Proposed Rules

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This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. NM355; Notice No. 25–06–10–SC]

Special Conditions: Dassault Aviation Model Falcon 7X Airplane; Interaction of Systems and Structures, Limit Pilot Forces, and High Intensity Radiated Fields (HIRF) Protection

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed special conditions.

SUMMARY: This action proposes special conditions for the Dassault Aviation Model Falcon 7X 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. These design features include interaction of systems and structures, limit pilot forces, and electrical and electronic flight control systems. The applicable airworthiness regulations do not contain adequate or appropriate safety standards for these design features. 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: We must receive your comments by December 4, 2006.

ADDRESSES: You must mail two copies of your comments to: Federal Aviation Administration, Transport Airplane Directorate, Attn: Rules Docket (ANM–113), Docket No. NM355, 1601 Lind Avenue SW., Renton, Washington, 98057–3356. You may deliver two copies to the Transport Airplane Directorate at the above address. You must mark your comments: Docket No. NM355. You can inspect comments in the Rules Docket weekdays, except Federal holidays, between 7:30 a.m. and 4 p.m.

FOR FURTHER INFORMATION CONTACT: Thomas Rodriguez, FAA, International Branch, ANM–116, Transport Airplane Directorate, Aircraft Certification Service, 1601 Lind Avenue SW., Renton, Washington, 98057–3356; telephone (425) 227–1137; facsimile (425) 227–1149.

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 ask that you send us two copies of written comments.

We will file in the docket all comments we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning these special conditions. You can inspect the docket before and after the comment closing date. If you wish to review the docket in person, go to the address in the **ADDRESSES** section of this preamble between 7:30 a.m. and 4 p.m., Monday through Friday, except Federal holidays.

We will consider all comments we receive on or before the closing date for comments. We will consider comments filed late if it is possible to do so without incurring expense or delay. We may change these special conditions based on the comments we receive.

If you want the FAA to acknowledge receipt of your comments on this proposal, include with your comments a pre-addressed, stamped postcard on which the docket number appears. We will stamp the date on the postcard and mail it back to you.

Background

On June 4, 2002, Dassault Aviation, 9 rond Point des Champs Elysées, 75008, Paris, France, applied for a type certificate for its new Model Falcon 7X airplane. The Model Falcon 7X is a 19 passenger transport category airplane, powered by three aft mounted Pratt & Whitney PW307A high bypass ratio turbofan engines. The airplane is operated using a fly-by-wire (FBW) primary flight control system. This will be the first application of a FBW primary flight control system in a private/corporate use airplane.

The Dassault Aviation Model Falcon 7X design incorporates equipment that was not envisioned when part 25 was created. This equipment affects the interaction of systems and structures, limit pilot forces, and high intensity radiated fields (HIRF) protection. Therefore, special conditions are required to provide the level of safety equivalent to that established by the regulations.

Type Certification Basis

Under the provisions of 14 CFR 21.17, Dassault Aviation must show that the Model Falcon 7X airplane meets the applicable provisions of part 25, as amended by Amendments 25–1 through 25–108.

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 Model Falcon 7X because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.16.

In addition to the applicable airworthiness regulations and special conditions, the Model Falcon 7X 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 and the FAA must issue a finding of regulatory adequacy under § 611 of Public Law 92–574, the ''Noise Control Act of 1972.''

The FAA issues special conditions, as defined in § 11.19, under § 11.38, and they become part of the type certification basis under § 21.17(a)(2).

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 or similar novel or unusual design feature, the special conditions would also apply to the other model under § 21.101.

Novel or Unusual Design Features

The Model Falcon 7X airplane will incorporate three novel or unusual design features: interaction of systems and structures, limit pilot forces, and electrical and electronic flight control systems. These proposed special conditions address equipment which may affect the airplane's structural performance, either directly or as a

result of failure or malfunction; pilot limit forces; and electrical and electronic systems which perform critical functions that may be vulnerable to HIRF.

