resources, including human resources, hardware, and information. Human resources include all other groups routinely working with the flight crew who are involved in decisions that are required to operate a flight safely. CRM is not a single task. CRM is a set of competencies that must be evident in all tasks in this QPS as applied to the individual and the multi-crew operation.

4. CRM deficiencies usually contribute to the unsatisfactory technical performance of a task. Therefore, the CRM competencies are valuable for debriefing. For debriefing purposes, an amplified list of these competencies, expressed as behavioral markers, is in AC 120–51, as amended.

5. Certificate holders should conduct flight crewmember and flight attendant CRM scenarios together. When this is not possible, certificate holders should include information in flight attendant training that addresses the role of flight crewmembers during emergency situations.

J. How are these standards used to develop training and evaluation requirements for flight attendants?

Training categories provide the framework for the lessons and modules necessary to train and evaluate flight attendants.

1. *Knowledge (Academic)*: New hire training and portions of initial, transition, emergency, requalification, and recurrent training are for the purpose of acquiring and maintaining the knowledge required for safe operations. The required areas of instruction, including the CRM competencies, are combined with the information and procedures contained in the certificate holder's Flight Attendant Operating Manual (FAOM),

and other pertinent references to create the knowledge requirements. Curricula are then developed to support these knowledge requirements and ensure that knowledge is obtained and maintained.

2. *Cognitive, Procedural, and Motor Skills (Job Performance)*: The job performance tasks in basic qualification, requalification, and recurrent training are for the purpose of combining the knowledge obtained in the academic training with cognitive, procedural, and motor skills. The cognitive, procedural, and motor skill requirements should be developed from the tasks, hazards, and environments required in this QPS, from the generic flight attendant performance standards, the certificate holder's FAOM and from other references that directly address specific tasks, hazards, or environments. Curricula should be developed to support acquiring these skills and ensuring that knowledge is maintained.

3. Training categories contain requirements for two different segments of training within that training category. These two segments are ''academic'' training and ''job performance'' training. For example, a flight attendant receives academic training on a certificate holder's procedures regarding the preflight crewmember briefing, and receives a knowledge test on those procedures. In addition, the flight attendant receives job performance training in the form of ''practice'' of his or her ability to actually perform a preflight crewmember briefing. In another example, a flight attendant receives academic training on a certificate holder's procedures regarding opening an aircraft exit door in the emergency mode, and receives a knowledge test on those procedures. In addition, the flight attendant receives job performance training in the form of ''practice'' and a proficiency test of his or her ability to open the aircraft exit door in the emergency mode.

K. What is the continuous analysis process and how is it incorporated in this QPS? (see § 121.1355)

1. The continuous analysis process is a certificate holder internal evaluation and improvement process. The continuous analysis process will enable the certificate holder to maintain and refine the training process by continually monitoring the effectiveness and efficiency of the process. Various assessment tools (testing, checking, inspection, documenting, evaluation, and analysis) will be used to validate the effectiveness of a training program or the need to change a training program.

END INFORMATION

BEGIN QPS REQUIREMENT

2. A continuous analysis process is incorporated in this QPS through integration with the qualification and training program. The certificate holder is responsible for designating responsibility for the process. The certificate holder must ensure appropriate and adequate assessment tools (testing, checking, critique, inspection, observation, documenting, evaluation, and analysis) are utilized to enable the certificate holder to validate the effectiveness of the qualification and training program, or the need to change that program. The certificate holder must describe the attributes of the continuous analysis process in the certificate holder's FAA approved training program.

END QPS REQUIREMENT

BEGIN INFORMATION

3. Components of a Continuous Analysis Process.

(a) Qualification and training program as approved by the Administrator.

(1) Attributes of the continuous analysis process.

(i) Who is responsible?

(ii) Who has authority to change the process?

(iii) Description of the process.

(iv) Controls. Policy, procedure, training, evaluation.

(v) Documenting and Measurement.

(vi) Interfaces between Departments. Consistency (policy, procedures, manuals).

(A) Across Departments.

(B) Across Divisions.

(b) Assessment tools (adequate and appropriate).

(1) Testing.

(2) Checking.

(3) Critique.

(4) Inspection and observation.

(5) Documenting.

(6) Evaluation and analysis.

(c) Modification and adjustment of the qualification and training program.

(d) Approval for modification and adjustment.

END INFORMATION

Attachment 1 of Appendix S to part 121

Flight Attendant Training Evaluation Requirements and Programmed Hours (§ 121.1331)

BEGIN QPS REQUIREMENT

A. Evaluation Requirements (see §§ 121.1301, 121.1331, 121.1341, 121.1343, 121.1361)

1. *Proficiency Checks.*

If an evaluator conducting proficiency checks provides training, the training must be conducted as follows:

(a) No more than two tasks may be trained and no more than a total of three attempts (including the first unsatisfactory, a rehearsal, and a final assessment) in each of the tasks are permitted.

(b) Three or more unsatisfactory tasks, or failure to demonstrate satisfactory performance in three attempts at any one task, makes the check unsatisfactory.

2. *Proficiency Tests.*

(a) Evaluators who conduct proficiency tests may not provide training to the flight attendant during the test.

(b) If, in the judgment of the evaluator, the flight attendant's performance of any task during a proficiency test is unsatisfactory, the test in that task is failed.

(c) When a flight attendant fails a proficiency test, the flight attendant must be retrained in the task and reevaluated on the schedule specified in the certificate holder's approved training program.

3. *Knowledge Checks.*

Evaluators who conduct knowledge checks during aircraft operating experience may provide training to the flight attendant during the knowledge check as follows:

(a) No more than two tasks may be trained, and no more than a total of three attempts to complete a knowledge check in each of the tasks is allowed.

(b) Three or more unsatisfactory tasks, or failure to satisfactorily complete a knowledge check in three attempts at any one task, makes the check unsatisfactory.

4. *Qualified Evaluators.*

Evaluations may only be conducted by those persons as outlined in Table 3A of this Attachment.

B. Programmed Hours (see §§ 121.1335, 121.1361)

1. *Baseline and Minimum Programmed Hours* (*see* §§ 121.1335, 121.1361). Table 1A sets out the baseline and Table 1B sets out the minimum programmed hours for each category of training by segment (academic and job performance). The baseline programmed hours may be reduced after demonstration that the reduction is warranted and approved by the Administrator. The FAA may

approve a reduction in baseline programmed hours if the certificate holder demonstrates that the reduction is warranted. The FAA will not approve a reduction in the programmed hours below the minimum programmed hours.

2. *Required hours for requalification training* (*see* §§ 121.1309, 121.1361). The hours established for requalification training (§ 121.1309) are for individuals in specific circumstances. Therefore, there are no programmed hours in Table 1A and 1B for requalification training.

3. *Required hours for differences and special training* (*see* §§ 121.1337, 121.1361). The hours established for differences and special training are in addition to the previously approved programmed hours for the approved training program. For differences training (§ 121.1391), the programmed hours remain in the differences category of training. For special training (§ 121.1337(c)), the certificate holder integrates the training into the existing categories in Table 1A. Therefore, there are no programmed hours in Table 1A or Table 1B for differences and special training.

4. *Security training.* Security training programmed hours required for crewmembers by the Transportation Security Administration (TSA) may not be included in the required programmed hours contained in Tables 1A and 1B.

TABLE 1A—FLIGHT ATTENDANTS BASELINE PROGRAMMED HOURS* BY CATEGORY OF TRAINING AND TRAINING SEGMENT
[See § 121.1335]

Training segment	Category of training								
	New hire	Initial		Emergency training	Transition (each additional aircraft type)	Recurrent			
		General topics	Each aircraft type			1 type aircraft	2 to 5 types aircraft	6 to 9 types aircraft	10 to 13 types aircraft
Academic	20	8	8	8**	8	8	8	8	8
Job Performance	20	4	4	16**	4	4	5	6	7
Total	40	12	12	24**	12	12	13	14	15

*Programmed hours do not include differences training, as required in § 121.1391.
**Academic and job performance programmed hours are each reducible by 1 hour if the flight attendant is not qualified to serve in extended overwater operations.

TABLE 1B—FLIGHT ATTENDANTS MINIMUM PROGRAMMED HOURS* BY CATEGORY OF TRAINING AND TRAINING SEGMENT
[See § 121.1335]

Training segment	Category of training								
	New hire	Initial		Emergency training	Transition (each additional aircraft type)	Recurrent			
		General topics	Each aircraft type			1 type aircraft	2 to 5 types aircraft	6 to 9 types aircraft	10 to 13 types aircraft
Academic	16	Not reducible	6	Not reducible	6	Not reducible.			
Job Performance	16		2		2				
Total	32		8		8				

*Programmed hours do not include differences training, as required in § 121.1391.

5. Periods of time when training is not occurring, such as lunch or travel between facilities, do not count toward required programmed hours.

END QPS REQUIREMENT

BEGIN INFORMATION

6. Programmed hours for flight attendants are divided into academic and job performance segments for each training category. These segments are specifically designed to allow flexibility in instructional design regarding integration of academic and job performance programmed hour requirements. The job performance segment includes the practice and proficiency requirements in Attachment 3 of this appendix.

7. A reduction to the 8 hour minimum of initial training on aircraft types may be appropriate for several reasons. For example, a certificate holder may operate several types of aircraft from the same manufacturer with similar cabin configurations and equipment, or a certificate holder may carefully design a training approach that incorporates the use of extensive training on a ''base'' aircraft type upon which training on other aircraft types is based. The 12 and 8 hours apply to each aircraft type. Aircraft operating experience is required on each aircraft type for which a flight attendant receives initial training.

8. If the flight attendant has already served in an active duty status as a flight attendant for the certificate holder for at least 180 days, that flight attendant is eligible for transition training on a new aircraft type. Aircraft operating experience is not required for each aircraft type for which a flight attendant receives transition training. A flight attendant does not have to be a required flight attendant in accordance with § 121.391 to ''serve,'' the flight attendant only needs to ''perform the duties of a required flight attendant.'' Transition training has the same required number of hours and subjects for aircraft specific training as initial training, a 12-hour baseline required for each aircraft type which can be reduced to an 8-hour minimum. A reduction to the 8-hour minimum of transition training on aircraft types may be appropriate. For example, the new aircraft type may be very similar to a different aircraft type on which the flight attendant is already qualified.

9. If the flight attendant has not served as a flight attendant for the certificate holder for at least 180 days, including days off or days on reserve, and the certificate holder wants to qualify the flight attendant on a new aircraft type, then the flight attendant must have initial training on that aircraft type and the associated aircraft operating experience by type.

Attachment 2 of Appendix S to Part 121

Tasks for Flight Attendant Training Task Requirements and Performance Standards by Area of Instruction

BEGIN INFORMATION

I. Introduction (*see* §§ 121.1301, 121.1331,121.1333, 121.1341, 121.1361)
II. General Task Requirements (*see* §§ 121.1301, 121.1331, 121.1333, 121.1341, 121.1361, 121.1373)
A. Area of Instruction: Flight Attendant Duties and Responsibilities—Normal Operations (*see* § 121.1363)
1. Subject: Preflight
2. Subject: Pre-Movement on the Surface
3. Subject: Ground Movement
4. Subject: Inflight
5. Subject: Arrival
6. Subject: During Stops
7. Subject: Federal Aviation Regulations
8. Subject: General Contents, Control and Maintenance of Applicable Portions of the Certificate Holder's Manual
9. Subject: Contents of the Certificate Holder's Operations Specifications
10. Subject: Crew Resource Management
11. Subject: Theory of Flight
B. Area of Instruction: Flight Attendant Duties and Responsibilities—Abnormal Situations (*see* § 121.1369)
1. Subject: Handling Passengers Whose Conduct May Jeopardize Safety
2. [Reserved]
C. Flight Attendant Duties and Responsibilities—Emergency (*see* § 121.1373)
1. Subject: Emergency Equipment
2. Subject: Emergency Situations
III. Aircraft Specific Task Requirements (*see* § 121.1369)
A. For Each Aircraft Type
1. Subject: A General Description of the Aircraft
2. [Reserved]
B. [Reserved]
IV. Emergency Training Drill Requirements (*see* § 121.1373)
V. Emergency Training Drills—General (*see* § 121.1373)
A. Subject: Job Performance Drills
B. Subject: One Time Job Performance Drills
C. Subject: Observation Drills
VI. Emergency Training Drills—Aircraft Specific. Subject: Exit Device Operation (see § 121.1373)

END INFORMATION

BEGIN QPS REQUIREMENT

I. Introduction (*see* §§ 121.1301, 121.1331, 121.1333, 121.1361)

A. This attachment establishes task requirements and performance standards. Sections *II. General Task Requirements* and *III. Aircraft Specific Task Requirements* of this attachment list the academic requirements to the subtask level. Sections *IV. Emergency Training Drills Requirements, V. Emergency Training Drills—General, and VI. Emergency Training Drills—Aircraft Specific* list the performance requirements to the subtask level. Attachment 3 lists the tasks that must be trained and evaluated for each training category. Attachment 3 includes tables that contain the various combinations of academic and job performance tasks taken from attachment 2, that, when combined, make up the requirements for training in each of the required training categories. (see §§ 121.1301, 121.1331, 121.1333, 121.1341, 121.1361)

B. Each certificate holder must have a training program that includes the areas of instruction, subjects, tasks, subtasks, and performance standards in this attachment. The certificate holder must use this Attachment to determine the tasks on which each flight attendant must be trained and evaluated for each training category in accordance with their FAA approved training program. The tasks listed in the FAOM must reflect the tasks included in this attachment, as amended and include standard operating procedures, abnormal procedures, non-normal procedures, and emergency procedures, as well as the authorizations contained in the certificate holder's operations specifications. (*see* §§ 121.1301, 121.1331)

C. Training under each task is required except when a particular piece of equipment is not on an aircraft in which the flight attendant is to serve or a procedure is not applicable to operations conducted by the certificate holder for the aircraft on which the flight attendant serves. (*see* §§ 121.1301,121.1361)

D. The flight attendant must demonstrate that he or she is able to meet the academic and job performance standards in this QPS. (*see* §§ 121.1301, 121.1335, 121.1341, 121.1343, 121.1361)

E. In Attachment 3, training is required in all areas for persons who are qualifying for the first time in a flight attendant duty position for a certificate holder, and selected portions are required for persons required to complete requalification, transition, and recurrent training. (*see* §§ 121.1301, 121.1303, 121.1309, 121.1341, 121.1361, 121.1363, 121.1369, 121.1373, 121.1375)

F. Recurrent training job performance segments must include training and evaluation at the subtask level. Recurrent training academic segments must include training and evaluation at the task level. Recurrent training academic subjects are identified on table 3E of Attachment 3 by a ''T.'' (*see* §§ 121.1303, 121.1361, 121.1375)

END QPS REQUIREMENT

BEGIN INFORMATION

1. The FAA anticipates that recurrent training academic tasks will be developed through an analysis of events, reports, feedback, issues, or changes to certificate holder safety policies, procedures, regulations, or FAA guidance that has occurred in the previous year to determine what should be incorporated in the appropriate training programs.

2. This gives certificate holders the flexibility to determine what will be included at the subtask level for recurrent academic tasks. The certificate holder may choose to use the subtasks listed in the Flight Attendant QPS as a guide, but the certificate holder is not required to use these specific subtasks for training and evaluation.

END INFORMATION

BEGIN QPS REQUIREMENT

G. Recurrent training must include all changes made to the subject matter in the training categories in the basic qualification curriculum since the person received basic qualification training. Each subject in recurrent training must be covered every year. Certain tasks, as indicated in table 3E, must be trained and evaluated at least once every 3 years. (*see* §§ 121.1303, 121.1361,121.1375)

H. A knowledge test must be in the form of a written, oral, or computer administered test in each area of instruction. The form, content and method of administration must be approved by the Administrator in each area of instruction. Each test must contain at least one question on each task within a subject. The certificate holder must develop an examination question repository that includes a minimum number of 2 questions for each required question. (*see* §§ 121.1341, 121.1343, 121.1361)

END QPS REQUIREMENT

BEGIN INFORMATION

I. This repository will allow random selection of questions when creating examinations. This allows students in a particular examination to receive a different set of exam questions or the same exam questions in a different order. This also permits students to be retested with questions that are different from questions they received on a prior examination.

END INFORMATION

BEGIN QPS REQUIREMENT

J. An individual must complete the knowledge test. To complete the knowledge test, a score of 80% or better in each area of instruction is required and the test must be corrected to 100% by a person qualified to administer the examination. Correction of incorrect answers must include a discussion of which answer is correct and why, and why the person's original answer was incorrect. Retraining is required in each area of instruction for which a score of 80% or better is not achieved. Retraining is followed by reevaluation of the flight attendant in each retrained area of instruction. The form and content of the reevaluation must be approved by the Administrator. (*see* §§ 121.1341, 121.1343, 121.1361)

K. The certificate holder must conduct a proficiency test so that the flight attendant physically performs the required task and meets the performance standards in Attachment 2 of the Flight Attendant QPS. (*see* §§ 121.1341,121.1361)

END QPS REQUIREMENT

BEGIN INFORMATION

L. Section 121.1209 of this part requires a flight attendant to be able to read, write, and understand the English language. The flight attendant may demonstrate English language proficiency in several ways. For example, an individual's successful completion of approved crewmember training conducted solely in English would be a successful demonstration of the flight attendant's ability to read, write, and understand the English language.

M. If there is doubt about a flight attendant's ability to read English, the flight attendant should read aloud a short paragraph from an appropriate source, such as a safety related announcement. If there is doubt about the flight attendant's ability to write in English, the person evaluating the flight attendant should read a short statement and have the flight attendant write it in English. The certificate holder should have in place a process to ensure a final determination of whether the applicant meets the English language requirement for those times when the test indicates to the person evaluating the flight attendant that the flight attendant is not able to read, write, understand, or speak the English language.

END INFORMATION

BEGIN QPS REQUIREMENT

II. General Task Requirements (*see* §§ 121.1301, 121.1331, 121.1333, 121.1341, 121.1361, 121.1373)

A. Area of Instruction: Flight Attendant Duties and Responsibilities—Normal Operations

1. Subject: Preflight

(a) Task: General (Preflight)

Subtasks:

(1) Review all certificate holder issued memorandums and orders.

(2) Verify currency of FAOM.

(3) Ensure presence of certificate holder required items.

(4) Attend or provide crewmember briefing.

(5) Stow crew baggage and personal carry-on baggage properly.

(6) Stow the FAOM properly so it is accessible when performing duties.

(7) Identify seats with movable aisle armrests for seating of passengers with disabilities.

(8) Adjust cabin lighting in accordance with certificate holder's procedures.

(9) Report safety discrepancies to the PIC.

(10) Report any discrepancies in the aircraft cabin, systems, and equipment in accordance with certificate holder procedures.

(11) Cabin position specific duties as defined in the FAOM.

(b) Task: Crewmember Briefing (Preflight)

Subtasks:

(1) Security procedures.

(2) Communication procedures.

(3) Emergency procedures.

(4) MELs with any effect on cabin safety equipment or procedures.

(5) Flight information.

(6) Review and follow procedures concerning supernumerary personnel.

(c) Task: Cabin and Galley Security (Preflight)

Subtask: Implement cabin and galley security procedures in accordance with certificate holder's security program.

(d) Task: Check of Emergency Equipment (Preflight)

Subtasks:

(1) Proper preflight techniques.

(2) Procedures to be followed if equipment fails to meet preflight requirements.

(3) Check the flight attendant jumpseat and restraint system, including automatic seat retraction, proper operation, no missing or broken components on flight attendant jump seat, and presence of jumpseat headrest.

(4) Check flight attendant panel to ensure switches, controls, and indicators are working.

(5) Verify no abnormal indications are present on any panels or gauges.

(6) Check portable oxygen equipment.

(7) Check fire extinguishers.

(8) Check first aid kits.

(9) Check EMK.

(10) Check AEDs.

(11) Check megaphones.

(12) Check PBEs.

(13) Check ELTs.

(14) Visual check of crash ax.

(15) Check emergency lighting system.

(16) Check emergency flashlights.

(17) Check survival kits.

(18) Verify position of circuit breakers.

(19) Check communication systems, including passenger address and interphone systems.

(20) Ensure chimes, chime indicator lights, and associated annunciator panel indicators are working.

(21) Check general condition of emergency exits in the passenger and galley areas.

(22) Check assist handles.

(23) Check lavatory fire detection system, flapper doors, ashtrays, and placards.

(24) Check for flotation equipment, as required.

(25) Check that class B cargo compartments are clear for crew fire fighting.

(26) Check emergency equipment stowage areas for unapproved items.

(e) Task: Check of Safety Equipment (Preflight).

Subtasks:

(1) Check presence of and prepare demonstration equipment.

(2) Check audio/visual safety demonstration equipment.

(3) Verify that the universal precaution kit and CPR masks, or the kit that contains these items, is onboard.

(4) Verify that onboard wheelchair is present and properly secured.

(f) Task: Galley Check (Preflight)

Subtasks:

(1) Ensure all latches, locks, and flapper doors work properly.

(2) Ensure only approved items are stowed in ovens.

(3) Check circuit breakers located in the galley.

(4) Ensure lower lobe galley lift works properly.

(g) Task: Check of Cabin and Cabin Systems (Preflight)

Subtasks:

(1) Check circuit breakers located in the cabin.
(2) Check temperature and ventilation controls.
(3) Check lighting systems to ensure proper working condition.
(4) Check photo luminescent emergency pathway lighting systems, and preflight and charging procedures.
(5) Ensure all lock-out mechanisms are engaged on emergency exit seats.
(6) Stow inflight service and entertainment items.

2. Subject: Pre-Movement on the Surface

(a) Task: General (Pre-Movement on the Surface)

Subtasks:
(1) Ensure minimum required number of flight attendants are onboard during the entire boarding process.
(2) Assume proper station during passenger boarding.
(3) Identify possible able bodied passengers.
(4) Provide all required announcements to passengers.
(5) Provide all required individual passenger briefings.

(b) Task: Passenger Boarding (Pre-Movement on the Surface)

Subtasks:
(1) Observe passengers for acceptance according to regulation and certificate holder policy (e.g., intoxicated passengers and unaccompanied minors).
(2) Monitor carry-on baggage for excessive size, quantity, or evidence of hazardous materials.
(3) Monitor exit seat occupants according to certificate holders approved exit seat program.
(4) Monitor passenger behavior and maintain situational awareness.
(5) Report passengers who appear to be intoxicated or are otherwise disruptive immediately to the PIC and customer service personnel.
(6) Ensure certificate holder procedures are followed regarding the passenger use of Portable Oxygen Concentrators (POC).
(7) Ensure certificate holder procedures are followed regarding child restraint systems.
(8) Ensure certificate holder procedures are followed regarding lap held children.
(9) Ensure lap held children are distributed with regard to oxygen availability.
(10) Comply with certificate holder procedures for child and infant flotation equipment.
(11) Ensure certificate holder procedures are followed regarding passenger count.
(12) Conduct compliance check to ensure carry-on baggage is properly stowed.
(13) Ensure that use of portable electronic devices is in compliance with certificate holder's procedures.
(14) Conduct appropriate passenger briefing for exit seat occupants.
(15) Verify (must be verified by the assigned required crewmember) that all exit seat occupants meet exit seat criteria, prior to aircraft movement on the surface.
(16) Ensure proper handling of passengers with additional needs, such as armed passengers, prisoners, escorts, passengers with personal oxygen, and unaccompanied minors.
(17) Ensure any medical oxygen being used by a passenger was supplied by the certificate holder and follow appropriate procedures for use.
(18) Ensure the PIC is notified that medical oxygen or POC is in use.
(19) Ensure the passenger using medical oxygen or POC is seated per the certificate holder's procedures.
(20) Ensure the medical oxygen bottles or POC are properly located and secured when they are being used and before and after use.
(21) Ensure no persons are allowed to smoke within 10 feet of any oxygen or POC in use.
(22) Apply weight and balance procedures as directed by the PIC.
(23) Ensure compartment restraints are secured for compliance with carry-on baggage regulation.
(24) Ensure all items carried on by the passenger are properly stowed (e.g., purses and assistive devices).
(25) Ensure unusual items (e.g., organs for transplant) are stowed in accordance with certificate holder's approved carry-on baggage program.
(26) Follow approved method for removing carry-on baggage that cannot be stowed.
(27) Verify (must be verified by assigned required crewmember) that all carry-on baggage is stowed prior to closing last passenger entry door.

(c) Task: Passengers With Disabilities (Pre-Movement on the Surface)

Subtasks:
(1) Review part 382 of 14 CFR, Nondiscrimination on the Basis of Disability in Air Travel.
(2) Review certificate holder responsibilities regarding compliance with 14 CFR 382, including the role of the compliance resolution official (CRO).
(3) Review crewmember responsibilities regarding compliance with 14 CFR 382.
(4) Review cabin accommodations, such as onboard wheelchairs, accessible lavatories, movable armrests, and collapsible armrests.
(5) Review types of service animals, including unique service animals, lap-held service animals, and emotional support service animals.
(6) Review location and placement of service animals.
(7) Review types of assistive devices that are designed for, and used by, people with disabilities.
(8) Review location and placement of assistive devices, including specific certificate holder procedures regarding stowage of a passenger's folding wheelchair in the cabin.
(9) Review exclusion of assistive devices from the number of carry-on items that each passenger is allowed to bring onboard.
(10) Review use of orthotic positioning devices by people with disabilities.
(11) Review passenger briefings for people with disabilities.
(12) Review procedures for handling passenger disputes regarding compliance with 14 CFR 382.

(d) Task: Galley Security (Pre-Movement on the Surface)

Subtasks:
(1) Ensure all catering and galley supplies are stowed properly.
(2) Ensure latches and locks are positioned properly.
(3) Ensure secondary locking mechanisms are engaged.
(4) Ensure carts are secured on permanent tie downs for surface movement and take-off.
(5) Ensure curtains and doors are properly secured.

(e) Task: Preparation of Exits (Pre-Movement on the Surface)

Subtasks:
(1) Ensure doors are closed.
(2) Ensure timely arming of exits, including positioning of warning devices and cross check requirements.
(3) Ensure passengers are seated with seat belts fastened.
(4) Ensure no items are improperly stowed at jumpseats, passenger seats, lavatories or galleys.
(5) Signal or communicate with flight crew regarding cabin readiness for aircraft movement.

(f) Task: Compliance Check (Pre-Movement on the Surface)

Subtasks:
(1) Ensure that a normal or emergency means of egress is available when passengers are on board the aircraft.
(2) Ensure proper closure of overhead compartments and closets.
(3) Ensure that all carry on baggage is properly stowed.

(4) Ensure that all passengers, except those meeting lap child criteria, are seated with seat belts fastened.

(5) Ensure that seat belt extensions have been provided to all passengers who need them.

3. Subject: Ground Movement

(a) Task: General (Ground Movement)

Subtask:

(1) Flight attendants must occupy assigned jumpseats during taxi unless performing safety related duties.

(2) Flight attendants must understand the impact of conducting non-safety related duties during taxi.

(b) Task: Passenger Information (Ground Movement)

Subtask:

(1) Use public address system properly.

(2) Provide appropriate information:

(i) Compliance with Fasten Seat Belt and No Smoking signs.

(ii) Stowage of tray tables.

(iii) Positioning seat backs in the upright position (leg rests retracted).

(iv) Location of emergency exits.

(v) Proper use of portable electronic devices.

(vi) Stowage of carry-on baggage.

(vii) Smoking restrictions.

(viii) Use of oxygen (if applicable).

(ix) Availability of flotation devices.

(3) Use safety video correctly.

(4) Ensure safety demonstration is coordinated with announcement.

(5) Give safety demonstration from approved location.

(6) Assume proper position during the safety demonstration to ensure even distribution of flight attendants.

(7) Give safety demonstration at individual seats if passengers' view is obstructed.

(8) Ensure additional information regarding extended over water flights is provided.

(9) Ensure that any passengers needing the assistance of another to move quickly to an exit during an emergency and any attendants are briefed on the routes to each appropriate exit, the most appropriate time to begin moving to the exit, and inquire as to the most appropriate way to assist that person.

(c) Task: Sterile Flight Deck Procedures (Ground Movement)

Subtask:

Comply with sterile flight deck procedures.

(d) Task: Compliance Check (Ground Movement)

Subtasks:

(1) Ensure that all exits are accessible.

(2) Ensure carry-on baggage is stowed.

(3) Ensure that certificate holder procedures are followed regarding child restraint systems.

(4) Ensure that portable electronic devices are turned off and stowed.

(5) Ensure that overhead bins are closed and latched.

(6) Ensure tray tables are stowed and secured.

(7) Ensure seat backs are in the upright position (leg rests retracted).

(8) Ensure seat belts are fastened.

(9) Ensure lap seated infants and children are held or secured in a seat.

(10) Ensure all galley service items have been picked up and stowed.

(11) Ensure galley equipment is secured.

(12) Ensure that all cabin divider systems are secured open.

(13) Ensure that all video screens are retracted.

(14) Ensure that all lavatories are vacant.

(15) Ensure that cabin lighting is adjusted as per certificate holder procedures.

(16) Return to flight attendant jumpseat.

(17) Secure barrier strap.

(18) Don seat belt and shoulder harness.

(19) Signal or communicate with flight crew regarding cabin readiness for take-off.

(20) Perform silent review.

(21) Assume flight attendant protective brace position.

4. Subject: Inflight

(a) Task: General (Inflight)

Subtask:

Secure flight attendant restraint system upon leaving jumpseat in accordance with certificate holder procedures.

(b) Task: Inflight Procedures (Inflight)

Subtasks:

(1) Review flight deck entry and communication procedures.

(2) Review procedures for flight attendants to enter and secure flight deck door, including requesting a briefing on the location, donning and use of the fixed oxygen system available for the flight attendant's emergency use when one flight crewmember has to leave the flight deck.

(3) Check cabin and passengers periodically throughout the flight.

(4) Check lavatories periodically throughout the flight for potential fire hazards, overly filled trash receptacles, flapper doors that will not close, evidence of smoking or tampering with smoke detectors.

(5) Collect and stow service items properly.

(c) Task: Passenger Information (Inflight)

Subtasks:

(1) Provide after take-off announcement(s).

(2) Provide seat belt announcement when seat belt sign is turned on or off according to certificate holder procedures.

(3) Coordinate proper timing of passenger removal of shoulder harnesses.

(d) Task: Passenger Handling Procedures (Inflight)

Subtasks:

(1) Follow proper certificate holder's alcohol procedures.

(2) Ensure passengers seated in exit seats meet exit seat criteria.

(3) Follow proper certificate holder's passenger handling and reporting procedures.

(4) Follow the certificate holder's program outlining flight attendant duties regarding the use of portable electronic devices (PED).

(5) Ensure passengers are given information about times, conditions, and limitations on PED use.

(6) Understand the regulations regarding PEDs, including the effects of the use of PEDs on aircraft avionics during critical phases of flight.

(7) Ensure passengers terminate the use of any devices suspected of causing interference.

