#### **DEPARTMENT OF TRANSPORTATION**

#### **Federal Aviation Administration**

#### 14 CFR Part 65

[Docket No. FAA-1998-4553; Notice No. 98-14]

RIN 2120-AG04

#### Revision of Certification Requirements: Aircraft Dispatchers

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking

(NPRM).

**SUMMARY:** The FAA proposes to amend existing regulation that prescribe the eligibility and certification requirements for aircraft dispatchers. Current regulations prescribing these requirement do not reflect the significant technological advances that have occurred in the aviation industry and the enhancements in training and instructional methods that have affected all aircraft dispatchers. The proposed rule would consolidate and clarify eligibility, knowledge, experience, and skill requirements for aircraft dispatchers and would enhance the technical capabilities and increase the level of professionalism among aircraft dispatchers. This proposal is based on the work of the Dispatch Working Group of the FAA's Aviation Rulemaking Advisory Committee.

**DATES:** Comments must be received on or before February 16, 1999.

ADDRESSES: Comments on this NPRM should be mailed or delivered, in duplicate, to: U.S. Department of Transportation Dockets, Docket No. FAA–1998–4553, 400 Seventh Street, SW., Room Plaza 401, Washington, DC 20590. Comments may also be submitted electronically to the following Internet address: 9–NPRM–CMTSfaa.dot.gov. Comments must be marked Docket No. FAA–1998–4553. Comments may be filed and/or examined in Room Plaza 401 weekdays between 10:00 a.m. and 5:00 p.m., except on Federal holidays.

FOR FURTHER INFORMATION CONTACT: Harold Johnson, DFW Flight Standards District Office, DFW Business Center, P.O. Box 619020, Federal Aviation Administration, DRW Airport, TX 75261; telephone (817) 222–5259.

#### SUPPLEMENTARY INFORMATION:

#### **Comments Invited**

Interested persons are invited to participate in the making of this proposed rule by submitting written data, views, or arguments, as they may desire. Comments relating to the environmental, energy, federalism, or economic impact that might result from adopting the proposals in this notice are also invited. Substantive comments should be accompanied by cost estimates, if appropriate.

Comments should identify the regulatory docket or notice number and should be submitted in triplicate to the Rules Docket address specified above. All comments received on or before the specified closing date for comments will be considered by the Administrator before taking action on this rulemaking. The proposals contained in this notice may be changed in light of comments received. All comments received will be available both before and after the closing date, in the Rules Docket for examination by interested persons.

A report summarizing each substantive contact with FAA personnel concerned with this rulemaking will be filed in the docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must include a self-addressed, stamped postcard on which the following statement is made: 'Comments to Docket No. FAA–1998–4553.'' The postcard will be date stamped and mailed to the commenter.

#### Availability of the NPRM

An electronic copy of this document may be downloaded using a modem and suitable communications software from the FAA regulations section of the Fedworld electronic bulletin board service (telephone: 703–321–3339) or the Government Printing Office's electronic bulletin board service (telephone: 202–512–1661).

Internet users may reach the FAA's web page at http://www.faa.gov or the Government Printing Office's webpage at http://www.access.gpo.gov/nara for access to recently published rulemaking documents.

Any person may obtain a copy of this NPRM by mail by submitting a request to the Federal Aviation Administration, Office of Rulemaking, 800 Independent Avenue, SW., Washington, DC 20591, or by calling (202) 267–9677. Communications must identify the notice number of this NPRM.

Persons interested in being placed on the mailing list for future NPRM's should request from the FAA's Office of Rulemaking a copy of Advisory Circular No. 11–2A, Notice of Proposed Rulemaking Distribution System, that describes the application procedure.

#### **Background**

In keeping with the FAA's policy of reviewing and upgrading regulations to ensure that they are consistent with changes in the aviation environment, the FAA, with the assistance of the Aviation Rulemaking Advisory Committee (ARAC) has reviewed part 65, subpart C, and appendix A of 14 CFR part 65 which pertain to aircraft dispatchers. In the preceding 30 years few changes have been made to the dispatcher certification requirements, although numerous technological advances in the aviation industry and concerns over changes in operational practices and training methods have occurred.

In October 1993, an industry task force concluded an initial investigation of part 65, subpart C. The task force's objective was to determine whether part 65, subpart C, needed to be updated, what specific sections required updating, and whether industry, training schools, and FAA examiners were of the same opinion. The task force was comprised of representatives of airlines, associations, unions, academia, and interested parties. The Airline Dispatch Federation (ADF) coordinated these activities. The task force found that technology had outpaced the current regulations. The task force also found that various designated examiners and FAA regional offices were interpreting several of the regulations in a manner inconsistent with each other and FAA headquarters. The results of this informal task force study were presented at several ADF quarterly

On September 27, 1993, the Transport Workers Union Local 542 of Euless, TX, petitioned the FAA to request a regulatory review of part 65, subpart C, and appendix A. On November 10, 1993, the FAA requested the ARAC to review the initial certification training requirements of aircraft dispatchers. The ARAC formed a "Dispatch Working Group" to complete this assignment (59 FR 3155, Jan. 20, 1994). The ARAC tasked this working group to conduct a review of the certification requirements for aircraft dispatchers.

All of the proposals in this NPRM have been extensively researched for the FAA by the Dispatch Working Group, and all proposals made in this NPRM are based on the ARAC's recommendations.

#### **General Discussion of the Proposal**

The proposals developed during the part 65, subpart C, and appendix A regulatory review are set forth in this NPRM and cover a broad range of issues

affecting the certification of aircraft dispatchers. The proposals included in this NPRM would accomplish the following:

- 1. Establish a minimum age to be eligible to take the knowledge test required by current § 65.55.
- 2. Update the experience requirements in current § 65.57 for an aircraft dispatcher certificate.
- 3. Allow the equivalent experience finding under current § 65.57(a)(6) to be made only by the Administrator's representative who is a certificated aircraft dispatcher.
- Retain the current basic dispatch certificate without introducing a system of ratings or limitations.
- 5. Eliminate duplication of certain educational requirements by relocating them from current subpart C to proposed appendix A.
- 6. Relocate information concerning initial and continued eligibility for dispatcher certification courses, training facilities, instruction, and records from current appendix A to proposed subpart C of part 65. The goal of relocating information as described in this item and item 5 is to include all requirements other than course content in proposed subpart C and all course content and related details in proposed appendix A.
- 7. Add an "overview" paragraph to appendix A that contains general information about aircraft dispatcher training courses.
- 9. Revise appendix A to include a new training outline that would add new subjects, e.g. "emergency and abnormal procedure."
- 9. Eliminate sub-category training hour requirements from appendix A while retaining total course hour requirements.
- 10. Introduce "human factors" training during initial certification (proposed paragraph VIII A of appendix A)
- 11. Introduce in appendix A a training outline that would allow training to change as technology changes, without the need for a rule change, by making the following changes:
- (a) State the training outline in general terms so that future technological enhancement or changes in operational practices could be readily added.
- (b) Link appendix A to the Practical Test Standards (PTS) Guide, thus allowing training requirements to be revised.