These proposed special conditions are identical or nearly identical to those previously required for type certification of other Dassault airplane models. In general, the proposed special conditions were derived initially from standardized requirements developed by the Aviation Rulemaking Advisory Committee (ARAC), comprised of representatives of the FAA, Europe's Joint Aviation Authorities (now replaced by the European Aviation Safety Agency), and industry.

Additional special conditions will be issued for other novel or unusual design features of the Dassault Model Falcon 7X airplane. These additional proposed special conditions will pertain to the following topics:

Dive Speed Definition With Speed Protection System,

Sudden Engine Stoppage,

High Incidence Protection Function,

Side Stick Controllers,

Lateral-Directional and Longitudinal Stability and Low Energy Awareness,

Flight Envelope Protection: General Limiting Requirements,

Flight Envelope Protection: Normal Load Factor (g) Limiting,

Flight Envelope Protection: Pitch, Roll and High Speed Limiting Functions,

Flight Control Surface Position Awareness,

Flight Characteristics Compliance via Handling Qualities Rating Method,

Operation Without Normal Electrical Power.

Proposed special conditions have been issued for the Model Falcon 7X with the novel or unusual design feature pertaining to Pilot Compartment View–Hydrophobic Coatings in Lieu of Windshield Wipers. This special condition was published for public comment in the **Federal Register** on July 12, 2006 (71 FR 39235).

Discussion

Because of rapid improvements in airplane technology, the applicable airworthiness regulations do not contain adequate or appropriate safety standards for these design features. Therefore, in addition to the requirements of part 25, subparts C and D, the following three special conditions apply.

Special Condition No. 1. Interaction of Systems and Structures

The Dassault Model Falcon 7X is equipped with systems that may affect the airplane's structural performance either directly or as a result of failure or malfunction. The effects of these systems on structural performance must be considered in the certification analysis. This analysis must include consideration of normal operation and of failure conditions with required structural strength levels related to the probability of occurrence.

Previously, special conditions have been specified to require consideration of the effects of systems on structures. The special condition proposed for the Model Falcon 7X is nearly identical to that issued for other fly-by-wire airplanes.

Special Condition No. 2. Limit Pilot Forces

Like some other certificated transport category airplane models, the Dassault Model Falcon 7X airplane is equipped with a side stick controller instead of a conventional wheel or control stick. This kind of controller is designed to be operated using only one hand. The requirement of § 25.397(c), which defines limit pilot forces and torques for conventional wheel or stick controls, is not appropriate for a side stick controller. Therefore, a special condition is necessary to specify the appropriate loading conditions for this kind of controller.

Special Condition No. 3. High Intensity Radiated Fields (HIRF) Protection

The Dassault Model Falcon X will utilize electrical and electronic systems which perform critical functions. These systems may be vulnerable to HIRF external to the airplane. There is no specific regulation that addresses requirements for protection of electrical and electronic systems from HIRF. With the trend toward increased power levels from ground-based transmitters and the advent of space and satellite communications, coupled with electronic command and control of the airplane, the immunity of critical avionics/electronics and electrical systems to HIRF must be established.

To ensure that a level of safety is achieved that is equivalent to that intended by the regulations incorporated by reference, a special condition is needed for the Dassault Model Falcon 7X airplane. This special condition requires that avionics/electronics and electrical systems that perform critical functions be designed and installed to preclude component damage and interruption.

It is not possible to precisely define the HIRF to which the airplane will be exposed in service. There is also uncertainty concerning the effectiveness of airframe shielding for HIRF. Furthermore, coupling of electromagnetic energy to cockpit-installed equipment through the cockpit window apertures is undefined. Based on surveys and analysis of existing HIRF emitters, adequate protection from exists when there is compliance with either paragraph 1 or 2 below:

1. A minimum threat of 100 volts rms (root-mean-square) per meter electric field strength from 10 KHz to 18 GHz.

a. The threat must be applied to the system elements and their associated wiring harnesses without the benefit of airframe shielding.

b. Demonstration of this level of protection is established through system tests and analysis.