(8) Coordinate between cabin and flight deck with regard to PED use.

(e) Task: Proper Use of Service Carts and Service Equipment (Inflight)

Subtasks:

(1) Secure unattended carts properly.

(2) Engage permanent tie-downs or pop-up tie-downs correctly.

(3) Secure galley compartments when not in use.

(4) Secure food and beverage items when not in use.

(5) Comply with galley lift restrictions.

(6) Ensure that at least one flight attendant is not more than 10 feet away from service cart when in use.

(7) Stow service carts properly.

(8) Set brakes properly.

(9) Latch cart doors and utilize secondary locks.

(10) Report any malfunctioning galley equipment including restraints and brakes.

(f) Task: Communication and Coordination Procedures (Inflight)

Subtasks:

(1) Communicate with flight crew regarding turbulence.
(2) Communicate with flight crew regarding potential security threats or disruptive passengers.
(3) Communicate with flight crew regarding any abnormal or emergency situation.
(4) Report maintenance discrepancies (airworthiness and non-airworthiness).

(g) Task: Pre-landing (Inflight)

Subtasks:
(1) Provide appropriate pre-landing announcements for initial descent.
(2) Perform lavatory vacancy check.
(3) Adjust cabin lighting.
(4) Collect all service items.
(5) Close and secure galley compartments properly.
(6) Set primary and secondary locks.
(7) Ensure carts are secured on permanent tie downs for landing and surface movement.
(8) Ensure curtains and doors are properly secured.
(9) Turn off electrical appliances not in use.
(10) Comply with Fasten Seat Belt signs.
(11) Re-verify that passengers seated in exit seats meet exit seat criteria.
(12) Reengage lock out mechanism at exit seats.
(13) Ensure only approved child restraint systems are in use and are properly positioned.
(14) Ensure lap infants are held or secured in seat.
(15) Ensure tray tables are stowed and secured.
(16) Place seat backs in the upright position (leg rests retracted).
(17) Discontinue use of PEDs.
(18) Stow carry-on baggage.

(h) Task: Sterile Flight Deck Procedures (Inflight)

Subtask: Comply with sterile flight deck procedures.

(i) Task: Compliance Check (Inflight)

Subtasks:
(1) Provide appropriate pre-landing announcements for final approach.
(2) Verify completion of all of the pre-landing activities required by paragraph II.A.4.(g)(2) through (18) of this attachment.
(3) Verify that all exits are accessible.
(4) Verify that overhead bins are closed and latched.
(5) Verify that all video screens are retracted in accordance with carrier procedures.
(6) Comply with certificate holder's charging procedures for photoluminescent light path.
(7) Return to flight attendant jumpseat.
(8) Secure barrier strap.
(9) Don seat belt and shoulder harness.
(10) Signal or communicate with flight crew if the cabin is not prepared for landing.
(11) Perform silent review.
(12) Assume flight attendant protective brace position.

5. Subject: Arrival

(a) Task: General (Arrival)

Subtasks:
(1) Perform all required arrival announcements.
(2) Make reminder announcements to any passengers who may stand or place carry on bags in the aisle during taxi.
(3) Adjust cabin lighting.
(4) Perform only safety related duties during taxi.

(b) Task: Preparation of Exits (Arrival)

Subtasks:
(1) Ensure that a normal or emergency means of egress is available when passengers are on board the aircraft.
(2) Ensure crew coordination.
(3) Ensure exits are disarmed in accordance with applicable regulations and aircraft specific procedures.
(4) Verify no cabin pressure warnings or indications are present on the door.
(5) Open door and operate stairs.

(c) Task: Passenger Handling (Arrival)

Subtasks:
(1) Monitor passenger deplaning to ensure adherence to all regulatory and certificate holder requirements.
(2) Coordinate with ramp, ground, and station agents and other crewmembers as necessary.
(3) Assume proper position during passenger deplaning to ensure even distribution of flight attendants.
(4) Ensure that the minimum required number of flight attendants are onboard during entire passenger deplaning process.

(d) Task: Cabin Security (Arrival)

Subtasks:
(1) Ensure all passengers have left the aircraft at flight termination by checking the aircraft, including lavatories.
(2) Perform post-flight cabin checks.

6. Subject: During Stops

(a) Task: General (During Stops)

Subtasks:
(1) Follow duty assignments for flight attendants at intermediate stops, including passenger supervision.
(2) Adhere to permissible reduction in the number of flight attendants to at least half the minimum required number (rounded down to the next lower number, but never fewer than one) when passengers remain onboard and boarding or deplaning is not occurring.
(3) Adhere to permissible substitution for the required flight attendants with other persons qualified in emergency evacuation procedures for the airplane when passengers remain onboard and boarding or deplaning is not occurring, if those persons are identified to the passengers.

(b) Task: Aircraft Refueling (During Stops)

Subtasks:
(1) Review duties, regulatory requirements, and procedures regarding refueling with passengers onboard.
(2) Review identification of potential hazards to occupants associated with aircraft refueling.
(3) Review proper steps to be taken should problems develop during refueling, including evacuation.

7. Subject: Federal Aviation Regulations

(a) Task: General

Subtasks:
(1) Comply with certificate holder procedures for interaction with officers and agents of various governmental agencies, including FAA, TSA, FBI, CIA, and NTSB.
(2) Comply with 14 CFR part 252: Smoking Aboard Aircraft.

(b) Task: Federal Aviation Regulations Pertinent to Flight Attendant Performance of Assigned Duties

Subtasks: Understand the regulatory requirements for the following:
(1) Flight attendant duty period limitations and rest requirements.
(2) Crewmember protocols regarding drug and alcohol testing programs, including regulatory requirements and certificate holder policy regarding drug and alcohol testing programs.
(3) Hazardous material recognition and prohibitions.
(4) Admission to the flight deck.
(5) Manipulation of controls in the flight deck.
(6) Inoperable equipment.
(7) Carriage of cargo in passenger compartments.
(8) Exit seating.
(9) Carry on baggage.
(10) Passenger information requirements.
(11) Passenger briefings and demonstrations.
(12) Manual requirements.
(13) Training program requirements.
(14) Crewmember qualification requirements.
(15) Aviation Safety Inspector's credentials.

(16) Oxygen requirements.
(17) Restrictions regarding service of alcoholic beverages.
(18) Boarding restrictions regarding persons who appear to be intoxicated.
(19) Retention of items of mass in passenger and crew compartments.
(20) Stowage of passenger service equipment.
(21) Closing and locking flight crew compartment door.
(22) Security Requirements.
(23) Sterile flight deck requirements.
(24) Required number of flight attendants.
(25) Crewmember requirements at stops where passengers remain on board.
(26) Emergency equipment requirements.
(27) Lavatory fire protection.
(28) Communication systems.
(29) Flotation equipment.
(30) Flightcrew compartment access.
(31) Taxi requirements.
(32) Carriage and briefing of passengers requiring special assistance.
(33) Fueling with passengers on board.
(34) Portable electronic devices.
(35) Flight attendant jumpseat requirements.
(36) Child restraint systems.
(37) Required placards and signs.
(38) Compliance with seat belt and smoking regulations.
(39) Use of medical oxygen and portable oxygen concentrators.
(40) Any other regulations relevant to flight attendant duties and responsibilities.

END QPS REQUIREMENT

BEGIN INFORMATION

Discussion of the regulations should include why they are pertinent to flight attendants and should also include discussion regarding the role of other certificate holder employees and their part in ensuring compliance with the regulations (e.g., gate agents, flight crewmembers).

END INFORMATION

BEGIN QPS REQUIREMENT

8. Subject: General Contents, Control and Maintenance of Applicable Portions of the Certificate Holder's Manual

(a) Task: Flight Attendant Operating Manual (FAOM)

Subtasks: Understand the certificate holder's procedures for the following:
(1) Currency requirements.
(2) Revision process.
(3) Bulletins or notices.
(4) List of effective pages.
(5) Accessibility during flight.
(6) Procedures to ensure manual is current.

(b) Task: Scheduling and Station Operations Policies and Procedures

Subtasks: Understand the certificate holder's procedures for the following:
(1) Scheduling policies and procedures.
(2) Station operations policies and procedures.

9. Subject: Contents of the Certificate Holder's Operations Specifications

(a) Task: General

Subtask: Understand information contained in the certificate holder's operations specifications that is pertinent to the duties and responsibilities of flight attendants.

(b) Task: Exit Seat Program and Procedures

Subtasks: Understand the certificate holder's procedures for the following:
(1) Information regarding the certificate holder's exit seat program.
(2) Selection criteria regarding the capabilities and conditions to be applied to determine the suitability of persons to occupy an exit seat.
(3) Performance functions which a person seated in an exit seat must be willing and able to perform in the event of an emergency.
(4) Seat selection, assessment, and verification process.
(5) Individual exit seat briefings.
(6) Certificate holder procedures that ensure the suitability of each person who occupies an exit seat.
(7) Assessment and verification of suitability by at least one required crewmember prior to movement on the surface.
(8) Re-seating procedures.
(9) Dispute resolutions.
(10) Required announcements.
(11) Definition of an exit seat, including excess flight attendant jumpseats and the location of all exit seats on each aircraft type.
(12) Assessment and verification of suitability prior to landing.

(c) Task: Carry-on Baggage Program and Procedures

Subtasks: Understand the certificate holder's procedures for the following:
(1) The certificate holder's carry-on baggage program as described in the FAOM, including carry-on baggage limitations, procedures for baggage scanning, and procedures for handling carry-on baggage that does not meet these limitations or cannot be accommodated in the passenger cabin.
(2) Person(s) responsible and procedures for scanning for amount and size.
(3) Weight and balance procedures and coordination with flight crew.
(4) Safety implications of improperly stowed carry-on baggage.
(5) Types of articles exempt from carry-on baggage count.
(6) Procedures for handling and stowing carry on items exempt from the carry-on baggage count.
(7) Definition of ''properly stowed,'' including that carry-on baggage may not hinder access to emergency equipment.
(8) Methods of removing carry-on baggage from aircraft when necessary.
(9) Procedures regarding proper stowage of carry-on baggage in the passenger cabin, including underseat stowage.
(10) Procedures for handling cargo or unusual items in the cabin.
(11) Procedures for the handling of cargo and in-seat baggage in the passenger compartment, including the types of cargo that may be carried in the passenger cabin and the location of seats in which it may be stowed.
(12) Procedures to ensure crewmember verification that each piece of carry-on baggage is stowed properly prior to the last passenger entry door being closed, including specific crewmember assignments and responsibilities.
(13) Certificate holder procedures regarding the handling of carry-on baggage during an aircraft evacuation.
(14) Importance of crew consistency in applying these regulations.

(d) Task: Minimum Equipment List (MEL)

Subtasks: Understand the certificate holder's procedures for the following:
(1) Description of the purpose and scope of the MEL as applicable to flight attendant duties.
(2) Crew coordination procedures for reporting inoperative equipment.
(3) Implications of MEL required procedures due to certain pieces of equipment being inoperative, and their effect on flight attendant duties.
(4) Any other information relevant to flight attendant duties and responsibilities.

10. Subject: Crew Resource Management

(a) Task: Authority of the Pilot in Command

Subtasks:
(1) The captain's authority, including responsibility for the safety of flight in routine and emergency conditions.
(2) Chain of command and importance of chain of command.

(3) Chain of command as applicable to specific airplane.

(b) Task: Communication Processes and Decisions

Subtasks:
(1) Briefing.
(2) Inquiry, advocacy, and assertiveness.
(3) Self-critique.
(4) Communication with available personnel.
(5) Decisionmaking.
(6) Conflict resolution.

(c) Task: Building and Maintenance of a Flight Team

Subtasks:
(1) Leading and following, including the importance of crewmembers functioning as a team.
(2) Use of interpersonal skills and leadership styles in a way that fosters crew effectiveness.
(3) Significance of cultural differences.

(d) Task: Workload Management and Situational Awareness

Subtasks:
(1) Preparation and planning.
(2) Vigilance.
(3) Workload distribution.
(4) Distraction avoidance.

(e) Task: Communication and Coordination

Subtasks: Flight attendant must know notification and communication procedures between the cabin and flight deck including:
(1) Flight deck and cabin chimes and interphone signals for routine situations.
(2) Flight attendant notification to flight crew that aircraft is ready for movement on the surface.
(3) Flight crew notification to flight attendant to be seated prior to take-off.
(4) Flight attendant recognition of critical phases of flight.
(5) Crewmember coordination and notification regarding access to flight deck.
(6) Notification to flight attendants of turbulent air conditions.
(7) Notification between flight crew and flight attendants of emergency or unusual situations.
(8) Notification between flight crew and flight attendants of inoperative equipment that is pertinent to flight attendant duties and responsibilities.
(9) Normal and emergency communication procedures to be used in the event of inoperative communication equipment.

(f) Task: Crewmember Briefing

Subtasks:
(1) Crewmember responsibilities regarding briefings.
(2) Flight crew to flight attendant(s) briefings.
(3) Flight attendant to flight attendant(s) briefings (*e.g.*, when PIC has not briefed the entire crew, or when a flight attendant joins a working crew).
(4) Required information.
(5) Security procedures.
(6) Communication procedures.
(7) Emergency procedures.
(8) MELs affecting cabin safety equipment and procedures.
(9) Flight information.
(10) Content of crew briefing as applicable to specific aircraft.
(11) Responsibilities of flight attendants to brief new flight attendant crew during a crew change regarding any unserviceability of equipment, special passengers, and other safety matters pertinent to the flight.

(g) Task: Communication and Coordination During a Passenger Interference Situation

Subtasks:
(1) Certificate holder's written program regarding the handling of passenger interference, including crewmember communication and coordination.
(2) Importance of crewmembers and other employees working as a team.
(3) Role of management and crewmember in follow-up.

(h) Task: Communication and Coordination During an Emergency Situation

Subtasks:
(1) Actions for each emergency situation.
(2) Importance of notification and who must be notified.
(3) Alternate actions if unable to notify.
(4) Communication during preparation for a planned emergency evacuation: Time available, type of emergency, signal to brace, and special instructions.

11. Subject: Theory of Flight

(a) Task: Components of Aircraft

Subtasks:
(1) Wing-leading edge, trailing edge, wing tip, wing root, winglet.
(2) Tail-fixed vertical stabilizer, rudder, elevator.
(3) Miscellaneous-fuselage, spoilers, speed brakes, main gear, nose wheel.
(4) Flight control surfaces and their functions-ailerons, flaps, rudder, elevator.

(b) Task: Principles of Flight

Subtasks:
(1) Forces acting on an aircraft-lift, weight, thrust, drag.
(2) Three axes and movement around each-yaw, pitch and roll.
(3) Weight and balance-weight distribution and center of gravity and their effect on aircraft controllability and stability.

(c) Task: Critical Surfaces and Associated Hazards

Subtasks:
(1) Recognition of critical surfaces.
(2) Recognition of hazards to flight associated with contamination of those surfaces.
(3) Awareness of conditions most likely to produce such contamination (such as snow and ice, volcanic ash and dust).
(4) Importance of timely communication of observed hazards to flight deck.
(5) Awareness of carrier procedures for decontamination of surfaces.

(d) Task: Aviation Terminology

Subtasks:
(1) Identify and define aviation terminology common to the certificate holder, including terms related to airports, ground operations and flight operations.
(2) Identify any specific voluntary safety programs used by certificate holder (such as ASRS, ASAP, FOQA) as they relate to flight attendants.
(3) Identify standard measurement units used in aviation (such as the 24 hour clock, Greenwich Mean Time, time zone changes).

B. Area of Instruction: Flight Attendant Duties and Responsibilities—Abnormal Situations (see § 121.1369)

1. Subject: Handling Passengers Whose Conduct May Jeopardize Safety

(a) Task: General

Subtasks:
(1) The flight attendant must know the certificate holder's procedures for handling passengers who could threaten the safety of the flight or the passengers, including how to do the following:
(i) Identify and manage potential problem passengers who could threaten safety of the flight, passengers, or crew and monitor passenger conduct.
(ii) Monitor and identify potential problem passengers during boarding.
(iii) Identify baggage that may be considered suspect on board an aircraft.
(iv) Recognize hazardous materials labels.
(v) Report hazardous materials to the flight crew.
(vi) Monitor lavatories periodically throughout the flight.

(vii) Perform cabin checks periodically throughout the flight.

(2) The flight attendant must know specific certificate holder procedures for maintaining flight deck security.

(b) Task: Passenger Interference

Subtasks:

(1) The flight attendant must know the following requirements, procedures, and all information for handling passengers who might interfere with crewmembers in the performance of their duties and who could threaten the safety of the flight or the passengers:

(i) Title 14 CFR 121.580, Prohibition on interference with crewmembers.

(ii) Title 49 U.S.C. 46318, Interference with cabin or flight crew.

(iii) Certificate holder's program regarding the handling of disruptive passengers.

(iv) Categories of disturbance and crewmember actions.

(v) How to diffuse the situation with difficult passengers.

(vi) Recommended crew coordination procedures.

(2) The flight attendant must be trained to manage the following:

(i) Address incidents of non-compliance immediately.

(ii) Inform passenger of regulatory requirements and certificate holder policies.

(iii) Manage disruptive or problem passengers by using a team approach or specific certificate holder techniques designed to defuse such situations.

(iv) Maintain crewmember's personal security.

(v) Communicate with flight crew immediately to report non-compliant passengers and maintain communications throughout the event.

(vi) Coordinate with other flight attendants regarding team concept problem management.

(vii) Comply with certificate holder procedures regarding involvement of law enforcement officials.

(viii) Obtain assistance from other crewmembers or passengers.

(ix) Restrain violent passengers as indicated in certificate holder procedures.

(x) Appropriate use of equipment provided by the certificate holder.

(xi) Complete all required certificate holder forms.

(xii) Be able to use techniques to recognize and diffuse passenger panic situations.

(c) Task: Smoking Ban Violations

Subtasks: The flight attendant must know the following for handling of passengers who smoke onboard the aircraft:

(1) Procedures for passengers who smoke while seated.

(2) Procedures for passengers who smoke in the lavatory.

(3) Procedures for passengers who tamper with a smoke detector.

(4) Required crew coordination and communication.

(5) Procedures to address a possible fire hazard from the discarded cigarette.

(6) Reporting procedures.

(d) Task: Intoxication

Subtasks:

(1) The flight attendant must know the following for handling of passengers who appear to be intoxicated:

(i) Required crew coordination, communication, and notification procedures.

(ii) Prohibition against boarding passengers who appear to be intoxicated.

(iii) Certificate holder procedures regarding the removal of a passenger who has boarded the aircraft and appears to be intoxicated.

(iv) Prohibition against serving alcohol to passengers who appear to be intoxicated.

(v) Prohibition against serving alcohol to persons who are escorting a prisoner or who are being escorted.

(vi) Prohibition regarding passengers consuming alcohol not served by the certificate holder and associated certificate holder procedures.

(vii) Prohibition against serving alcohol to any person carrying a dangerous weapon.

(viii) Regulatory requirement to report any alcohol related disturbance onboard an aircraft to the FAA within 5 days.

(ix) Reporting procedures.

(2) The flight attendant must be trained to manage the following:

(i) Passengers appearing to be intoxicated during boarding.

(ii) Passengers appearing to be intoxicated during flight.

(iii) Reseat passengers from exit seats if they appear to become intoxicated in flight.

(iv) Inform passenger of regulatory requirements and certificate holder policies as needed.

(v) Communicate with flight crew immediately to report non-compliant passengers.

(vi) Follow certificate holder procedures when serving alcohol.

(e) Task: Passenger Misconduct

Subtasks:

The flight attendant must know how to diffuse the situation with difficult passengers and recommended crew coordination procedures.

(f) Task: Security Procedures

Subtasks:

The certificate holder must develop a security program that meets the standards of the TSA's security training program for flight attendants. The certificate holder must document that the TSA has approved the security training program for flight attendants and the certificate holder must provide security training to each flight attendant in accordance with a security program approved by the TSA.

2. [Reserved]

C. Flight Attendant Duties and Responsibilities—Emergency (See § 121.1373)

1. Subject: Emergency Equipment

The flight attendant must know the preflight (if applicable), location, function, operation, and limitations of the following equipment in Tasks (a) through (e) of this section:

(a) Task: General Emergency Equipment

Subtasks:

(1) Flight attendant jumpseat and restraint system.

(2) Portable oxygen equipment.

(3) Megaphones.

(4) Protective breathing equipment.

(5) Communication systems (public address system, chimes, interphone, visual indicators,).

(6) Lavatory smoke detector, flapper doors, and placards.

(7) Crash ax.

(8) Flashlights.

(9) Any additional portable emergency equipment or systems pertinent to cabin safety.

(b) Task: Equipment Used in Land and Water Evacuation

Subtasks:

(1) Evacuation alarms.

(2) Emergency lighting systems.

(3) Evacuation slides and slide rafts.

(4) Escape ropes and escape tapes.

(5) ELTs.

(6) Survival kits.

(7) Signaling equipment.

(8) Flotation equipment.

(9) Adult and child life preservers.

(10) Infant flotation equipment.

(11) Rafts.

(12) Any specialized survival equipment specific to an aircraft type or operation.

(c) Task: Emergency Medical Equipment

Subtasks:

(1) EMKs.

(2) First aid kits.

(3) Portable first aid and medical oxygen and oxygen systems.

(4) CPR equipment.

(5) AED.

(6) Universal precautions and associated equipment.

(7) Biohazard kit contents, use, and proper disposal procedures.
(8) Needle disposal kits.
(9) Any additional cabin safety equipment used during inflight medical events.

(d) Task: Portable Fire Extinguishers

Subtasks:
(1) Installed fire extinguishers.
(2) Range and duration of each extinguisher.
(3) Classes of fires with emphasis on proper extinguisher for each class of fire.

(e) Task: Emergency Exit Doors, Plugs and Hatches, Including Doors, Window Exits, Floor Level Exits, Tailcone Exits, Ventral Stairs, Flight Deck Exits, and Any Other Exit Designed for Passenger or Crewmember Emergency Egress from the Aircraft

Subtasks:
(1) Each different emergency exit in the normal and emergency modes, including the actions and forces required in the deployment of the emergency slides or slide rafts.
(2) Signal and conditions under which door can be opened or closed and locked or unlocked.
(3) Procedures to verify door status (open or closed and locked or unlocked).
(4) Slide pressure gauge and door pressure gauge.
(5) Cabin pressurization indications and warnings.
(6) Exterior and interior obstacles or hazards to persons or the exit during the opening or closing (*e.g.*, jetway, stairs, mobile passenger lounge, barrier straps).
(7) Signal for arming or disarming.
(8) Procedures to properly arm and disarm the exit.
(9) Procedures to verify girt bar placement for armed and disarmed.
(10) Procedures to verify door is in the correct mode including window adjustments.
(11) Proper procedures and use of operating mechanism to open exit and secure in locked position.
(12) Proper procedures, operation, and use of stair operating mechanism for normal and emergency use.
(13) Proper use of safety straps.
(14) Proper use of barrier straps.
(15) Proper use of locking mechanisms.
(16) Proper use of escape ropes and escape tapes at overwing exits.
(17) Proper use of control handles to close exits and secure in locked position.
(18) Proper use of door locking override systems.
(19) Proper use of slide override systems.
(20) Understanding of door hazards.
(21) Correct body position for door opening.
(22) Protective positions during an evacuation.
(23) Manual operations if pneumatic operations fail.
(24) Functions of door levers, door opening devices, windows, and manual slide inflation systems.
(25) Operation of exits on the flight deck.
(26) Slide, raft, or slide raft transfer, including required steps for girt detachment, bustle removal, safe handling, positioning, re-attachment of girt, and inflation of slide raft.
(27) Use of slide, raft, or slide raft as application for other survival needs.
(28) Use of following exits in normal and emergency modes:
(i) Exits with slides or slide rafts.
(ii) Exits without slides.
(iii) Window exits.
(iv) Tailcone exits.
(v) Ventral stairs.
(vi) Flight deck exits.

2. Subject: Emergency Situations

(a) Task: Emergency Assignments and Procedures Including Coordination among Crewmembers

Subtask: The flight attendant must know emergency procedures for each type of emergency, including unwarranted evacuations, and planned and unplanned land and water evacuations.

(b) Task: Decompression and Physiological Effects of High Altitude (Required When Flight Operations Are Authorized Over 10,000 Feet)

Subtasks: The flight attendant must know:
(1) Symptoms associated with hypoxia.
(2) Recognition of conditions in the cabin that a slow, rapid, or explosive decompression has occurred.
(3) Principles of respiration and Time of Useful Consciousness and why it is different for cabin and flight crewmembers.
(4) Gas expansion and gas bubble formation and how it could effect the crewmember during a decompression.
(5) Incidents of decompression.
(6) Post decompression duties.
(7) Procedures for inter-crew communication and coordination.
(8) Identification of information to be relayed to the flight crew via communication equipment.
(9) Communication with other crewmembers.
(10) Procedures for a slow, rapid, or explosive decompression while the flight attendant is in the cabin.
(11) Procedures for a slow, rapid, or explosive decompression while the flight attendant is in the flight deck.
(12) Awareness of possible flight crew response (*e.g.*, rapid descent) and its effect on the cabin.
(13) Certificate holder's procedures, including the following actions:
(i) Don the nearest oxygen mask.
(ii) Fasten seat belt or hold on to something solid.
(iii) Await notification from the flight deck before moving around the cabin.
(iv) Follow post decompression duties.
(v) Obtain and carry portable oxygen bottle.
(vi) Monitor condition of passengers.
(vii) Open passenger oxygen compartments that have not deployed if supplemental oxygen is needed.
(viii) Administer first aid and first aid oxygen, if necessary.
(ix) Communicate with fellow crewmembers.
(x) Complete required carrier forms.

(c) Task: Fire Inflight or on the Surface

Subtasks:
(1) Classes of fires.
(2) Types of extinguishers appropriate to each class of fire.
(3) Properties of halon extinguishers, including that the potential harmful effects on passengers and crew are negligible compared to the safety benefits achieved by fighting inflight fires aggressively.
(4) Correct methods for fire fighting, including proper use of PBE.
(5) Methods of communication while wearing PBE and using aircraft communication systems.
(6) Proper techniques for PBE hood removal once away from the fire scene.
(7) Need for crewmembers to take immediate and aggressive action in response to signs of an inflight fire.
(8) Requirement to notify the flight deck as soon as possible and maintain constant communication and coordination.
(9) Procedures to identify smoke in cabin, galleys and lower-lobe galleys, or lavatory.
(10) Procedures for handling fire or smoke of undetermined origin.
(11) Procedures for smoke removal, including crew communication and coordination, as well as passenger management, including any precautions.
(12) Procedures for handling fire hidden behind interior panels or enclosed spaces, including removing or otherwise gaining access to the area behind interior panels (*e.g.*, crash ax or other tools) to effectively apply extinguishing agents to the source of the fire.

(13) Procedures to respond to smoke detector activation in lavatory.

(14) Odor of fire (*e.g.*, electrical fire or burning cloth).

(15) Procedures to identify location and source of fire (*e.g.*, in ovens; volatile fuel vapors; light ballast; cabin furnishings; stowage bins and hat racks; trash containers; clothing; APU; jetway; ramp fires).

(16) Procedures to identify class of fire (if possible).

(17) Procedures to assess the intensity of the fire (if possible).

(18) Procedures to communicate with other crewmembers and passengers and respond to the fire, including:

(i) Fight the fire and call flight crew to inform of fire.

(ii) Obtain assistance of other flight attendants.

(iii) Passenger handling.

(iv) Use of interphone and other communication devices.

(v) Use of passenger address system.

(vi) Assign a passenger to locate and inform another flight attendant or flight crewmember, obtain back-up equipment and provide support.

(vii) Locate and retrieve the nearest PBE.

(viii) Remove PBE from stowage, including container or pouch.

(ix) Don PBE and activate oxygen in proper sequence using proper procedures.

(x) Locate and retrieve the nearest appropriate fire extinguisher.

(xi) Remove extinguisher from securing device.

(xii) Prepare extinguisher for use (*e.g.*, break tamper seal, pull pins, release safety latches, and pressurize bottle).

(xiii) Approach source of fire using protective techniques.

(xiv) Maintain safe distance from fire with PBE on

(xv) Operate extinguisher discharge mechanism properly.

(xvi) Discharge extinguisher at base of fire using proper discharge pattern, bottle position and flight attendant body position.

(xvii) Use aircraft communication system with PBE on (as necessary).

(xviii) Maintain and ensure ongoing communication with flight crew.

(xix) Direct passengers to relocate away from fire location, as appropriate.

(xx) Instruct passengers to breathe through clothing.

(xxi) Distribute wet towels, if possible.

(xxii) Relocate nearby portable oxygen bottles and canisters.

(xxiii) Use additional fire extinguishers and other firefighting equipment.

(xxiv) Coordinate ongoing fire control activity with other flight attendants and flight crewmembers.

(xxv) Accept replacement by another flight attendant with PBE and extinguisher (as necessary) to perform continuous firefighting duties.

(xxvi) Use follow-up procedures once fire appears extinguished.

(xxvii) Monitor indications that PBE is reaching time limits of operation.

(xxviii) Remove PBE as usefulness expires or need is eliminated.

(xxix) Position used PBE and extinguishers according to certificate holder procedure.

(xxx) Check conditions of passengers in immediate area.

(xxxi) Report condition of fire and cabin to the flight crew.

(xxxii) Complete required reports.

(19) Training must also include:

(i) *Fire Prevention:* Flight attendant readiness; cabin checks (including stowage of articles that could contribute to fire); articles that may block air vents in the galley; lavatory checks (including importance of material and condition of trash container, spring-loaded flapper door, smoke detection systems, and fire extinguishers); galley checks (including improper stowage of articles in the oven, safe oven operations, cooking and heating limitations, proper stowage of flammable materials around ovens and heating elements or lights and the importance of keeping areas around vents clear); enforcement of smoking regulations; and proper use of electrical equipment (including use of circuit breakers). Crewmembers must also be alert to fires that can occur on board the aircraft while the aircraft is on the ground (e.g., during boarding).

(ii) *Characteristics of an aircraft fire:* Flash-over and criticality of time management; toxic fumes and chemical irritants; review of function, use, and limitations of fire fighting equipment; fire fighting techniques; special factors (including cabin material flammability and toxicity); location of highly combustible and flammable items and equipment; confined space; evacuation of personnel from lower lobe galleys and cabin ventilation.

(iii) *Electrical Equipment and Circuit Breakers:* Procedures for circuit breaker use associated with galleys, service centers, lifts, lavatories, movie screens and other electrical equipment must be emphasized as well as location of accessible (in the passenger cabin) circuit breakers for each system.

(iv) *External Fires on Ground:* Crew coordination; role of flight attendants for exterior aircraft fires; APU, jetway, ramp fires; notification of appropriate airport personnel if necessary.

(d) Task: Land and Water Evacuation

Subtasks:

(1) Recognition of the need for evacuation.

(2) Crew communication and coordination.