#### **Principal Issues**

Revision of § 65.53 Eligibility Requirements; Establishment of a Minimum Age for the Knowledge Test

Section 65.53 would be revised to add a minimum age requirement of 21 years to be eligible to take the knowledge test. The minimum age requirement to be eligible for an aircraft dispatcher certificate would still be 23 years of age. The FAA is adding this provision to clear up confusion among training centers and to provide a standard policy. Currently, confusion among training centers exists when prospective dispatchers take both the knowledge and practical exams prior to reaching their 23rd birthday. Some training centers find this practice acceptable and delay certificate issuance until the age requirement is met. Other training centers find this practice unacceptable and do not allow an applicant to take the knowledge test until the applicant is 23 years of age. As a practical matter adding a minimum age requirement of 21 years would not be a substantive change since under current § 65.55(b) a passing grade on a written test is only valid for 24 months after the date the test is given.

In addition, the term "knowledge test" replaces "written test" because the FAA believes the term "knowledge test" is a more inclusive term, referring to either test administered with pencil and

paper or by computer.

Finally, the FAA is proposing to clarify the English language requirements for flight dispatchers. The FAA has determined, for safety concerns, that operations in the National Airspace System (NAS) require a basic command of the English language. The FAA, however, recognizes that some individuals have a command of the English language, but due to medical reasons may not be able to read, speak, or write the English language, e.g., deaf individuals. Therefore, to accommodate these individuals, the FAA is providing a provision that would permit limitations to the placed on the individuals' flight dispatcher certificate based on medical conditions if the Administrator determines it is in the interest of safety. This would also standardize this provision with other parts of this chapter, e.g., part 61.

Revision of § 65.57 Experience or Training Requirements

Section 65.57 is reorganized to provide more clarity to the eligibility requirements. The proposed regulation would separate military experience from part 121 air carrier operations experience. This would require that specific experience be delineated to the appropriate category.

In addition, air carrier operations would be changed from "scheduled air carrier" to "part 121 operations" to ensure that experience is verifiable and applicable. Experience as a radio operator would not longer be accepted because the FAA has determined that radio operators do not have sufficient experience in such subject areas as meteorology, weight and balance, emergency procedures, the applicable regulations, aeronautical charts, and flight planning. In addition, the FAA has determined that the experience for air traffic controllers would be expanded to include "Flight Service Specialist", since as a job requirement Flight Service Specialist are required to have knowledge and perform in the following areas: meteorology, air traffic control, pilot briefings, flight planning, aeronautical charts and emergency procedures.

Current § 65.57(a) allows the Administrator to find that where other duties, in addition to those listed in § 65.57(a) (1)–(5), provide equivalent experience, an applicant is eligible for an aircraft dispatcher certificate without attending a dispatcher course. In evaluating equivalent experience, as proposed, the Administrator's representative must be aircraft dispatcher certificated. This proposed requirement would ensure that the evaluator has the appropriate knowledge base to make a qualified determination.

Knowledge and Skill Requirements

Currently subpart C contains information that is duplicated in the appendix. Redundancy would be eliminated by moving detailed training requirements set out in current §§ 65.66(a) (1) through (8) and 65.59 (a) through (e) to appendix A. This reorganization would make the rules more clear and easier to follow.

Realignment of Regulatory Requirements and Training Material

Regulatory materials on obtaining approval of an aircraft dispatcher certification course covering required training facilities, instructions and records currently at the end of appendix A would be included in subpart C. This material would be relocated to proposed §§ 65.61, 65.63, 65.65, 65.67, and 65.70. Since this material contains what are in fact eligibility requirements, it is more appropriate in the text of the regulation than in an appendix. Section 65.63, 65.65, 65.67, and 65.70 would be new.

As previously mentioned, training material from the Knowledge and Skill Requirements regulations that describe a detailed course curriculum would be moved into appendix A. With this realignment, all mandatory eligibility requirements would be contained in subpart A. One exception is that the minimum number of 200 course hours is included in proposed § 65.61(a) rather than in appendix A as it now is.

#### Appendix A Revision

As mentioned above, an appendix A overview would be added in this proposal and would contain information regarding course topic information, use of state of the art technologies and techniques, and air carrier specific training. While all of the listed material must be taught, the course order is flexible and an integrated training approach may be used. Currently, blocks of material are taught separately, yet the material is interrelated, so an integrated training approach is desirable. In addition, the proposed appendix would clarify that, while, upon certification under this subpart a new dispatcher would meet all requirements necessary to exercise privileges of the aircraft dispatcher certificate, air carrier specific training also may be required by the applicable operating rules.

Appendix A would be completely revised based on technological advances from the preceding 30 years and those that may be anticipated in the future. A specific detailed documentation of proposed changes in listed below in the "section by section" analysis.

## Subcategory Elimination of Minimum Training Times

This NPRM proposes a minimum course hour content of 200 training hours (the current minimum is 198 hours) (see proposed § 65.61(a)). Although the NPRM proposes to eliminating the subcategory hour requirements the two hour increase in training would accommodate the addition of new topics. In addition the training centers and schools suggested that the minimum hours be increased. Appendix A would be divided into eight main subject areas but would not include a minimum hour requirement for each subject area as it now does. By eliminating the sub-category hour requirement an integrated training approach can be more readily used. This also would allow training centers to change curriculum as needs change in the future. Training centers that wish to modify the curriculum as their needs change would submit the proposed

changes to their principle operations inspectors for review and approval.