2. A threat external to the airframe of the field strengths indicated in the table below for the frequency ranges indicated. Both peak and average field strength components from the table are to be demonstrated.

Frequency	Field strength (volts per meter)	
	Peak	Average
10 kHz–100 kHz	50	50
100 kHz–500 kHz	50	50
500 kHz–2 MHz	50	50
2 MHz–30 MHz	100	100
30 MHz–70 MHz	50	50
70 MHz–100 MHz	50	50
100 MHz–200 MHz ...	100	100
200 MHz–400 MHz ...	100	100
400 MHz–700 MHz ...	700	50
700 MHz–1 GHz	700	100
1 GHz–2 GHz	2000	200
2 GHz–4 GHz	3000	200
4 GHz–6 GHz	3000	200
6 GHz–8 GHz	1000	200
8 GHz–12 GHz	3000	300
12 GHz–18 GHz	2000	200
18 GHz–40 GHz	600	200

The field strengths are expressed in terms of peak of the root-mean-square (rms) over the complete modulation period.

The threat levels identified above are the result of an FAA review of existing studies on the subject of HIRF, in light of the ongoing work of the Electromagnetic Effects Harmonization Working Group of the Aviation Rulemaking Advisory Committee.

Applicability

As discussed above, these special conditions are applicable to the Dassault Model Falcon 7X. Should Dassault Aviation 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 of the

Dassault Model Falcon 7X airplane. It is not a rule of general applicability, and it affects only the applicant which applied to the FAA for approval of these features on the airplane.

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, pursuant to the authority delegated to me by the Administrator, the following special conditions are issued as part of the type certification basis for Dassault Aviation Model Falcon 7X airplanes.

1. Interaction of Systems and Structures

In addition to the requirements of part 25, subparts C and D, the following proposed special conditions would apply:

a. For airplanes equipped with systems that affect structural performance—either directly or as a result of a failure or malfunction—the influence of these systems and their failure conditions must be taken into account when showing compliance with the requirements of part 25, subparts C and D. Paragraph c below must be used to evaluate the structural performance of airplanes equipped with these systems.

b. Unless shown to be extremely improbable, the airplane must be designed to withstand any forced structural vibration resulting from any failure, malfunction, or adverse condition in the flight control system. These loads must be treated in accordance with the requirements of paragraph a above.

c. Interaction of Systems and Structures.

(1) General: The following criteria must be used for showing compliance with this special condition for interaction of systems and structures and with § 25.629 for airplanes equipped with flight control systems, autopilots, stability augmentation systems, load alleviation systems, flutter control systems, and fuel management systems. If this special condition is used for other systems, it may be necessary to adapt the criteria to the specific system.

(a) The criteria defined herein address only the direct structural consequences of the system responses and performances. They cannot be considered in isolation but should be included in the overall safety evaluation of the airplane. These criteria may, in some instances, duplicate standards already established for this evaluation. These criteria are applicable only to structures whose failure could prevent continued safe flight and landing. Specific criteria that define acceptable limits on handling characteristics or stability requirements when operating in the system degraded or inoperative modes are not provided in this special condition.

(b) Depending upon the specific characteristics of the airplane, additional studies may be required that go beyond the criteria provided in this special condition in order to demonstrate the capability of the airplane to meet other realistic conditions, such as alternative gust or maneuver descriptions for an airplane equipped with a load alleviation system.

(c) The following definitions are applicable to this paragraph.

Structural performance: Capability of the airplane to meet the structural requirements of part 25.

Flight limitations: Limitations that can be applied to the airplane flight conditions following an in-flight occurrence and that are included in the flight manual (e.g., speed limitations and avoidance of severe weather conditions).

Operational limitations: Limitations, including flight limitations, that can be applied to the airplane operating conditions before dispatch (e.g., fuel, payload, and Master Minimum Equipment List limitations).

Probabilistic terms: The probabilistic terms (probable, improbable, and extremely improbable) used in this Special Conditions are the same as those used in § 25.1309.