(3) Recognition of the importance of maintaining situational awareness and ability to anticipate and adapt as emergency progresses.

(4) Use of evacuation signals.

(5) Brace for impact position for self and passengers.

(6) Importance of selection and briefing of able bodied passengers.

(7) How to assess conditions.

(8) Initiation of evacuation.

(9) Decision not to evacuate.

(10) Use of commands.

(11) Use of protective position.

(12) Passenger behavior (e.g., passive, aggressive, negative and positive panic, hysteria).

(13) Passenger flow control management.

(14) Evacuation of passengers or crewmembers who need the assistance of others.

(15) Toxic smoke and flashover time criticality.

(16) Care of passengers following evacuation.

(17) Evacuation procedures for each type of evacuation, including passenger preparedness, cabin preparation, and crew coordination procedures in accordance with the certificate holder's procedures.

(18) Crew duties and responsibilities for each crew position on each aircraft type on which the flight attendant will serve.

(19) Primary and secondary exit responsibilities.

(20) Raft responsibilities, including the importance of having an effective raft commander.

(21) Launching and boarding of assigned raft.

(22) Passenger briefings for each assigned exit and duty position.

(e) Task: Illness, Injury or Other Abnormal Situations

Subtasks:

(1) The flight attendant must know the following:

(i) Procedures regarding the proper use of emergency medical equipment.

(ii) Unique aircraft cabin conditions that make giving first aid difficult.

(iii) Incapacitated crewmember procedures, including maintaining coverage of minimum crew positions and responsibilities, reseating, and briefing passengers who may be used for exit responsibilities.

(2) The flight attendant must be trained to do the following:

(i) Respond to request for assistance or identify ill or injured individual in need of first aid.
(ii) Communicate and coordinate information with other crewmembers.
(iii) Use interphone to communicate with flight crewmembers.
(iv) Use interphone, public announcement system, or a passenger to locate and inform other flight attendants or other passengers needed to assist.
(v) Request assistance from onboard medical personnel.
(vi) Use proper techniques to move person to specified place on that configuration of airplane, if needed.
(vii) Request assistance, if needed, from other flight attendants, passengers, or flight crew.
(viii) Retrieve and use components of universal precaution equipment, as needed.
(ix) Comply with procedures for taking universal precautions against blood borne pathogens.
(x) Use gloves, mask, eye shield and other protective gear as needed.
(xi) Properly dispose of biohazard.
(xii) Report possible exposure to blood borne pathogens.
(xiii) Retrieve and use contents of first aid kit, EMK, and other emergency medical equipment, according to certificate holder procedures.
(xiv) Retrieve portable oxygen bottle, if needed.
(xv) Request help from persons qualified to use EMK.
(xvi) Request help from ground (airline contact with medical professionals on the ground).
(xvii) Assess condition of person who is ill or injured, including conducting an interview to obtain medical history.
(xviii) Follow certificate holder's first response medical event procedures.
(xix) Use CPR equipment.
(xx) Perform CPR.
(xxi) Follow procedures for passenger who requires CPR during landing.
(xxii) Use AED.
(xxiii) Ensure someone is monitoring passenger who requires oxygen.
(xxiv) Follow procedures for passenger who requires oxygen during landing.
(xxv) Properly stow, reposition and report the use of portable oxygen bottle(s) and other emergency medical equipment.
(xxvi) Coordinate with Emergency Medical Personnel once on the ground.
(xxvii) Follow procedures to handle other passengers onboard while medical personnel board and care for ill or injured passenger.
(xxviii) Inform flight crewmember of equipment used.
(xxix) Complete required reports.

(3) The flight attendant must be trained to recognize and treat the following:
(i) Bleeding.
(ii) Chest pain.
(iii) Burns.
(iv) Injuries to the extremities.
(v) Shock.
(vi) Unconsciousness.
(vii) Allergic reaction.
(viii) Hyperventilation.
(ix) Stroke.
(x) Seizures.
(xi) Diabetic emergencies.
(xii) Childbirth.
(xiii) Abdominal distress.
(xiv) Airsickness.
(xv) Injuries to the skull, spine, neck and chest.
(xvi) Eye injury.
(xvii) Ear distress.
(xviii) The effects of alcohol or drug abuse.
(xix) Infectious diseases and conditions.

(f) Task: Turbulence

Subtasks:
(1) Awareness of turbulence hazards, aircraft behavior in turbulence and the need to maintain personal safety.
(2) Predeparture briefing regarding forecast turbulence related weather conditions.
(3) Announcement requirements.
(4) Two way communication and coordination procedures between flight crewmembers and flight attendants during all phases of flight, including the use of the Fasten Seat Belt sign.
(5) Standardized phraseology and communications regarding anticipated time, intensity and duration of turbulence encounters.
(6) Procedures promoting voluntary passenger seat belt use and compliance with the Fasten Seat Belt sign.
(7) Review of certificate holder history regarding turbulence encounters and injuries, as appropriate.
(8) Location and use of emergency handholds available in the cabin, galley and lavatories (such as, handles, grab bars, or interior wall cutouts) by flight attendants and passengers who are not seated and restrained during turbulence.
(9) Procedures regarding anticipated and unanticipated turbulence encounters, including:
(i) Flight attendant notification by the flight deck.
(ii) Assessing the severity of the turbulence and initiating standard operating procedures based on that assessment.
(iii) Prioritization of flight attendant duties.
(iv) Securing galley and passenger cabin.
(v) Flight attendant's personal safety.
(vi) Handling flight attendants who may become incapacitated during a turbulence encounter.
(10) Handling passengers who may become injured during a turbulence encounter.

(g) Task: Hijacking or Other Unusual Situations

Subtask:
The certificate holder must develop a security program that meets the standards of the TSA security training program for flight attendants. The certificate holder must document that the TSA has approved the security training program for flight attendants and the certificate holder must provide security training to each flight attendant in accordance with a security program approved by the TSA.

(h) Task: Aircraft Occurrences, Accidents, and Incidents

Subtasks:
(1) Importance of crewmember actions.
(2) How crewmember actions affect the outcome of accidents and incidents.
(3) Review and discuss previous aircraft accidents and incidents.

(i) Task: Survival Skills

Subtasks:
(1) Effective survival skills to use in conditions relevant to the certificate holder's route structure (e.g., arctic, desert, jungle).
(2) Specialized survival equipment on the aircraft.

III. Aircraft Specific Task Requirements (*see* § 121.1369)

A. For Each Aircraft Type.

1. Subject: A General Description of the Aircraft

Description, location, function, and operation of the following:

(a) Task: Aircraft Characteristics and Description

Subtasks:
(1) Design.
(2) Major aircraft components and control surfaces.
(3) Principle dimensions.
(4) Interior configuration.
(5) Powerplant.
(6) Range.
(7) Speed.
(8) Altitude.
(9) Passenger seating capacity.

(b) Task: Cabin Configuration

Subtasks:
(1) Flight attendant panels.
(2) Flight attendant jumpseats and restraint systems.

(3) Passenger seating zones.
(4) Passenger seats.
(5) Galley.
(6) Lavatories.
(7) Stowage areas.
(8) Emergency exits.
(9) Oxygen mask compartments.
(10) Passenger service units.
(11) Passenger convenience panels.
(12) Passenger information signs.
(13) Required placards.
(14) Passenger-cargo configurations.
(15) Escape path lighting.

(c) Task: Passenger Seats

Subtasks:
(1) Seat belts.
(2) Shoulder harnesses.
(3) Armrests, footrests and seat recline controls.
(4) Tray tables.
(5) Passenger service units.
(6) Passenger convenience panels on armrests.
(7) Passenger information signs.
(8) Placards.
(9) Passenger entertainment systems.
(10) Passenger flotation equipment.
(11) Any other passenger seating equipment or systems relevant to flight attendant duties and responsibilities.

(d) Task: Air Conditioning, Ventilation, and Pressurization Systems

Subtasks:
(1) Cabin pressurization indicators and systems.
(2) Aircraft environmental control systems.
(3) Any other air conditioning and pressurization equipment or systems relevant to flight attendant duties and responsibilities.

(e) Task: Flight Attendant Jumpseats

Subtasks:
(1) Preflight.
(2) Automatic seat retraction.
(3) Jumpseat headrest.
(4) Restraint system integrity.
(5) Function and operation of the restraint system.
(6) Securing restraint system when not in use.
(7) Flotation equipment.
(8) Any other flight attendant station equipment or systems relevant to flight attendant duties and responsibilities.

(f) Task: Flight Attendant Panels

Subtasks:
(1) Identification and function of controls, switches and indicators on flight attendant panels.
(2) Preflight and use of controls and switches.
(3) Any other flight attendant panel equipment or systems relevant to flight attendant duties and responsibilities.

(g) Task: Carry On Baggage Stowage

Subtasks:
(1) Overhead compartments.
(2) Open overhead racks.
(3) Closets.
(4) Stowage compartments.
(5) Underseat stowage restraint requirements.
(6) Weight restrictions.
(7) Restraint or latching requirements.
(8) Required placards.
(9) Location requirements for oversized items in the passenger cabin.
(10) Designated areas for the carriage of pet containers in the passenger cabin.
(11) Designated areas for the stowage of passenger assistance aids, such as wheelchairs, canes and crutches.
(12) Any other carry on baggage stowage equipment or systems relevant to flight attendant duties and responsibilities.

(h) Task: Communication Systems

Subtasks:
(1) Call system, including:
(i) Call light switches.
(ii) Chime and light indicators when a call is initiated.
(iii) Routine and emergency call light identification.
(iv) Resetting procedures for call light indicators.
(2) Interphone system, including:
(i) Location of handset controls and indicators.
(ii) Function and operation of routine and emergency controls and indicators.
(iii) Interphone system inoperative procedures.
(3) Passenger address system, including:
(i) Location of handset and microphone controls and indicators.
(ii) Passenger address system inoperative procedures.
(iii) Any other communication equipment or systems relevant to flight attendant duties and responsibilities.

(i) Task: Entertainment and Convenience Systems

Subtasks:
(1) Description of aircraft entertainment and convenience systems.
(2) Location and operation of controls and switches including system indicators.
(3) Problem identification, including probable causes and corrective action procedures.
(4) Location of accessible circuit breakers for each system.
(5) Any other entertainment and convenience equipment of systems relevant to flight attendant duties and responsibilities.

(j) Task: Flight Deck Configuration

Subtasks:
(1) Flight crewmember and observer stations.
(2) Portable emergency equipment.
(3) Use of oxygen systems.
(4) Use of flight deck door securing devices and locking systems.
(5) Operation of observer's jumpseat, including function and operation of the restraint system.
(6) Operation of flight deck door including emergency opening procedures.
(7) Emergency exits and means of egress.
(8) Any other flight deck equipment or systems relevant to flight attendant duties and responsibilities.

(k) Task: Galleys

Subtasks:
(1) Ovens.
(2) Refrigeration Units.
(3) Stowage compartments and latching devices.
(4) Carts and braking mechanisms and restraining devices.
(5) Electrical control panels and circuit breakers.
(6) Water system and water shutoff valves.
(7) Oxygen mask compartments.
(8) Lower lobe galleys including operation of escape exits and lifts.
(9) Any other galley equipment or systems relevant to flight attendant duties and responsibilities.

(l) Task: Lavatories

Subtasks:
(1) Washbasins.
(2) Supply compartments and latching devices.
(3) Oxygen mask compartments.
(4) Passenger information signs.
(5) Required placards.
(6) Automatic fire extinguishers.
(7) Fire detection systems.
(8) Water shut off valves.
(9) Water heater switches and indicators.
(10) Interior door locking mechanism and signs.
(11) Special lavatory components (e.g., doors that may be removed to facilitate access to an incapacitated passenger, lavatory walls which retract to allow for stretcher removal around corners and out of certain exits).
(12) Any other lavatory equipment or systems relevant to flight attendant duties and responsibilities.

(m) Task: Required Signs and Placards

Subtasks:
(1) Passenger information signs, including:
(i) No Smoking signs.
(ii) Fasten Seat Belt signs.
(iii) Lavatory Occupied signs.

(iv) Return To Seat signs in the lavatory.
(v) Exit signs.
(2) Aircraft markings, including:
(i) Interior emergency exit markings indicating location of each passenger emergency exit.
(ii) Emergency exit handle markings indicating location of operating handle and instructions for opening exit.
(iii) Emergency equipment markings to identify equipment location.
(3) Aircraft placards, including:
(i) Placards on each forward bulkhead and passenger seat stating Fasten Seat Belt While Seated.
(ii) Placards in each lavatory stating Federal law provides for a penalty for tampering with the smoke detector installed in this lavatory.

(n) Task: Lighting and Electrical Systems

Subtasks:
(1) Interior and exterior lighting.
(2) Cabin lighting systems, including:
(i) Controls.
(ii) Switches.
(iii) Testing procedures, in accordance with certificate holder procedures.
(3) Cabin circuit breakers, including:
(i) Means of access.
(ii) Switches.
(iii) Indicators.

(o) Task: Oxygen Equipment and Systems

Subtasks:
(1) Flightcrew and observer oxygen system, including:
(i) Location of oxygen regulators and quick-donning oxygen masks.
(ii) Emergency operation of oxygen regulator switches and indicators.
(iii) Distinction between ''on demand'' and ''under pressure'' oxygen flow.
(iv) Proper use of oxygen masks.
(2) Passenger oxygen systems, including:
(i) Description and location of each type of oxygen mask and compartment.
(ii) Location of extra masks.
(iii) Description and location of oxygen mask compartment door latching indicators.
(iv) Method to manually open each type of oxygen mask compartment.
(v) Restrictions for repacking oxygen mask compartments.
(vi) Automatic and manual means of system activation.
(vii) Indicators of oxygen system activation.
(viii) Procedure for initiating oxygen flow to the mask(s).
(ix) Procedure for properly donning oxygen mask and testing for oxygen flow.
(x) Procedure for resetting oxygen system in the event oxygen system is not designed to shut off automatically.
(xi) Procedure for activating aircraft system for first aid oxygen, if available.
(xii) Any other fixed oxygen equipment or systems relevant to flight attendant duties and responsibilities.

(p) Task: Notification of Inoperative Equipment

Subtasks:
(1) MEL, including specific cabin equipment and systems pertinent to flight attendant duties that may be inoperative, including the importance of requesting this information during the preflight briefing.
(2) Impact of inoperative cabin equipment and systems on flight attendant duties and procedures.

(q) Task: Emergency Equipment Location

Location of emergency equipment, if not included in emergency equipment training (see paragraph II.C.1 (a) through (d) of this attachment).

(r) Task: Emergency Exit Doors, Plugs and Hatches, Including Doors, Window Exits, Floor Level Exits, Tailcone Exits, Ventral Stairs, Flight Deck Exits, and Any Other Exit Designed for Passenger or Crewmember Egress From the Aircraft

Subtasks:
(1) Location and description of the normal and emergency operation of each emergency exit if this information is not included in Emergency Equipment Training (see paragraph II.C.1.(e) of this attachment).
(2) Any other exit designed for passenger or crewmember egress from the aircraft.
(i) Procedures for using each exit in the normal mode (if applicable).
(ii) Procedures for using each exit in the emergency mode.

(s) Crewmember Rest Facilities

Subtasks:
(1) Operation of emergency systems.
(2) Operation of escape exits.
(3) Operation of escape lifts.
(4) Oxygen systems.
(5) Communication systems.
(6) Restraint systems.
(7) Any additional equipment or systems in the crewmember rest facilities on the aircraft on which the flight attendant serves.

2. [Reserved]

B. [Reserved]

IV. Emergency Training Drill Requirements (*see* § 121.1373)

A. Each flight attendant must operate each exit on each aircraft type on which the flight attendant is to serve in both the normal and emergency modes, including the actions and forces required in the deployment of emergency evacuation slides.
B. Each flight attendant must complete the following emergency training drills during the specified training periods, using those items of installed emergency equipment for each type of aircraft operated by that part 119 certificate holder in which the flight attendant is to serve.
C. Each piece of emergency equipment and training device must be in its fully secured, pinned, or bracketed position, as installed on the aircraft, prior to being operated by each flight attendant during each drill (if the flight attendant does not complete the equipment mountings drill for that piece of equipment) or prior to being operated for each flight attendant during an observation drill.
D. Flight attendants must complete each drill according to the standards and situational awareness markers (CRM competencies) provided in each drill without manual reference or coaching.
E. Successful individual evaluation of each flight attendant's performance by a person authorized to administer proficiency tests is required. Flight attendants who cannot demonstrate the required level of proficiency during testing must be retrained in accordance with the certificate holder's procedures prior to retesting.
F. The operation of the equipment must be identical to that installed in the certificate holder's aircraft on which the flight attendant is to be qualified with respect to weight, dimensions, appearance (e.g., color, placards and markings), features, charge duration (if applicable), controls, types, and operation.

V. Emergency Training Drills—General (*see* § 121.1373)

A. Subject: Job Performance Drills

1. Task: Operation of Each Type of Installed Hand Fire Extinguisher (Job Performance)

(a) *Environment:* The extinguisher must be charged; however, it may be charged with an environmentally friendly agent.
(b) *Task:* This drill is not required for the type of fire extinguisher used in the

protective breathing equipment and firefighting drill (Task 8). Flight attendants must fight an actual or simulated fire. The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Remove fire extinguisher from the brackets (if not completed during the equipment mountings drill).

(2) Prepare extinguisher for use (e.g., rotate handle to pressurize, break tamper seals, pull pin, release safety latch).

(3) Operate extinguisher discharge mechanism properly.

(4) Aim and discharge extinguisher at the base of the fire (actual or simulated ''open flame'') or as close to the source as possible (''hidden fire'') using proper discharge pattern, bottle position and flight attendant body position.

(c) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or actions) with other crewmembers during the drill, as appropriate.

END QPS REQUIREMENT

BEGIN INFORMATION

(d) Effective training scenarios for firefighting should include realistic drills with emphasis on combating hidden fires. To provide realistic training, drills should simulate locations of hidden fires, such as behind sidewall panels, in overhead areas, air conditioning vents, or overhead panels. For example, electrical fires, lavatory fires or fires erupting from failures of lithium-ion batteries such as those used within laptop computers. The intent of the training is to provide crewmembers with the obstacles that would be encountered onboard the aircraft, but it is not intended to have each student remove sidewall panels. A training program should incorporate a method to assess the hidden fire and to combat the hidden fire such as locating the source of the fire, if possible, before applying an extinguishing agent.

(e) Depending on the sophistication of the training device, the flight attendant could utilize a manual release tool that is designed to open the oxygen compartments to gain access to a fire that is suspected in that region, remove a cabin ceiling speaker cover by simply snapping it out of its fixture, or move carry-on baggage from an overhead compartment.

END INFORMATION

BEGIN QPS REQUIREMENT

2. Task: Operation of Each Type of Portable Oxygen Equipment (Job Performance)

(a) *Environment:* The drill does not need to be repeated using each type of portable oxygen bottle installed in the aircraft provided the procedures, oxygen mask tubing, fittings, and the means to activate the oxygen flow are the same from one bottle to the other, regardless of the size of the portable oxygen bottle. Where types differ, the drills must be repeated with the appropriate equipment.

(b) *Task:* The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Remove the bottle or canister from the bracket or stowage (if not completed during the equipment mountings drill).

(2) Retrieve oxygen mask and hose, attach coupling to the high and low outlets.

(3) Use the carrying strap.

(4) Prepare the ''passenger'' for receiving oxygen administration (i.e., no smoking, possibly relocating passenger, removing petroleum products from passenger's face).

(5) Activate the oxygen and test for flow, position and secure the mask to the passenger's face.

(6) Secure the oxygen bottle or canister and position it to monitor the supply.

(7) Demonstrate proper handling techniques if using portable solid state units.

(8) Demonstrate proper placement of hot generators, as per certificate holder procedures, if using solid state units.

(c) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or actions) with other crewmembers during the drill, as appropriate. The flight attendant must also recognize indications regarding duration of oxygen supply.

3. Task: Operation of Each Type of Fixed Oxygen System in the Cabin (Job Performance)

(a) *Environment:* The drill does not need to be repeated using each type of fixed oxygen system installed in the aircraft provided the procedures and the means to activate the oxygen flow, and the method to manually open the compartment, are the same from one system to another. Where types differ, the drills must be repeated with the appropriate equipment.

(b) *Task:* The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Each flight attendant must manually drop oxygen mask and follow the crewmember coordination procedures.

(2) The flight attendant must demonstrate the ability to ''turn on'' the oxygen system, if necessary.

(c) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or actions) with other crewmembers during the drill, as appropriate.

4. Task: Operation of Each Type of Protective Breathing Equipment (Job Performance)

(a) *Environment:* PBE consisting of a portable oxygen bottle and full-face mask must be fully operational and charged. Self contained PBE may be substituted with a training smoke hood that is not operational.

(b) *Task:* This drill is not required for the type of PBE used in the protective breathing equipment and firefighting drill (Task 8). The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Remove PBE from stowage including stowage container (if not accomplished during the equipment mountings drill) and pouch.

(2) Don PBE and activate oxygen in proper sequence and using proper techniques.

(3) Verify proper seal.

(c) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or actions) with other crewmembers during the drill, as appropriate. The flight attendant must also recognize indications regarding duration of oxygen supply.

5. Task: Operation of Each Type of Installed Life Preserver and Each Type of Individual Flotation Means (Job Performance)

(a) *Environment:* See paragraph IV.F of this attachment.

(b) *Task:* The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Remove life preserver from the sealed or closed (actual or simulated) pouch.

(2) Don and secure life preserver and inflate using automatic inflation of at least one chamber.

(3) Partially inflate or simulate inflation of second chamber of life preserver orally.
(4) Practice deflation technique.
(5) Locate and review light activation.
(6) Demonstrate the procedures to use a life preserver for a child (and infant, if applicable).
(7) Demonstrate proper arm placement and use of seat cushion.
(8) Demonstrate use of seat cushion by infant and small child.
(c) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or actions) with other crewmembers during the drill, as appropriate. The flight attendant must also:
(1) Recognize removal procedures for seat cushions, and also recognize any equipment or furnishings that may complement or may hinder the removal of the seat cushion.
(2) Recognize the hazards that can be associated with inflating life preservers in the aircraft.

6. Task: Operation of Each Type of Automated External Defibrillator (AED) (Job Performance)

(a) *Environment:* See paragraph IV.F of this attachment.
(b) *Task:* The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:
(1) Remove the AED from the bracket or stowage (if not completed during the equipment mountings drill).
(2) Prepare the AED for use and attach leads if necessary.
(3) Prepare the scene and ''passenger'' for use of an AED.
(4) Follow AED prompts for proper use, including the administration of shocks, rescue breathing and the administration of cardiopulmonary resuscitation (CPR) if so prompted, to include the use of the CPR mask.
(5) Detach leads, if required by certificate holder procedures.
(c) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or actions) with other crewmembers during the drill, as appropriate. The flight attendant must also recognize the need for defibrillation.

7. Task: Cardiopulmonary Resuscitation (CPR)—Adult, Child, and Infant (Job Performance)

(a) *Environment:* This drill must be performed using training equipment that creates an effective environment for the accomplishment of the performance drill.

(b) *Task:* This CPR drill is not required if the flight attendant performs CPR during the operation of each type of installed automated external defibrillator. The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:
(1) Administer CPR, to include the use of the CPR mask, for adult, child and infant CPR.
(2) [Reserved].
(c) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or actions) with other crewmembers during the drill, as appropriate. The flight attendant must also recognize the need for CPR.

8. Task: Protective Breathing Equipment and Firefighting Drill (Job Performance)

(a) *Environment:* This drill must be performed using training equipment that creates an effective environment for the accomplishment of performance drills using at least one type of hand fire extinguisher that replicates the features and operating mechanisms of the installed fire extinguishers, with the exception of the extinguishing agent, and is appropriate for the type of actual fire being fought while using the type of installed PBE required by § 121.337 or an approved PBE simulation device. A self-contained PBE may be substituted with a training smoke hood which is not operational.
(b) *Task:* The flight attendant must complete at least one approved protective breathing equipment and firefighting drill in which the flight attendant combats an actual fire, during basic qualification training.
(1) For recurrent training, the flight attendant must combat an actual or simulated fire using at least one type of installed hand fire extinguisher or approved training device that is appropriate for the type of actual fire or simulated fire to be fought while using the type of installed PBE required by § 121.337 or an approved PBE simulation device.
(2) Each 36 months, the flight attendant must combat at least one ''hidden fire'' that is actual or simulated (e.g., behind a panel, in a lavatory or with an undisclosed source of origin).
(3) The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:
(i) Locate source of fire and smoke.
(ii) Remove PBE from stowage container and pouch.
(iii) Don PBE and activate oxygen in proper sequence (activation of oxygen may be simulated).
(iv) Verify seal.
(v) Demonstrate the use of aircraft communication systems (actual or with a training device).
(vi) Select appropriate fire extinguisher.
(vii) Remove the fire extinguisher from brackets/secured position (if not accomplished during the equipment mountings drill).
(viii) Prepare extinguisher for use (e.g., rotate handle to pressurize, break tamper seals, pull pin, release safety latch).
(ix) Approach fire or smoke.
(x) Fight fire using proper techniques (particularly in the case of a ''hidden fire'').
(xi) Operate extinguisher discharge mechanism properly.
(xii) Demonstrate proper passenger handling/protection techniques.
(xiii) Ensure fire is extinguished.
(xiv) Use protective techniques to back away.
(xv) Use proper techniques for PBE removal.
(xvi) Properly secure equipment as per certificate holder's procedures.
(c) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or actions) with other crewmembers during the drill, as appropriate. The flight attendant must also recognize the problem, be aware of PBE duration, and be aware of signals that PBE is no longer generating oxygen to wearer.

9. Task: Cabin Preparation and Evacuation Drills (Land and Water Evacuation) (Job Performance)

(a) *Environment:* This drill must be performed using training equipment that creates an effective environment for the completion of the performance drill.
(b) *Task:* Each flight attendant must participate as either a flight attendant or a passenger in a full, complete, and uninterrupted cabin preparation as outlined in the ''Cabin Preparation and Evacuation for a Planned Land Evacuation'' drill. In addition, if the flight attendant is to be qualified in extended overwater operations, that flight attendant must participate as either a flight attendant or a passenger in a full, complete and uninterrupted cabin preparation as outlined in the ''Cabin Preparation and Evacuation for a Planned Water Landing (Ditching)'' drill.
(c) For the purposes of recurrent training, flight attendants may complete a ''Cabin Preparation and Evacuation for

a Planned Land Evacuation'' drill and a ''Cabin Preparation and Evacuation for a Planned Water Landing (Ditching)'' drill during alternate recurrent training cycles. If the flight attendant has not participated as a flight attendant in one of the cabin preparation and evacuation drills, then the flight attendant must participate as a flight attendant in at least a portion of another evacuation drill.

(d) The flight attendant must participate as a crewmember or a passenger in at least one of the following approved evacuation drills to include crew coordination procedures, cabin preparation and passenger preparation that is applicable to the certificate holder's operations. The flight attendant must also apply tasks and procedures following the prescribed sequence, as priorities allow.

(e) During the initiation phase of the cabin preparation for the planned land evacuation and the planned water landing (ditching), the flight attendant must:

(1) Receive notification from the flight deck, including:

(i) Use of emergency notification signal.

(ii) Confirmation from the flight deck that an emergency landing and evacuation are anticipated.

(2) Communicate with PIC to obtain the following essential information:

(i) Find out the amount of time remaining until landing.

(ii) Find out what type of landing is anticipated (e.g., aircraft configuration, environmental conditions, which exits can be used).

(iii) Establish and confirm signal to assume brace for impact position.

(iv) Confirm signal to evacuate.

(v) Coordinate with other flight attendants.

(3) Prepare the cabin as follows:

(i) Secure galley ensuring all galley components and supplies are properly restrained.

(ii) Adjust cabin lights to full bright.

(iii) Deliver emergency announcement or demonstration.

(f) The flight attendant must complete the following during the drills, and be evaluated and debriefed on the proper use of equipment and procedures.

(1) Conduct a Cabin Preparation and Evacuation for a Planned Land Evacuation.

(i) Conduct initiation phase of the cabin preparation for the Planned Land Evacuation (see paragraphV.A.9.(e) of this attachment.)

(ii) Instruct passengers to secure seatbelts low and tight and review how to release seat belts.

(iii) Instruct passengers on brace for impact position(s) beginning with the position to be assumed by the majority of passengers.

(iv) Conduct passenger review of passenger safety information card.

(v) Instruct passengers on location of exits (primary and alternate).

(vi) Direct passenger attention to the location of escape path lighting.

(vii) Instruct passengers on how to exit down slides or out windows.

(viii) Instruct passengers on use of escape ropes or escape tapes at overwing exits.

(ix) Direct passengers to leave everything behind.

(x) Direct passengers to stay low in a smoke filled cabin.

(xi) Reseat passengers as necessary.

(xii) Brief able bodied passengers on tasks.

(A) Exit operation.

(B) Signals or commands regarding starting the evacuation.

(C) Slide operation.

(xiii) Conduct compliance check.

(xiv) Prepare for landing.

(xv) Provide last minute instructions to passengers.

(xvi) Check exits to ensure they are ready for evacuation.

(xvii) Adjust cabin lighting to dim setting.

(xviii) Secure barrier strap.

(xix) Use proper techniques to fasten flight attendant restraint system.

(xx) Inform PIC of cabin readiness.

(xxi) Perform silent review.

(xxii) Assume flight attendant protective brace position.

(xxiii) Command passengers to assume protective brace position and continue brace commands until the aircraft has come to a complete stop.

(xxiv) Perform assigned duties following emergency landing, as follows:

(A) Remain seated until the aircraft comes to a complete stop.

(B) Open seat belts.

(C) Assess conditions.

(D) Activate emergency lights.

(E) Aggressively initiate evacuation procedures using communication protocols or manage passenger behavior if decision is made not to evacuate.

(F) Activate evacuation signal.

(G) Shout evacuation commands to passengers.

(H) Conduct evacuation at floor level exits.

(1) Assess conditions at exit.

(2) Apply forces necessary to open door in emergency mode and under possible adverse conditions.

(3) Take appropriate precautions for door hazard conditions.

(4) Hold onto assist handle.

(5) Open the exit in the armed mode.

(6) Use manual operation if pneumatic operations fail.

(7) Block and redirect, if necessary.

(8) Secure the exit in the fully open position.

(9) Hold passengers back until exit is open and ready for evacuation.

(10) Pull the manual inflation handle and verify deployment, inflation (e.g., ramp, slide).

(11) Ensure that stairs are positioned for evacuation.

(12) Maintain appropriate protective body and hand positions.

(13) Shout door commands to passengers.

(14) Use passenger flow management control.

(15) Open exits and manage flow control at more than one exit if procedures require responsibility for opening more than one exit.

(16) Direct passengers to most usable doors.

(17) Give commands to able bodied passengers.

(I) Conduct evacuation at over wing exits.

(1) Go to exit (if part of assigned duties).

(2) Assess conditions at exit.

(3) Remove hatch.