#### Human Factors Training

An innovative concept in initial certification training for aircraft dispatchers includes the introduction of human factors training. This type of training is based on a number of human performance variables, such as communication, decision-making, teamwork, and leadership. Human factors training for cockpit crewmember personnel has been conducted for years and has recently been made mandatory for dispatchers as well as for flight crewmembers (see "Air Carrier and **Commercial Operator Training** Programs," 60 FR 65940, December 20, 1995). Today, human factors experts agree that the cockpit crewmember is just one part of the transportation system. Experts agree that Crew Resource Management (CRM) training is important because it includes all members of the operational team (see Advisory Circular (AC) 121-32, "Dispatch Resource Management Training" and AC 120-51B, as amended, "Crew Resource Management Training''). Rather than wait until actively dispatching flights, it is better to begin human factors training during the certification process. This would provide maximum benefit and retention level to the airman. In this regard, human factors training can be established prior to actively working flights. Of central importance to human factors training is communications and decision making. Aircraft dispatchers are the communications nexus in the air transportation system. Dispatchers routinely communicate with and obtain information from over 25 groups of aviation professionals that have responsibility for some portion of the air transportation system. Then dispatchers must analyze, prioritize, and disseminate information as appropriate. Much of this information can be considered critical to the safety of flight. Therefore, the FAA strongly believes human factors training should be required and conducted during initial certification for maximum air transportation safety.

## Basic Certificate vs. Endorsements and Ratings

The ARAC, after an extensive analysis, determined that it would be better to retain the current certificate structure without introducing a system of rating or endorsements. The ARAC discussed adding an "international" endorsement; however, this was deemed unwarranted due to the complexity and unique qualities of international

operators. It was felt that airline or equipment-specific training was best left to the airlines so that it could be tailored to specific requirements. Examples of specific types of training include twin engine extended range operations, operations in areas of magnetic unreliability, and high altitude operations at airports in several South American airports.

#### Future Technological Advancements

Technology and new operational practices often outpace training and the regulations associated with training. This subpart, for example, has not been updated for over 30 years. With this in mind the ARAC's Dispatch Working Group explored ways to write a training outline that would not quickly become obsolete.

#### General vs. Specific

The proposed training outline in appendix A is written in general terms. If very specific terms were used in the representation of technology it could become obsolete within several years. Specific automated observations currently include AWOS (automated weather observing system), ASOS (automated surface observing system), etc. These observations may not be used in the future, therefore, the proposed training outline lists "automated" weather observations.

#### Practical Test Standards Guide (PTS)

Proposed appendix A contains language that references the PTS guide prepared and published by the FAA. Through the PTS guide, the FAA is able to give examiners general guidance on which subjects are appropriate for testing. From the PTS guide, an examiner is able to determine those specific subject areas that are appropriate for testing the knowledge and skills of a candidate for an aircraft dispatcher certificate. Since it is virtually impossible to theorize what technological advancements are in store for the aviation community in the future and to reflect those advancements specifically in part 65, subpart C and appendix A, it appears to be desirable to link the training outline in appendix A to a document like the PTS guide that can be easily revised but that is exposed to public review and participation.

#### **Section-by-Section Analysis**

Part 65—Certification: Airmen Other Than Flight Crewmembers

The proposed revision to part 65, subpart C, would update eligibility, knowledge, experience and skill requirements for initial certification of aircraft dispatchers. The proposal would

revise and relocate regulatory material from appendix A to subpart C.

Section 65.51 Certificate Required

Current § 65.51 contains the basic requirements for an aircraft dispatcher certificate and also requires each person who holds an aircraft dispatcher certificate to present it for inspection upon request of the Administrator or other authorized official. This section remains unchanged.

Section 65.53 Eligibility Requirements: General

Current § 65.53 contains eligibility requirements for aircraft dispatcher certification. The proposed section is mostly based on current § 65.53. The proposed section would: (1) establish a minimum age requirement of 21 years for taking the knowledge test; and (2) clarify the English language requirements. These changes are more fully discussed above under the Principle Issues portion of this preamble.

Section 65.55 Knowledge Requirements

Proposed § 65.55 would replace the term "written test" with the term "knowledge test." The FAA believes the term "knowledge test" is a more inclusive term, referring to either tests administered with pencil and paper or by computer. This change is also consistent with changes that have been made in other parts of this chapter (e.g. 14 CFR part 61).

In addition, the proposal would move detailed subject matter from § 65.55 to appendix A of this part. This proposed change would eliminate redundancy that is currently in §§ 65.55(a) (1) through (8) and 65.59 (a) through (e). Also, the detailed subject matter would be described in more general terms, allowing training to change as technology changes without the need for a rule change.

Finally, the proposed changes to this section would clarify that a copy of the knowledge test with the student's documented results would be "provided" to the applicant rather than "sent" to the applicant. This change is needed to address computer testing centers where test results are immediately available and do not need to be mailed to the applicant.

Section 65.57 Experience or Training Requirements

Under this proposal, acceptable experience, which can be substituted for completion of an aircraft dispatcher certification course, would be limited to experience obtained in military

operations, in part 12 operations, as an air traffic controller, or as a flight service specialist, unless an equivalency finding is made under proposed § 65.57(a)(4). This would eliminate as acceptable experience any pilot, meteorologist, or dispatch experience obtained in any operation other than military or part 121 operations, thus, for example, excluding experience obtained under part 135 operations. (dispatch system is not required under part 135.)

This proposal would also eliminate flight or ground radio operator experience from being considered as acceptable experience for aircraft dispatcher eligibility as previously discussed under the Principle Issues portion of this preamble.

Finally, this proposed section would change the number of years of experience an assistant aircraft dispatcher may use to meet the experience requirements for an aircraft dispatcher certificate. Under the current rule, an applicant for an aircraft dispatcher certificate may meet the experience requirements for an aircraft dispatcher certificate by demonstrating that he or she has worked as an assistant in dispatching aircraft while under the direct supervision of a certificated aircraft dispatcher for a total of at least one out of the two years before the date he or she applies for the certificate. Under this proposal, the number of years of assistant aircraft dispatcher experience would change to two out of the last three years before the date the applicant applies for the certificate. This change is being proposed to standardize the number of years of experience required for all accepted areas of experience and to give the assistant aircraft dispatcher an additional opportunity to gain experience in a variety of program areas similar to those areas taught in a certificated dispatcher school curriculum.

The ARAC recommended the changes described above to the current experience requirements because of its determination that only the proposed experience requirements warrant being considered equivalent to the instruction received at an approved school. If an applicant receives instruction at an approved school, the course must be successfully completed within 90 days before the date of application.

The ARAC recommended that the Administrator's representative hold an aircraft dispatcher certificate in order to ensure that the representative has the appropriate knowledge base to make a determination regarding equivalent experience for an aircraft dispatcher certificate without attending a dispatcher course.

