that will not be exceeded, taking into account the performance of the high-speed protection system as well as its failure modes, failure indications, and accompanying flight-manual instructions.

Applicability

As discussed above, these special conditions are applicable to the Model GVII–G500 airplane. Should Gulfstream apply at a later date for a change to the type certificate to include another model incorporating the same novel or unusual design feature, the special conditions would apply to that model as well.

Conclusion

This action affects only certain novel or unusual design features on one model of airplane. It is not a rule of general applicability.

List of Subjects in 14 CFR Part 25

Aircraft, Aviation safety, Reporting and recordkeeping requirements.

The authority citation for these special conditions is as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701, 44702, 44704.

The Proposed Special Conditions

■ Accordingly, the Federal Aviation Administration (FAA) proposes the following special conditions as part of the type certification basis for Gulfstream Model GVII–G500 airplanes.

1. In lieu of compliance with § 25.335(b)(1), if the flight-control system includes functions that act automatically to initiate recovery before the end of the 20-second period specified in § 25.335(b)(1), V_D/M_D must be determined from the greater of the speeds resulting from conditions (a) and (b) of these special cConditions. The speed increase occurring in these maneuvers may be calculated if reliable or conservative aerodynamic data are used.

(a) From an initial condition of stabilized flight at V_C/M_C, the airplane is upset so as to take up a new flight path 7.5 degrees below the initial path. Control application, up to full authority, is made to try to maintain this new flight path. Twenty seconds after initiating the upset, manual recovery is made at a load factor of 1.5g (0.5 acceleration increment), or such greater load factor that is automatically applied by the system with the pilot's pitch control neutral. Power, as specified in § 25.175(b)(1)(iv), is assumed until recovery is initiated, at which time power reduction, and the use of pilot-controlled drag devices, may be used.

(b) From a speed below V_C/M_C, with power to maintain stabilized level flight at this speed, the airplane is upset so as to accelerate through V_C/M_C at a flight path 15 degrees below the initial path (or at the steepest nose-down attitude that the system will permit with full control authority if less than 15 degrees). The pilot's controls may be in the neutral position after reaching V_C/M_C and before recovery is initiated. Recovery may be initiated 3 seconds after operation of the high-speed warning system by application of a load of 1.5g (0.5 acceleration increment), or such greater load factor that is automatically applied by the system with the pilot's pitch control neutral. Power may be reduced simultaneously. All other means of decelerating the airplane, the use of which is authorized up to the highest speed reached in the maneuver, may be used. The interval between successive pilot actions must not be less than 1 second.

2. The applicant must also demonstrate that the speed margin, established as above, will not be exceeded in inadvertent or gust-induced upsets resulting in initiation of the dive from non-symmetric attitudes, unless the airplane is protected by the flight-control laws from getting into non-symmetric upset conditions. The upset maneuvers described in Advisory Circular 25–7C, ''Flight Test Guide for Certification of Transport Category Airplanes,'' section 8, paragraph 32, sub-paragraphs c(3)(a), (b), and (c), may be used to comply with this requirement.

3. The probability of any failure of the high-speed protection system, which would result in an airspeed exceeding those determined by Special Conditions 1 and 2, must be less than 10^{-5} per flight hour.

4. Failures of the system must be annunciated to the pilots. Flight manual instructions must be provided that reduce the maximum operating speeds, V_{MO}/M_{MO}. With the system failed, the operating speed must be reduced to a value that maintains a speed margin between V_{MO}/M_{MO} and V_D/M_D, and that is consistent with showing compliance with § 25.335(b) without the benefit of the high-speed protection system.

5. The applicant may request that the Master Minimum Equipment List relief for the high-speed protection system be considered by the FAA Flight Operations Evaluation Board, provided that the flight manual instructions indicate reduced maximum operating speeds as described in Special Condition 4. In addition, the flightdeck display of the reduced operating speeds, as well as the overspeed warning for exceeding those speeds, must be equivalent to that of the normal airplane with the high-speed protection system operative. Also, the applicant must show that no additional hazards are introduced with the high-speed protection system inoperative.

Issued in Renton, Washington, on August 5, 2015.

Michael Kaszycki,

Acting Manager, Transport Airplane Directorate Aircraft Certification Service.

[FR Doc. 2015–20297 Filed 8–17–15; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. FAA–2015–2271; Notice No. 25–15–06–SC]

Special Conditions: Cessna Airplane Company Model 680A Airplane, Side-Facing Seats Equipped With Airbag Systems

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed special conditions.

SUMMARY: This action proposes special conditions for the Cessna Model 680A airplane. This airplane will have novel or unusual design features when compared to the state of technology envisioned in the airworthiness standards for transport-category airplanes. This design features side-facing seats equipped with airbag systems. The applicable airworthiness regulations do not contain adequate or appropriate safety standards for this design feature. These proposed special conditions contain the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

DATES: Send your comments on or before October 2, 2015.