(4) Dispose of hatch.

(5) Maintain appropriate protective body and hand positions.

(6) Give commands to passengers at over wing exit.

(7) Control passenger flow at over wing area.

(8) Use escape ropes or escape tapes.

(J) Ensure evacuation of passengers needing assistance.

(K) Evacuate crewmember through most appropriate exit, if crewmember is incapacitated.

(L) Shout commands to helper passengers at the bottom of the slides, stairs or exit.

(M) Remove emergency equipment.

(N) Check flight deck.

(2) Conduct a Cabin Preparation and Evacuation for a Planned Water Landing (Ditching).

(i) Conduct initiation phase of the cabin preparation for the Planned Water Landing (Ditching) (*see* paragraph V.A.9.(e) of this attachment).

(A) Direct passengers to don life vests and instruct them on use.

(B) Don crew life vest.

(C) Instruct passengers to secure seatbelts low and tight and review how to release seat belts.

(D) Instruct passengers on brace for impact position(s) beginning with the position to be assumed by the majority of passengers.

(E) Conduct passenger review of passenger safety information card.

(F) Instruct passengers on location of exits (primary and alternate).

(G) Direct passenger attention to the location of emergency floor level lighting.
(H) Instruct passengers on how to exit down slides or out windows.
(I) Direct passengers to leave everything behind.
(J) Direct passengers to stay low in a smoke filled cabin.
(K) Reseat passengers as necessary.
(ii) Brief able bodied passengers on tasks:
(A) Exit operation.
(B) Signals or commands regarding starting the evacuation.
(C) Positioning raft according to carrier procedures.
(D) Use of slide raft as raft.
(E) Launching raft or slide raft.
(iii) Continue with cabin preparation:
(A) Complete compliance check.
(B) Prepare for landing.
(C) Provide last minute instructions to passengers.
(D) Check exits to ensure they are ready for evacuation.
(E) Adjust cabin lighting to dim setting.
(F) Secure barrier strap.
(G) Use proper techniques to fasten flight attendant restraint system.
(H) Inform PIC of cabin readiness.
(I) Perform silent review.
(J) Assume flight attendant protective brace position.
(K) Command passengers to assume protective brace position and continue to shout brace commands until the aircraft has come to a complete stop.
(iv) Perform assigned duties following impact to include the following:
(A) Remain seated until the aircraft has stopped.
(B) Open seat belts.
(C) Assess conditions (e.g., watch for water line).
(D) Activate emergency lights.
(E) Aggressively initiate evacuation using communication protocols.
(F) Activate evacuation signal.
(G) Shout commands to passengers.
(H) Conduct evacuation at floor level exits as follows:
(*1*) Assess conditions at exit.
(*2*) Apply forces necessary to open door in emergency mode and under possible adverse conditions.
(*3*) Take appropriate precautions for door hazard conditions.
(*4*) Hold onto assist handle.
(*5*) Open the exit.
(*6*) Use manual operation if pneumatic operations fail.
(*7*) Block and redirect if necessary.
(*8*) Secure the exit in the fully open position.
(*9*) Hold passengers back until exit is open and ready for evacuation.
(*10*) Pull the manual inflation handle(s) and verify deployment, inflation.
(*11*) Review deployment procedures for inflated slide and launch rafts if aircraft equipped with life rafts.
(*12*) Simulate evacuating passengers into raft, slide raft, or water.
(*13*) Maintain appropriate protective body and hand positions.
(*14*) Shout door commands to passengers.
(*15*) Use passenger flow management control.
(*16*) Direct passengers to most useable doors.
(*17*) Give commands to able bodied passengers.
(*18*) Ensure evacuation of passengers needing assistance.
(*19*) Inflate crew life vest.
(I) Conduct evacuation at over wing exit.
(*1*) Go to exit (if part of assigned duties).
(*2*) Remove hatch.
(*3*) Dispose of hatch as per certificate holder procedures.
(*4*) Review raft launching procedures in overwing area.
(*5*) Use escape ropes or tapes at overwing area (if applicable).
(*6*) Give commands to passengers at over wing exit.
(*7*) Control passenger flow at over wing area.
(g) Situational Awareness (CRM Markers): The flight attendant must communicate and coordinate (through discussion or actions) with other crewmembers during the drill, as appropriate. The flight attendant must also:
(1) Demonstrate awareness of his or her duties as a crewmember and duties of other crewmembers during an evacuation
(2) Review procedures for evacuation of passengers or crewmembers needing assistance.

END QPS REQUIREMENT

BEGIN INFORMATION

(h) To create a realistic training environment, a certificate holder may choose to integrate variables into the scenarios that happen during actual emergencies (e.g., running out of time prior to completing a cabin preparation, change in the type of evacuation or landing). For aircraft for which more than one flight attendant is required, drills could also be conducted in which the flight attendant finds himself or herself acting alone (simulating incapacitation of other flight attendants). The ''solo'' drill demonstrates the ability of the flight attendant to take command of a situation using available safety equipment and the capacity to respond to changing situations without the assistance of other crewmembers.
(i) While adding variable to the scenarios is a good training tool, a scenario should not incorporate excessive variables that would overload a flight attendant, nor be so limited on variables that there is a reduced training value to the exercise.
(j) An effective practice is to provide flight attendants a demonstration of ''textbook'' cabin preparation or evacuation drills conducted in accordance with the certificate holder's procedures. Certificate holders should also be aware of the desirability of flight crewmembers and flight attendants performing evacuation scenarios together. When this is not possible, certificate holders should include information addressing the roles of other crewmembers during emergency evacuation situations.

END INFORMATION

BEGIN QPS REQUIREMENT

10. Task: Evacuation Drills (Job Performance)

(a) *Environment:* This drill must be performed using training equipment that creates an effective environment for the accomplishment of performance drills.
(b) The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:
(c) During the initiation phase of the Unplanned land evacuation and the unplanned water evacuation drills, the flight attendant must:
(1) Issue brace for impact commands at the first sign a problem exists that could lead to impact of evacuation.
(2) Remain seated until the aircraft comes to a complete stop.
(3) Open seat belts.
(4) Assess conditions.
(5) Activate emergency lights.
(6) Aggressively initiate evacuation procedures using communication protocols or manage passenger behavior if decision is made not to evacuate.
(7) Activate evacuation signal.
(8) Shout evacuation commands to passengers.
(9) Conduct evacuation at floor level exits.
(10) Assess conditions at exit.
(11) Apply forces necessary to open door in emergency mode and under possible adverse conditions.
(12) Take appropriate precautions for door hazard conditions.
(13) Hold onto assist handle.

(14) Open the exit in the armed mode.
(15) Use manual operation if pneumatic operations fail.
(16) Block and redirect if necessary.
(17) Secure the exit in the fully open position.
(18) Hold passengers back until exit is open and ready for evacuation.

(d) *Task:* Conduct an Unplanned Land Evacuation

(1) Conduct initiation phase of the unplanned land evacuation (See paragraph V.A.10(c) of this attachment.)
(2) Pull the manual inflation handle(s) and verify deployment, inflation (e.g., ramp, slide) (in the case of stairs, ensure they are positioned for evacuation).
(3) Maintain appropriate protective body and hand positions.
(4) Shout door commands (land evacuation) to passengers.
(5) Use passenger flow management control.
(6) Open exits and manage flow control at more than one exit if procedures require responsibility for opening more than one exit.
(7) Direct passengers to most useable doors.
(8) Give commands to able bodied passengers.
(9) Conduct evacuation at over wing exits.
(i) Go to exit.
(ii) Assess conditions at exit.
(iii) Remove hatch.
(iv) Dispose of hatch.
(v) Maintain appropriate protective body and hand positions.
(vi) Give commands to passengers on how to egress through exit.
(vii) Control passenger flow at over wing area.
(viii) Use escape ropes or escape tapes.
(10) Ensure evacuation of passengers needing assistance..
(11) Evacuate crewmember through most appropriate exit, if crewmember is incapacitated.
(12) Shout commands to helper passengers at the bottom of the slides, stairs or exit.
(13) Remove emergency equipment.
(14) Check flight deck.
(e) *Task:* Conduct an Unplanned Water Evacuation.
(1) Conduct initiation phase of the unplanned water evacuation (*See* paragraph V.A.10(c) of this attachment.).
(2) Pull the manual inflation handle(s) and verify deployment and inflation (if applicable).
(3) Review procedures to inflated slide and launch rafts if aircraft equipped with life rafts.
(4) Evacuate passengers into raft, slide raft, or water.
(5) Maintain appropriate protective body and hand positions.
(6) Shout door commands (water evacuation) to passengers.
(7) Use passenger flow management control.
(8) Direct passengers to most useable doors.
(10) Give commands to able bodied passengers.
(11) Ensure evacuation of passengers needing assistance.
(12) Inflate crew life vest.
(13) Conduct evacuation at over wing exit.
(i) Go to exit.
(ii) Remove hatch.
(iii) Dispose of hatch as per certificate holder procedures.
(iv) Review procedures to launch rafts in over wing area.
(v) Use escape ropes or escape tapes at over wing area.
(vi) Give commands to passengers at over wing exit.
(vii) Control passenger flow at over wing area.
(viii) Ensure evacuation of passengers needing assistance.
(f) *Task:* Control An Unwarranted (Unneeded) Evacuation.
The flight attendant must perform the following:
(1) Take protective position if at door.
(2) Coordinate with crew.
(3) Stop evacuation; use strong commands.
(g) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or action) with other crewmembers during the drill, as appropriate. The flight attendant must also review procedures for evacuation of passengers needing assistance.

11. Task: Equipment Mountings Drill (Job Performance)

(a) *Environment:* Each piece of emergency equipment or training device must be in the fully secured or pinned position and using the identical bracketing or securing system that is used on the aircraft prior to being operated by each flight attendant during each drill or prior to being operated by each flight attendant during the equipment mountings drill.
(b) *Task:* The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:
(1) Completely remove each piece of portable emergency equipment from its bracket or securing system.
(2) Resecure each piece of portable emergency equipment in its bracket or securing system or properly stow according to certificate holder procedures.
(c) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or action) with other crewmembers during the drill, as appropriate. The flight attendant must also recognize the importance of removing equipment as quickly as possible.

END QPS REQUIREMENT

BEGIN INFORMATION

(d) For realistic training, it is important that the emergency equipment used in the drills is identical to the equipment found on the aircraft in relation to the bracketing or securing systems. For example, location of the equipment in overhead bins, emergency equipment stowage doghouses, and the spacing of equipment relative to other equipment.
(e) The FAA recognizes that some training equipment, facilities and scenarios make this training requirement difficult to support. It is important to give certificate holders maximum flexibility to comply with the performance requirement that each flight attendant completely remove and replace each piece of portable emergency equipment from the bracket or securing system that is identical to those systems that a flight attendant would find on each aircraft on which they are qualified.
(f) It is acceptable that this performance requirement be completed during the individual drills or the equipment mountings drill.

END INFORMATION

BEGIN QPS REQUIREMENT

12. Task: Ditching Survival Drill (Dry Training Environment) (Job Performance)

(a) *Environment:* The certificate holder may substitute a raft, provided there are no substantive differences with respect to weight, dimensions, appearance, features, and operations and the certificate holder provides differences training approved by the FAA. However, when flight attendants are trained and qualified on multiple aircraft types that are extended overwater equipped, the flight attendant must complete ''hands on'' drill training on each different raft and slide raft on a training schedule acceptable to the FAA, not to exceed a 5 year recurrent training cycle.

(b) *Task:* The flight attendant must participate in the following approved dry ditching drill as applicable to the certificate holder's procedures and approved extended overwater operations. The flight attendant may complete this drill in conjunction with the one time wet ditching drill to initially qualify to serve on an aircraft that is used for extended overwater operations. In addition, the flight attendant must perform this drill during recurrent or requalification training, as applicable.

(c) The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Identify boarding station and board raft.

(2) Review the need to crawl and stay low.

(3) Discuss the importance of distributing the load.

(4) Review the need to stay attached to the aircraft as long as possible, and operation of the quick disconnect.

(5) Review the need to get clear of fuel-covered water and debris.

(6) Locate and deploy the sea anchor.

(7) Discuss the importance of upwind and downwind.

(8) Retrieve the survival kit and review contents.

(9) Identify inflation valve and review operation of inflation pump and raft repair kit.

(10) Identify items such as bailing bucket and sponge for bailing raft dry.

(11) Erect the canopy and discuss methods for collecting rain water and water purification techniques.

(12) Demonstrate how canopy can be used in both hot and cold climates.

(13) Review signaling devices located in survival kits or brought to the raft.

(14) Discuss the cautions associated with flares and sea dye marker and proper use.

(15) Point out raft lights.

(16) Review alternate signaling devices (e.g., mirrors).

(17) Locate and demonstrate use of heaving line. Review techniques to retrieve survivors.

(18) Discuss raft management including distribution of duties to passengers and ongoing physiological effects of the situation.

(19) Discuss long term water survival techniques or strategies.

(20) Discuss static line breaking strain.

(21) Discuss transporting incapacitated persons from the aircraft into the rafts.

(c) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or action) with other crewmembers during the drill, as appropriate.

13. Jumpseat Drill (Job Performance)

(a) *Environment:* Each flight attendant must complete a flight attendant jumpseat drill by using at least one type of installed flight attendant jumpseat from an aircraft on which the flight attendant will be qualified to serve.

(b) *Task:* This is an emergency drill requirement that the flight attendant must complete for the certificate holder for which the flight attendant is employed. This drill is not required if the flight attendant has completed any drill using at least one type of installed flight attendant jumpseat from an aircraft on which the flight attendant will be qualified to serve during an exit device operation drill or evacuation drill. During the completion of proficiency drills, the flight attendant must operate at least one exit starting from a seated position on at least one type of installed flight attendant jumpseat from an aircraft on which the flight attendant will be qualified to serve during an exit device operation drill, evacuation drill or flight attendant jumpseat drill.

(c) The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Preflight check of the flight attendant jumpseat.

(2) Properly secure restraint system.

(3) Demonstrate brace position appropriate for flight attendant jumpseat location on aircraft, as per certificate holder procedures.

(4) Proper methods of releasing restraint device, in accordance with per certificate holder procedures.

(5) Proper method of stowing flight attendant jumpseat and restraint system, in accordance with certificate holder procedures.

(d) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or action) with other crewmembers during the drill, as appropriate..

END QPS REQUIREMENT

BEGIN INFORMATION

(e) Proper use of the flight attendant jumpseat and restraint system is integral to a flight attendant being able to initiate an effective aircraft evacuation. The rule has a requirement for flight attendants who receive initial or transition training on any aircraft type to receive academic training on the use the flight attendant jumpseat for that aircraft type. In addition, the rule requires job performance training in each flight attendant jumpseat by aircraft type during basic qualification training or Aircraft Operating Experience (AOE).

(f) Flight attendants will not always be seated in their jumpseats when they initiate the commands and actions to open an exit in the emergency mode during an evacuation. For example, a flight attendant could be in the cabin performing safety related duties during aircraft taxi, or in the cabin of an aircraft that is parked at the gate during boarding when an evacuation may need to be initiated. The drill allows the certificate holder to give flight attendants the opportunity to reinforce effective jumpseat techniques during exit operation, but allows certificate holders the flexibility to incorporate other ''starting points'' into exit device operation scenarios.

END INFORMATION

BEGIN QPS REQUIREMENT

B. Subject: One Time Job Performance Drills

1. Ditching Survival Drill (Wet Training Environment) (Job Performance)

(a) *Environment:* The certificate holder may substitute a raft, provided there are no substantive differences with respect to weight, dimension, appearance, features, and operations, and the certificate holder provides differences training approved by the Administrator.

(b) *Task:* This is a one-time emergency drill requirement that the flight attendant must accomplish for the certificate holder for which the flight attendant is employed. This one time drill must be given in basic qualification or transition training, whichever training initially qualifies the flight attendant to serve on an airplane that is used for extended overwater operations.

(c) Activities prior to raft boarding may be done in classroom, airplane, or airplane mockup. Raft boarding and subsequent activities must be done in water.

(d) *Task:* The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Don and use life vest as a means of flotation.

(2) Use flotation seat cushion for adult and child or infant.

(3) Board the raft.

(4) Demonstrate effective raft management (e.g., distribute passengers and deploy sea anchor).

(5) Use heaving lines and life lines.

(6) Erect the raft canopy.

(7) Manage passengers, including distribution of duties to passengers.

(e) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or action) with other crewmembers during the drill, as appropriate.

2. Emergency Evacuation Egress Slide Drill (Job Performance)

(a) *Environment:* Each flight attendant must complete an emergency evacuation slide drill by egressing the aircraft or approved training device using at least one type of installed emergency evacuation slide from an aircraft on which the flight attendant will be qualified to serve.

(b) *Task:* This drill is required when the flight attendant is qualifying on an aircraft that is equipped with emergency evacuation slides. This drill is not required if the flight attendant egresses the aircraft or approved training device using at least one type of installed emergency evacuation slide from an aircraft on which the flight attendant will be qualified to serve during the evacuation drill. (*See* paragraph V.A.10 of this attachment.)

(c) This is a one-time emergency drill requirement that the flight attendant must complete for the certificate holder for which the flight attendant is employed. This one time drill must be given in basic qualification, transition training, or recurrent training, whichever training initially qualifies the flight attendant to serve on an aircraft with evacuation slides.

(d) The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Observe the airplane exits being opened in the emergency mode and the associated exit slide or slide raft pack being deployed and inflated or perform the tasks resulting in the completion of these actions (if not completed during the emergency evacuation including the use of a slide observation drill).

(2) Use the correct method to egress the aircraft and descend the slide.

(e) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or action) with other crewmembers during the drill, as appropriate.

3. Emergency Evacuation Egress Drill (Job Performance)

(a) *Environment:* Each flight attendant must complete an emergency evacuation drill by egressing the aircraft or approved training device using at least one type of installed emergency exit, from an aircraft on which the flight attendant will be qualified to serve.

(b) *Task:* This is a one-time emergency drill requirement that the flight attendant must complete for the certificate holder for which the flight attendant is employed. This one time drill must be given in basic qualification or transition, whichever training initially qualifies the flight attendant to serve on an aircraft that is not equipped with evacuation slides. An emergency exit that has stairs may not be used.

(c) The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Observe the aircraft exits being opened in the emergency mode or perform the tasks resulting in the completion of these actions

(2) Use the correct method to egress the aircraft, or training device that is representative of the aircraft in relation to sill height from the ground or window exit to the wing.

(d) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or action) with other crewmembers during the drill, as appropriate.

END QPS REQUIREMENT

BEGIN INFORMATION

(e) If the flight attendant will be qualified to serve on an aircraft with emergency evacuation slides (e.g., B–737), as well as an aircraft that does not have emergency evacuation slides (e.g., CRJ), then the flight attendant must complete both the emergency evacuation egress slide drill and the emergency evacuation egress drill. To achieve a realistic training environment, certificate holders are encouraged to integrate these drills into other required performance drill scenarios.

Examples:

(1) If a flight attendant qualifies on a B–737 and a CRJ in basic qualification training, then the flight attendant must complete an emergency evacuation egress slide drill and an emergency evacuation egress drill.

(2) If a flight attendant qualifies on CRJ in basic qualification training, then the flight attendant must complete an emergency evacuation egress drill.

(3) If a flight attendant qualifies on B–737 in basic qualification training and the certificate holder acquires a CRJ 2 years later and the flight attendant has transition training on the CRJ, then the flight attendant must complete and emergency evacuation egress slide drill during basic qualification training and an emergency evacuation egress drill during transition training on the CRJ.

(4) If a flight attendant qualifies on a CRJ in basic qualification training, the certificate holder acquires B–737s 2 years later, and the flight attendant has transition training on the B–737, then the flight attendant must complete an emergency evacuation egress drill during basic qualification training and an emergency evacuation egress slide drill during transition training on the B–737.

END INFORMATION

BEGIN QPS REQUIREMENT

C. Subject: Observation Drills

1. Task: Removal From the Aircraft or Training Device and Inflation of Each Type of Installed Life Raft (Observation Drill)

(a) *Environment:* See paragraph IV.F. of this attachment.

(b) *Task:* The flight attendant must complete the following during the observation drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Specific attachment points in the aircraft.

(2) How and where to attach life raft to aircraft.

(3) Safe inflation techniques.

(4) Launching points.

(5) Righting overturned rafts, if applicable.

2. Task: Deployment, Inflation and Detachment From the Aircraft of Each Type of Installed Slide or Slide Raft Pack (Observation Drill)

(a) *Environment: See* paragraph IV.F. of this attachment.

(b) *Task:* The flight attendant must complete the following during the observation drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Proper use of the exit operating handle.

(2) Location and color of the inflation handle.

(3) Demonstration of forces and actions required to inflate slide or slide raft.

(4) Sound of inflating slide or slide raft.

(5) Proper inflation and position of the slide or slide raft.

(6) Location of the ditching handle or laces.

(7) Demonstration of the forces and actions required to use the ditching handle including secondary actions.

(8) Lanyard and the removal or cutting of lanyard using the certificate holder's procedures.

(9) Righting overturned rafts, if applicable.

3. Task: Emergency Evacuation Including the Use of a Slide (Observation Drill)

(a) *Environment:* See paragraph IV.F. of this attachment.

(b) *Task:* The flight attendant must complete the following during the observation drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Correct methods of evacuation.

(2) Correct methods of entering the slide.

(3) Necessity for helpers at the bottom of slide.

4. Task: Non-Floor Level Exits in the Flight Deck Through Which a Crewmember May Egress the Aircraft (Observation Drill)

(a) *Environment: See* paragraph IV.F. of this attachment.

(b) *Task:* Each flight attendant must observe the operation of any additional exits in the flight deck that crewmembers may use to egress the aircraft type for which the flight attendant is qualifying. The flight attendant may receive AOE credit for observing the exit operation on the aircraft or in an approved training device. The flight attendant must complete the following during the observation drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Assesses conditions outside the exit to determine exit usability.

(2) Correct use of the exit operating mechanism including hand and body position.

(3) Use of proper terms and procedures.

(4) Correct positioning of the escape device.

(5) Method to secure exit in fully opened position or ensuring correct stowage position.

(6) Knows appropriate protective hand and body positions.

(7) Access to escape tapes, escape ropes or inertial reels.

5. Task: Flight Deck Fixed Oxygen System (Observation Drill)

(a) *Environment: See* paragraph IV.F. of this attachment.

(b) *Task:* The flight attendant must complete the following during the observation drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Access oxygen mask and remove from stowage.

(2) Use of proper procedures to don oxygen mask and activate oxygen in proper sequence for an emergency.

(3) Re-securing of equipment.

(4) Observe the locations of the flight deck fixed oxygen system during AOE flight.

VI. Emergency Training Drills—Aircraft Specific (*see* § 121.1373)

A. Subject: Exit Device Operation

1. Task: Floor Level Door Exit Device Operation (Normal Mode) (Job Performance)

(a) *Environment:* See paragraph IV.F. of this attachment. Equipment may be substituted provided there is no substantive difference with respect to weight, dimensions and appearance and the flight attendant has been provided with training on differences between training equipment and the actual aircraft exit. Equipment may not be substituted if the forces and actions necessary to operate the equipment are different or if the operating mechanism is different.

(b) *Task:* The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Identify signal and conditions under which each door can be opened and closed.

(2) Assess the exterior and interior conditions for obstacles or hazards to persons or the exit during the opening and closing (*e.g.*, jetway, stairs, barrier straps).

(3) Follow procedure to ensure flight attendant awareness at armed boarding door prior to aircraft pushback.

(4) Identify signal for arming and disarming.

(5) Coordinate and communicate.

(6) Properly arm and disarm the exit.

(7) Verify girt bar placement for armed and disarmed.

(8) Verify door is in the correct mode.

(9) Use proper techniques for the operating mechanism (such as door handles to open exit and secure in locked position).

(10) Secure safety strap then unsecure safety strap; release locking mechanism.

(11) Properly use control handles to close exit and secure in locked position.

(c) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or action) with other crewmembers during the drill, as appropriate.

2. Task: Floor Level Door Exit Device Operation (Emergency Mode) (Job Performance)

(a) *Environment:* See paragraph IV.F. of this attachment. Equipment may be substituted provided there is no substantive difference with respect to weight, dimensions and appearance and the flight attendant has been provided with training on differences between training equipment and the actual aircraft exit. Equipment may not be substituted if the forces and actions necessary to operate the equipment are different or if the operating mechanism is different.

(b) *Task:* The drill and door operations must be performed in a manner that resembles an actual evacuation. The flight attendant's voice commands and actions during the drill must be aggressive and easily understood. The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Position escape device.

(2) Verify the exit is in the correct mode.

(3) Recognize the signal for or the conditions under which the exit is to be opened in the emergency mode.

(4) Use proper voice commands to passengers.

(5) Assess conditions outside the exit to determine the exit usability (e.g., clear of obstruction, fire, aircraft attitude).

(6) Open the exit in the armed mode and secure the exit in the fully open position.

(7) Hold onto assist handle.

(8) Pull the manual inflation handle(s) and verify deployment, inflation (e.g., ramp, slide).

(9) Maintain appropriate protective body and hand positions.

(10) Follow crew coordination procedures.

(11) Access release handle(s) (*e.g.*, Slide disconnect, jettison tailcone, ventral stairs).

(12) Recognition of when it is appropriate to exit the aircraft.

(c) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or action) with other crewmembers during the drill, as appropriate. In addition, the flight attendant must:

(1) Be aware of passenger flow and traffic to all exits during the evacuation.

(2) Be aware of additional exit responsibilities.

3. Task: Cabin Window Exit Device and Plug or Hatch Exit Device Operation (Job Performance)

(a) *Environment:* See paragraph IV.F. of this attachment. Equipment may be substituted provided there is no substantive difference with respect to weight, dimensions and appearance and the flight attendant has been provided with training on differences between training equipment and the actual aircraft exit. Equipment may not be substituted if the forces and actions necessary to operate the equipment are different or if the operating mechanism is different.

(b) *Task:* The drill and door operations must be performed in a manner that resembles an actual evacuation. Commands must be aggressive and easily understood. Each flight attendant must operate each cabin window exit device and plug or hatch exit device, which has a different operating mechanism. The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Recognize the signal for or the conditions under which the exit is to be opened.

(2) Assess conditions outside the exit to determine exit usability (*e.g.*, clear of obstruction, fire, aircraft attitude).

(3) Open and correctly stow the exit (if applicable).

(4) Give commands to passengers for exiting exit.

(5) Verbally describe correct exit placement following removal (if applicable) if the training procedures differ from the operational procedures.

(6) Pull the manual inflation handle (if applicable) and verify deployment (*e.g.*, slide ramp), if applicable.

(7) Assume and maintain appropriate protective body and hand positions.

(8) Access escape tapes or escape ropes.

(c) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or action) with other crewmembers during the drill, as appropriate. In addition, the flight attendant must:

(1) Be aware of passenger flow and traffic to all exits during the evacuation.

(2) Be aware of additional exit responsibilities.

4. Task: Any Additional Emergency Exits Required for Type Certification (Job Performance)

(a) *Environment: See* paragraph IV.F. of this attachment. Equipment may be substituted provided there is no substantive difference with respect to weight, dimensions and appearance and the flight attendant has been provided with training on differences between training equipment and the actual aircraft exit. Equipment may not be substituted if the forces and actions necessary to operate the equipment are different or if the operating mechanism is different.

(b) *Task:* The drill and door operations must be performed in a manner that resembles an actual evacuation. Commands must be aggressive and easily understood. Each flight attendant must operate any additional emergency exit devices required for type certification through which crewmembers or passengers may egress the aircraft. In the case of some aircraft, an exit required for type certification may be located on the flight deck. In this case, the flight attendant must complete performance drills on that exit. The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Recognize the signal for or the conditions under which the exit is to be opened.

(2) Assess conditions outside the exit to determine exit usability (*e.g.*, clear of obstruction, fire, aircraft attitude).

(3) Open and correctly stow the exit (if applicable).

(4) Give commands to passengers for exiting exit.

(5) Verbally describe correct exit placement following removal (if applicable) if the training procedures differ from the operational procedures.

(6) Pull the manual inflation handle (if applicable) and verify deployment (*e.g.*, slide ramp), if applicable.

(7) Assume and maintain appropriate protective body and hand positions.

(8) Access escape tapes or escape ropes and access release handle(s) (*e.g.*, slide disconnect).

(c) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or action) with other crewmembers during the drill, as appropriate. In addition, the flight attendant must:

(1) Be aware of passenger flow and traffic to all exits during the evacuation.

(2) Be aware of additional exit responsibilities.

END QPS REQUIREMENT

BEGIN INFORMATION

(d) The Type Certification Data Sheets for all aircraft are available online at: *http://www.airweb.faa.gov/Regulatory_and_Guidance_Library/rgMakeModel.nsf/MainFrame?OpenFrameSet.*

B. [Reserved]

Attachment 3 of Appendix S to Part 121

Training and Evaluation Requirements for Flight Attendant Training Curricula (Basic Qualification), Categories (New Hire, Initial, Transition, Emergency, Recurrent, and Requalification), and Aircraft Operating Experience

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BEGIN QPS REQUIREMENT

A. Training and Evaluation Requirements (see §§ 121.1301, 121.1331, 121.1341, 121.1343, 121.1361)

1. How must the task requirements required for instruction and evaluation in each curriculum be determined?

(a) To determine the tasks in which each flight attendant must be trained and evaluated, the certificate holder must use the task listings provided in the following table. The tasks must be specific to the aircraft types (as appropriate), and must be adjusted for and kept current with the certificate holder's operation as reflected in the FAA approved operations specifications and FAOM, as amended.

(b) If the certificate holder adds tasks or environments to those listed in Table 2A, it must further develop the tasks or environments to include the requirement and frequency for training and evaluation in each specific category of training listed in the table. These changes must be submitted to the POI for approval.

(c) The recurrent curriculum requirements in the following table also include the frequency during which each flight attendant must be trained and evaluated in each task. The table indicates which tasks must be completed by each flight attendant every 12 months. The table also indicates which tasks must be completed by each flight attendant once every 36 months.

2. Individuals authorized to administer flight attendant training, evaluation, and aircraft operating experience

TABLE 3A—PERSONS AUTHORIZED TO ADMINISTER FLIGHT ATTENDANT TRAINING, EVALUATION, AND OBSERVATION ACTIVITIES UNDER SUBPART BB—SEE § 121.1323 OF THIS PART FOR SPECIAL LIMITED AUTHORIZATIONS FOR INITIAL CADRE PERSONNEL

[See §§ 121.1291,121.1321, 121.1323, 121.1387]

Flight attendant training, evaluation, and observation activities under subpart BB (by aircraft type)	Employer and position						
	Other contractor		Part 142 or other part 119 certificate holder		The part 119 certificate holder		FAA
	Flight attendant instructor [4]	Subject matter expert [3]	Flight attendant instructor [4]	Check flight attendant [1]	Flight attendant instructor [4]	Check flight attendant [1]	Aviation safety inspector (cabin safety)
Academic Training (New Hire, Initial, Emergency, Differences, Recurrent, and Requalification)	X	X	X	X	X	X	
Proficiency Test [2] (Emergency, Recurrent, Requalification)					X	X	X
Supervision of Operating Experience						X	
Proficiency Check (Aircraft Operating Experience)						X	X

[1] Requires authorization by the Administrator for specific duties to be performed.
[2] Persons qualified to administer proficiency tests, with the exception of FAA Aviation Safety Inspectors (Cabin Safety), must meet the requirements of § 121.1387 of this part.
[3] Subject Matter Experts, who meet the requirements of § 121.1291 of this part and this QPS, may conduct specific flight attendant training.
[4] Persons qualified to administer flight attendant training must meet the requirements of § 121.1291 of this part.