Section 65.59 Skill Requirements

The current regulation outlines specific topics and publications to be covered during the test, however, as proposed, specific topics would be deleted to reduce redundancy within regulatory and appendix sections. Instead, proposed § 65.59 would state that the test must be based on the Aircraft Dispatcher Practical Test Standards published by the FAA on the items outlined in appendix A of part 65. No substantive changes to the requirements have been made.

Section 65.61 Aircraft Dispatcher Certification Courses: Content and Minimum Hours

Current  $\S$  65.61 contains the general requirements for obtaining approval of an aircraft dispatcher certification course. The requirements of current  $\S$  65.61 are in this proposal divided between proposed  $\S$  65.61(a) and proposed  $\S$  65.63(a). In addition, proposed  $\S$  65.63 would contain several requirements now in appendix A.

Proposed § 65.61(a) would require, as does current § 65.61, that each aircraft dispatcher certification course must provide instruction on those areas of knowledge and topics listed in appendix A. It would also include the proposed 200 course hour minimum hours. Currently the minimum hours are contained in appendix A on a subject-by-subject basis.

Proposed § 65.61(a) would require a course outline as does the current rule but, in addition, would require that the outline indicate the number of hours proposed for major topics and subtopics to be covered since these hours would no longer be stated in appendix A. Proposed § 65.61(b) would also include a requirement, now in appendix A, paragraph (a), that additional subject headings can be included, but that the hours proposed for any subjects not listed in appendix A must be in addition to the minimum 200 required course hours.

Proposed § 65.61(c) would contain a provision now in paragraph (f) of appendix A that allows a student to receive credit for a portion of the required 200 hours of instruction by substituting previous experience or training. As is currently the case, the proposed rule would require that the basis for any allowance and the total hours credited must be incorporated in the student's records.

Section 65.63 Aircraft Dispatcher Certification Courses: Application, Duration, and Other General Requirements

Proposed § 65.63 is a new section that would include in proposed paragraph (a) the letter application requirements currently contained in §61.61 and in proposed paragraphs (b) through (e), requirements currently in appendix A that are more appropriate for the operating rule. An applicant would be required to submit only two copies of the course outline, in place of the three copies currently required because the FAA has determined that three copies are not needed and that the requirement imposes an unnecessary economic cost on the applicant and an administrative burden on the FAA.

Proposed § 65.63(b) would include the current 24-month duration for FAA approval of an aircraft dispatcher certification course. The only substantive change proposed is that an application for renewal would have to be submitted at least 30 days before the expiration date, currently it can be submitted up to 60 days after the expiration date. This change is needed to prevent a course from continuing beyond its expiration date.

Proposed § 65.63(c) would contain the current requirements for obtaining approval of course revisions.

Proposed § 65.63(d) would contain the current provisions for cancellation of approval of an aircraft dispatcher certification course, whether at the FAA's or the operator's initiative. When a course approval is canceled, the operator would have to send to the FAA any records requested by the Administrator so that they would be available if needed.

Proposed §65.63(e) would contain most of the current requirements that apply to changes in ownership, name, or location of an approved course. Two substantive changes are proposed. Currently "approval of an aircraft dispatcher course may not be continued in effect after the course has changed ownership." Proposed § 65.63(e) would allow for continuation of approval after a change of ownership if the Administrator, after an audit, determines continued compliance with the requirements of part 65 and issues a letter of approval. The other proposed change would require that the Administrator must be notified in writing within 10 days of any changes in ownership, name, or location. The current rule requires notification of a change in location "without delay." This change is desirable to avoid

differing interpretations of how much time is allowed.

Section 65.65 Training Facilities

Proposed § 65.65 is a new section that would prescribe the training facilities necessary to operate an approved school. This proposed section is based primarily on material that is currently provided for in appendix A. The proposal would add a requirement that the training facility must be so located that the students in that facility are not distracted by the instruction conducted in other rooms. This proposed requirement would align this section with part 141 of this chapter.

#### Section 65.67 Instruction

Proposed § 65.67 is a new section that would prescribe instruction requirements necessary to operate an approved school that are mostly based on material that is currently provided for in appendix A. The maximum student-teacher ratio would remain unchanged at 25 to 1. Currently, appendix A states that approval of a course may not be continued in effect unless at least 80 percent of students who apply for testing within 90 days after graduation from an approved school are able to qualify on the first attempt. Proposed § 65.67(b) would continue the 80 percent success rate requirement but would apply the 80 percent rate over a 24 month period which would be consistent with proposed § 141.5 (60 FR 41263, August 11, 1995).

#### Section 65.70 Records

Proposed § 65.70 is a new section that would prescribe recordkeeping requirements based on material currently provided for in appendix A. A proposed change would allow schools to discard records after 3 years so that recordkeeping would not become a burden. This proposed change could result in significant cost savings to dispatcher schools since a literal reading of the current regulations would require these records to be retained indefinitely.

## Appendix A to Part 65—Aircraft Dispatcher Certification Courses

The proposed overview paragraph introduces the specific minimum set of topics that must be covered in an aircraft dispatcher training course and contains general information about those courses.

The individual subject hourly requirements (e.g., Federal Aviation Regulations, 15 classroom hours; meteorology, 75 classroom hours) would be eliminated, and in their place a total

course-hour minimum is proposed in § 61.61(a) as discussed above.

A word-by-word comparison of proposed appendix A with current appendix A might make it appear that this proposal is adding to the subject areas to be covered. However, the FAA understands that as a practical matter, training schools, partially through the use of the PTS guide, are in fact covering the subject areas listed in the proposed requirements. In addition, by using modern teaching methods and training aids, it is possible to cover the proposed curriculum without an increase in overall teaching hours.

The proposed curriculum is considered necessary because of the important role of the aircraft dispatcher in maintaining safety of flight operations. The aircraft dispatcher and the pilot in command are jointly responsible for the authorization and control of a flight in accordance with applicable regulations and air carrier procedures. This responsibility extends from the preparation for a flight to its conclusion, and includes dealing with emergency situations.

Many of the dispatcher's tasks require familiarity in dealing with specific regulations and air carrier procedures. Others require exercising judgment to deal with unique aspects of a situation. Virtually all of these problem-solving activities require skill in working with the flight crew, Air Traffic Control, and members of the Air Carrier Operations Control and Maintenance staff.