ADDRESSES: Send comments identified by docket number FAA–2015–2271 using any of the following methods:

- *Federal eRegulations Portal:* Go to *http://www.regulations.gov/* and follow the online instructions for sending your comments electronically.
- *Mail:* Send comments to Docket Operations, M–30, U.S. Department of Transportation (DOT), 1200 New Jersey Avenue SE., Room W12–140, West Building Ground Floor, Washington, DC 20590–0001.
- *Hand Delivery or Courier:* Take comments to Docket Operations 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.

• *Fax:* Fax comments to Docket Operations at 202–493–2251.

Privacy: The FAA will post all comments it receives, without change, to *http://www.regulations.gov/*, including any personal information the commenter provides. Using the search function of the docket Web site, anyone can find and read the electronic form of all comments received into any FAA docket, including the name of the individual sending the comment (or signing the comment for an association, business, labor union, etc.). DOT's complete Privacy Act Statement can be found in the **Federal Register** published on April 11, 2000 (65 FR 19477–19478), as well as at *http://DocketsInfo.dot.gov/*.

Docket: Background documents or comments received may be read at *http://www.regulations.gov/* at any time. Follow the online instructions for accessing the docket or go to Docket Operations 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: Alan Sinclair, FAA, Airframe and Cabin Safety, ANM–115, Transport Airplane Directorate, Airplane Certification Service, 1601 Lind Avenue SW., Renton, Washington 98057–3356; telephone 425–227–2195; facsimile 425–227–1320.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite interested people to take part in this rulemaking by sending written comments, data, or views. The most helpful comments reference a specific portion of the special conditions, explain the reason for any recommended change, and include supporting data.

We will consider all comments we receive by the closing date for comments. We may change these special conditions based on the comments we receive.

Background

On January 25, 2012, Cessna Airplane Company applied for an amendment to Type Certificate no. T00012WI to include the new Model 680A airplane. The Cessna 680A airplane, which is a derivative of the Cessna Model 680 airplane currently approved under Type Certificate no. T00012WI, is a new, high-performance, low-wing airplane derived from the Cessna Model 680 beginning with serial no. 680–0501. This airplane will have a maximum takeoff weight of 30,800 pounds with a wingspan of 72 feet, and will have two aft-mounted Pratt & Whitney PW306D1 FADEC-controlled turbofan engines.

The pressurized cabin of the Model 680A airplane is designed to accommodate a crew of two, plus nine passengers in the baseline interior configuration, and will make use of a forward, right-hand-belted, two-place, side-facing seat. An optional seven-passenger interior configuration is also offered, which has a single-place side-facing seat on the forward right-hand side of the airplane. Both the baseline multiple-place and optional single-place side-facing seats are to be occupied for taxi, takeoff, and landing, and will incorporate an integrated, inflatable-airbag occupant-protection system.

Type Certification Basis

Under the provisions of § 21.101, Cessna Airplane Company must show that the Model 680A airplane meets the applicable provisions of the regulations listed in Type Certificate no. T00012WI, or the applicable regulations in effect on the date of application for the change, except for earlier amendments as agreed upon by the FAA.

The regulations listed in the type certificate are commonly referred to as the ''original type certification basis.'' The regulations listed in T00012WI are as follows:

14 CFR part 25, effective February 1, 1965, including Amendments 25–1 through 25–98, with special conditions, exemptions, and later amended sections.

In addition, the certification basis includes other regulations, special conditions, and exemptions that are not relevant to these proposed special conditions. Type Certificate no. T00012WI will be updated to include a complete description of the certification basis for this airplane model.

If the Administrator finds that the applicable airworthiness regulations (*i.e.*, 14 CFR part 25) do not contain adequate or appropriate safety standards for the Cessna Model 680A airplane because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.16.

Special conditions are initially applicable to the model for which they are issued. Should the type certificate for that model be amended later to include any other model that incorporates the same novel or unusual design feature, these special conditions would also apply to the other model under § 21.101.

In addition to the applicable airworthiness regulations and special conditions, the Cessna Model 680A airplane must comply with the fuel-vent and exhaust-emission requirements of 14 CFR part 34, and the noise-certification requirements of 14 CFR part 36.

The FAA issues special conditions, as defined in 14 CFR 11.19, in accordance with § 11.38, and they become part of the type-certification basis under § 21.101.

Novel or Unusual Design Features

The Cessna Model 680A airplane will incorporate the following novel or unusual design features: Inflatable airbags on multiple-place and single-place side-facing seats of Cessna Model 680A airplanes to reduce the potential for both head and leg injury in the event of an accident.

Discussion

The FAA policy for side-facing seats at the time of application was provided in Policy Statement ANM–03–115–30. This policy statement describes the performance criteria and procedures to follow to certify single- and multiple-place side-facing seats.

Also at the time of Cessna's application, the FAA indicated that further research would be conducted to define criteria to establish a level of safety equivalent to that provided by the current regulations for forward- and aft-facing seats. Research later conducted by the FAA, as documented in report DOT/FAA/AR–09/41, resulted in new policy issued to identify new certification criteria based on the research findings. Policy Statement PS–ANM–25–03 was released on June 8, 2012 (and was subsequently revised and reissued as Policy Statement PS–ANM–25–03–R1 on November 5, 2012). This new policy statement describes how to certify all side-facing seats to the new performance criteria through the issuance of special conditions.