END QPS REQUIREMENT

BEGIN INFORMATION

(a) A flight attendant instructor may not be physically able to perform certain performance drills due to injury, pregnancy, or disability. Therefore, the FAA allows those individuals to complete the required training to qualify as a flight attendant instructor, with the exception of those performance drills the person can not physically perform. However, the FAA only allows flight attendant instructors to instruct in performance drills that they were able to physically perform within the past 12 months as part of basic qualification or recurrent flight attendant training.

(b) [Reserved]

END INFORMATION

BEGIN QPS REQUIREMENT

3. The use of Subject Matter Experts

(a) Under § 121.1291, a subject matter expert, with specific technical knowledge on a subject, may be used to conduct training on specific tasks, in accordance with the following:

(1) Except as provided in paragraph A.3.(a)(2) of this attachment, when flight attendant training is provided by a subject matter expert, a qualified flight attendant instructor must be present.

(2) Subject matter experts in certain subject areas may provide flight attendant training on the following specific tasks without a qualified flight attendant instructor present:

(i) Firefighting and firefighting equipment.

(ii) Emergency medical events and emergency medical equipment.

(iii) Hazardous materials recognition.

(b) [Reserved]

END QPS REQUIREMENT

BEGIN INFORMATION

4. How to determine flight attendant eligibility for Requalification Training

TABLE 3B—FLIGHT ATTENDANT: REQUALIFICATION

[§ 121.1309]

No person may serve as a flight attendant if that person becomes unqualified by failing to meet Recurrent training requirements	
To be requalified the flight attendant must complete § 121.1301, as applicable, or comply with the appropriate phase of Requalification	
If the flight attendant has been unqualified for:	Then the flight attendant may requalify by completing:
Less than 12 months:	
A flight attendant who misses Recurrent training but does not miss a complete Recurrent Flight Attendant Training Cycle.	Phase I Requalification (§ 121.1309(a)(1)): • Current Recurrent Flight Attendant Training Cycle. • Base month not changed.
A flight attendant that misses an entire Recurrent Flight Attendant Training Cycle.	Phase I Requalification (§ 121.1309(a)(2)): • Current Recurrent Flight Attendant Training Cycle. • Complete all study materials and evaluations from the previous Recurrent Flight Attendant Training Cycle.

TABLE 3B—FLIGHT ATTENDANT: REQUALIFICATION—Continued

[§ 121.1309]

No person may serve as a flight attendant if that person becomes unqualified by failing to meet Recurrent training requirements	
To be requalified the flight attendant must complete § 121.1301, as applicable, or comply with the appropriate phase of Requalification	
If the flight attendant has been unqualified for:	Then the flight attendant may requalify by completing:
12 months or more, but less than 24 months:	• Flight attendants qualified in extended overwater operations must participate in a cabin preparation and evacuation drill (water) if the drill is not part of the current Recurrent Flight Attendant Training Cycle. • Base month may change. Phase II Requalification: • Current Recurrent Flight Attendant Training Cycle. • Complete all study materials and evaluations from the previous Recurrent Flight Attendant Training Cycle. • Flight attendants qualified in extended overwater operations must participate in a cabin preparation and evacuation drill (water) if the drill is not part of the current Recurrent Flight Attendant Training Cycle. • Base month may change. • Ground based briefing with a representative from the certificate holder. The purpose of this briefing is to cover all new policies procedures or security requirements applicable to flight attendant duties that have been updated, modified or implemented since the person last served as a flight attendant for that certificate holder.
24 months or more:	Phase III Requalification • Basic Qualification Training. • Base month may change. • 5 hours of aircraft operating experience and two operating cycles on at least one aircraft type.

(a) When a flight attendant does not complete recurrent training during the eligibility period, the flight attendant is unqualified on the first day of the month following the grace month. For example, if a flight attendant's base month is February, the flight attendant has until March 31st to complete recurrent training. If the flight attendant does not complete recurrent training by March 31st, the flight attendant becomes unqualified and unable to serve on April 1st. For purposes of determining the applicable phase of requalification, the flight attendant's base month must be used without considering the grace month. Therefore, in the example above, the base month (February) instead of the grace month (March) would be used to determine the applicable phase of requalification.

(b) [Reserved]

5. How to determine the requirements for Aircraft Operating Experience

The following chart illustrates the proposed requirements.

TABLE 3C—AIRCRAFT OPERATING EXPERIENCE (AOE)

(§ 121.1305)

On whose airplanes?	For the certificate holder for which the flight attendant will serve.
What kind of flight?	Passenger carrying revenue flight or in proving flights.
When must it be completed?	AOE must be completed within 90 days of completing Initial training.
Who supervises it?	A check flight attendant.
How many people can one check flight attendant supervise on one flight?.	Not more than four.
How many check flight attendants can supervise people on each flight?.	Not more than two.
Are there any other limits on the number of people accomplishing this on each flight?.	The number of persons receiving aircraft operating experience on an aircraft may not exceed twice the number of flight attendants required by § 121.391 for that aircraft.
What duties must people receiving AOE perform?	The assigned duties of a flight attendant.
Can the person be a required flight attendant?	No.
What is the requirement for completing AOE?	At least 5 hours total combined AOE with at least two operating cycles on each aircraft type. If the flight attendant is qualifying on one aircraft type, the flight attendant must have at least 5 hours of AOE on that aircraft type and complete two operating cycles on that aircraft type. If the flight attendant is qualifying on three aircraft types, the flight attendant must have at least 5 hours of AOE total and complete six operating cycles, two on each aircraft type.

6. How to Determine the Requirements for Recency

The following chart illustrates the proposed requirements.

TABLE 3D—FLIGHT ATTENDANT: RECENT EXPERIENCE
(§ 121.1307)

To reestablish recent experience the person must do the following:

If the person has not served as a flight attendant for the certificate holder for more than 6 months, but less than 36 months the person must. (§ 121.1307(b)(2))	Participate in a ground based briefing with a person employed by the certificate holder. The purpose of this briefing is to cover any new policies, procedures, and security requirements pertinent to flight attendant duties that have been updated, modified or implemented since the last time the person served as a flight attendant for that certificate holder.
If the person has not served as a flight attendant for the certificate holder for 36 months or more the person must. (§ 121.1307(b)(3))	(a) Participate in a ground based briefing with a person employed by the certificate holder. The purpose of this briefing is to cover any new policies, procedures, and security requirements pertinent to flight attendant duties that have been updated, modified or implemented since the last time the person served as a flight attendant for that certificate holder. (b) Serve as a flight attendant for one operating cycle on any aircraft type for that certificate holder, but not as a required crewmember.

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TABLE 3E
SECTION A: BASIC QUALIFICATION CURRICULUM AND TRANSITION TRAINING CATEGORY

Task Requirements	New Hire Training						Emergency Training						Initial Training						Aircraft Operating Experience (AOE)						Transition Training					
	Train		Test		Check		Train		Test		Check		Train		Test		Check		Train		Test		Check		Train		Test		Check	
	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency
II. General Task Requirements																														
A. Area of Instruction: Flight Attendant Duties and Responsibilities – Normal Operations																														
1. Subject: Preflight																														
Tasks:																														
(a) General	X	X	X																	X			X							
(b) Crewmember Briefing	X	X	X																					X						
(c) Cabin and Galley Security	X																													
(d) Check of Emergency Equipment	X	X	X																	X				X						
(e) Check of Safety Equipment	X	X	X																					X						
(f) Galley Check	X	X	X																					X						
(g) Check of Cabin and Cabin Systems	X	X	X																					X						
2. Subject: Pre-Movement on Surface																														
Tasks:																														
(a) General	X	X	X																					X						
(b) Passenger Boarding	X	X	X																					X						

TABLE 3E
SECTION A: BASIC QUALIFICATION CURRICULUM AND TRANSITION TRAINING CATEGORY

Task Requirements	New Hire Training						Emergency Training						Initial Training						Aircraft Operating Experience (AOE)						Transition Training					
	Train		Test		Check		Train		Test		Check		Train		Test		Check		Train		Test		Check		Train		Test		Check	
	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency
(c) Passengers with Disabilities	X	X	X																				X							
(d) Galley Security	X	X	X																					X						
(e) Preparation of Exits[1]	X	X	X																	X				X						
(f) Compliance Check	X	X	X																					X						
3. Subject: Ground Movement																														
Tasks:																														
(a) General	X		X																					X						
(b) Passenger Information	X	X	X																	X				X						
(c) Sterile Flight Deck Procedures	X	X	X																					X						
(d) Compliance Check[1]	X	X	X																	X				X						
4. Subject: Inflight																														
Tasks:																														
(a) General[1]	X	X	X																	X										
(b) Inflight Procedures	X	X	X																	X										
(c) Passenger Information	X	X	X																					X						
(d) Passenger Handling Procedures	X	X	X																					X						
(e) Proper Use of Service Carts and Service Equipment	X	X	X																					X						
(f) Communication and Coordination Procedures	X	X	X																				X							

TABLE 3E
SECTION A: BASIC QUALIFICATION CURRICULUM AND TRANSITION TRAINING CATEGORY

Task Requirements	New Hire Training						Emergency Training						Initial Training						Aircraft Operating Experience (AOE)						Transition Training					
	Train		Test		Check		Train		Test		Check		Train		Test		Check		Train		Test		Check		Train		Test		Check	
	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency
(g) Pre-Landing	X	X	X																					X						
(h) Sterile Flight Deck Procedures	X	X	X																				X							
(i) Compliance Check[1]	X	X	X																					X						
5. Subject: Arrival																														
Tasks:																														
(a) General	X	X	X																				X							
(b) Preparation of Exits[1]	X	X	X																	X				X						
(c) Passenger Handling	X	X	X																					X						
(d) Cabin Security	X	X	X																					X						
6. Subject: During Stops																														
Tasks:																														
(a) General	X	X	X																				X							
(b) Aircraft Refueling	X		X																				X							
7. Subject: Federal Aviation Regulations																														
Tasks:																														
(a) General	X		X																				X							
(b) Pertinent to Flight Attendant Performance of Assigned Duties	X		X																				X							
8. Subject: Certificate Holder's Manual System																														
Tasks:																														

	TABLE 3E SECTION A: BASIC QUALIFICATION CURRICULUM AND TRANSITION TRAINING CATEGORY																											
	New Hire Training						Emergency Training						Initial Training						Aircraft Operating Experience (AOE)						Transition Training					
	Train		Test		Check		Train		Test		Check		Train		Test		Check		Train		Test		Check		Train		Test		Check	
Task Requirements	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency
(a) Crew Operating Manual **[FAOM?]**	X	X	X																									
(b) Scheduling and Station Operations Policies and Procedures	X	X	X																									
9. Subject: Contents of Certificate Holder's Operations Specifications																												
Tasks:																												
(a) General	X		X																									
(b) Exit Seat Program and Procedures	X	X	X																			X						
(c) Carry on Baggage Program and Procedures	X	X	X																			X						
(d) Minimum Equipment List	X		X																									
10. Subject: Crew Resource Management																												
Tasks:																												
(a) Authority of Pilot in Command													X	X	X													
(b) Communication Processes and Decisions													X	X	X													
(c) Building and Maintenance of a Flight Team													X	X	X													

	TABLE 3E SECTION A: BASIC QUALIFICATION CURRICULUM AND TRANSITION TRAINING CATEGORY																											
	New Hire Training						Emergency Training						Initial Training						Aircraft Operating Experience (AOE)						Transition Training					
	Train		Test		Check		Train		Test		Check		Train		Test		Check		Train		Test		Check		Train		Test		Check	
Task Requirements	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency
(d) Workload Management and Situational Awareness													X	X	X													
(e) Communication and Coordination													X	X	X													
(f) Crewmember Briefing													X	X	X													
(g) Communication and Coordination During a Passenger Interference Situation													X	X	X													
(h) Communication and Coordination During an Emergency Situation													X	X	X													
11. Subject: Theory of Flight																												
Tasks:																												
(a) Components of Aircraft													X		X													
(b) Principles of Flight													X		X													
(c) Critical Surfaces and Associated Hazards													X		X													
(d) Aviation Terminology													X		X													
B. Area of Instruction: Flight Attendant Duties and Responsibilities – Abnormal Situations																												

	TABLE 3E SECTION A: BASIC QUALIFICATION CURRICULUM AND TRANSITION TRAINING CATEGORY																											
	New Hire Training						Emergency Training						Initial Training						Aircraft Operating Experience (AOE)						Transition Training					
	Train		Test		Check		Train		Test		Check		Train		Test		Check		Train		Test		Check		Train		Test		Check	
Task Requirements	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency
1. Subject: Handling Passengers Whose Conduct May Jeopardize Safety																												
Tasks:																												
(a) General													X	G	X													
(b) Passenger Interference													X	G	X													
(b) Smoking Ban Violations													X	G	X													
(d) Intoxication													X	G	X													
(e) Passenger Misconduct													X	G	X													
(f) Security Procedures													X															
C. Area of Instruction: Flight Attendant Duties and Responsibilities – Emergency																												
1. Subject: Emergency Equipment																												
Tasks:																												
(a) General Emergency Equipment							X	X	X																			
(b) Equipment used in Land and Water Evacuation							X		X																			

	TABLE 3E SECTION A: BASIC QUALIFICATION CURRICULUM AND TRANSITION TRAINING CATEGORY																											
	New Hire Training						Emergency Training						Initial Training						Aircraft Operating Experience (AOE)						Transition Training					
	Train		Test		Check		Train		Test		Check		Train		Test		Check		Train		Test		Check		Train		Test		Check	
Task Requirements	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency
(c) Emergency Medical Equipment							X		X																			
(d) Portable Fire Extinguishers							X		X																			
(e) All Exits Designed for Passenger or Crewmember Egress from the Aircraft							X		X																			
2. Subject: Emergency Situations																												
Tasks:																												
(a) Emergency Assignments and Procedures including Coordination among Crewmembers							X		X																			
(b) Decompression and physiological effects of high altitude							X	X	X																			
(c) Fire inflight or on the surface							X		X																			
(d) Land and Water Evacuation							X		X																			
(e) Illness, Injury or other Abnormal Situations							X		X																			
(f) Turbulence							X		X																			

	TABLE 3E SECTION A: BASIC QUALIFICATION CURRICULUM AND TRANSITION TRAINING CATEGORY																											
	New Hire Training						Emergency Training						Initial Training						Aircraft Operating Experience (AOE)						Transition Training					
	Train		Test		Check		Train		Test		Check		Train		Test		Check		Train		Test		Check		Train		Test		Check	
Task Requirements	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency
(g) Hijacking or Other Unusual Situations							X																					
(h) Aircraft Occurrences, Accidents, and Incidents							X																					
(i) Survival Skills							X		X																			
III. Aircraft Specific Task Requirements																												
A. Area of Instruction: For Each Aircraft Type																												
1. Subject: General Description of the Aircraft Cabin																												
Tasks:																												
(a) Aircraft Characteristics and Description													X		X										X		X			
(b) Cabin Configuration													X		X										X		X			
(c) Passenger Seats													X		X										X		X			
(d) Air Conditioning, Ventilation, and Pressurization Systems													X		X										X		X			
(e) Flight Attendant Jumpseats[1]													X	X	X					X					X	X	X			
(f) Flight Attendant Panels[1]													X	X	X					X					X	X	X			

	TABLE 3E SECTION A: BASIC QUALIFICATION CURRICULUM AND TRANSITION TRAINING CATEGORY																											
	New Hire Training						Emergency Training						Initial Training						Aircraft Operating Experience (AOE)						Transition Training					
	Train		Test		Check		Train		Test		Check		Train		Test		Check		Train		Test		Check		Train		Test		Check	
Task Requirements	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency
(g) Carry On Baggage Stowage[1]													X	X	X					X					X	X	X			
(h) Communication Systems[1]													X	X	X					X					X	X	X			
(i) Entertainment and Convenience Systems[1]													X	X	X					X					X	X	X			
(j) Flight Deck Configuration[1]													X	X	X					X					X	X	X			
(k) Galleys[1]													X	X	X					X					X	X	X			
(l) Lavatories[1]													X	X	X					X					X	X	X			
(m) Required Signs and Placards													X		X										X		X			
(n) Lighting and Electrical Systems[1]													X	X	X					X					X		X			
(o) Oxygen Equipment and Systems													X		X										X		X			
(p) Notification of Inoperative Equipment													X	G	X										X		X			
(q) Emergency Equipment Location													X		X					X					X		X			
(r) Exits through which a Passenger or Crewmember may Egress the Aircraft													X		X										X		X			
(s) Crewmember Rest Facilities													X		X										X		X			

TABLE 3E
SECTION A: BASIC QUALIFICATION CURRICULUM AND TRANSITION TRAINING CATEGORY

Task Requirements	New Hire Training						Emergency Training						Initial Training						Aircraft Operating Experience (AOE)						Transition Training					
	Train		Test		Check		Train		Test		Check		Train		Test		Check		Train		Test		Check		Train		Test		Check	
	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency
IV. Emergency Training Drill Requirements																														
V. Emergency Training Drills - General																														
A. Subject: Job Performance Drills																														
Tasks:																														
1. Operation of each type of installed hand fire extinguisher								I		X																				
2. Operation of each type of Portable Oxygen Equipment								I		X																				
3. Operation of each type of Fixed Oxygen System in the Cabin								I		X																				
4. Operation of each type of Protective Breathing Equipment								I		X																				
5. Operation of each type of installed life preserver and each type of individual flotation means								I		X																				
6. Operation of each type of Automated External Defibrillator								I		X																				

TABLE 3E
SECTION A: BASIC QUALIFICATION CURRICULUM AND TRANSITION TRAINING CATEGORY

Task Requirements	New Hire Training						Emergency Training						Initial Training						Aircraft Operating Experience (AOE)						Transition Training					
	Train		Test		Check		Train		Test		Check		Train		Test		Check		Train		Test		Check		Train		Test		Check	
	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency
7. Cardiopulmonary Resuscitation (CPR)								I				X																		
8. Protective Breathing Equipment and Fire Fighting Drill								I				X																		
9 Cabin Preparation and Evacuation Drills (Land and Water Evacuations)								G																						
10. Evacuation Drills								G																						
11. Equipment Mountings Drill								I				X																		
12. Ditching Survival Drill (Dry Training Environment)								G																						
13. Jumpseat Drill[1]								I												I										
B. Subject: One Time Performance Drills																														
Tasks:																														
1. Ditching Survival Drill (Wet Training Environment)								G																						
2. Emergency Evacuation Egress Slide Drill								I																						

	TABLE 3E SECTION A: BASIC QUALIFICATION CURRICULUM AND TRANSITION TRAINING CATEGORY																											
	New Hire Training						Emergency Training						Initial Training						Aircraft Operating Experience (AOE)						Transition Training					
	Train		Test		Check		Train		Test		Check		Train		Test		Check		Train		Test		Check		Train		Test		Check	
Task Requirements	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency
3. Emergency Evacuation Egress Drill								I																				
C. Subject: Observation Drills																												
Tasks:																												
1. Removal from aircraft or training device and inflation of each type of installed life raft.							X																					
2. Deployment, inflation and detachment from the aircraft of each type of installed slide or slide raft pack							X																					
3. Emergency evacuation including the use of a slide (if applicable)							X																					
4. Non-Floor Level Exits in the Flight Deck Through Which a Crewmember May Egress the Aircraft							X		X										X									
5. Flight Deck Fixed Oxygen System							X												X									
VI. Emergency Training Drills - Aircraft Specific																												

	TABLE 3E SECTION A: BASIC QUALIFICATION CURRICULUM AND TRANSITION TRAINING CATEGORY																											
	New Hire Training						Emergency Training						Initial Training						Aircraft Operating Experience (AOE)						Transition Training					
	Train		Test		Check		Train		Test		Check		Train		Test		Check		Train		Test		Check		Train		Test		Check	
Task Requirements	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency
A. Subject: Exit Device Operation																												
Tasks:																												
1. Floor Level Door Exit Operation (Normal Mode)								I		X																I		X		
2. Floor Level Door Exit Operation (Emergency Mode)								I		X																I		X		
3. Cabin Window Exit and Plug and Hatch Exit Operation								I		X																I		X		
4. Any Additional Emergency Exits Required for Type Certification								I		X																I		X		

TABLE 3E
SECTION B: RECURRENT AND REQUALIFICATION CATEGORIES OF TRAINING

Task Requirements And Performance Standards	Recurrent Training						Requalification Training Phase I						Requalification Training Phase II						Requalification Training Phase III						Phase III Requalification Aircraft Operating Experience (AOE)*					
	Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check	
	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency
General Requirements																														
I. Area of Instruction: Flight Attendant Duties and Responsibilities – Normal Operations																														
A. Subject: Preflight	**T**		**T**																											
Tasks:																														
1. General	3		X				R		X				R		X				X		X					X			X	
2. Crewmember Briefing	3		3				R		R				R		X				X	X	X									X
3. Cabin and Galley Security	3		3				R		R				R		X				X											
4. Check of Emergency Equipment	3		3				R		R				R		X				X	X	X					X				X
5. Check of Safety Equipment	3		3				R		R				R		X				X		X									X
6. Galley Check	3		3				R		R				R		X				X		X									X
7. Check of Cabin and Cabin Systems	3		3				R		R				R		X				X		X									X
B. Subject: Pre-Movement on Surface	**T**		**T**																											
Tasks:																														
1. General	3		X				R		X				R		X				X		X									X
2. Passenger Boarding	3		X				R		R				R		X				X		X									X
3. Passengers with Disabilities	3		3				R		R				R		X														X	
4. Galley Security	3		X				R		R				R		X				X		X									X
5. Preparation of Exits	3		X				R		R				R		X				X	X	X					X				X
6. Compliance Check	3		X				R		X				R		X				X		X									X
C. Subject: Ground Movement	**T**		**T**																											
Tasks:																														
1. General	3		X				R		R				R		X				X		X									X
2. Passenger Information	3		X				R		R				R		X				X	X	X					X				X
3. Sterile Flight Deck Procedures	3		3				R		R				R		X				X		X									X

TABLE 3E
SECTION B: RECURRENT AND REQUALIFICATION CATEGORIES OF TRAINING

Task Requirements And Performance Standards	Recurrent Training						Requalification Training Phase I						Requalification Training Phase II						Requalification Training Phase III						Phase III Requalification Aircraft Operating Experience (AOE)*					
	Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check	
	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency
4. Compliance Check	3		X				R		X				R		X				X	X	X					X				X
D. Subject: Inflight	**T**		**T**																											
Tasks:																														
1. General	3		3				R		R				R		X				X	X	X					X				
2. Inflight Procedures	3		3				R		R				R		X				X		X					X				
3. Passenger Information	3		3				R		R				R		X				X	X	X									X
4. Passenger Handling Procedures	3		3				R		R				R		X				X		X									X
5. Proper Use of Service Carts and Service Equipment	3		3				R		R				R		X				X		X									X
6. Communication and Coordination Procedures	3		X				R		X				R		X				X		X								X	
7. Pre-Landing	3		3				R		R				R		X				X		X									X
8. Sterile Flight Deck Procedures	3		3				R		R				R		X				X		X								X	
9. Compliance Check	3		X				R		X				R		X				X	X	X									X
E. Subject: Arrival	**T**		**T**																											
Tasks:																														
1. General	3		3				R		R				R		X				X		X								X	
2. Preparation of Exits	3		3				R		R				R		X				X	X	X					X				X
3. Passenger Handling	3		3				R		R				R		X				X		X									X
4. Cabin Security	3		3				R		R				R		X				X		X									X
F. Subject: During Stops	**T**		**T**																											
Tasks:																														
1. General	3		X				R		X				R		X				X		X								X	
2. Aircraft Refueling	3		3				R		R				R		X				X		X								X	

TABLE 3E
SECTION B: RECURRENT AND REQUALIFICATION CATEGORIES OF TRAINING

Task Requirements And Performance Standards	Recurrent Training						Requalification Training Phase I						Requalification Training Phase II						Requalification Training Phase III						Phase III Requalification Aircraft Operating Experience (AOE)*					
	Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check	
	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency
G. Subject: Federal Aviation Regulations	**T**		**T**																											
Tasks:																														
1. General	3		X				R		X				R		X				X		X							X		
2. Federal Aviation Regulations Pertinent to Flight Attendant Performance of Assigned Duties	3		X				R		X				R		X				X		X							X		
H. Subject: Certificate Holder's Manual System	**T**		**T**																											
Tasks:																														
1. Flight Attendant Operating Manual	3		3				R		R				R		X				X		X									
2. Scheduling and Station Operations Policies and Procedures	3		3				R		R				R		X				X		X									
I. Subject: Contents of Certificate Holder's Operations Specifications	**T**		**T**																											
Tasks:																														
1. General	3		3				R		R				R		X				X		X									
2. Exit Seating Program and Procedures	3		X				R		X				R		X				X		X									X
3. Carry on Baggage Program and Procedures	3		X				R		X				R		X				X		X									X
4. Minimum Equipment List	3		3				R		R				R		X				X		X									
J. Subject: Crew Resource Management	**T**		**T**																											
Tasks:																														

TABLE 3E
SECTION B RECURRENT AND REQUALIFICATION CATEGORIES OF TRAINING

	Recurrent Training						Requalification Training Phase I						Requalification Training Phase II						Requalification Training Phase III						Phase III Requalification Aircraft Operating Experience (AOE)*					
	Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check	
Task Requirements And Performance Standards	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency
1. Authority of Pilot in Command	3		3				R		R				R		X				X		X							
2. Communication Processes and Decisions	3	3					R	R					R	R	X				X		X							
3. Building and Maintenance of a Flight Team	3	3					R	R					R	R					X		X							
4. Workload Management and Situational Awareness	3	3					R	R					R	R					X		X							
5 Communication and Coordination	3	3	X				R	R	X				R	R	X				X		X							
6. Crewmember Briefing	3	3					R	R					R	R					X		X							
7. Communication and Coordination During a Passenger Interference Situation	3	3	X				R	R	X				R	R	X				X		X							
8. Communication and Coordination During an Emergency Situation	3		X				R		X				R		X				X		X							
K. Subject: Theory of Flight	**T**		**T**																									
Tasks:																												
1. Components of Aircraft	3		3				R		R				R		X				X		X							
2. Principles of Flight	3						R		R				R						X		X							
3. Critical Surfaces and Hazards	3		3				R		R				R		X				X		X							
4. Aviation Terminology							R		R				R						X		X							
II. Area of Instruction: Flight Attendant Duties and Responsibilities – Abnormal Situations																												
A. Subject: Handling Passengers	**T**		**T**																									

TABLE 3E
SECTION B: RECURRENT AND REQUALIFICATION CATEGORIES OF TRAINING

Task Requirements And Performance Standards	Recurrent Training						Requalification Training Phase I						Requalification Training Phase II						Requalification Training Phase III						Phase III Requalification Aircraft Operating Experience (AOE)*					
	Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check	
	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency
Whose Conduct May Jeopardize Safety																														
Tasks:																														
1. General	3		3				R		R				R		X				X	G	X									
2. Passenger Interference	3		X				R		X				R		X				X	G	X									
3. Smoking Ban Violations	3		3				R		R				R		X				X	G	X									
4. Intoxication	3		3				R		R				R		X				X	G	X									
5. Passenger Misconduct	3		3				R		R				R		X				X	G	X									
6. Security Procedures	3						R						R						X											
III. Area of Instruction: Flight Attendant Duties and Responsibilities – Emergency																														
A. Subject: Emergency Equipment	**T**		**T**																											
Tasks:																														
1. Preflight, Function , Location Operation and Limitations of Emergency Equipment	X		X				X		X				X		X				X		X									
2. Equipment used in Land and Water Evacuation	X		X				X		X				X		X				X		X									
3. Emergency Medical Equipment	X		X				X		X				X		X				X		X									
4. Portable Fire Extinguishers	X		X				X		X				X		X				X		X									
5. All Exits Designed for Passenger or Crewmember Egress from the Aircraft	X		X				X		X				X		X				X		X									

TABLE 3E
SECTION B: RECURRENT AND REQUALIFICATION CATEGORIES OF TRAINING

	Recurrent Training						Requalification Training Phase I						Requalification Training Phase II						Requalification Training Phase III						Phase III Requalification Aircraft Operating Experience (AOE)*					
	Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check	
Task Requirements And Performance Standards	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency
6. Survival Equipment	X		X				X		X				X		X				X		X									
A. Subject: Emergency Situations	**T**		**T**																											
Tasks:																														
1. Emergency Assignments and Procedures including coordination among crewmembers	X		X				X		X				X		X				X		X									
2. Decompression and physiological effects of high altitude	3		X				R		X				R		X				X		X									
3. Fire Inflight and on the Surface	3		X				R		X				R		X				X		X									
4. Land and Water Evacuation	3		X				R		X				R		X				X		X									
5. Illness, Injury or other Abnormal Situations	3		X				R		X				R		X				X		X									
6. Turbulence	3		X				R		X				R		X				X		X									
7. Hijacking or other Unusual Situations	X						X						X						X											
8. Aircraft Occurrences, Accidents and Incidents	X						X						X						X											
9. Survival Skills	3		X				R		X				R		X				X		X									
Aircraft Specific																														
I. Area of Instruction: For Each Aircraft Type																														
A. Subject: General Description of the Aircraft Cabin	**T**		**T**																											
Tasks:																														
1. Aircraft Characteristics and Description																			X		X									

TABLE 3E
SECTION B: RECURRENT AND REQUALIFICATION CATEGORIES OF TRAINING

Task Requirements And Performance Standards	Recurrent Training						Requalification Training Phase I						Requalification Training Phase II						Requalification Training Phase III						Phase III Requalification Aircraft Operating Experience (AOE)*					
	Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check	
	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency
2. Cabin Configuration																			X		X									
3. Passenger Seats																			X		X									
4. Air Conditioning, Ventilation and Pressurization Systems																			X		X									
5. Flight Attendant Jumpseats																			X	X	X					X				
6. Flight Attendant Panels																			X	X	X					X				
7. Carry on Baggage Stowage	3		X				R		X				R		X				X	X	X					X				
8. Communication Systems																			X	X	X					X				
9. Entertainment and Convenience Systems																			X	X	X					X				
10. Flight Deck Configuration																			X	X	X					X				
11. Galleys																			X	X	X					X				
12. Lavatories																			X	X	X					X				
13. Required Signs and Placards																			X		X									
14. Lighting and Electrical Systems																			X	X	X					X				
15. Oxygen Equipment and Systems																			X		X									
16. Notification of Inoperative Equipment																			X	G	X									
17. Emergency Equipment Location																			X		X					X				
18. Exits through which a passenger or crewmember may egress the aircraft																			X		X									
19. Crewmember Rest Facilities																			X		X									
Emergency Training Drills																														

TABLE 3E
SECTION B: RECURRENT AND REQUALIFICATION CATEGORIES OF TRAINING

Task Requirements And Performance Standards	Recurrent Training						Requalification Training Phase I						Requalification Training Phase II						Requalification Training Phase III						Phase III Requalification Aircraft Operating Experience (AOE)*					
	Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check	
	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency
I. Area of Instruction: General																														
A. Subject: Performance Drills																														
Tasks:																														
1. Operation of each type of installed hand fire extinguisher				X						X						X				I		X								
2. Operation each type of Portable Oxygen Equipment				X						X						X				I		X								
3. Operation of each type of Fixed Oxygen System				X						X						X				I		X								
4. Operation of each type of Protective Breathing Equipment				X						X						X				I		X								
5. Operation of each type of installed life preserver or individual flotation means				X						X						X				I		X								
6. Operation of each type of Automated External Defibrillator				X						X						X				I		X								
7. Cardiopulmonary Resuscitation		I						I						I						I				X						
8. Protective Breathing Equipment and Fire Fighting Drill		I						I						I						I				X						
9. Cabin Preparation and Evacuation Drill (Land and Water Evacuation)		G						G						G						G										
10. Evacuation Drills		G						G						G						G										
11. Bracket Drill		I						I						I						I				X						
12. Ditching Survival Drill (Dry Training Environment)		G						G						G						G										
13. Jumpseat Drill		I						I						I						I						I				

TABLE 3E
SECTION B: RECURRENT AND REQUALIFICATION CATEGORIES OF TRAINING

Task Requirements And Performance Standards	Recurrent Training						Requalification Training Phase I						Requalification Training Phase II						Requalification Training Phase III						Phase III Requalification Aircraft Operating Experience (AOE)*					
	Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check	
	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency
A. Subject: One Time Performance Drills																														
Tasks:																														
1. Ditching Survival Drill (Wet Training Environment)																														
2. Emergency Evacuation Slide Egress Drill																														
3. Emergency Evacuation Egress Drill																														
B. Subject: Observation Drills																														
Tasks:																														
1. Removal from airplane or training device and inflation of each type of installed life raft.	X						X						X						X											
2. Deployment, inflation and detachment from the airplane of each type of installed slide raft pack	X						X						X						X											
3. Emergency evacuation including the use of a slide (if applicable)	X						X						X						X											
4. Non-Floor Level exits in the Flight Deck Through Which a Crewmember May egress the Aircraft	X						X						X						X		X				X					
5. Flight Deck Oxygen System	X						X						X						X						X					
II. Area of Instruction: Aircraft Specific Performance Drills																														

TABLE 3E
SECTION B: RECURRENT AND REQUALIFICATION CATEGORIES OF TRAINING

Task Requirements And Performance Standards	Recurrent Training						Requalification Training Phase I						Requalification Training Phase II						Requalification Training Phase III						Phase III Requalification Aircraft Operating Experience (AOE)*					
	Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check		Train		Evaluate		Check	
	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency	Academic	Practice	Academic	Proficiency	Academic	Proficiency
A. Subject: Exit Device Operation																														
Tasks:																														
1. Floor Level Door (Normal Mode)				X						X						X				I		X								
2. Floor Level Door (Emergency Mode)				X						X						X				I		X								
3. Cabin Window Exit Device and Plug and Hatch Exit Device Operation				X						X						X				I		X								
4. Any Additional Exits Required for Type Certification				X						X						X				I		X								

LEGEND.
"1" Elements within this task may be practiced during either ground training or during AOE.
"X" indicates that each flight attendant must complete the task each time a category of training is completed.
"3" indicates that each flight attendant must complete the task at least once during three consecutive recurrent training cycles.
"G" indicates that the training and practice may be completed as an individual or in a group exercise, where the flight attendant participates or observes and provides feedback
"I" indicates that the training practice must be performed as an individual.
"R" indicates that the flight attendant must receive the training or evaluation in that task in accordance with the tasks covered during the recurrent training cycle(s) that were missed.
"T" indicates that recurrent training academic segments must include training and evaluation at the task level
* Flight attendant who is completing Phase III Re-qualification Aircraft Operating Experience must perform the identified items in the chart under the supervision of a check flight attendant while accomplishing the requirements of § 121.1309.