#### Regulations

In addition to the parts currently covered (subpart C of part 65 and parts 25, 91, 121), it is proposed that a course must cover parts 1, 61, 71, 139, and 175 of chapter I of 14 CFR as well as part 830 of the regulations of the National Transportation Safety Board, "Rules Pertaining to Aircraft Accidents, Incidents, Overdue Aircraft, and Safety Investigation." Another addition to appendix A training requirements would be training on the "General Operating Manual." that is, training on the common features of a typical certificate holder's manual.

#### Meteorology

Meterology would be sub-divided into three subject headings; 1) Basic Weather Studies; 2) Weather, Analysis, and Forecasts; and 3) Weather Related Hazards. The subject of meteorology, due to its importance, would be updated and expanded to provide greater detail for instructional guidance.

#### Navigation

Navigation would be expanded to provide an introduction to international flight planning procedures and limitation.

#### Aircraft

Aircraft would be updated to provide expanded systems training to ensure proper application of this knowledge.

#### Communications

Communications would be expanded to include data link communications as well as sources of aeronautical information.

#### Air Traffic Control

Air traffic control would be expanded to encompass areas of air traffic management.

#### Emergency and Abnormal Procedures

This proposed new section would address security; in particular, identifying, declaring, and reporting emergencies.

#### Practical Dispatch Applications

This section would replace the current practical dispatching section. Practical dispatch applications would introduce the dispatch candidate to human factors as applied to decisiomaking, human error, and teamwork.

The "applied dispatching" subsection would provide the student with methods of application for all previous subject matter.

To ensure that future technological advancements will be taught, this proposed appendix would be linked to the Practical Test Standards guide. The PTS is periodically revised, whereas regulatory change may not keep up with technological advancements.

#### **Paperwork Reduction Act**

Proposed §§ 65.63 and 65.70 contain information reporting, recordkeeping, and 3rd party notification requirements. As required by the Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)), the FAA has submitted a copy of those proposed sections to the Office of Management and Budget (OMB) for its review

Proposed § 65.63(a) requires that an applicant for approval of an aircraft dispatcher certification course shall submit a letter to the Administrator requesting approval; two copies of the course outline; a description of equipment and facilities to be used; and a list of the instructors and their qualifications. This information would be necessary for the FAA to evaluate the applicant's qualifications and

compliance with the requirements of proposed subpart C of part 63. Proposed § 65.63(b) requires that a course operator must request renewal of an approved aircraft dispatcher certification course within 30 days before the expiration date of the course. This would allow the FAA time to review the course operator's performance and continued qualification for course approval.

Proposed § 65.63(d) requires that a course operator who desires voluntary cancellation of an approved course must send a letter requesting the cancellation to the Administrator. This would provide the FAA with the documentation showing the reason for the cancellation. After the course has been canceled the operator is required to send any records to the FAA that the Administrator requests, so that they would be available if needed. Proposed § 65.63(e) requires that a course operator must notify the Administrator within 10 days of changing the ownership, name, or location of an approved course. This would enable the FAA to continue its oversight and auditing of the course. The FAA estimates the annual recordkeeping burden for § 65.63 compliance to be 71 hours per year.

Proposed § 65.70 requires that course operators keep a chronological log for 3 years of all instructors, subjects covered, and course examinations and results. In addition, the course operator must transmit to the Administrator, not later than January 31 of each year, a report for the previous year that lists the names of all students who graduated, failed, or withdrew from the course, together with the results of the course or reasons for withdrawal for each student. These requirements are necessary for the FAA to evaluate the quality of the course and the operator's compliance with part 65. Proposed § 65.70(b) requires the course operator to provide a written statement of graduation to each student who successfully completes the approved course, so that the student has documentation of his or her qualification to serve as an aircraft dispatcher. The FAA estimates the annual recordkeeping burden for § 65.70 compliance to be 1440 hours per year.

The annual reporting and recordkeeping burden for each aircraft dispatcher certification course operator has not changed as a result of this rulemaking. However, each aircraft dispatcher certification course operator will be required to update the course curriculum and training outline, which will be a one time occurrence of approximately up to 80 hours.

Organizations and individuals desiring to submit comments on the information reporting and

recordkeeping requirements should direct them to: U.S. Department of Transportation Dockets, Docket No. FAA–1998–4553, 400 Seventh Street, SW., Room Plaza 401, Washington, DC 20590.

#### International Civil Aviation Organization and Joint Aviation Regulations

In keeping with U.S. obligations under the Convention on International Civil Aviation, it is FAA policy to comply with ICAO Standards and Recommended Practices to the maximum extent practicable. The FAA is not aware of any differences that this proposal would present if adopted. Any differences that may be presented in comments to this proposal, however, will be taken into consideration.

#### **Economic Summary**

This proposed rule is not considered a significant regulatory action under section 3(f) of Executive Order 12866 and, therefore, is not subject to review by the Office of Management and Budget. This proposed rule is not considered significant under the regulatory policies and procedures of the Department of Transportation (44 FR 11034; February 26, 1979). This proposed rule will not result in (A) an annual effect on the economy of \$100 million or more; (B) a major increase in costs or prices for consumers, individual industries, Federal, State, or local governments, agencies, or geographic regions; (C) significant adverse effect on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

This proposal is intended to amend existing regulations that define the qualification and certification requirements for aircraft dispatchers. Current regulations prescribing these requirements do not reflect the technological advances that have occurred in the aviation industry nor do these regulations reflect the enhancements in training and instructional methods that have affected all aircraft dispatchers.

The FAA has determined that the proposed rule will have little or no cost impact on the aviation industry costs.

The proposed rule will result in minor cost savings for dispatcher schools by relieving them of the burden to retain records indefinitely. Additionally, the proposed rule would consolidate and clarify eligibility, knowledge, experience, and skill requirements among aircraft

dispatchers. Because the proposed rule would have only a minor effect on existing costs, the FAA has not prepared a full regulatory evaluation for the docket. The FAA solicits specific cost information from commenters.

#### **International Trade Impact Analysis**

The FAA finds that this proposed rule will have no adverse impact on trade opportunities for either U.S. firms doing business overseas or foreign firms doing business in the United States.

#### Regulatory Flexibility Determination

#### Economic Impact

The Regulatory Flexibility Act of 1980 (RFA), as amended, was enacted by Congress to ensure that small entities are not unnecessarily and disproportionately burdened by Government regulations. The Act requires that whenever an agency publishes a general notice of proposed rulemaking, an initial regulatory flexibility analysis identifying the economic impact on small entities, and considering alternatives that may lessen those impacts must be conducted if the proposed rule would have a significant economic impact on a substantial number of small entities.