Along with the general seat-performance criteria, also included in the policy statement are the performance criteria for airbag systems used in shoulder-belt restraint systems. However, the policy statement does not specifically address airbag systems that are integrated into passenger-cabin monuments. Although the application date for the Model 680A airplane preceded Policy Statement PS–ANM–25–03, Cessna proposed using the guidance in Policy Statement PS–ANM–25–03–R1 to develop new special

conditions applicable to the Model 680A airplane's side-facing seats.

These proposed special conditions allow installation of an airbag system for a two-place side-facing seat and a single-place side-facing seat to protect the occupant from both head and leg-flail injury in Model 680A airplanes. Cessna's proposed airbag system is designed to limit occupant forward excursion in the event of an accident. This will reduce the potential for head injury by reducing the head-injury criteria (HIC) measurement, and will also provide a means for limiting the lower-leg flail of the occupant. The inflatable-airbag system behaves similarly to an automotive inflatable airbag, but in this design, the airbag system is integrated into passenger-cabin monuments; the airbags inflate away from the seated occupants. While inflatable airbags are now standard in the automotive industry, the use of inflatable-airbag systems in commercial aviation is novel and unusual.

14 CFR 25.785 requires that occupants must be protected from head injury by either the elimination of any injurious object within the striking radius of the head, or by padding. Traditionally, this has required a seat setback of 35 inches from any bulkhead or other rigid interior feature or, where such spacing is not practical, the installation of specified types of padding. The relative effectiveness of these means of injury protection was not quantified in the original rule. Amendment 25–64 to § 25.562 established a standard that quantifies required head-injury protection.

Section 25.562 specifies that each seat-type design, approved for crew or passenger occupancy during taxi, takeoff, and landing, must successfully complete dynamic tests, or be shown to be compliant by rational analysis based on dynamic tests of a similar type of seat. In particular, the regulations require that persons must not suffer serious head injury under the conditions specified in the tests, and that protection must be provided, or the seat must be designed such that the head impact does not exceed a HIC of 1000 units. While the test conditions described for HIC are detailed and specific, it is the intent of the requirement that an adequate level of head-injury protection must be provided for passengers the event of an airplane accident.

Because §§ 25.562 and 25.785 and associated guidance do not adequately address seats with inflatable-airbag systems, the FAA recognizes that appropriate pass/fail criteria are required to fully address the safety concerns specific to occupants of these seats. Previously issued special conditions addressed airbag systems integral to the shoulder belt for some forward-facing seats. The proposed special conditions for the Model 680A inflatable-airbag systems are based on the shoulder-belt airbag systems.

Although the special conditions are applicable to the inflatable-airbag system as installed, compliance with the special conditions is not an installation approval. Therefore, while the special conditions relate to each such system installed, the overall installation approval is a separate finding, and must consider the combined effects of all such systems installed.

Part 25 states the performance criteria for head-injury protection in objective terms. However, none of these criteria are adequate to address the specific issues raised concerning seats with inflatable-airbag systems. In addition to the requirements of part 25, special conditions are needed to address requirements particular to seats equipped with an integrated, inflatable-airbag system.

Part 25, appendix F, part I specifies the flammability requirements for interior materials and components. This rule does not reference inflatable-airbag systems because such devices did not exist at the time the flammability requirements were written. The existing requirements are based on material types as well as material applications, and have been specified in light of the state-of-the-art materials available to perform a given function. In the absence of such a specific reference, the default requirement, per the rule, would apply to the type of material used in constructing the inflatable restraint, which, in the case of the rule, would be a fabric.

In writing special conditions, the FAA must also consider how the material is used within the cabin interior, and whether the default requirement is appropriate. Here, the specialized function of the inflatable-airbag system means that highly specialized materials are required. The standard normally applied to fabrics is a 12-second vertical ignition test. However, materials that meet this standard do not perform adequately as inflatable restraints; and materials used in the construction of inflatable-airbag systems do not perform well in this test.

Because the safety benefit of the inflatable-airbag system is very significant, the FAA has determined that the flammability standard appropriate for these devices should not prohibit suitable inflatable-airbag system materials; disqualifying these materials would effectively not allow the use of inflatable-airbag systems. The FAA therefore is required to establish a balance between the safety benefit of the inflatable-airbag system and its flammability performance. At this time, the 2.5-inches-per-minute horizontal burn test provides that necessary balance. As the technology in materials progresses, the FAA may change this standard in subsequent special conditions to account for improved materials.

From the standpoint of a passenger-safety system, the inflatable-airbag system is unique in that it is both an active and entirely autonomous device. While the automotive industry has good experience with inflatable airbags, the conditions of use and reliance on the inflatable-airbag system as the sole means of injury protection are quite different. In automobile installations, the airbag is a supplemental system and works in conjunction with an upper-torso restraint. In addition, the crash event is more definable and of typically shorter duration, which can simplify the activation logic. The airplane-operating environment is quite different from automobiles, and includes the potential for greater wear and tear, and unanticipated abuse conditions (due to galley loading, passenger baggage, etc.); airplanes also operate where exposure to high-intensity electromagnetic fields could affect the activation system.