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34. Add appendix T to part 121 to read as follows:

Appendix T—Aircraft Dispatcher Qualification Performance Standards

Table of Contents

BEGIN INFORMATION

Introduction

A. What are Qualification Performance Standards (QPS)?

The QPS defines the FAA standards by providing all of the tasks, areas of training and evaluation, including activities, procedures, and knowledge needed to qualify and certificate aircraft dispatchers for performing in operations under this part. The QPS document for dispatchers is part 121 appendix T: Aircraft Dispatcher Qualification Performance Standards. This QPS will be used by certificate holders operating under part 121, by training center certificate holders when supporting certificate holders and other commercial operators that operate under part 121 and by Flight Standards personnel during approval, evaluation and surveillance of aircraft dispatcher training programs. The QPS incorporates a continuous analysis process which enables the certificate holder to maintain and refine the training process by continually monitoring the effectiveness and efficiency of the training program.

B. What types of materials are contained within this document?

This QPS contains Information and QPS Requirements.

1. Information: Explanations or suggestions, which clarify or support regulatory requirements, found in the Code of Federal Regulations or in this QPS document. Explanations or suggestions are provided as guidance and are not regulatory (not mandatory). This guidance appears under the heading ''BEGIN INFORMATION'' and uses the terms ''should'' or ''may'' to indicate that it is not mandatory.

2. QPS Requirements: Aircraft Dispatcher QPS requirements are regulatory and mandatory. These requirements appear under the heading ''BEGIN QPS REQUIREMENTS'' and use the terms ''must'' and ''may not.''

C. Can the reader rely solely on this document for aircraft dispatcher qualification and related training requirements?

No, do not rely solely on this document for regulatory requirements in these areas. The reader must also use 14 CFR part 121, subpart CC.

D. How can I get answers to questions about the contents of this appendix?

1. You may contact: U.S. Department of Transportation, Federal Aviation Administration Flight Standards Service, Air Transportation Division, AFS–210, 800 Independence Avenue, SW., Washington, DC 20591, Telephone: (202) 267–8166, Fax: (202) 267–5229.

2. You may find answers to questions on the Flight Standards Internet Web Site at: ''*http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afs/*.'' On this Web Site you will find Flight Standards Programs, Aviation Safety Inspector Handbooks and Documents, the current Aviation Regulations (14 CFR), Advisory Circulars, and other items of interest. Also linked from this site are additional information sources and other FAA links.

E. Why do we need a QPS for aircraft dispatchers?

1. To provide the certificate holder with a minimum set of standards for developing the following:

(a) Training and certification programs,

(b) Performance standards, and

(c) Evaluation criteria as they relate to the aircraft dispatcher job function.

2. To provide the certificate holder with the requirements for a continuous analysis process.

3. To provide routine and periodic update capability. This capability is needed to respond to accidents, incidents, or rapidly occurring changes to equipment and operations. All changes made to this appendix will be subject to public notice and comment, unless good cause exists to support a finding that notice and comment would be impracticable, unnecessary, or contrary to the public interest.

F. Where can each type of standard be found in the QPS?

1. Attachment 1 has the general knowledge and skills requirements.

2. Attachment 2 has the basic aircraft and specific aircraft type training requirements.

3. Attachment 3 contains generic training requirements for certification. With this attachment, certificate holders would have the option to provide additional training subjects, which

when combined with Attachments 1 and 2, would lead to the issuance of an aircraft dispatcher certificate.

4. Attachment 4 has the required evaluation requirements and performance standards for each task and knowledge area.

G. Where can definitions and acronyms be found?

The definitions relevant to this QPS appear in § 121.1405. Acronyms are as follows:

ACARS Aircraft Communications Addressing and Reporting System
ADPM Aircraft Dispatcher Procedures Manual
AFD Airport Facility Directory
AFM Airplane Flight Manual
AIM Aeronautical Information Manual
AIRMET Airman Meteorological Report
ARTCC Air Route Traffic Control Center
ASD Aircraft Situation Display
ATC Air Traffic Control
ATIS Automated Terminal Information System
CEP Central East Pacific
CRM Crew Resource Management
DPD Dispatch Program Designee
DRM Dispatch Resource Management
EFIS Electronic Flight Indicating Systems
EGPWS Enhanced Ground Proximity Warning System
ETOPS Extended Operations
ETP Equal Time Point
EWINS Enhanced Weather Information System
FCOM Flight Crew Operating Manual
FDC Flight Data Center
FMS Flight Management System
FSS Flight Service Station
GOM General Operating Manual
GPS Global Positioning System
GPWS Ground Proximity Warning System
HF High Frequency
IAP Initial Approach Point
ICAO International Civil Aviation Organization
INS Inertial Navigation System
IOS Instructor's Operating Station
LOFT Line Oriented Flight Training
LORAN Long Range Navigation
MEL Minimum Equipment List
METAR Meteorological Aviation Routine Weather Report
MNPS Minimum Navigation Performance Specification
NATS North Atlantic Track System
NDB Non-directional Radio Beacon
NOPAC North Pacific
PACOTS Pacific Organized Track System
PIC Pilot in Command
PRM Precision Radar Monitor
QPS Qualification Performance Standards
RNAV Area Navigation
RNP Required Navigation Performance
RVR Runway Visual Range
RVSM Reduced Vertical Separation Minimum
SID Standard Instrument Departure
SIGMET Significant Meteorological Report
SFAR Supplemental Federal Aviation Regulation
STAR Standard Terminal Arrival Route
TAF Terminal Aerodrome Forecast

H. What references are recommended?

The following references (as amended) were used to prepare detailed knowledge and skill standards for tasks. They are strongly recommended for providing further details for lesson development.

1. 14 CFR part 1, Definitions and Abbreviations.
2. 14 CFR part 65, Certification: Airmen Other than Flight Crewmembers.
3. 14 CFR part 91, General Operating and Flight Rules.
4. 14 CFR part 119, Certification: Air Carriers and Commercial Operators.
5. 14 CFR part 121, Operating Requirements: Domestic, Flag, and Supplemental Operations.
6. 14 CFR part 139, Certification of Airports.
7. AC 00–6, Aviation Weather.
8. AC 00–45E, Aviation Weather Services.
9. AC 25.1581–1, Airplane Flight Manual.
10. AC 60–22, Aeronautical Decision Making.
11. AC 60–28, English Language Skill Standards.
12. AC 61–27, Instrument Flying Handbook.
13. AC 61–84, Role of Preflight Preparation.
14. AC 120–28, Criteria for Approval of Category III Landing Weather Minima.
15. AC 120–29, Criteria for Approving Category I and Category II Landing Minima for Approach.
16. AC 120–42a, Extended Range Operations (ETOPS).
17. AC 120–55, TCAS II Operational Approval for Air Carriers.
18. AC 120–59, Air Carrier Internal Evaluation Programs.
19. AC 120–71, Standard Operating Procedures for Flight Deck Crewmembers.
20. AC 120–88, Preventing Injuries Caused by Turbulence.
21. AC 121–32, Dispatch Resource Management Training.
22. NTSB 830, Notification and Reporting of Aircraft Accidents or Incidents and Overdue Aircraft, and Preservation of Aircraft Wreckage, Mail, Cargo, and Records.
23. Aeronautical Information Manual (AIM).
24. International Flight Information Manual (IFIM).
25. En route Low and High Altitude Charts.
26. Profile Descent Charts.
27. Standard Instrument Departure (SID).
28. Standard Terminal Arrival Routes (STAR).
29. Airport Facility Directory (AFD) and Instrument Approach Procedure Charts (IAP).
30. National Flight Data Center Notices to Airmen (FDC NOTAM).
31. Integrated Measurement of Crew Resource Management and Technical Flying Skills, DOT/FAA/RD–93/26.
32. Transportation Security Regulations (TSRs).
33. HMR 175, Hazardous Materials Regulations, Carriage by Aircraft.
34. FAA Order 8040.4, Safety Risk Management.
35. Air Transportation Operations Inspector's Handbook, 8400.10.

I. What is the continuous analysis process and how is it incorporated in this QPS? (see §§ 121.1437(a)(10) and 121.1441)

1. The continuous analysis process is a certificate holder internal evaluation and improvement process. The continuous analysis process will enable the certificate holder to maintain and refine the training process by continually monitoring the effectiveness and efficiency of the process. Various assessment tools (testing, checking, inspection, documenting, evaluation, and analysis) will be used to validate the effectiveness of a training program or the need to change a training program.

END INFORMATION

BEGIN QPS REQUIREMENT

2. A continuous analysis process is incorporated in this QPS through integration with the qualification and training program. The certificate holder is responsible for designating responsibility for the process. The certificate holder must ensure appropriate and adequate assessment tools (testing, checking, critique, inspection, observation, documenting, evaluation, and analysis) are utilized to enable the certificate holder to validate the effectiveness of the qualification and training program, or the need to change that program. The certificate holder must describe the attributes of the continuous analysis process in the certificate holder's FAA approved training program.

END QPS REQUIREMENT

BEGIN INFORMATION

3. *Components of a Continuous Analysis Process*

(a) Qualification and training program as approved by the Administrator.

(b) Attributes of the continuous analysis process.

(1) Who is responsible?
(2) Who has authority to change the process?
(3) Description of the process.
(4) Controls. Policy, procedure, training, evaluation.
(5) Documenting and measurement.
(6) Interfaces between Departments. Consistency (policy, procedures, manuals).
(i) Across Departments.
(ii) Across Divisions.
(c) Assessment tools (adequate and appropriate).
(1) Testing.
(2) Checking.
(3) Critique.
(4) Inspection and observation.
(5) Documenting.
(6) Evaluation and analysis.
(d) Modification and adjustment of the qualification and training program.
(e) Approval for modification and adjustment.

J. How is Dispatch Resource Management (DRM) training incorporated in this QPS? (see § 121.1433(b)(7))

1. DRM training is incorporated through the certificate holder's aircraft dispatcher qualification and training program and the daily application of on the job skills.

2. DRM Training and Evaluation requirements for initial, combined certification and initial, recurrent, and requalification training categories are contained in attachments 1, 3, and 4.

END INFORMATION

BEGIN QPS REQUIREMENT

3. *DRM Training and Evaluation.*
(a) Training. DRM training is a component of the initial, combined certification and initial, recurrent, and requalification training categories. drm training must consist of the requirements listed in Attachment 4.
(b) Evaluation. Evaluation of an aircraft dispatcher's practical application of DRM skills must occur as follows:
(1) During the proficiency test (for initial or combined certification and initial training) and during the proficiency check (for recurrent or requalification training).
(2) During the supervised operating experience delivered after initial, combined certification and initial, or requalification training.

END QPS REQUIREMENT

BEGIN INFORMATION

4. *Daily Application of DRM for Job Skills.*
(a) The following are examples of how the daily application of DRM will assist in developing DRM skills:
(1) Briefing during the changeover period between an aircraft dispatcher coming on duty, and the aircraft dispatcher going off duty.
(2) Briefing of the flight crews.
(3) The aircraft dispatcher's ability to manage risk and mitigate potential problems.
(4) Obtaining required operational information.
(5) Performance feedback from operational control personnel on the aircraft dispatcher's decision making process.
(6) The aircraft dispatcher's ability to handle abnormal situations and emergencies.
(7) Interaction with fellow aircraft dispatchers.
(8) Interaction with various departments within the airline.
(b) Joint DRM Training:
(1) Certificate holders are discovering the value of revising DRM training to reach varied employee groups and to combine those groups during training. The objective is to improve the effectiveness and safety of the entire operations team.
(2) Aircraft dispatchers are required to observe flightdeck operations as part of initial, combined certification and initial, recurrent, and requalification training. Some certificate holders include familiarization visits to the aircraft dispatchers' operational control center to provide the flight crewmembers insight into the joint responsibility of the pilot in command and the aircraft dispatcher. These familiarization visits have commonly been part of the special training offered to the first time captains. The FAA encourages the use of aircraft dispatchers in Line Oriented Flight Training (LOFT).
(3) The certificate holder should provide realistic training scenarios for aircraft dispatchers to improve their daily decision making process.
(4) DRM refers to the effective use of all available resources including, human resources, hardware, and information. Human resources include all other groups routinely working with the airline operational control center (or pilot in command) who are involved in decisions that are required to operate a flight safely. DRM is not a single task. DRM is a set of competencies that must be evident in all tasks in this QPS.
(5) DRM training is subject to the continuous analysis process required by § 121.1441 of this part.
(6) The DRM Advisory Circular (AC 121–32 as amended) discusses in greater detail how to integrate DRM into operational control and numerous departments within the certificate holder.

K. Tables and Flowchart

1. The following tables summarize aircraft dispatcher training requirements for certificate holders.
2. Table 1 shows the baseline programmed hours for aircraft dispatcher training programs. The Administrator considers the certificate holder's training program, level of operational complexity, and aircraft dispatcher responsibilities when determining whether to increase the number of baseline programmed hours.
3. Table 2 shows the minimum progammed hours a certificate holder may submit to the administrator for a training program with reduced hours. The Administrator considers the certificate holder's training program, level of operational complexity, and aircraft dispatcher responsibilities when determining whether to approve a reduction in programmed hours.
4. Table 3 shows the requalification training program and qualification requirements. The table shows five phases based on the number of months of lapsed currency. The certificate holder may requalify a previously qualified dispatcher for up to 36 months. In accordance with § 121.1419, the training and evaluation must be initiated and successfully completed prior to the end of the specific lapsed period. Initial training is required when an aircraft dispatcher has been out of currency for 36 months or more.
5. Table 4 shows the tasks in which each aircraft dispatcher must be trained and evaluated. In Table 4 an ''X'' means that the aircraft dispatcher must complete the task satisfactorily. An ''N/A'' means that the task is not applicable.
6. Table 5 shows the ''Personnel Authorized To Administer Aircraft Dispatcher Training and Evaluation and To Conduct Observation Activities Under Subpart CC.''
7. Flowchart 1 is included to illustrate the curriculum path, evaluations, and timeline for initial and combined certification and initial training programs.

END INFORMATION

BEGIN QPS REQUIREMENT

TABLE 1—BASELINE PROGRAMMED HOURS FOR AIRCRAFT DISPATCHERS: TRAINING PROGRAM AND QUALIFICATION REQUIREMENTS

[See § 121.1435]

Activity	Training categories			
	Initial for certificated dispatchers	Recurrent	Transition	Combined certification and initial
Generic Training (see attachment 3)	N/A	N/A	N/A	136.
General Knowledge and Skills Segment (see attachment 1).	48	16	N/A	32.
Basic Aircraft (see attachment 2)	32	N/A	N/A	32.
Practical Test	N/A	N/A	N/A	Required.
Specific Training per Aircraft Type (see attachment 2).	8	4	8	8.
General Knowledge for Flag Operations (see attachment 1).	8*	N/A	N/A	8*.
General Knowledge per Flag Area of Operation (see attachment 1).	2*	2*	N/A	2*.
Supervised Operating Experience, Domestic.	8	N/A	N/A	8.
Supervised Operating Experience, per Flag Area of Operation.	8*	N/A	N/A	8*.
Operating Familiarization	Required	Required	N/A	Required.
Proficiency Test	Required	N/A	Required	Required.
Proficiency Check	N/A	Required	N/A	N/A.

*The Administrator may require additional programmed hours contingent on the level of the training program, operational complexity, and responsibilities of the dispatcher.

TABLE 2—MINIMUM PROGRAMMED HOURS FOR AIRCRAFT DISPATCHERS: TRAINING PROGRAM AND QUALIFICATION REQUIREMENTS

[See § 121.1435]

Activity	Training categories			
	Initial for certificated dispatchers	Recurrent	Transition	Combined certification and initial
Generic Training (see attachment 3)	N/A	N/A	N/A	136.
General Knowledge and Skills Segment (see attachment 1).	48	8	N/A	32.
Basic Aircraft (see attachment 2)	24	N/A	N/A	32.
Practical Test	N/A	N/A	N/A	Required.
Specific Training per Aircraft Type (see attachment 2).	4	2	4	4.
General Knowledge for Flag Operations (see attachment 1).	8	N/A	N/A	8.
General Knowledge per Flag Area of Operation (see attachment 1).	2	2	N/A	2.
Supervised Operating Experience, Domestic.	8	N/A	N/A	8.
Supervised Operating Experience, per Flag Area of Operation.	8	N/A	N/A	8.
Operating Familiarization	Required	Required	N/A	Required.
Proficiency Test	Required	N/A	Required	Required.
Proficiency Check	N/A	Required	N/A	N/A.

TABLE 3—REQUALIFICATION PROGRAMMED HOURS FOR AIRCRAFT DISPATCHERS: TRAINING PROGRAM AND QUALIFICATION REQUIREMENTS

[See § 121.1419]

Activity	Months lapse in currency				
	Phase I less than 6 months	Phase II at least 6 months, but less than 12 months	Phase III at least 12 months, but less than 24 months	Phase IV at least 24 months, but less than 36 months	Phase V 36 months or more
Missed Recurrent Modules (see attachments 1 and 2).	Required	Required	Required	Required	N/A.

TABLE 3—REQUALIFICATION PROGRAMMED HOURS FOR AIRCRAFT DISPATCHERS: TRAINING PROGRAM AND QUALIFICATION REQUIREMENTS—Continued

[See § 121.1419]

Activity	Months lapse in currency				
	Phase I less than 6 months	Phase II at least 6 months, but less than 12 months	Phase III at least 12 months, but less than 24 months	Phase IV at least 24 months, but less than 36 months	Phase V 36 months or more
General Knowledge and Skills Segment (see attachment 1).	0	2	4	8	Initial.
Specific Training per Aircraft Type (see attachment 2).	0	1	2	2	Initial.
General Knowledge per Flag Area of Operation (see attachment 1).	0	2	2	2	Initial.
Supervised Operating Experience, Domestic.	0	4	8	8	Initial.
Supervised Operating Experience, per Flag Area of Operation.	0	2	2	2	Initial.
Operating Familiarization.	Required if not completed in previous 12 months.	Required if not completed in previous 12 months.	Required	Required	Required.
Proficiency Tests or Checks (see Table 4 and attachment 4).	Proficiency Check Required if not completed in previous 12 months.	Proficiency Check Required if not completed in previous 12 months.	Proficiency Check Required.	Proficiency Check Required.	Proficiency Test Required.

TABLE 4—TRAINING CATEGORY EVALUATION REQUIREMENTS FOR AIRCRAFT DISPATCHERS

[See Attachment 4]

Area of evaluation tasks	Proficiency test			Proficiency check
	Initial	Transition	Combined certification and initial*	Recurrent and requalified
I. Area of Evaluation: General				
A. Equipment Knowledge	X	X	X	X
B. Aircraft Performance and Limitations Knowledge	X	X	X	X
C. Operating Requirements	X	N/A	X	X
D. National Weather System	X	N/A	X	X
E. National NOTAM System	X	N/A	X	X
II. Area of Evaluation: Duty Period Orientation				
A. Operations Orientation	X	N/A	X	X
B. Dispatcher Shift Turnover	X	N/A	X	X
C. Shift Self Briefing	X	N/A	X	X
D. Certificate Holder Manuals, Procedures, and Operating Information	X	X	X	X
III. Area of Evaluation: Planning and Executing a Dispatch Release				
A. Obtain Required Information	X	N/A	X	X
B. Flight Planning	X	X	X	X
C. Create and Issue Dispatch Release	X	N/A	X	X
D. Briefing Flight Crews	X	N/A	X	X
IV. Area of Evaluation: Flight Monitoring				
A. Updating and Gathering Information	X	N/A	X	X
B. Operational Control Decision-Making	X	N/A	X	X
C. Amend Dispatch Release	X	N/A	X	X
V. Area of Evaluation: Situation Management				
A. Dispatch and Aircraft Abnormality or Emergency	X	X	X	X
B. Collection and Dissemination of Information on Overdue or Missing Aircraft	X	N/A	X	X
VI. Area of Evaluation: Dispatch Resource Management				
A. Demonstrate and apply DRM concepts	X	N/A	X	X

*In addition to the Proficiency Test, a Practical Test is required as prescribed in Attachment 3.

TABLE 5—PERSONNEL AUTHORIZED TO ADMINISTER AIRCRAFT DISPATCHER TRAINING AND EVALUATION, AND TO CONDUCT OBSERVATION ACTIVITIES UNDER SUBPART CC

[See §§ 121.1421 and 121.1439]

Aircraft dispatcher training, evaluation, and observation activities under subpart CC	Employer and position							
	Other than employees of the part 119 certificate holder		The part 119 certificate holder					FAA
	Certificated dispatcher instructor	Non-certificated dispatcher instructor	Certificated dispatcher instructor	Non-certificated dispatcher instructor	Certificated dispatcher	Check dispatcher	Dispatch program designee	Aviation safety inspector operations
Training And Evaluation								
Generic Training, General Knowledge and Skills, and Basic Aircraft	[a] X	[a] X	X	[a] X		X	X	
DRM, Certificate Holder Computer Systems, Computer Flight Planning, Contingency Operations, Practical Dispatch Applications			X			X	X	
Specific Aircraft Type	[a] X	[a] X	X	[a] X		X	X	
Flag and Flag Area of Operations	[a] X		X			X	X	
Supervised Operating Experience			[b] X		[b] X	X	X	
Proficiency Test (Initial, Transition)						X	X	X
Proficiency Check (Recurrent, Requalification)						X	X	X
Practical Test for Certificate							X	X
Proficiency Test (Combined Certification and Initial)							X	X
Observation Activities								
Observation of Dispatch Program Designee (DPD)								X

[a] Must be acceptable to the Administrator.
[b] May be conducted by a check dispatcher or a person who meets the experience requirements of § 121.1417.

END QPS REQUIREMENT

BEGIN INFORMATION

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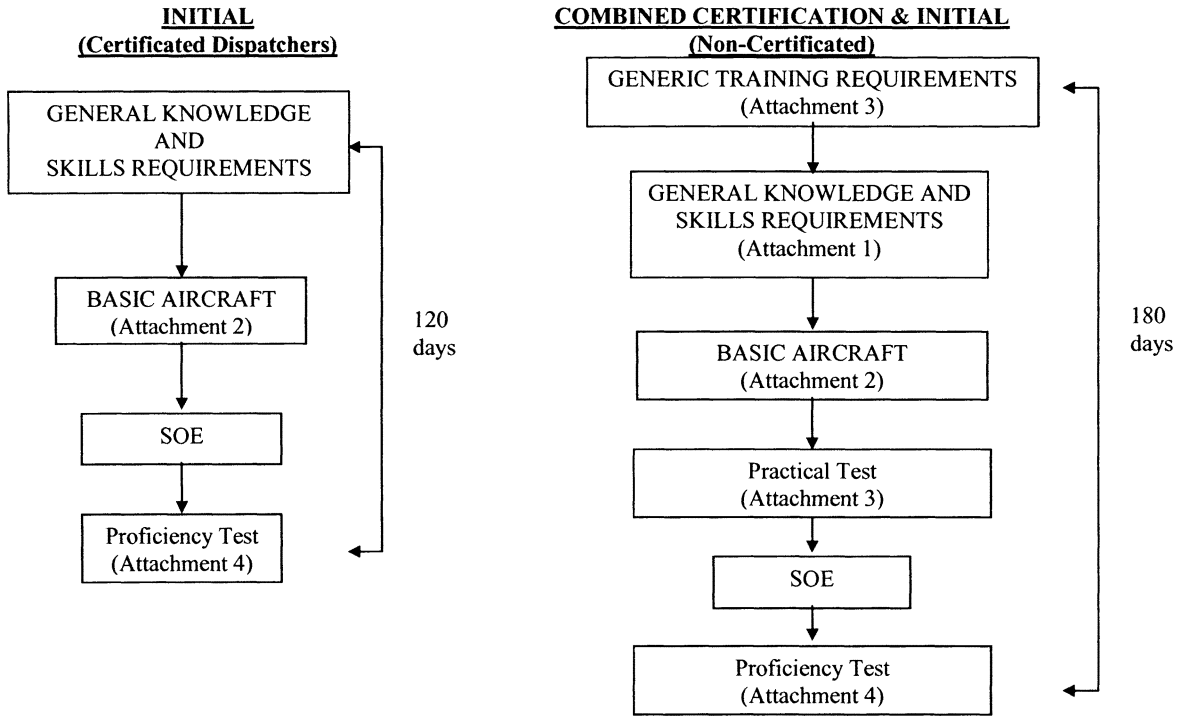
Flowchart 1, FLOWCHART FOR INITIAL AND COMBINED CERTIFICATION AND INITIAL TRAINING CURRICULUM (§ 121.1413(d))



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END INFORMATION

Attachment 1 of Appendix T to Part 121

General Knowledge and Skills Requirements—Subjects and Tests—for Initial, Combined Certification and Initial, Recurrent, and Requalification Training Categories

BEGIN INFORMATION

A. General Knowledge and Skills Segment for Initial, Combined Certification and Initial, Recurrent, and Requalification. (See §§ 121.1411; 121.1413; 121.1415; 121.1417; 121.1431; 121.1433; 121.1435; 121.1437; 121.1439; 121.1441; 121.1451; 121.1453; 121.1455; and 121.1471)

1. The general knowledge and skills segment introduces the student to the certificate holder, its policies, and operations. The general knowledge and skills segment also includes other pertinent information that prepares the student for specific ground and skills training, including how to use the certificate holder's operating manuals for exercising operational control.

2. The general knowledge and skills segment includes required subjects. In addition, some of the subjects have examples. These examples are for clarification only and are not all inclusive.

3. For recurrent and requalification see the discussion under general knowledge and skills segment for recurrent and requalification in paragraph B of this attachment.

END INFORMATION

BEGIN QPS REQUIREMENT

4. The FAA Aircraft Dispatcher Knowledge Test is a requirement for certification and the practical test. The certificate holder's testing under this attachment is not a substitute for the FAA Aircraft Dispatcher Knowledge Test.

5. Training is required for all subjects listed in each area of instruction that pertain to the certificate holder's operations specifications for persons in initial, combined certification and initial, recurrent, and requalification training. Training is also required for subjects not listed in each area of instruction, but that pertain to a certificate holder's operation. The aircraft dispatcher must understand the subjects required for the areas of instruction listed in Attachment 1 of this appendix.