This proposed rule would impact entities regulated by part 65. The FAA believes there is little or no cost impact on the aviation industry associated with the proposed rule. Therefore, the FAA certifies that this proposed rule will not have a significant economic impact on a substantial number of small entities.

#### Significance

This proposed rulemaking is not significant under Executive Order 12866 and, therefore, has not been reviewed by the Office of Management and Budget. This proposed rule is not considered significant under the regulatory policies and procedures of the Department of Transportation (44 FR 11034; February 2, 1979).

#### **Unfunded Mandates Reform Act**

Title II of the Unfunded Mandates Reform Act of 1995 (the Act), enacted as Pub. L. 104-4 on March 22, 1995, requires each Federal agency, to the extent permitted by law, to prepare a written assessment of the effects of any Federal mandate in a proposed or final agency rule that may result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of \$100 million or more (adjusted annually for inflation) in any one year. Section 204(a) of the Act, 2 U.S.C. 1534(a), requires the Federal agency to develop an effective process to permit timely input by elected

officers (or their designees) of State, local, and tribal governments on a proposed "significant intergovernmental mandate." a "significant intergovernmental mandate" under the Act is any provision in a Federal agency regulation that would impose an enforceable duty upon State, local, and tribal governments, in the aggregate, or \$100 million (adjusted annually for inflation) in any one year. Section 203 of the Act, 2 U.S.C. 1533, which supplements section 204(a), provides that before establishing any regulatory requirements that might significantly or uniquely affect small governments, the agency shall have developed a plan that, among other things, provides for notice to potentially affected small governments, if any, and for a

regulatory proposals.

This rule does not contain any
Federal intergovernmental or private
sector mandate. Therefore, the
requirements of Title II of the Unfunded
Mandates Reform Act of 1995 do not
apply.

meaningful and timely opportunity to

provide input in the development of

#### **Federalism Implications**

The proposed regulations would not have substantial direct effects on the states, on the relationship between national government and the states, or on the distribution of power and responsibilities among various levels of government. Thus, in accordance with Executive Order 12612, it is determined that this proposed regulation would not have federalism implications warranting the preparation of a Federalism Assessment.

#### **List of Subjects in 14 CFR Part 65**

Air traffic controllers, Aircraft, Aircraft dispatchers, Airmen, Airports, Reporting and recordkeeping requirements.

#### The Proposed Amendment

Accordingly, the Federal Aviation Administration proposes to amend 14 CFR part 65 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. Subpart C of part 65 is revised to read as follows:

#### Subpart C-Aircraft Dispatchers

65.51 Certificate required.

- 65.53 Eligibility requirements: General.
- 65.55 Knowledge requirements.
- 65.57 Experience or training requirements.
- 65.59 Skill requirements.
- 65.61 Aircraft dispatcher certification courses: Content and minimum hours.
- 65.63 Aircraft dispatcher certification courses: Application, duration, and other general requirements.
- 65.65 Training facilities.
- 65.67 Instruction.
- 65.70 Records.

#### Subpart C—Aircraft Dispatchers

#### § 65.51 Certificate required.

- (a) No person may serve as an aircraft dispatcher (exercising responsibility with the pilot in command in the operational control of a flight) in connection with any civil aircraft in air commerce unless he has in his personal possession a current aircraft dispatcher certificate issued under this subpart.
- (b) Each person who holds an aircraft dispatcher certificate shall present it for inspection upon the request of the Administrator or an authorized representative of the National Transportation Safety Board, or of any Federal, State, or local law enforcement officer.

#### § 65.53 Eligibility requirements: General.

- (a) To be eligible to take the aircraft dispatcher knowledge test, a person must be at least 21 years of age.
- (b) To be eligible for an aircraft dispatcher certificate, a person must—
  - (1) Be at least 23 years of age;
- (2) Be able to read, speak, write, and understand the English language. If the applicant is unable to meet one of these requirements due to medical reasons, then the Administrator may place such operating limitations on that certificate as are necessary for the safe operation of aircraft; and
- (c) Comply with §§ 65.55, 65.57, and 65.59.

#### § 65.55 Knowledge requirements.

- (a) An applicant for an aircraft dispatcher certificate must pass a knowledge test on the items outlined in appendix A of this part.
- (b) A report of the test is provided to the applicant. A passing grade is evidence, for a period of 24 months after the date the test is given, that the applicant has complied with this section.

## § 65.57 Experience or training requirements.

An applicant for an aircraft dispatcher certificate must present documentary evidence satisfactory to the Administrator that the applicant has the experience prescribed in paragraph (a) of this section or the training described

in paragraph (b) of this section as follows:

- (a) A total of at least 2 out of the last 3 years before the date of application, in any one or in any combination of the following areas:
  - (1) In military operations as a—
  - (i) Pilot;
  - (ii) Flight navigator; or
  - (iii) Meteorologist.
  - (2) In part 121 operations as—
- (i) An assistant in dispatching air carrier aircraft, under the direct supervision of a dispatcher certificated under this subpart;
  - (ii) A pilot;
  - (iii) A flight engineer; or
  - (iv) A meteorologist.
  - (3) In other aircraft operations as an—
  - (i) Air Traffic Controller; or
  - (ii) Flight Service Specialist.
- (4) In other aircraft operations, performing other duties that the Administrator's representative, who must be a certificated aircraft dispatcher, finds provide equivalent experience.
- (b) Within 90 days before the date of application, the applicant must successfully complete a course of instruction approved by the Administrator as adequate for the training of an aircraft dispatcher.

#### § 65.59 Skill requirements.

An applicant for an aircraft dispatcher certificate must pass a test given by an Administrator's representative, who must be a certificated aircraft dispatcher. The test must be based on the Aircraft Dispatcher Practical Test Standards, as published by the FAA, on the items outlined in appendix A of this part.

## § 65.61 Aircraft dispatcher certification courses: Content and minimum hours.

Prior to exercising the privileges of an aircraft dispatcher certificate, satisfactory completion of initial dispatch training (provided by the air carrier) must be accomplished to ensure comprehensive coverage for that air carrier's specific operation, as approved by the Administrator.