The inflatable-airbag system has two potential advantages over other means of head-impact protection. First, it can provide significantly greater protection than would be expected with energy-absorbing pads, and second, it can provide essentially equivalent protection for occupants of all stature. These are significant advantages from a safety standpoint because such devices will likely provide a level of safety that exceeds the minimum standards of the Federal aviation regulations. Conversely, inflatable-airbag systems are, in general, active systems and must be relied upon to activate properly when needed, as opposed to an energy-absorbing pad or upper torso restraint that is passive and always available. Therefore, the potential advantages must be balanced against this and other potential disadvantages in developing standards for this design feature.

The FAA considers the installation of inflatable-airbag systems to have two primary safety concerns: First, that they perform properly under foreseeable operating conditions, and second, that they do not perform in a manner or at such times as would constitute a hazard to the airplane or occupants. This latter point has the potential to be the more

rigorous of the requirements, owing to the active nature of the system.

The inflatable-airbag system will rely on electronic sensors for signaling, and a stored gas canister for inflation. The sensors and canister could be susceptible to inadvertent activation, causing a potentially unsafe deployment. The consequences of inadvertent deployment, as well as a failure to deploy in a timely manner, must be considered in establishing the reliability of the system. Cessna must substantiate that an inadvertent deployment in-flight either would not cause injuries to occupants, or that the probability of such a deployment meets the requirements of § 25.1309(b). The effect of an inadvertent deployment on a passenger or crewmember, who could be positioned close to an airbag, should also be considered. The person could be either standing or sitting. A minimum reliability level must be established for this case, depending upon the consequences, even if the effect on the airplane is negligible.

The potential for an inadvertent deployment could increase as a result of conditions in service. The installation must take into account wear and tear so that the likelihood of an inadvertent deployment is not increased to an unacceptable level. In this context, an appropriate inspection interval and self-test capability are considered necessary. In addition, outside influences, such as lightning and high-intensity radiated fields (HIRF), may also contribute to or cause inadvertent deployment. Existing regulations regarding lightning, § 25.1316, and HIRF, § 25.1317, are applicable to the Model 680A airplane.

The applicant must verify that electromagnetic interference (EMI) present, under foreseeable operating conditions, will not affect the function of the inflatable-airbag system or cause inadvertent deployment. Finally, the inflatable-airbag system installation must be protected from the effects of fire, so that an additional hazard is not created by, for example, a rupture of the pyrotechnic squib.

To be an effective safety system, the inflatable-airbag system must function properly and must not introduce any additional hazards to occupants or the airplane as a result of its functioning. The inflatable-airbag system differs from traditional occupant-protection systems in several ways, requiring special conditions to ensure adequate performance.

Because the inflatable-airbag system is a single-use device, it potentially could deploy under crash conditions that are not sufficiently severe as to require injury protection from the inflatable-airbag system. Because an actual crash is frequently composed of a series of impacts before the airplane comes to rest, this could render the inflatable-airbag system useless if a larger impact follows the initial impact. This situation does not exist with energy absorbing pads or upper-torso restraints, which tend to provide continuous protection regardless of severity or number of impacts in a crash event. Therefore, the inflatable-airbag system installation should provide protection, when it is required, and not expend its protection when it is not required. And while several large impact events may occur during the course of a crash, there are no requirements for the inflatable-airbag system to provide protection for multiple impacts.

Each occupant's restraint system provides protection for that occupant only. Likewise, the installation must address seats that are unoccupied. The applicant must show that the required protection is provided for each occupant regardless of the number of occupied seats, considering that unoccupied seats may have airbag systems that are active.

The inflatable-airbag system should be effective for a wide range of occupants. The FAA has historically considered the range from the 5th percentile female to the 95th percentile male as the range of occupants that must be taken into account. In this case, the FAA is proposing consideration of a broader range of occupants, *i.e.*, a two-year-old child to a 95th percentile male, plus pregnant females. This is due to the nature of the inflatable-airbag system installation and its close proximity to the occupant. In a similar vein, these persons could assume the brace position for those accidents where an impact is anticipated. Test data indicate that occupants in the brace position do not require supplemental protection, and so it would not be necessary to show that the inflatable-airbag system will enhance the brace position. However, the inflatable-airbag system must not introduce a hazard in the case of deploying into the seated, braced occupant.

Another area of concern is the use of seats so equipped, by children, whether lap-held, in approved child-safety seats, or occupying the seat directly. Similarly, if the seat is occupied by a pregnant woman, the installation should address such use, either by demonstrating that it will function properly, or by adding appropriate limitation on persons allowed to occupy the seat.

Given that the airbag system will be electrically powered, the possibility exists that the system could fail due to a separation in the fuselage. And because this system is intended as a means of crash/post-crash protection, failure to deploy due to fuselage separation is not acceptable. As with emergency lighting, the system should function properly if such a separation occurs at any point in the fuselage. As required by § 25.1353(a), operation of the existing airplane electrical equipment should not adversely impact the function of the inflatable-airbag system under all foreseeable conditions.