6. The certificate holder must administer a knowledge test for the subjects in each area of instruction. The knowledge test must be written or computer based. The FAA must approve the form and content in each area of instruction. An individual must satisfactorily complete the knowledge test. To satisfactorily complete a knowledge test, a score of 80% or better in each area of instruction is required and a qualified person must correct the test to 100%. Correction of missed questions must include a discussion of which answer is correct, and why the answer selected is incorrect. Retraining is required in each area of instruction when a score of 80% or better is not achieved. Retraining is followed by reevaluation of the student in each retrained area of instruction. The form and content of the reevaluation must also be approved by the FAA. The knowledge tests for each training category must meet the following requirements:

(a) For initial and combined certification and initial, a knowledge test must be comprised of the minimum number of questions required for the subjects within each area of instruction.

(b) For recurrent training, a knowledge test must be comprised of at least 20 questions selected from the applicable areas of instruction.

(c) For requalification training that requires missed recurrent training modules, each recurrent knowledge test must be comprised of at least 20

questions per missed recurrent training module, selected from the applicable areas of instruction. For each activity not completed as part of recurrent training (as required by Table 3 of this appendix), a test comprised of subjects selected from the applicable areas of instruction must have at least 5 questions per required activity.

7. The FAA may allow distance learning for subjects in each area of instruction unless otherwise indicated. However, the FAA will not approve cumulative distance learning hours that equal more than 50% of the total required programmed hours as listed in Tables 1, 2 or 3 of this appendix.

8. General Knowledge required—Areas of Instruction—With Subjects:

(a) *Area of Instruction:* Introduction and Orientation. (5 questions required)

Subjects:

(1) Course contents, schedules, and materials.

(2) Key personnel.

(3) Record keeping requirements.

(4) Drug testing and alcohol testing.

(5) Identification badges.

(6) Certificate holder publications.

(7) Schedule.

(8) Dispatcher's duties and responsibilities.

(9) Joint dispatcher and pilot in command responsibilities.

(b) *Area of Instruction:* Applicable Federal Regulations. (10 questions required)

Subjects:

(1) 14 CFR part 1.

(2) 14 CFR part 91.

(3) 14 CFR part 119.

(4) 14 CFR part 121.

(5) 14 CFR part 139.

(6) 49 CFR part 175 (HMR).

(7) 49 CFR part 830 (NTSB).

(8) Special Federal Aviation Regulations (SFARs).

(9) 49 CFR Chapter 12 (TSR).

(c) *Area of Instruction:* Manual overview. (10 questions required)

Subjects:

(1) The certificate holder's operations specifications.

(2) Manuals containing the following:

(i) Procedures established by FAA authorized exemptions to certain Federal Aviation Regulations (if applicable).

(ii) Procedures established by FAA authorized deviations to certain Federal Aviation Regulations (if applicable).

(iii) Minimum Equipment List (MEL).

(iv) Configuration Deviation List (CDL).

(v) Dispatch Deviation Guide (DDG) procedures.

(vi) Maintenance flight logs procedures.

(vii) Procedures for maintenance, test, training, and ferry flights.

(viii) Deicing and anti-icing procedures.

(ix) The process for gathering safety related information such as NOTAMs and weather.

(x) The certificate holder's approved training program.

(xi) Certificate holder security procedures and directives.

(xii) Certificate holder communications and procedures.

(xiii) Emergency procedures.

(xiv) Procedures for determining whether hazardous materials are on board an aircraft and notification procedures in an emergency.

(xv) Dispatch procedures.

(xvi) Weight and balance procedures.

(xvii) Contents of the Airplane Flight Manual.

(xviii) Certificate holder operations (e.g., GOM, FOM).

(xix) Station operations procedures.

(xx) Crew operating procedures.

(d) *Area of Instruction:* Meteorology. (15 questions required).

Subjects:

(1) Upper air meteorology.

(2) METAR.

(3) TAF.

(4) SIGMET–AIRMET.

(5) Area forecast.

(6) Winds aloft (high and low altitude).

(7) Surface meteorology.

(8) Thunderstorms.

(9) Tornadoes.

(10) Tropical weather (if applicable).

(i) Typhoons.

(ii) Tropical storms.

(iii) Hurricanes.

(11) Atmospheric hazards to aviation:

(i) Low level windshear.

(ii) Microburst.

(iii) Mountain waves (if applicable).

(iv) Turbulence (all types).

(v) Icing.

(vi) Reduced visibility (e.g., fog, ice fog, smog).

(vii) Volcanic ash.

(12) FAA approved weather service providers and approved sources.

(13) Interpretation and use of weather charts.

(14) Enhanced Weather Information System (EWINS), (if applicable).

(e) *Area of Instruction:* Approach plates and charts. (5 questions required).

Subjects:

(1) SIDS and DP.

(2) STARS.

(f) *Area of Instruction:* Navigation Aids and Publications. (10 questions required).

Subjects:

(1) ILS/Localizer.

(2) ILS PRM (if applicable).

(3) VOR and VOR/DME.

(4) VOR Classification.

(5) NDB.

(6) RNAV (e.g., GPS, Inertial).

(7) Class I, Class II, or Performance Based Navigation (as applicable).

(8) Terminal and en route charts and publications.

(9) Inoperative navigation aids.

(10) RADAR.

(g) *Area of Instruction:* Airport characteristics. (5 questions required).

Subjects:

(1) Airports (emphasizing special or unique characteristics).

(2) Runway configurations (e.g., parallel runways, orientation).

(3) Runway surfaces (e.g., grooved, porous friction, runway weight bearing capacity).

(4) Obstacles.

(5) Slope.

(6) Elevation.

(7) Terrain features.

(8) Methods of receiving information about airport operations and conditions.

(9) Airport lighting and marking.

(h) *Area of Instruction:* Air Traffic Control. (15 questions required).

Subjects:

(1) Air Traffic Control communication and coordination.

(2) Instrument approach procedures.

(3) Terminal departure procedures.

(4) Terminal arrival procedures.

(5) En route procedures (e.g., strategic and tactical planning tools such as Coded Departure Routes (CDR), National Route Program (NRP), Severe Weather Avoidance Procedures (SWAP)).

(6) Flow Control, ARTCC, approach, departure, tower, ground, FSS.

(7) National Airspace System.

(8) High Altitude Redesign (HAR).

(9) Airspace (Class A–G).

(10) Controlled and uncontrolled airspace and airports.

(11) Approved instrument approach procedures (operations specifications).

(12) Information required on ATC Flight Plans (e.g., RNP, RVSM).

(13) Collaborative Decision Making (CDM) (as applicable).

(14) Certificate holder policy on reroutes and deviations and impact on operational control.

(i) *Area of Instruction:* NOTAMS (as applicable) (10 questions required).

Subjects:

(1) Local (L).

(2) Distant (D).

(3) FDC.

(4) Chart NOTAMs.

(5) Chart supplements.

(6) FIR boundary NOTAMs.

(7) Oceanic NOTAMs.

(8) ATC NOTAMs.

(9) Military NOTAMs.

(10) TFRs and prohibited airspace.

(11) Airport Facility Directory (AFD).

(12) Certificate holder.

(13) Field conditions.
(14) SFARs.
(15) Method for gathering and disseminating NOTAMs.
(16) Other NOTAM sources.
(j) *Area of Instruction:* Crewmember requirement, if applicable per certificate holder procedures. (5 questions required).
Subjects:
(1) Duty time requirements.
(2) Qualification.
(i) Aircraft.
(ii) Airports.
(iii) Areas.
(iv) Takeoff and landing minimums.
(k) *Area of Instruction:* Dispatch Resource Management (DRM) Training.
Distance learning not allowed. (5 questions required).
Subjects:
(1) Briefings.
(2) Assertiveness.
(3) Inquiry.
(4) Conflict resolution.
(5) Interdepartmental coordination process.
(6) Interpersonal relationships.
(7) Situational awareness.
(8) Preparation, planning, and vigilance.
(9) Time management (prioritizing).
(10) Tactical and strategic use of resources.
(11) Stress management.
(12) Decisionmaking process.
(13) Multi-tasking.
(14) Risk management.
(15) Leadership.
(16) Communication.
(l) *Area of Instruction:* Ground de-ice and anti-ice program (5 questions required).
Subjects:
(1) Types, purpose, characteristics, and effectiveness of de-ice and anti-ice fluids.
(2) De-ice and anti-ice handling and performance implications.
(3) Aircraft surface contamination and critical area identification.
(4) Use of holdover times.
(5) Aircraft de-ice and anti-ice procedures and checks to detect contaminated surfaces.
(m) *Area of Instruction:* Computer System, as applicable. Distance learning not allowed. (10 questions required).
Subjects:
(1) Weather.
(2) Flight planning.
(3) Dispatch release.
(4) Irregular operations.
(5) Takeoff, en route, and landing gross weight calculations.
(6) Weight and balance.
(7) Flight monitoring, times, and schedule.
(8) Airborne and ground based aircraft situation displays (e.g., ASD).
(9) NOTAMs.
(10) Computer applications and technology required to perform aircraft dispatcher duties.
(n) *Area of Instruction:* Contingency operations for maintaining operational control in the event of single or multiple system failures (e.g., power, communication). Distance learning not allowed. (5 questions required).
(o) *Area of Instruction:* Other required training. The hours for other required training are in addition to approved programmed hours of instruction stated in Table 1 of this appendix.
Subjects:
(1) Awareness training for hazardous materials (part 121, subpart Z).
(2) Drug testing program and alcohol misuse prevention program (part 121 appendices I and J).
(3) Security training (49 CFR part 1544).
9. Training for a specific type of operation, Domestic or Flag.
(a) *Area of Instruction:* Domestic operations: (15 questions required).
Subjects:
(1) Definition of a domestic operation and what constitutes a domestic operation.
(2) The certificate holder's approved operations specifications related to Domestic operations. Examples:
(i) Special use airspace (e.g., Domestic RVSM).
(ii) Fuel reserves for domestic operations.
(iii) Operations specification A 12 (Operations to certain foreign airports).
(iv) Exemptions or deviations (if applicable).
(v) Operations specification C 70 (Authorized airports).
(3) En route operations over routes and diversions, if applicable, that may expose passengers and crew to extreme environmental conditions. Examples:
(i) Western U.S. terrain clearance and driftdown.
(ii) Ozone and hazardous weather.
(4) Unique domestic instrument approach and departure procedures. Examples:
(i) Missed approach procedures.
(ii) Unique local procedures.
(iii) Special instrument approach and departure procedures.
(iv) Specific SFAR requirements (if applicable).
(v) Engine out departure procedures.
(5) Required Navigation Performance (RNP) or Performance Based Navigation.
(6) Domestic communications system; air to ground, radio relay.
(7) Procedures for determining alternate airport requirements. Examples:
(i) Alternate airport selection.
(ii) Changes to alternates.
(8) Crewmember requirement, if applicable per certificate holder procedures.
(i) Duty time requirement.
(ii) Qualification.
(A) Aircraft.
(B) Airports.
(C) Areas.
(D) Takeoff and landing minimums.
(9) Dispatch release and its validity time for an intermediate airport.
(10) Other issues surrounding operational control of domestic operations. Examples:
(i) Holding fuel requirements.
(ii) Dispatching into congested airspace.
(iii) Reanalysis of airborne flights.
(iv) Uncontrolled airspace authorizations, en route and terminal.
(b) *Area of Instruction:* General knowledge for Flag Operations: (10 questions required).
Subjects:
(1) Definition of a flag operation and what constitutes a flag operation.
(2) Flag regulations.
(3) Class II navigation (e.g., Inertial, GPS).
(4) Equal Time Point (ETP), if applicable.
(5) Extended overwater.
(6) Fuel requirements.
(7) The practical application of the term ''Re-dispatch'' and information required to be exchanged between the aircraft dispatcher and the Pilot in Command, if applicable.
(8) International weather. Accessing international weather information (unique problems associated with obtaining international weather information).
(9) ICAO NOTAMS, as applicable.
(i) Chart NOTAMS.
(ii) Chart supplements.
(iii) The certificate holder's procedures for obtaining NOTAM information.
(iv) Track messages.
(v) International ATC environments. Examples:
(A) Uncontrolled airspace.
(B) Airspace restrictions and procedures.
(C) Language barriers.
(vi) Operations over high terrain. Example: Driftdown considerations (terrain clearance, oxygen, and alternate requirements).
(vii) Procedures for determining alternate airport requirements. Examples:
(A) Alternate airport selection.
(B) Changes to alternates.
(viii) Crewmember requirement, if applicable per certificate holder procedures.

(A) Duty time requirements.
(B) Qualification.
(1) Aircraft.
(2) Airports.
(3) Areas.
(4) Takeoff and landing minimums.
(ix) Compliance with foreign regulations and requirements that may be more restrictive than U.S. regulations and requirements.
(x) Dispatch release and its validity time for an intermediate airport.
(c) Area of Instruction: General Knowledge per Flag Area of Operation. The following subjects must be used to build the training for each flag area of operation. For training programs that include multiple flag areas of operation, duplicate subjects (e.g., ETOPS, Flag Regulations) need only be trained once. (10 questions required).

END QPS REQUIREMENT

BEGIN INFORMATION

(1) Rules, regulations, operations specifications, procedures, environmental issues, cultural issues, and other factors influence the certificate holder's operations in different parts of the world. Flag Area of Operation means a specific geographical area that may require compliance with unique policies, procedures, regulations, and requirements. Because of these varying operational complexities, the required training is divided into 12 Flag Areas of Operation.

END INFORMATION

BEGIN QPS REQUIREMENT

(2) Each Flag Area of Operation must contain the minimum number of programmed hours as outlined in Tables 1, 2, or 3, as applicable.
(3) *Flag Areas of Operation*:
(i) Africa. Includes: Continental Africa, Cape Verde, Madagascar, Mauritius, Reunion, Seychelles.
(ii) Asia-Eastern. Includes: Mainland China, Mongolia, Siberia.
(iii) Commonwealth of Independent States. Includes: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine, Uzbekistan.
(iv) Europe-Central. Includes: Austria, Belgium, Denmark, Estonia, Faroe Islands, Finland, France, Germany, Gibraltar, Greece, Ireland, Italy, Latvia, Luxembourg, Madeira Islands, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.
(v) Europe-Eastern. Includes: Albania, Boznia-Herzegovinia, Bulgaria, Czech Republic, Hungary, Macedonia, Poland, Romania, Slovakia, Slovenia, Yugoslavia.
(vi) Latin America. Includes: Mexico, Central America, Caribbean Islands and Cuba.
(vii) Middle East-South Asia. Includes: Afghanistan, Bahrain, Bangladesh, Bhutan, Chagos Archipelago, Cyprus, India, Iran, Iraq, Israel, Jordan, Maldives, Myanmar, Nepal, Oman, Pakistan, Qatar, Saudi Arabia, Sri Lanka, Syria, Thailand, Turkey, Indian Ocean.
(viii) North America. Includes: Alaska, Bermuda, Canada, Contiguous United States.
(ix) Atlantic Basin. Includes: Special Contingency Routes, MNPS, Greenland, Iceland, South Atlantic Ocean.
(x) Pacific Basin. Includes: Australia, New Zealand, New Guinea, Aleutian Islands, Hawaiian Islands, Japan, Korea, Southeast Asia, Indonesia, Malaysia, Philippines, Hong Kong, Taiwan, Pacific Islands.
(xi) Polar Routes, Area of Magnetic Unreliability, and any applicable alternates.
(xii) South America. Includes: All Continental Countries.
(4) The certificate holder's approved operations specifications related to flag operations.
(5) Long range navigation and associated special requirements. Examples:
(i) Number of Long Range Navigation Systems (LRNS) required for a specific airspace.
(ii) Contingency procedures.
(6) Long range communication and associated special requirements. Examples:
(i) Number of Long Range Communication Systems (LRCS) required for a specific airspace.
(ii) Types required for specific airspace (e.g., VHF, HF, Satellite, data link).
(iii) Contingency procedures.
(7) Extended Operations (ETOPS), as applicable. Examples of variables that must be considered:
(i) Fuel.
(ii) Weather.
(iii) Alternate airport requirements.
(iv) Adequate or suitable airports.
(v) Required equipment.
(vi) Maintenance status.
(vii) Entry and exit points.
(8) En route operations over routes and diversions, as applicable that may expose passengers and crew to extreme environmental conditions. Examples:
(i) Greenland.
(ii) Himalayas.
(iii) Polar.
(iv) Russian airspace.
(9) Special use airspace (e.g., Reduced Vertical Separation Minimums (RVSM)).
(10) Required Navigation Performance (RNP) or Performance Based Navigation.
(11) Unique international instrument approach and departure procedures. Examples:
(i) Limited navigational aids.
(ii) Limited ATC facilities.
(iii) Missed approach procedures.
(iv) Unique local procedures.
(v) Special instrument approach procedures.
(vi) Specific SFAR requirements, as applicable.
(vii) Engine out departure procedures.
(12) Approved airports and landing rights.
(13) Over-fly permission.
(14) Unique characteristics and special conditions in international airspace and at international airports. Examples:
(i) Performance limitations.
(ii) Mountainous terrain.
(iii) Navigation aids.
(15) Issues unique to flag area of operations into which the certificate holder operates. Examples:
(i) Air traffic control.
(ii) Organized tracks.
(iii) Polar operations.
(iv) Uncontrolled airspace.

END QPS REQUIREMENTS

BEGIN INFORMATION

B. General Knowledge and Skills Segment for Recurrent and Requalification. (See §§ 121.1419; 121.1431; 121.1433; 121.1435; 121.1437; 121.1439; 121.1441; 121.1455; and 121.1471).

The general knowledge and skills segment is designed to maintain the currency of each aircraft dispatcher. It ensures the necessary operational and procedural knowledge required for the dispatcher to effectively exercise operational control.

END INFORMATION

BEGIN QPS REQUIREMENT

1. Training is required for dispatchers in recurrent or requalification training programs for a certificate holder. Training must address operational and procedural review of topics deemed necessary by the certificate holder and approved by the Administrator. Curricula must contain (but are not limited to) selected portions of the following areas of instruction. The test that is required for recurrent training must contain 20 questions. For requalification training, the number of

questions required for testing is based on the number of missed training modules. *See* paragraph A.6.(c) of this attachment for specific requirements for requalification training.

2. General Knowledge required.

Areas of Instruction:

Subjects:

(a) Operations Specifications.

(b) General Operating Manual.

(c) Air Traffic Control and Instrument Approach Procedures.

(d) Reduced Vertical Separation Minimum (RVSM).

(e) Certificate holder communications systems and procedures.

(f) Meteorology.

(g) NOTAMS.

(h) Maintenance procedures.

(i) Emergency procedures.

(j) Joint dispatcher and pilot in command responsibilities.

(k) Characteristics of appropriate airports.

(l) Prevailing weather phenomena.

(m) Approach plates and charts.

(n) Navigational aids and publications.

(o) Certificate holder computer systems (distance learning not allowed).

(p) Computer flight planning (distance learning not allowed).

(q) Dispatch Resource Management (DRM) (distance learning not allowed).

(r) Ground de-ice and anti-ice procedures and policies (must be covered each year).

(s) Flag Areas of Operation—Selected subjects from paragraphs A.9.(b) and (c) of this attachment.

3. *Area of Instruction:* Other required training.

The hours for other required training are in addition to approved programmed hours of instruction stated in Table 1 of this appendix.

Subjects:

(a) Awareness training for hazardous materials (part 121, subpart Z).

(b) Drug testing program and alcohol misuse prevention program (part 121 appendices I and J).

(c) Security training (49 CFR part 1544).

END QPS REQUIREMENT

Attachment 2 of Appendix T to Part 121

Basic Aircraft and Specific Aircraft Type Training Requirements—Subjects and Tests—for Initial, Combined Certification and Initial, Transition, Recurrent, Requalification, Differences, and Special Training Categories

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BEGIN INFORMATION

A. General. (See §§ 121.1411; 121.1413; 121.1415; 121.1417; 121.1431; 121.1433; 121.1435; 121.1437; 121.1439; 121.1441; 121.1451; 121.1453; 121.1455, and 121.1471)

1. The basic aircraft segment introduces the student to the base aircraft of the operator including aircraft systems and performance. The specific aircraft segment is an overview of aircraft systems and performance that prepares the student for specific application and skills training to include how to use the certificate holder's aircraft manual or manuals for conducting operational control of the airline.

2. The basic aircraft and specific aircraft segment includes required subjects. In addition, some of the required subjects have examples. These examples are for clarification only and are not all inclusive.

END INFORMATION

BEGIN QPS REQUIREMENT

3. The FAA Aircraft Dispatcher Knowledge Test is a requirement for certification and the practical test. The certificate holder's testing under this attachment is not a substitute for the FAA Aircraft Dispatcher Knowledge Test.

4. Training is required for all subjects listed in each area of instruction that pertain to the certificate holder's operations specifications for persons in initial, combined certification and initial, transition, recurrent, requalification, difference, and special training. Training is also required for subjects not listed in each area of instruction, but that pertain to a certificate holder's operation. The aircraft dispatcher must understand the subjects required for the areas of instruction listed in Attachment 2.

5. The certificate holder must administer a knowledge test for the subjects in each area of instruction. The knowledge test must be written or computer based. The FAA must approve the form and content in each area of instruction. An individual must satisfactorily complete the knowledge test. To satisfactorily complete a knowledge test, a score of 80% or better in each area of instruction is required and a qualified person must correct the test to 100%. Correction of missed questions must include a discussion of which answer is correct, and why the answer selected is incorrect. Retraining is required in each area of instruction when a score of 80% or better is not achieved. Retraining is followed by reevaluation of the student in each retrained area of instruction. The form and content of the reevaluation must also be approved by the FAA. The knowledge tests for each training category must be as follows:

(a) For initial and combined certification and initial, a knowledge test comprised of the minimum number of questions required for the subjects within each area of instruction.

(b) For recurrent training, a knowledge test comprised of at least 20 questions selected from the applicable areas of instruction. For certificate holders with more than one aircraft type, aircraft systems for each specific aircraft type may be covered over a 3 year cycle as approved by the Administrator.

(c) For requalification training that requires missed recurrent training modules, each recurrent knowledge test must be comprised of at least 20 questions per missed recurrent training module, selected from the applicable areas of instruction. For each activity required by Table 3 of this appendix, a test comprised of subjects selected from the applicable areas of instruction must have at least 5 questions per required activity.

(d) For differences training at least 5 questions. Training and evaluation is required in specific subject areas specified when differences are required.

6. The FAA may allow distance learning for subjects in each area of instruction unless otherwise indicated. However, the FAA will not approve cumulative distance learning hours that equal more than 50% of the total required programmed hours as listed in Tables 1, 2 or 3 of this appendix.

B. Basic Aircraft Training Requirements for Initial or Combined Certification and Initial. (See §§ 121.1431; 121.1433; 121.1435; 121.1437; 121.1439; 121.1441; 121.1451; 121.1453; 121.1455, and 121.1471)

Areas of Instruction—With Subjects:

1. *Area of Instruction:* Basic Aircraft Systems Theory and Performance. (10 questions required).

Subjects:

(a) Air conditioning.

(b) Pressurization.

(c) Auto flight.

(d) Communications.

(e) Electrical.

(f) Equipment and furnishings.

(g) Fire protection.

(h) Flight controls.

(i) Fuel.

(j) Hydraulics.

(k) Ice and rain protection.

(l) Instrumentation.

(m) Landing gear.
(n) Lights.
(o) Oxygen.
(p) Water and waste.
(q) Auxiliary power.
(r) Doors.
(s) Propellers.
(t) Engines.
(u) Weight and balance theory.
(v) Flight planning overview.
(w) Aircraft performance.

2. *Area of Instruction:* A general description of the aircraft performance characteristics emphasizing the following as applicable: (5 questions required).

Subjects:
(a) Aircraft limitations that may affect the aircraft performance.
(b) Navigation equipment and required navigation performance.
(c) Communication equipment and required communication performance.
(d) Other factors affecting operating and performance characteristics.

3. *Area of Instruction:* MEL and CDL specific applications and appropriate operating manual procedures applicable to dispatch for: (10 questions required).

Subjects:
(a) Air conditioning.
(b) Pressurization.
(c) Auto flight.
(d) Communications.
(e) Electrical.
(f) Equipment and furnishings.
(g) Fire protection.
(h) Flight controls.
(i) Fuel.
(j) Hydraulics.
(k) Ice and rain protection.
(l) Instrumentation.
(m) Landing gear.
(n) Lights.
(o) Oxygen.
(p) Water and waste.
(q) Auxiliary power.
(r) Doors.
(s) Propellers.
(t) Engines.

4 *Area of Instruction:* Additional training in the following subjects must be included (as applicable): (10 questions required).

Subjects:
(a) Instrument approach and communication equipment.
(b) Aircraft specific deicing procedures.
(c) Special considerations and authorizations for international operations.
(d) Reduced separation standards.
(e) Special maintenance procedures.
(f) Flight manual specific emergency procedures and equipment.
(g) Weight and balance considerations.
(h) Basic aircraft performance dispatch requirements and procedures.
(i) Flight planning including route, track and altitude selection, en route performance, flight time analysis, weather considerations, and fuel analysis.
(j) Aircraft specific emergency procedures.
(k) Mission capable considerations (e.g., over-water equipped).

C. Aircraft Type Specific Training Requirements for Initial, Combined Certification and Initial, Transition, Recurrent, and Requalification. (See §§ 121.1431; 121.1433; 121.1435; 121.1437; 121.1439; 121.1441; 121.1451; 121.1453; 121.1455, and 121.1471)

1. Aircraft Type Specific Training Requirements—Areas of Instruction—With

Subjects:
(a) *Area of Instruction:* Systems Overview: (15 questions required).

Subjects:
(1) Air conditioning.
(2) Pressurization.
(3) Auto flight.
(4) Communications.
(5) Electrical.
(6) Equipment and furnishings.
(7) Fire protection.
(8) Flight controls.
(9) Fuel.
(10) Hydraulics.
(11) Ice and rain protection.
(12) Instrumentation.
(13) Landing gear.
(14) Lights.
(15) Oxygen.
(16) Water and waste.
(17) Auxiliary power.
(18) Doors.
(19) Propellers.
(20) Engines.

(b) *Area of Instruction:* Performance. (5 questions required).

Subjects:
(1) Take-off performance.
(2) En route performance.
(3) Landing performance.

(c) *Area of Instruction:* Other. (10 questions required).

Subjects:
(1) Aircraft manuals.
(2) Aircraft limitations.
(3) Weight and balance.
(4) Emergency and abnormal procedures.

2. *Differences training.* (5 questions required)

Each training program must provide differences training if the Administrator finds that, due to differences between aircraft of the same type operated by the certificate holder, additional training is necessary to ensure that each dispatcher is adequately trained to perform the assigned duties. The programmed hours established for differences training are in addition to the previously approved programmed hours for the approved training program. For differences training (§ 121.1471), the hours remain in the differences training category. There are no programmed hours in Tables 1 and 2 of this appendix for differences training.

3. *Special training.*

The programmed hours established for special training are in addition to the previously approved programmed hours for the approved training program. For special training (§ 121.1437(c)), the certificate holder integrates the training into the existing categories in Tables 1 and 2 of this appendix. There are no programmed hours in Tables 1 and 2 for special training.

END QPS REQUIREMENT

Attachment 3 of Appendix T to Part 121

Generic Training Requirements—Subjects and Tests—for Certification

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BEGIN INFORMATION

A. The Generic Training

This attachment lists those subject areas required to train and evaluate persons who are not certificated dispatchers. In addition, some of the required subjects have examples. These examples are for clarification only and are not all inclusive. The areas of instruction in this attachment will help prepare persons to take the aircraft dispatcher practical test.

END INFORMATION

BEGIN QPS REQUIREMENT

B. General (See §§ 121.1411; 121.1413; 121.1415; 121.1417; 121.1419; 121.1421; 121.1423; 121.1425; 121.1431; 121.1433; 121.1435; 121.1437; 121.1439; 121.1441; 121.1451; 121.1453; and 121.1471)

1. The FAA Aircraft Dispatcher Knowledge Test is a requirement for certification and the practical test. The certificate holder's testing under this attachment is not a substitute for the FAA Aircraft Dispatcher Knowledge Test.

2. Instruction and evaluation is required in all area subjects for combined certification and initial training.

3. The certificate holder must administer a knowledge test for the subjects in each area of instruction. The knowledge test must be written or computer based. The FAA must approve the form and content in each area of instruction. An individual must

satisfactorily complete the knowledge test. To satisfactorily complete a knowledge test, a score of 80% or better in each area of instruction is required and a qualified person must correct the test to 100%. Correction of missed questions must include a discussion of which answer is correct, and why the answer selected is incorrect. Retraining is required in each area of instruction when a score of 80% or better is not achieved. Retraining is followed by reevaluation of the student in each retrained area of instruction. The form and content of the reevaluation must also be approved by the FAA.

4. The FAA may allow distance learning for subjects in each area of instruction unless otherwise indicated. However, the FAA will not approve cumulative distance learning hours that equal more than 50% of the total required programmed hours as listed in Tables 1 and 2 of this appendix.

C. General Training Requirements Areas of Instruction—With Subjects: (See §§ 121.1411; 121.1413; 121.1415; 121.1417; 121.1419; 121.1421; 121.1423; 121.1425; 121.1431; 121.1433; 121.1435; 121.1437; 121.1439; 121.1441; 121.1451; 121.1453; and 121.1471)

1. *Area of Instruction:* Regulations (10 questions required)

Subjects:

(a) 14 CFR part 65, subparts A and C.

(b) 14 CFR parts 1, 25, 61, 71, 91, 121, 139, and 175.

(c) 49 CFR part 830 (NTSB).

(d) General Operating Manual (GOM).

2. *Area of Instruction:* Meteorology (15 questions required).

Subjects:

(a) *Basic Weather Studies.*

(1) The earth's motion and its effects on weather.

(2) Analysis of the following regional weather types, characteristics, and structures, or combinations thereof:

(i) Maritime.

(ii) Continental.

(iii) Polar.

(iv) Tropical.

(3) Analysis of the following local weather types, characteristics, and structures or combinations thereof:

(i) Coastal.

(ii) Mountainous.

(iii) Island.

(iv) Plains.

(4) The following characteristics of the atmosphere:

(i) Layers.

(ii) Composition.

(iii) Global wind patterns.

(iv) Ozone.

(v) Tropopause.

(5) Pressure:

(i) Units of measure.

(ii) Weather systems characteristics.

(iii) Temperature effects on pressure.

(iv) Altimeters.

(v) Pressure gradient force.

(vi) Pressure pattern flying weather.

(6) Wind:

(i) Major wind systems and coriolis force.

(ii) Jetstreams and their characteristics.

(iii) Local wind and related terms.

(7) States of matter:

(i) Solids, liquid, and gases.

(ii) Causes of change of state.

(8) Clouds:

(i) Composition, formation, and dissipation.

(ii) Types and associated precipitation.

(iii) Use of cloud knowledge in forecasting.

(9) Fog:

(i) Causes, formation, and dissipation.

(ii) Types.

(10) Ice:

(i) Causes, formation, and dissipation.

(ii) Types.