- (a) Each aircraft dispatcher certification course must:
- (1) Provide instruction in the areas of knowledge and topics listed in appendix A of this part;
- (2) Include a minimum of 200 total course hours; and
- (3) Outline the major topics and subtopics to be covered and the number of hours proposed for each.
- (b) Additional subject headings for an aircraft dispatcher certification course may also be included, however the hours proposed for any subjects not

- listed in appendix A of this part must be in addition to the minimum 200 total course hours required in paragraph (a) of this section.
- (c) For the purposes of meeting paragraph (a) of this section, a student may substitute previous experience or training for a portion of the 200 minimum hours of training. The course operator determines the number of hours of credit based on an evaluation of the experience and training to determine if the experience and training is provable and comparable to portions of the approved course curriculum. Where credit is allowed, the basis for allowance and the total hours credited must be incorporated as part of the student's records, provided for in § 65.70(a).

# § 65.63 Aircraft dispatcher certification courses: Application, duration, and other general requirements.

- (a) *Application*. An applicant for approval of an aircraft dispatcher certification course shall submit:
- (1) A letter to the Administrator requesting approval;
- (2) Two copies of the course outline;
- (3) A description of equipment and facilities to be used; and
- (4) A list of the instructors and their qualifications.
- (b) Duration and renewal. The authority to operate an approved aircraft dispatcher certification course of study expires 24 months after the last day of the month of issuance. Application for renewal of an approved aircraft dispatcher certification course shall be made by letter addressed to the Administrator within 30 days prior to the expiration date. Renewal of approval will depend on the course operator's fulfilling the current conditions of course approval and having a satisfactory record of course operation.
- (c) Course revisions. Requests for revision of the course outlines, facilities, and equipment shall be accomplished in the same manner established for securing approval of the original course of study. Proposed revisions must be submitted in a format that will allow an entire page or pages of the approved outline to be removed and replaced by any approved revision. The list of instructors may be revised at any time without request for approval, provided the minimum requirements of § 65.67 are maintained and the Administrator is notified in writing.
- (d) Cancellation of approval. Failure to meet or maintain any of the standards set forth in this part for the approval or operation of an approved aircraft dispatcher certification course is considered to be a sufficient reason for

discontinuing approval of the course. If a course operator desires voluntary cancellation of an approved course, the course operator shall send a letter requesting cancellation to the Administrator. The operator will be responsible for forwarding any records to the FAA as requested by the Administrator.

(e) Change is ownership, name, or location. When an approved course changes ownership, name, or location, the Administrator must be notified of the change in writing within 10 businesses days. The Administrator will audit the course for compliance with this part and issue a letter of approval reflecting the changes.

#### § 65.65 Training facilities.

An applicant for authority to operate an approved aircraft dispatcher course of study must have facilities, equipment, and materials adequate to provide each student the theoretical and practical aspects of aircraft dispatching. Each room, training booth, or other space used for instructional purposes must be temperature controlled, lighted, and ventilated to conform to local building, sanitation, and health codes. In addition, the training facility must be so located that the students in that facility are not distracted by the instruction conducted in other rooms.

#### § 65.67 Instruction.

- (a) The number of instructors available for conducting the course of study shall be determined according to the needs and facilities of the applicant. However, the ratio of students per instructor may not exceed 25 students for one instructor.
- (b) Approval of a course shall not be continued in effect unless within the last 24 calendar months at least 80 percent of the students or graduates who applied for testing within 90 days after graduation from that school passed the practical test on the first attempt, and that test was given by—
  - (1) An FAA inspector; or
  - (2) A designated dispatch examiner.
- (c) At least one instructor who possesses an aircraft dispatcher certificate must be available for coordination of the training course instruction. A certificated aircraft dispatcher must actively participate in the Practical Dispatch Applications instruction.

#### §65.70 Records.

(a) Approval of a course shall not be continued in effect unless the course operator keeps an accurate record of each student, including chronological log of all instructors, subjects covered, and course examinations and results, for a period of not less than 3 years. The course operator also must prepare, retain and transmit to the Administrator not later than January 31 of each year, a report containing the following information for the previous year:

- (1) the names of all students graduated, together with the results of their aircraft dispatcher certification
- (2) The names of all the students failed or withdrawn, together with results and reasons for withdrawal.
- (b) Each student who successfully completes the approved aircraft dispatcher certification course shall be given a written statement of graduation.
- 3. Appendix A to part 65 is revised to read as follows:

#### Appendix A to Part 65—Aircraft **Dispatcher Courses**

This appendix sets forth the areas of knowledge necessary to perform dispatcher functions. The items listed below indicate the minimum set of topics that must be covered in a training course for aircraft dispatcher certification. The order of coverage is flexible and at the discretion of the approved school. For each of these topics listed below, coverage must include state of the art technologies and techniques, as well as provide a foundation for knowledge of future developments. For updated technological advancements refer to the Practical Test Standards as published by the FAA.

#### I. Regulations

- A. Subpart C of this part 65;
- B. Parts 1, 25, 61, 71, 91, 121, 139, and 175, of this chapter;
  - C. 49 CFR part 830;
  - D. General Operating Manual.

#### II. Meteorology

#### A. Basic Weather Studies

- (1) The earth's motion and its effects on
- (2) Analysis of regional weather types, characteristics, and structure:
  - (a) Maritime.
  - (b) Continental.
  - (c) Polar.
  - (d) Tropical.
  - (e) Combinations thereof.
- (3) Analysis of local weather types, characteristics, and structures of:
  - (a) Coastal.
  - (b) Mountainous.
  - (c) Island.
  - (d) Plains.
  - (e) Combinations thereof.
  - (4) The Atmosphere:
  - (a) Layers.
  - (b) Composition.
  - (c) Global Wind Patterns.
  - (d) Ozone.
  - (5) Pressure:
  - (a) Units of Measure.
  - (b) Weather Systems Characteristics.