The inflatable-airbag system is likely to have a large volume displacement, and, likewise, the inflated airbag could potentially impede egress of passengers. Because the airbag deflates to absorb energy, it is likely that an inflatable-airbag system would be deflated at the time that persons would be trying to leave their seats. Nonetheless, the FAA considers it appropriate to specify a time interval after which the inflatable-airbag system may not impede rapid egress. Ten seconds is indicated as a reasonable time because this corresponds to the maximum time allowed for an exit to be openable (reference: § 25.809).

The FAA position is provided in Policy Statement PS–ANM–25–03–R1 ''Technical Criteria for Approving Side Facing Seats.'' This policy statement refers to airbag systems in the shoulder belts, while Cessna's design configuration has airbag systems integrated into the side-facing seats. The FAA genericized these proposed special conditions to be applicable to the Cessna design configuration.

These proposed special conditions contain the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

Applicability

As discussed above, these special conditions are applicable to the Cessna Model 680A airplane. Should Cessna apply at a later date for a change to the type certificate to include another model incorporating the same novel or unusual design feature, these special conditions would apply to that model as well.

Conclusion

This action affects only certain novel or unusual design features on one model of airplane. It is not a rule of general applicability.

List of Subjects in 14 CFR Part 25

Airplane, Aviation safety, Reporting and recordkeeping requirements.

The authority citation for these special conditions is as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701, 44702, 44704.

The Proposed Special Conditions

Accordingly, the Federal Aviation Administration (FAA) proposes the following special conditions are issued as part of the type certification basis for Cessna Model 680A airplanes.

In addition to the requirements of §§ 25.562 and 25.785, the following special conditions 1 and 2 are proposed as part of the type certification basis of the Model 680A airplane with side-facing seat installations. For seat places equipped with airbag systems, additional special conditions 3 through 16 are proposed as part of the type certification basis.

1. Additional requirements applicable to tests or rational analysis conducted to show compliance with §§ 25.562 and 25.785 for side-facing seats:

1.1. The longitudinal tests conducted in accordance with § 25.562(b)(2), to show compliance with the seat-strength requirements of § 25.562(c)(7) and (8) and these special conditions, must have an ES–2re anthropomorphic test dummy (ATD) (49 CFR part 572, subpart U) or equivalent, or a Hybrid-II ATD (49 CFR part 572, subpart B, as specified in § 25.562) or equivalent, occupying each seat position, and including all items contactable by the occupant (*e.g.,* armrest, interior wall, or furnishing) if those items are necessary to restrain the occupant. If included, the floor representation and contactable items must be located such that their relative position, with respect to the center of the nearest seat place, is the same at the start of the test as before floor misalignment is applied. For example, if floor misalignment rotates the centerline of the seat place nearest the contactable item 8 degrees clockwise about the airplane x-axis, then the item and floor representations also must be rotated by 8 degrees clockwise to maintain the same relative position to the seat place, as shown in Figure 1 of these special conditions. Each ATD's relative position to the seat, after application of floor misalignment, must be the same as before misalignment is applied. To ensure proper loading of the seat by the occupants, the ATD pelvis must remain supported by the seat pan, and the restraint system must remain on the pelvis and shoulder of the ATD until rebound begins. No injury-criteria evaluation is necessary for tests conducted only to assess seat-strength requirements.

1.2. The longitudinal tests conducted in accordance with § 25.562(b)(2), to show compliance with the injury assessments required by § 25.562(c) and these special conditions, may be conducted separately from the tests to show structural integrity. In this case, structural-assessment tests must be conducted as specified in paragraph 1.1 of these special conditions, and the injury-assessment test must be conducted without yaw or floor misalignment. Injury assessments may be accomplished by testing with ES–2re ATD (49 CFR part 572, subpart U) or equivalent at all places. Alternatively, these assessments may be accomplished by multiple tests that use an ES–2re at the seat place being evaluated, and a Hybrid-II ATD (49 CFR part 572, subpart B, as specified in § 25.562) or equivalent used in all seat places forward of the one being assessed, to evaluate occupant interaction. In this case, seat places aft of the one being assessed may be unoccupied. If a seat installation includes adjacent items that are contactable by the occupant, the injury potential of that contact must be assessed. To make this assessment, tests may be conducted that include the actual item, located and attached in a representative fashion. Alternatively, the injury potential may be assessed by a combination of tests with items having the same geometry as the actual item, but having stiffness characteristics that would create the worst case for injury (injuries due to both contact with the item and lack of support from the item).

1.3. If a seat is installed aft of structure (*e.g.,* an interior wall or furnishing) that does not have a homogeneous surface contactable by the occupant, additional analysis and/or tests may be required to demonstrate that the injury criteria are met for the area upon which an occupant could contact. For example, different yaw angles could result in different injury considerations, and may require additional analysis or separate tests to evaluate.