(11) Stability and instability:

(i) Temperature lapse rate, convection.

(ii) Adiabatic processes.

(iii) Lifting processes.

(iv) Divergence.

(v) Convergence.

(12) Turbulence:

(i) Jetstream associated.

(ii) Pressure pattern recognition.

(iii) Low level windshear.

(iv) Mountain waves.

(v) Thunderstorms.

(vi) Clear air turbulence.

(13) Airmasses:

(i) Classification and characteristics.

(ii) Source regions.

(iii) Use of airmass knowledge in forecasting.

(14) Fronts:

(i) Structure and characteristics, both vertical and horizontal.

(ii) Frontal types.

(iii) Frontal weather flying.

(15) Theory of storm systems:

(i) Thunderstorms.

(ii) Tornadoes.

(iii) Hurricanes and typhoons.

(iv) Microbursts.

(v) Causes, formation, and dissipation.

(b) *Weather, analysis, and forecasts.*

(1) Observations:

(i) Surface observations.

(A) Observations made by certified weather observer.

(B) Automated weather observations.

(ii) Terminal forecasts.

(iii) Significant en route reports and forecasts.

(A) Pilot reports.

(B) Area forecasts.

(C) Sigmets, airmets.

(D) Center weather advisories.

(iv) Weather imagery.

(A) Surface analysis.

(B) Weather depiction.

(C) Significant weather prognosis.

(D) Winds and temperature aloft.

(E) Composite moisture stability chart.

(F) Surface weather prognostic chart.

(G) Radar meteorology.

(H) Satellite meteorology.

(I) Other charts as applicable.

(v) Meteorological information data collection systems.

(2) Data collection, analysis, and forecast facilities.

(3) Service outlets providing aviation weather products.

(c) *Weather Related Aircraft Hazards.*

(1) Crosswinds and gusts.

(2) Contaminated runways.

(3) Restrictions to surface visibility.

(4) Turbulence and windshear.

(5) Icing.

(6) Thunderstorms and microburst.

(7) Volcanic ash.

3. *Area of Instruction:* Navigation (10 questions required)

Subjects:

(a) *Study of the Earth.*

(1) Time reference and location (0 Longitude, UTC).

(2) Definitions.

(3) Projections.

(4) Charts.

(b) *Chart Reading, Application, and Use.*

(c) *National Airspace Plan.*

(d) *Navigation Systems.*

(e) *Airborne Navigation Instruments.*

(f) *Instrument Approach Procedures.*

(1) Transition procedures.

(2) Precision approach procedures.

(3) Non-precision approach procedures.

(4) Minimums and the relationship to weather.

(g) *Special Navigation and Operations.*

(1) North Atlantic.

(2) Pacific.

(3) Global differences.

4. *Area of Instruction:* Communications (5 questions required)

Subjects:

(a) *Regulatory requirements.*

(b) *Communication Protocol.*

(c) *Voice and Data Communications.*

(d) *Notice to Airmen (NOTAMS).*

(e) *Aeronautical Publications.*

(f) *Abnormal Procedures.*

5. *Area of Instruction:* Air Traffic Control (10 questions required)

Subjects:

(a) *Responsibilities.*

(b) *Facilities and Equipment.*

(c) *Airspace classification and route structure.*

(d) *Flight Plans.*

(1) Domestic.

(2) International.
(e) *Separation Minimums.*
(f) *Priority Handling.*
(g) *Holding Procedures.*
(h) *Traffic Management.*
6. *Area of Instruction:* Emergency and Abnormal Procedures. (5 questions required)
Subjects:
(a) *Security measures on the ground.*
(b) *Security measures in the air.*
(c) *FAA responsibility and services.*
(d) *Collection and dissemination of information on overdue or missing aircraft.*
(e) *Means of declaring an emergency.*
(f) *Responsibility for declaring an emergency.*
7. *Area of Instruction:* Practical dispatch applications. (distance learning not allowed)
Subjects:
(a) *Human Factors.*
(1) Decision-making:
(i) Situation assessment.
(ii) Generation and evaluation of alternatives.
(A) Tradeoffs and prioritization.
(B) Contingency planning.
(iii) Support tools and technologies.
(2) Human error:
(i) Causes.
(A) Individual and organizational factors.
(B) Technology-induced error.
(ii) Prevention.
(iii) Detection and recovery.
(3) Teamwork:
(i) Communication and information exchange.
(ii) Cooperative and distributed problem-solving.
(iii) Resource management.
(A) Air Traffic Control (ATC) activities and workload.
(B) Flight crew activities and workload.
(C) Maintenance activities and workload.
(D) Operations control staff activities and workload.
(b) *Applied Dispatching.*
(1) Briefing techniques, Dispatcher, Pilot.
(2) Preflight:
(i) Safety.
(ii) Weather analysis.
(A) Satellite imagery.
(B) Upper and lower altitude charts.
(C) Significant en route reports and forecasts.
(D) Surface charts.
(E) Surface observations.
(iii) NOTAMS and airport conditions.
(iv) Crew.
(A) Qualifications.
(B) Limitations.
(v) Flight planning.
(A) Route of flight.
(1) Standard Instrument Departures and Standard Terminal Arrival Routes.
(2) En route charts.
(3) Operational altitude.
(4) Departure and arrival charts.
(B) Minimum departure fuel.
(*1*) Climb.
(*2*) Cruise.
(*3*) Descent.
(vi) Decision to operate the flight.
(vii) ATC flight plan filing.
(viii) Flight documentation.
(A) Flight plan.
(B) [Reserved]
(3) Authorize flight departure with concurrence of pilot in command.
(4) In-flight operational control:
(i) Situational awareness.
(ii) Information exchange.
(iii) Amend original dispatch release as required.
(5) Post-flight:
(i) Arrival verification.
(ii) Weather debrief.
(iii) Flight irregularity reports as required.
8. *Area of Instruction:* Weight and balance subject: (5 questions required)
Subject:
(a) *Theory and application weight and balance.*
(b) [Reserved]
9. *Area of Instruction:* Performance for the type of aircraft. (5 questions required)

END QPS REQUIREMENT

Attachment 4 of Appendix T to Part 121

Evaluation Requirements and Performance Standards for Initial, Combined Certification and Initial, Transition, Recurrent, Requalification, Differences, and Special Training Categories

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BEGIN INFORMATION

A. General

The following list provides a set of tasks and situations by area of evaluation for the aircraft dispatcher. These are the areas and tasks found in the introduction to the QPS in Table 4, Training Category Evaluation Requirements for Aircraft Dispatchers, which establishes the evaluation by task.

END INFORMATION

BEGIN QPS REQUIREMENT

B. Evaluation Requirements. (See §§ 121.1411; 121.1413; 121.1415; 121.1417; 121.1419; 121.1421; 121.1423; 121.1425; 121.1431; 121.1433; 121.1435; 121.1437; 121.1439; 121.1441; 121.1451; 121.1453; and 121.1471)

1. Evaluation is required for all tasks and situations listed in each duty area that pertain to the certificate holder's operations specifications for persons in initial, combined certification and initial, transition, recurrent, requalification, difference, and special training. Evaluation is also required for tasks and situations that are not listed, but that pertain to a certificate holder's operation. The aircraft dispatcher must understand, and where applicable, satisfactorily complete the tasks required for the areas of evaluation listed in Table 4 of this appendix.
2. The certificate holder must use Table 4 to determine the tasks and situations on which each aircraft dispatcher must be trained and evaluated for each training category. If the certificate holder adds tasks or situations to those listed in Table 4, it must further develop the tasks or situations to include the requirement and frequency for training and evaluation in each specific category of training listed in the table. These changes must be approved by the POI.
3. *Evaluation Requirements for Initial, Combined Certification and Initial, and Transition Training Categories.*
(a) The proficiency test for initial and combined certification and initial is a combination of knowledge evaluation and skills evaluation during which additional training or practice is not allowed.
(b) The proficiency test for transition may be a knowledge evaluation, a skills evaluation, or a combination of knowledge evaluation and skills evaluation, during which additional training or practice is not allowed.
(c) The knowledge evaluation portion of the proficiency test must cover the subjects in each area of evaluation in Table 4 of this appendix. The knowledge evaluation for initial and combined certification and initial must be in the form of written or computer based questions. The knowledge evaluation for transition must be in the form of oral, written, or computer based questions. The knowledge evaluation must contain the minimum number of questions addressing each area of evaluation outlined in this attachment. The FAA must approve the form and content in each area of evaluation. An individual must satisfactorily complete the knowledge evaluation. To

satisfactorily complete a knowledge evaluation, a score of 80% or better in each area of evaluation is required and a qualified person must correct the test to 100%. Correction of missed questions must include a discussion of which answer is correct, and why the answer selected is incorrect. Retraining is required in each area of evaluation when a score of 80% or better is not achieved. Retraining is followed by reevaluation of the student in each retrained area of evaluation. The form and content of the reevaluation must also be approved by the FAA.

(d) The skills evaluation portion of the proficiency test must be administered in either an actual or simulated dispatch work environment and must cover the subjects in each area of instruction as depicted in Table 4. Each area of evaluation must be satisfactorily demonstrated to the Check Dispatcher, Dispatch Program Designee, or FAA Operations Inspector, as applicable. Retraining is required for each task in each area of evaluation that is not satisfactorily completed. Retraining is followed by reevaluation of the student in each retrained area of instruction. The FAA must also approve the form and content of the reevaluation.

4. *Evaluation Requirements for Recurrent and Requalification Training Categories.*

(a) For recurrent training and requalification training, the proficiency check is a combination of knowledge evaluation and skills evaluation of tasks listed in Table 4 and described in this attachment during which additional training or practice is allowed. A portion of the proficiency check must be administered in either an actual or simulated dispatch work environment.

(b) The minimum number of questions addressing each task is listed in each area of evaluation. These questions are only required for knowledge evaluation portion of the proficiency check. The knowledge evaluation portion of the proficiency check must be administered in the form of oral, written, or computer based questions. To satisfactorily complete a proficiency check, a score of 80% in each task area of evaluation is required and a qualified person must correct the test to 100%. Correction of missed questions must include a discussion of which answer is correct, and why the answer selected is incorrect. Retraining is required in each area of evaluation when a score of 80% or better is not achieved. Retraining is followed by reevaluation of the student in each retrained area of evaluation. The form and content of the reevaluation must also be approved by the FAA. The skills evaluation portion of the proficiency check must be satisfactorily demonstrated to the Check Dispatcher, Dispatch Program Designee, or FAA Operations Inspector, as applicable.

5. Dispatch Resource Management (DRM) indicators must be evaluated throughout the entire proficiency test or check.

6. The certificate holder must tailor the procedures in this attachment for each aircraft type and approved operation. The certificate holder must include these procedures in the manual(s) provided to the aircraft dispatcher.

C. Tasks and Situations by Area of Evaluation (See §§ 121.1411; 121.1413; 121.1415; 121.1417; 121.1419; 121.1421; 121.1423; 121.1425; 121.1431; 121.1433; 121.1435; 121.1437; 121.1439; 121.1441; 121.1451; 121.1453; and 121.1471)

1. Area of Evaluation: General

(a) *Task: Equipment Knowledge.* (10 questions required).

The dispatcher must have an understanding and a basic knowledge about the following subjects (systems and components) (as applicable):

(1) Landing gear, including: Extension and retraction systems, brakes, anti-skid, tires, nose-wheel steering, and shock absorbers.

(2) Engine(s), including: Controls and indications, induction system, carburetor and fuel injection, turbo-charging, cooling, fire detection and protection, mounting points, turbine wheels, compressors, de-icing, anti-icing, and other related components.

(3) Propellers, including: Type, controls, feathering and unfeathering, auto feather, negative torque sensing, synchronizing, and synchro-phasing.

(4) Fuel system, including: Capacity, controls; indicators; cross-feeding; transferring; jettison; fuel grade, color and additives; fueling and de-fueling procedures; and allowable fuel substitutions, if applicable.

(5) Oil system, including: Grade and indicators.

(6) Hydraulic system, including: Capacity pumps, pressure, reservoirs, grade, and regulators.

(7) Electrical system, including: Alternators, generators, battery, circuit breakers and protection devices, controls, indicators, and external and auxiliary power sources and ratings.

(8) Environmental systems, including: Heating, cooling, ventilation, oxygen and pressurization, controls, indicators, and regulating devices.

(9) Avionics and communications, including: Autopilot, flight director, and Electronic Flight Indicating Systems (EFIS); Flight Management System(s) (FMS); Long Range Navigation systems; Doppler Radar; Inertial Navigation Systems (INS); Global Positioning System (GPS, DGPS, WGPS); VOR, NDB, ILS, MLS, and RNAV systems and components; indicating devices; transponder; and emergency locator transmitter.

(10) Ice protection (anti-ice and de-ice), including: Pitot-static system, propeller (if appropriate), windshield, wing and tail surfaces.

(11) Flight controls, including: Ailerons, elevator(s), rudder(s), control tabs, balance tabs, stabilizer, flaps, spoilers, leading edge flaps and slats, and trim systems.

(b) *Task: Aircraft Performance and Limitations Knowledge.* (10 questions required)

(1) The dispatcher must understand and be proficient in the use of (as appropriate to the aircraft) performance charts, tables, graphs, or other data relating to the certificate holder's approved system for the following:

(i) Accelerate—stop distance.

(ii) Accelerate—go distance.

(iii) Balanced field.

(iv) Takeoff performance, all engines and with engine(s) inoperative, as appropriate.

(v) Climb performance including segmented climb performance; with all engines operating; with one or more engine(s) inoperative, and with other engine malfunctions as may be appropriate.

(vi) Service ceiling, all engines, with engines(s) inoperative, including Drift Down and Terrain Clearance, if appropriate.

(vii) Cruise performance.

(viii) Fuel consumption, range, and endurance.

(ix) Descent performance.

(xi) Go-around from rejected landings.

(xii) The effects of meteorological conditions upon performance characteristics with correct application of these factors to a specific chart, table, graph or other performance data.

(xiii) How to determine longitudinal and lateral center-of-gravity location for a specific load condition including how to add, remove, or shift weight to meet longitudinal (forward and aft), and lateral balance limits for takeoff, cruise, and landing.

(2) The aircraft dispatcher must know all of the limitations appropriate to each aircraft type and the kind of operation the dispatcher dispatches with respect to:

(i) Systems and components.

(ii) Performance.

(iii) MEL issues and how they may be different for a flag operation or a domestic operation.

(c) *Task: Operating Requirements* (10 questions required).

The aircraft dispatcher must understand the certificate holder's operating requirements as provided in:

(1) Operations Specifications.
(2) General Operating Manual.
(3) 14 CFR part 1.
(4) 14 CFR part 91.
(5) 14 CFR part 119.
(6) 14 CFR part 121.
(7) 14 CFR part 139.
(8) 49 CFR part 175 (HMR).
(9) 49 CFR part 830 (NTSB).
(10) Special Federal Aviation Regulations (SFARs).
(11) 49 CFR Chapter 12 (TSR).
(12) ATC System.
(13) Airport Facility Directory.

(d) *Task: National Weather System.* (5 questions required).

The aircraft dispatcher must know the National weather system (international weather systems, if applicable) and be able to use the system to assess weather conditions at departure, intermediate, en route, destination, and alternate airports.

(e) *Task: National NOTAM System.* (5 questions required).

The aircraft dispatcher must know the National NOTAM system (international NOTAM systems, if applicable) and be able to determine the impact of these NOTAMs on en route flight planning and at departure, intermediate, en route, destination, and alternate airports.

2. Area of Evaluation: Duty Period Orientation

(a) *Task: Operations Orientation.* (5 questions required).

The dispatcher must know how to use available information to create an operations orientation that covers, as applicable:

(1) The location of all flights for which the dispatcher is responsible.
(2) Planned flights and any special flights for the duty period.
(3) Knowledge of issues, such as anticipated ATC problems and delays.
(4) NOTAMS, weather, and field conditions for regular and alternate airports.
(5) Navigation facilities and any irregularities that may affect the safety of flight.

(b) *Task: Dispatcher Shift Turnover.* (5 questions required).

The dispatcher must:

(1) Determine that his or her duty schedule complies with part 121 dispatcher duty regulations and certificate holder operating procedures.
(2) Become thoroughly briefed at the beginning of duty period by the dispatcher who is turning over operational control.
(3) Develop situational awareness and prioritize his or her workload.
(4) Provide thorough briefing at the end of the duty period to the relieving dispatcher.

(c) *Task: Shift Self Briefing.* (5 questions required)

The aircraft dispatcher must use available information to anticipate and respond to events that may occur during the duty period, including:

(1) The general weather patterns.
(2) Weather information system status.
(3) EWINS status (if applicable).
(4) Radar imagery.
(5) Fuel status of current and planned flights.
(6) MEL status of current and planned flights.
(7) General airport conditions.

(d) *Task: Certificate Holder Manuals, Procedures, and Operating Information.* (10 questions required)

The aircraft dispatcher must understand and verify the currency of the operational procedures contained in the following:

(1) Certificate holder manual containing Flight Crew Operating Manual (FCOM) information.
(2) Airplane Flight Manual (AFM).
(3) Manual containing certificate holder operations procedures.
(4) Manual containing the Aircraft Dispatcher Procedures Manual (ADPM).
(5) Aeronautical Information Manual (AIM).
(6) Certificate holder's operations specifications.
(7) Maintenance restrictions such as airworthiness directives.
(8) MEL.
(9) CDL.

3. Area of Evaluation: Planning and Executing a Dispatch Release

(a) *Task: Obtain, Evaluate, and Disseminate Required Information.* (10 questions required)

The aircraft dispatcher must do the following, as applicable:

(1) Obtain, evaluate, and disseminate to the flight crew all pertinent weather information in the aircraft dispatcher's area of responsibility as follows:
(i) Weather reports and forecasts.
(ii) Pilot and radar reports.
(iii) Surface analysis reports.
(iv) Radar summary charts.
(v) Significant weather prognostics.
(vi) Winds and temperature aloft.
(vii) Freezing level charts.
(viii) Turbulence reports and forecasts.
(ix) Icing reports and forecasts.
(x) Stability charts.
(xi) Severe weather outlook charts.
(xii) Constant pressure charts.
(xiii) Constant pressure prognostics.
(xiv) Tables and conversion graphs.
(xv) SIGMETS, convective SIGMETS, convective outlooks, weather warnings, and AIRMETS.
(xvi) ATIS report.
(xvii) Satellite imagery.
(xviii) NOTAMs.
(xix) Field condition reports.

(2) Obtain, evaluate, and disseminate to the flight crew other information in the aircraft dispatcher's area of responsibility, such as the following:
(i) Aircraft status.
(A) Maintenance and MEL.
(B) Loading and fuel.
(C) Performance data.
(ii) ATC problems such as departure or arrival delays, flow control and en route or altitude problems.
(iii) ATC tower closures, curfews, or other information, such as noise abatement requirements at or near the arrival period.
(iv) Fuel and ground handling issues.
(v) Highlight restrictive MEL and CDL items.
(vi) Irregular operations plan of action (e.g., diversion).

(3) Obtain, review, and disseminate to the flight crew the following:
(i) The suitability of runways, including whether closed runways or runways with displaced thresholds are accounted for in the performance computations.
(ii) All NOTAMs.
(iii) Information about field conditions (contact the station if the information is not readily available) at airports to determine the validity of the information and the impact on operations.
(iv) The fueling restrictions and any station equipment problems (contact the station if the information is not readily available) for the airports to determine the impact on planned operations.

(4) Review the aircraft dispatcher ''read file'' for updated operational information.

(5) Review AIM.
(i) Navaids.
(ii) Airports and air navigation and lighting.
(iii) Airspace.
(iv) Air traffic control procedures including clearances.
(v) Airport operations.
(vi) Departure, en route, and arrival procedures.

(6) Review the Flight Crew Qualification for route to be flown
(i) Special airports.
(ii) Special use airspace.
(iii) High minimum captains and flight crew minimums.

(7) Review the aircraft status.
(i) Maintenance and MEL.
(ii) Loading and fuel.
(iii) Performance data.
(iv) Special areas of operation requirements.
(b) *Task: Flight Planning.* (15 questions required)
The aircraft dispatcher must do the following, as applicable:
(1) Select an alternate airport.
(i) Use a flight movement forecast (FMF) under an approved EWINS program.
(ii) Determine whether an alternate airport is required for the destination airport in accordance with 14 CFR part 121, any existing exemptions, deviations, operations specification requirements, and procedures, for the certificate holder.
(iii) If weather conditions at the departure airport are below landing minimums in the certificate holder's operation specifications for that airport, specify a departure alternate in accordance with 14 CFR part 121, and the approved certificate holder procedures.
(iv) Ensure that each alternate airport selected (whether for departure or destination airports) meets the requirements of 14 CFR part 121, and the approved certificate holder procedures.
(v) Consider and plan for an unscheduled stop.
(vi) Determine the operational suitability of the planned alternate by determining the following:
(A) Field conditions (e.g., wet runways, runway friction reports, braking action reports).
(B) The MEL and CDL status of the aircraft and any potential weather related condition or restriction.
(C) Crosswind and tailwind components.
(D) Weather reporting service is available.
(E) Approach chart does not prohibit its use as an alternate.
(F) The appropriate navigational facilities are monitored and operational.
(G) The airport has an instrument approach procedure authorized for use by the certificate holder.
(H) Tower closures and alternative procedures.
(2) Determine whether holding is anticipated at both the destination and the appropriate alternate(s) by considering the following:
(i) En route conditions.
(ii) ATC constraints.
(iii) Possible re-routes.
(iv) Marginal weather conditions at the arrival airports.
(v) MEL and CDL considerations.
(3) Determine the MEL and CDL status of the aircraft and its impact on the flight plan.
(4) Plan the flight considering the following:
(i) The ATC preferred routing (e.g., High Altitude Redesign, RVSM, RNP).
(ii) The performance requirements of part 121, subpart I.
(iii) The MEL or CDL status of the aircraft and any potential weather related considerations of resultant restrictions.
(iv) The en route navigational facilities are monitored and operational.
(v) Maintenance, test, training, and ferry flights (as applicable).
(5) Determine the fuel load requirements.
(i) Ensure that the flight is released with sufficient fuel on board to comply with the requirements of 14 CFR and the certificate holder's requirements for computing minimum fuel supply.
(ii) Consider the impact of underfueling or overfueling on the dispatch release.
(iii) Comply with the requirements of any deviations or exemptions used.
(6) Determine aircraft performance requirements. Ensure that the flight is released at a weight and configuration that complies with the requirements of 14 CFR part 121, subpart I and any additional certificate holder requirements.
(c) *Task: Create and Issue Dispatch Release.* (5 questions required)
The aircraft dispatcher must do the following, as applicable:
(1) Create and issue a dispatch release using the certificate holder's approved system for issuing dispatch releases.
(2) Create and issue a dispatch release using the certificate holder's approved back-up system for issuing dispatch releases.
(3) Ensure that the dispatch release meets the regulatory requirements and contains or has attached to it the available weather reports, weather forecasts (or a combination of these) for the destination airport, any intermediate stops, and any alternate airports.
(4) Ensure the dispatch release meets the approved certificate holder requirements.
(d) *Task: Briefing Flight Crews.* (5 questions required)
The aircraft dispatcher must demonstrate the ability to brief the flight crew on the topics listed in paragraph C.3. of this attachment.

4. Area of Evaluation: Flight Monitoring

(a) *Task: Updating and Gathering Information.* (5 questions required)
During the en route portion of the flight, the dispatcher must:
(1) Track changing weather and operating conditions.
(2) Determine the actual time the aircraft departed, progress of flight, and its estimated time of arrival.
(3) Provide the PIC with necessary information for the safe conduct of the flight, such as changing meteorological conditions or irregularities of facilities and services. Provide this information using the certificate holder's approved communication system(s).
(4) Advise the PIC of any changes in the operations environment as follows:
(i) ATC constraints.
(ii) Updated NOTAMs that may affect the flight.
(iii) Change in operations and an alternate plan.
(iv) Field conditions and runway availability.
(b) *Task: Operational Control Decisionmaking.* (5 questions required)
The aircraft dispatcher must do the following, as applicable:
(1) Understand the operational function of and interaction with other departments, such as the following:
(i) Maintenance.
(ii) Crew scheduling.
(iii) Training.
(iv) Customer service.
(v) Airport and station.
(2) Process the operational function of and interaction with these departments into an operational control decision in accordance with approved certificate holder procedures.
(c) *Task: Amend Dispatch Release.* (5 questions required).
The aircraft dispatcher must demonstrate the following:
(1) Determine when an amendment to a dispatch release is required (e.g., mechanical problem, alternate or destination changes).
(2) Amend the dispatch release in accordance with approved certificate holder procedures.
(3) Record that amendment in accordance with approved certificate holder procedures.

5. Area of Evaluation: Situation Management

(a) *Task: Dispatch and Aircraft Abnormality or Emergency.* (10 questions required).
The dispatcher must demonstrate the ability to do the following:
(1) Manage the following abnormal and emergency situations generated from a source other that the flight crew:
(i) A bomb threat is received.
(ii) Inflight medical emergency.
(iii) Engine failure in flight.
(iv) Inflight fire.
(v) Overweight landings.
(vi) Low fuel emergencies.

(vii) Aircraft diversions.
(viii) Hijacking.
(ix) Sabotage threats.
(x) An aircraft has been involved in a major accident.
(xi) An aircraft is overdue or missing.
(xii) Actions or alerts issued by military or other security agencies.
(xiii) Any other operational situation that affects the safety of flight.
(2) Establish communication with the Aircraft through the normal certificate holder air to ground communication system.
(3) Immediately notify the PIC of an emergency situation that arises during flight that requires an immediate decision and action by an aircraft dispatcher and record that decision.
(4) Determine whether the PIC has declared an emergency.
(5) Declare an emergency (if appropriate) in accordance with 14 CFR in the event the aircraft dispatcher cannot communicate with the PIC.
(6) Maintain operational control of the flight experiencing the abnormal or emergency situation.
(7) Notify certificate holder management of the abnormal or emergency situation.
(8) Maintain operational control of all flights in the dispatcher's control.
(9) Contact maintenance for mechanical situations.
(10) Determine the extent of the situation and attempt to classify the type of situation in order to report it properly to the authorities.
(11) Use of the appropriate certificate holder manuals (e.g., QRH, emergency procedures manual).
(b) *Task: Collection and dissemination of information on overdue or missing aircraft.* (5 questions required).
The aircraft dispatcher must:
(1) Know how to send a written report of any deviation (within 10 days of the emergency) through the certificate holder's operations manager to the POI at the certificate holding district office in accordance with 14 CFR.
(2) Know how to notify the nearest National Transportation Safety Board (NTSB) office when an accident or any of the following occur:
(i) Flight control system malfunction or failure.
(ii) Inability of any required flight crewmember to perform normal flight duties as a result of injury or illness.
(iii) Failure of structural components of a turbine engine excluding compressor and turbine blades and vanes.
(iv) In-flight fire.
(v) Aircraft collide in flight.
(vi) Damage to property, other than the aircraft, estimated to exceed $25,000 for repair (including materials and labor) or fair market value in the event of total loss, whichever is less.
(vii) For large multiengine aircraft (more than 12,500 pounds maximum certificated takeoff weight):
(A) In-flight failure of electrical systems which requires the sustained use of an emergency bus powered by a back-up source such as a battery, auxiliary power unit, or air-driven generator to retain flight control or essential instruments;
(B) In-flight failure of hydraulic systems that results in sustained reliance on the sole remaining hydraulic or mechanical system for movement of flight control surfaces;
(C) Sustained loss of the power or thrust produced by two or more engines; and
(D) An evacuation of an aircraft in which an emergency egress system is utilized.
(viii) An aircraft is overdue and is believed to have been involved in an accident.

6. Area of Evaluation: Dispatch Resource Management

(a) *Evaluation.* Evaluation of an aircraft dispatcher's practical application of DRM skills must occur as follows:
(1) After the aircraft dispatcher has completed initial, combined certification and initial, recurrent, and requalification training. This evaluation must be completed during the proficiency test (for initial and combined certification and initial training) and during the proficiency check (for recurrent or requalification training).
(2) During the supervised operating experience delivered after initial, combined certification and initial, and requalification training.
(b) *Task: Demonstrate and apply DRM concepts.* (Evaluation must be in the form of demonstration)
The aircraft dispatcher must know and be able to apply the following DRM competencies:
(1) Briefings.
(2) Assertiveness.
(3) Inquiry.
(4) Conflict resolution.
(5) Interdepartmental coordination process.
(6) Interpersonal relationships.
(7) Situational awareness.
(8) Preparation, planning, and vigilance.
(9) Time management (prioritizing).
(10) Tactical and strategic use of resources.
(11) Stress management.
(12) Decisionmaking process.
(13) Multi-tasking.
(14) Risk management.
(15) Leadership.
(16) Communication.

PART 135—OPERATING REQUIREMENTS: COMMUTER AND ON-DEMAND OPERATIONS

35. The authority citation for part 135 continues to read as follows:

Authority: 49 U.S.C. 106(g), 44113, 44701–44702, 44705, 44709, 44711–44713, 44715–44717, 44722.

36. Revise § 135.1(a)(4) to read as follows:

§ 135.1 Applicability.

(a) * * *
(4) Each person who applies for initial or provisional approval of an Advanced Qualification Program curriculum, curriculum segment, or portion of a curriculum segment under subpart Y of part 121 of this chapter and each person employed or used by a certificate holder to perform training, qualification, or evaluation functions under an Advanced Qualification Program under subpart Y of part 121 of this chapter.
* * * * *

37. Revise § 135.3(b) and (c) and add paragraph (d) to read as follows:

§ 135.3 Rules applicable to operations under this part.

* * * * *

(b) Each certificate holder that conducts commuter operations under this part with airplanes in which two pilots are required by the type certification rules of this chapter must comply with subpart BB of part 121 of this chapter instead of the requirements of subparts E, G, and H of this part.
(c) The rules in subpart BB of part 121 of this chapter are considered a subpart of part 135 of this chapter for certificate holders identified in paragraph (b) of this section.
(d) If authorized by the Administrator upon application, each certificate holder that conducts operations under this part to which paragraph (b) of this section does not apply, may comply with the applicable sections of subpart BB of part 121 of this chapter instead of the requirements of subparts E, G, and H of this part, except that those authorized certificate holders may choose to comply with the operating experience requirements of § 135.244, instead of the requirements of § 121.1225 of this chapter.

PART 142—TRAINING CENTERS

38. The authority citation for part 142 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 40119, 44101, 44701–44703, 44705, 44707, 44709–44711, 45102–45103, 45301–45302.

§ 142.1 [Amended]

39. Remove and reserve § 142.1(b)(2).

40. Revise § 142.63(b) to read as follows:

§ 142.63 Privileges.

* * * * *

(b) Approved under subpart Y, Advanced Qualification Program, of part 121 of this chapter, for meeting recency of experience requirements.

Issued in Washington, DC, on December 4, 2008.

John M. Allen,

Acting Director, Flight Standards Service.

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