- (c) Temperature Effects on Pressure.
- (d) Altimeters.
- (e) Pressure Gradient Force.
- (f) Pressure Pattern Flying Weather.
- (6) Wind:
- (a) Major Wind Systems and Coriolis Force.
- (b) Jetstreams and their Characteristics.
- (c) Local Wind and Related Terms.
- (7) States of Matters:
- (a) Solids, Liquid, and Gases.
- (b) Causes of change of state.
- (8) Clouds:
- (a) Composition, Formation, and Dissipation.
  - (b) Types and Associated Precipitation.
- (c) Use of Cloud Knowledge in Forecasting.
- (a) Causes, Formation, and Dissipation.
- (b) Types.
- (10) Ice:
- (a) Causes, Formation, and Dissipation.
- (b) Types.
- (11) Stability/Instability:
- (a) Temperature Lapse Rate, Convection.
- (b) Adiabatic Processes.
- (c) Lifting Processes.
- (d) Divergence.
- (e) Convergence.
- (12) Turbulence:
- (a) Jetstream Associated.
- (b) Pressure Pattern Recognition.
- (c) Low Level Windshear.
- (d) Mountain Waves.
- (e) Thunderstorms.
- (f) Clear Air Turbulence.
- (13) Airmasses:
- (a) Classification and Characteristics.
- (b) Source Regions.
- (c) Use of Airmass Knowledge in

#### Forecasting.

- (14) Fronts:
- (a) Structure and Characteristics/Vertical and Horizontal.
- (b) Frontal Types.
- (c) Frontal Weather Flying.
- (15) Theory of Storm Systems:
- (a) Thunderstorms.
- (b) Tornadoes.
- (c) Hurricanes/Typhoons.
- (d) Microbursts.
- (e) Causes, Formation, and Dissipation.
- B. Weather, Analysis, and Forecasts
  - (1) Observations:
  - (a) Surface Observations.
- (i) Observations made by certified weather observer.
  - (ii) Automated Weather Observations.
  - (b) Terminal Forecasts.
  - (c) Significant En route Reports and

#### Forecasts.

- (i) Pilot Reports.
- (ii) Area Forecasts.
- (iii) Sigmets, Airmets.
- (iv) Center Weather Advisories.
- (d) Weather Imagery.
- (i) Surface Analysis.
- (ii) Weather Depiction.
- (iii) Significant Weather Prognosis.
- (iv) Winds and Temperature Aloft.
- (v) Tropopause Chart.
- (vi) Composite Moisture Stability Chart. (vii) Surface Weather Prognostic Chart.
- (viii) Radar Meteorology.
- (ix) Satellite Meteorology.
- (x) Other charts as applicable.

- (e) Meteorological Information Data Collection Systems.
- (2) Data Collection, Analysis, and Forecast
- (3) Service Outlets Providing Aviation Weather Products
- C. Weather Related Aircraft Hazards
  - (1) Crosswinds/Gusts.
  - (2) Contaminated Runways.
  - (3) Restrictions to Surface Visibility.
  - (4) Turbulence/Windshear.
  - (5) Icing.
  - (6) Thunderstorms/Microbursts.
- (7) Volcanic Ash.

### III. Navigation

- A. Study of the Earth.
- (1) Time reference and location (0
- Longitude, UTC, etc.). (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.

#### IV. Aircraft

- A. Aircraft Flight Manual.
- B. Systems Overview.
- (1) Flight controls
- (2) Hydraulics.
- (3) Electrical.
- (4) Air Conditioning and Pressurization.
- (5) Ice and Rain protection. (6) Avionics, Communication, and
- Navigation. (7) Powerplants and Auxiliary Power
- Units. (8) Emergency and Abnormal Procedures.
  - (9) Fuel Systems and Sources.
- C. Minimum Equipment List/Configuration Deviation List (MEL/CDL) and Applications.
  - D. Performance.
  - (1) Aircraft in general.
  - (2) Principles of flight:
  - (a) Group one aircraft.
  - (b) Group two aircraft.
  - (3) Aircraft Limitations. (4) Weight and Balance.
- (5) Flight instrument errors.
- (6) Aircraft performance: (a) Take-off performance.
- (b) En route performance. (c) Landing performance.
- V. Communications
- A. Regulatory requirements. B. Communications Protocol.
- C. Voice and Data Communications.
- D. Notice to Airmen (NOTAMS). E. Aeronautical Publications.
- F. Abnormal Procedures.
- VI. Air Traffic Control
- 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.

#### VII. Emergency and Abnormal Procedures

- 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.
  - G. Required reporting of an emergency.
- H. NTSB reporting requirements.

#### VIII. Practical Dispatch Applications

- A. Human Factors.
- (1) Decisionmaking:
- (a) Situation Assessment.
- (b) Generation and Evaluation of Alternatives.
  - (i) Tradeoffs and Prioritization.
  - (ii) Contingency Planning.
  - (c) Support Tools and Technologies.
  - (2) Human Error:
  - (a) Causes.
  - (i) Individual and Organizational Factors.
  - (ii) Technology-Induced Error.
  - (b) Prevention.
  - (c) Detection and Recovery.

- (3) Teamwork:
- (a) Communication and Information Exchange.
- (b) Cooperative and Distributed Problem-Solving.
- (c) Resource Management.
- (i) Air Traffic Control (ATC) activities and workload.
  - (ii) Flightcrew activities and workload.
  - (iii) Maintenance activities and workload.
- (iv) Operations Control Staff activities and workload.
  - B. Applied Dispatching.
  - (1) Briefing techniques, Dispatcher, Pilot.
  - (2) Preflight:

  - (a) Safety.(b) Weather Analysis.
  - (i) Satellite imagery.
  - (ii) Upper and lower altitude charts.
- (iii) Significant enroute reports and forecasts
  - (iv) Surface charts.
  - (v) Surface observations.
- (vi) Terminal forecasts and orientation to **Enhanced Weather Information System** (EWINS)
  - (c) NOTAMS and airport conditions.
  - (d) Crew.
  - (i) Qualifications.
  - (ii) Limitations.
  - (e) Aircraft.
- (i) Systems.
- (ii) Navigation instruments and avionics systems.
- (iii) Flight instruments.
- (iv) Operations manuals and MEL/CDL.
- (v) Performance and limitations.
- (f) Flight Planning.

- (i) Route of flight.
- 1. Standard Instrument Departures and Standard Terminal Arrival Routes.
  - 2. En route charts.
  - 3. Operational altitude.
  - 4. Departure and arrival charts.
- (ii) Minimum departure fuel.
- 1. Climb.
- 2. Cruise.
- 3. Descent.
- (g) Weight and balance.
- (h) Economics of flight overview
- (Performance, Fuel Tankering).
- (i) Decision to operate the flight.
- (j) ATC flight plan filing.
- (k) Flight documentation.
- (i) Flight plan.
- (ii) Dispatch release.
- (3) Authorize flight departure with concurrence of pilot in command.
  - (4) In-flight operational control:
  - (a) Current situational awareness.
  - (b) Information exchange.
  - (c) Amend original flight release as
- required.
  - (5) Post-Flight. (a) Arrival verification.
  - (b) Weather debrief.
  - (c) Flight irregularity reports as required.

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#### Richard O. Gordon,

Acting Director, Flight Standards Service. [FR Doc. 98-27524 Filed 10-16-98; 8:45 am]

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