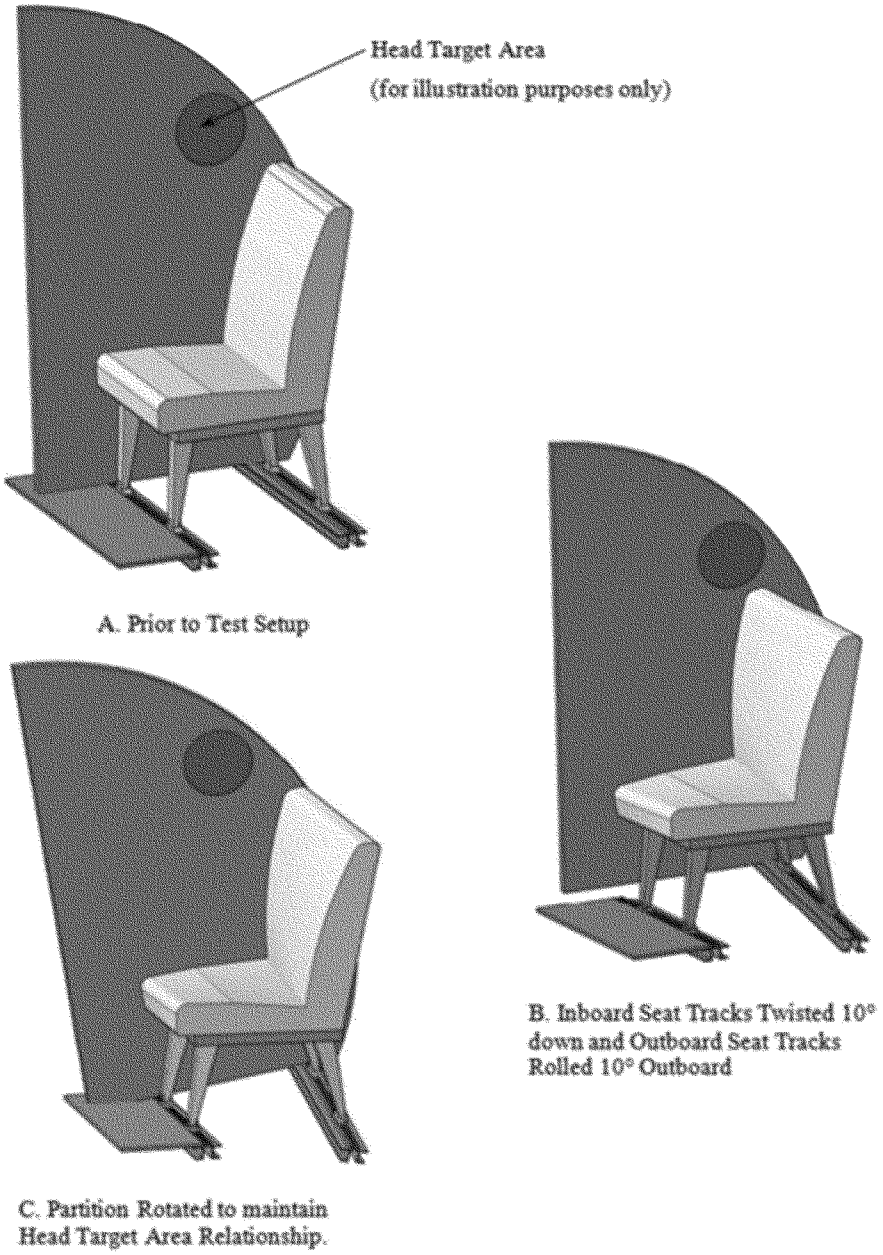

Figure 1: Head Target Areas Relative to Seat Position

1.4. To accommodate a range of occupant heights (5th percentile female to 95th percentile male), the surface of items contactable by the occupant must be homogenous 7.3 inches (185 mm) above and 7.9 inches (200 mm) below the point (center of area) that is contacted by the 50th percentile male-sized ATD's head during the longitudinal tests, conducted in accordance with paragraphs 1.1, 1.2, and 1.3 of these special conditions. Otherwise, additional HIC assessment tests may be necessary. Any surface (inflatable or otherwise) that provides support for the occupant of any seat place must provide that support in a consistent manner regardless of occupant stature. For example, if an inflatable shoulder belt is used to mitigate injury risk, then it must be demonstrated by inspection to bear against the range of occupants in a similar manner before and after inflation. Likewise, the means of limiting lower-leg flail must be demonstrated by inspection to provide protection for the range of occupants in a similar manner.

1.5. For longitudinal tests conducted in accordance with 14 CFR 25.562(b)(2) and these special conditions, the ATDs must be positioned, clothed, and have lateral instrumentation configured as follows:

1.5.1. ATD positioning: Lower the ATD vertically into the seat (see Figure 2 of these special conditions) while simultaneously:

1.5.1.1. Aligning the midsagittal plane (a vertical plane through the midline of the body; dividing the body into right and left halves) with approximately the middle of the seat place.

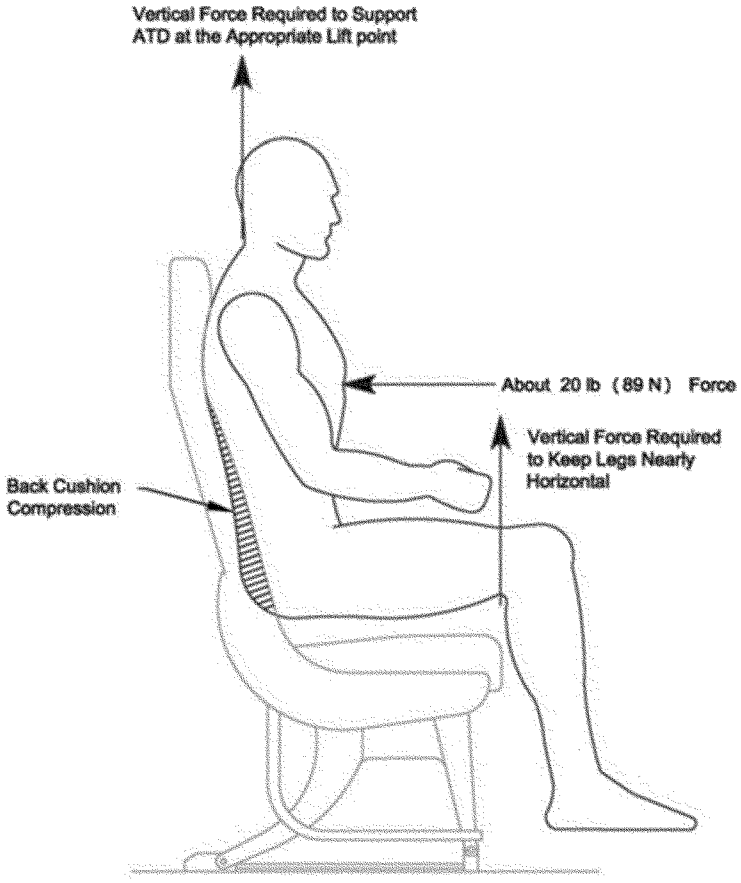

Figure 2: ATD Positioning

1.5.1.2. Applying a horizontal x-axis direction (in the ATD coordinate system) force of about 20 lb (89 N) to the torso, at approximately the intersection of the midsagittal plane and the bottom rib of the ES–2re or lower sternum of the Hybrid-II at the midsagittal plane, to compress the seat-back cushion.

1.5.1.3. Keeping the upper legs nearly horizontal by supporting them just behind the knees.

1.5.2. After all lifting devices have been removed from the ATD:

1.5.2.1. Rock it slightly to settle it into the seat.

1.5.2.2. Separate the knees by about 4 inches (100 mm).

1.5.2.3. Set the ES–2re's head at approximately the midpoint of the available range of z-axis rotation (to align the head and torso midsagittal planes).

1.5.2.4. Position the ES–2re's arms at the joint's mechanical detent that puts them at approximately a 40-degree angle with respect to the torso. Position the Hybrid-II ATD hands on top of its upper legs.

1.5.2.5. Position the feet such that the centerlines of the lower legs are approximately parallel to a lateral vertical plane (in the airplane coordinate system).

1.5.3. ATD clothing: Clothe each ATD in form-fitting, mid-calf-length (minimum) pants and shoes (size 11E), all clothing weighing about 2.5 lb (1.1 Kg) total. The color of the clothing should be in contrast to the color of the restraint system. The ES–2re jacket is sufficient for torso clothing, although a form-fitting shirt may be used in addition if desired.

1.5.4. ES–2re ATD lateral instrumentation: The rib-module linear slides are directional, *i.e.,* deflection occurs in either a positive or negative ATD y-axis direction. The modules must be installed such that the moving end of the rib module is toward the front of the airplane. The three abdominal-force sensors must be installed such that they are on the side of the ATD toward the front of the airplane.

1.6. The combined horizontal/vertical test, required by § 25.562(b)(1) and these special conditions, must be conducted with a Hybrid II ATD (49 CFR part 572, subpart B, as specified in § 25.562), or equivalent, occupying each seat position.

1.7. The design and installation of seatbelt buckles must prevent unbuckling due to applied inertial forces or impact of the hands/arms of the occupant during an emergency landing.

1.8. Inflatable-airbag systems must be active during all dynamic tests conducted to show compliance with § 25.562.

2. Additional performance measures applicable to tests and rational analysis conducted to show compliance with §§ 25.562 and 25.785 for side-facing seats:

2.1. Body-to-body contact: Contact between the head, pelvis, torso, or shoulder area of one ATD with the adjacent-seated ATD's head, pelvis, torso, or shoulder area is not allowed. Contact during rebound is allowed.

2.2. Thoracic: The deflection of any of the ES–2re ATD upper, middle, and lower ribs must not exceed 1.73 inches (44 mm). Data must be processed as defined in Federal Motor Vehicle Safety Standards (FMVSS) 571.214.

2.3. Abdominal: The sum of the measured ES–2re ATD front, middle, and rear abdominal forces must not exceed 562 lbs (2,500 N). Data must be

processed as defined in FMVSS 571.214.

2.4. Pelvic: The pubic symphysis force measured by the ES–2re ATD must not exceed 1,350 lbs (6,000 N). Data must be processed as defined in FMVSS 571.214.

2.5. Leg: Axial rotation of the upper leg (femur) must be limited to 35 degrees in either direction from the nominal seated position.

2.6. Neck: As measured by the ES–2re ATD and filtered at CFC 600 as defined in SAE J211:

2.6.1. The upper-neck tension force at the occipital condyle (O.C.) location must be less than 405 lb (1,800 N).

2.6.2. The upper-neck compression force at the O.C. location must be less than 405 lb (1,800 N).

2.6.3. The upper-neck bending torque about the ATD x-axis at the O.C. location must be less than 1,018 in.-lb (115 N-m).

2.6.4. The upper-neck resultant shear force at the O.C. location must be less than 186 lb (825 N).

2.7. Occupant (ES–2re ATD) retention: The pelvic restraint must remain on the ES–2re ATD's pelvis during the impact and rebound phases of the test. The upper-torso restraint straps (if present) must remain on the ATD's shoulder during the impact.

2.8. Occupant (ES–2re ATD) support:

2.8.1. Pelvis excursion: The load-bearing portion of the bottom of the ATD pelvis must not translate beyond the edges of its seat's bottom seat-cushion supporting structure.

2.8.2. Upper-torso support: The lateral flexion of the ATD torso must not exceed 40 degrees from the normal upright position during the impact.

3. For seats with an airbag system, show that the airbag system will deploy and provide protection under crash conditions where it is necessary to prevent serious injury. The means of protection must take into consideration a range of stature from a 2-year-old child to 95th percentile male. The airbag system must provide a consistent approach to energy absorption throughout that range of occupants. When the seat systems include airbag systems, the systems must be included in each of the certification tests as they would be installed in the airplane. In addition, the following situations must be considered:

3.1. The seat occupant is holding an infant.

3.2. The seat occupant is a pregnant woman.

4. The airbag systems must provide adequate protection for each occupant regardless of the number of occupants of the seat assembly, considering that unoccupied seats may have an active airbag system.

5. The design must prevent the airbag systems from being either incorrectly buckled or incorrectly installed, such that the airbag systems would not properly deploy. Alternatively, it must be shown that such deployment is not hazardous to the occupant and will provide the required injury protection.

6. It must be shown that the airbag system is not susceptible to inadvertent deployment as a result of wear and tear, or inertial loads resulting from in-flight or ground maneuvers (including gusts and hard landings), and other operating and environment conditions (vibrations, moisture, etc.) likely to occur in service.

7. Deployment of the airbag system must not introduce injury mechanisms to the seated occupant, nor result in injuries that could impede rapid egress. This assessment should include an occupant whose restraint is loosely fastened.

8. It must be shown that inadvertent deployment of the airbag system, during the most critical part of the flight, will either meet the requirement of § 25.1309(b) or not cause a hazard to the airplane or its occupants.

9. It must be shown that the airbag system will not impede rapid egress of occupants 10 seconds after airbag deployment.

10. The airbag systems must be protected from lightning and high-intensity radiated fields (HIRF). The threats to the airplane specified in existing regulations regarding lighting, § 25.1316, and HIRF, § 25.1317 apply to these special conditions for the purpose of measuring lightning and HIRF protection.

11. The airbag system must function properly after loss of normal airplane electrical power, and after a transverse separation of the fuselage at the most critical location. A separation at the location of the airbag systems does not have to be considered.

12. It must be shown that the airbag system will not release hazardous quantities of gas or particulate matter into the cabin.

13. The airbag system installations must be protected from the effects of fire such that no hazard to occupants will result.

14. A means must be available for a crew member to verify the integrity of the airbag system's activation system prior to each flight, or it must be demonstrated to reliably operate between inspection intervals. The FAA considers that the loss of the airbag-system deployment function alone (*i.e.*, independent of the conditional event that requires the airbag-system deployment) is a major-failure condition.

15. The inflatable material may not have an average burn rate of greater than 2.5 inches/minute when tested using the horizontal flammability test defined in 14 CFR part 25, appendix F, part I, paragraph (b)(5).

16. The airbag system, once deployed, must not adversely affect the emergency lighting system (*e.g.*, block floor proximity lights to the extent that the lights no longer meet their intended function).

Issued in Renton, Washington, on August 5, 2015.

Michael Kaszycki,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2015–20300 Filed 8–17–15; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF LABOR

Office of Workers' Compensation Programs

20 CFR Parts 702 and 703

RIN 1240–AA09

Longshore and Harbor Workers' Compensation Act: Transmission of Documents and Information

AGENCY: Office of Workers' Compensation Programs, Labor.

ACTION: Notice of proposed rulemaking; withdrawal.

SUMMARY: The Office of Workers' Compensation Programs (OWCP) published a notice of proposed rulemaking and companion direct final rule in the **Federal Register** on March 12, 2015, broadening the acceptable methods by which claimants, employers, and insurers can communicate with OWCP and each other regarding claims arising under the Longshore and Harbor Workers' Compensation Act and its extensions. The comment period closed on May 11, 2015. OWCP did not receive significant adverse comment and therefore the direct final rule took effect on June 10, 2015. For these reasons, OWCP is withdrawing the notice of proposed rulemaking.

DATES: Effective August 18, 2015, the notice of proposed rulemaking published on March 12, 2015 (80 FR 12957), is withdrawn.

FOR FURTHER INFORMATION CONTACT: Antonio Rios, Director, Division of Longshore and Harbor Workers' Compensation, Office of Workers' Compensation Programs, U.S.