Failure condition: The term failure condition is the same as that used in § 25.1309. However, this Special Conditions applies only to system failure conditions that affect the structural performance of the airplane (e.g., system failure conditions that induce loads, change the response of the airplane to inputs such as gusts or pilot actions, or lower flutter margins).

(2) Effects of Systems on Structures.

(a) *General.* The following criteria will be used in determining the influence of a system and its failure conditions on the airplane structure.

(b) *System fully operative.* With the system fully operative, the following apply:

(1) Limit loads must be derived in all normal operating configurations of the system from all the limit conditions specified in subpart C (or used in lieu of those specified in subpart C), taking into account any special behavior of such a system or associated functions or any effect on the structural performance of the airplane that may occur up to the limit loads. In particular, any significant non-linearity (rate of displacement of control surface, thresholds or any other system non-linearities) must be accounted for in a realistic or conservative way when deriving limit loads from limit conditions.

(2) The airplane must meet the strength requirements of part 25 (static strength, residual strength), using the specified factors to derive ultimate loads from the limit loads defined above. The effect of non-linearities must be investigated beyond limit conditions to ensure that the behavior of the system presents no anomaly compared to the behavior below limit conditions. However, conditions beyond limit conditions need not be considered, when it can be shown that the airplane has design features that will not allow it to exceed those limit conditions.

(3) The airplane must meet the aeroelastic stability requirements of § 25.629.

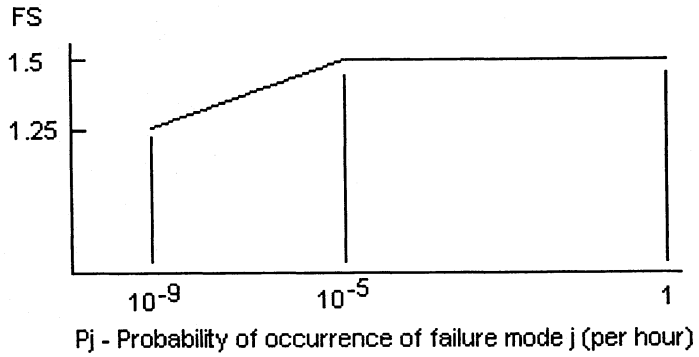
(c) *System in the failure condition.* For any system failure condition not shown to be extremely improbable, the following apply:

(1) At the time of occurrence. Starting from 1g level flight conditions, a realistic scenario, including pilot corrective actions, must be established to determine the loads occurring at the time of failure and immediately after failure.

(i) For static strength substantiation, these loads multiplied by an appropriate factor of safety that is related to the probability of occurrence of the failure are ultimate loads to be considered for design. The factor of safety (FS) is defined in Figure 1.

Figure 1

Factor of safety at the time of occurrence



(ii) For residual strength substantiation, the airplane must be able to withstand two thirds of the ultimate loads defined in paragraph (c)(1)(i) of this section. For pressurized cabins, these loads must be combined with the normal operating differential pressure.

(iii) Freedom from aeroelastic instability must be shown up to the speeds defined in § 25.629(b)(2). For failure conditions that result in speed increases beyond V_C/M_C, freedom from aeroelastic instability must be shown to increased speeds, so that the margins intended by § 25.629(b)(2) are maintained.

(iv) Failures of the system that result in forced structural vibrations (oscillatory failures) must not produce loads that could result in detrimental deformation of primary structure.

(2) For the continuation of the flight. For the airplane in the system failed state and considering any appropriate reconfiguration and flight limitations, the following apply:

(i) The loads derived from the following conditions (or used in lieu of the following conditions) at speeds up to V_C/M_C or the speed limitation prescribed for the remainder of the flight must be determined:

(A) the limit symmetrical maneuvering conditions specified in §§ 25.331 and in 25.345.

(B) the limit gust and turbulence conditions specified in §§ 25.341 and in 25.345.

(C) the limit rolling conditions specified in § 25.349 and the limit unsymmetrical conditions specified in §§ 25.367 and 25.427(b) and (c).

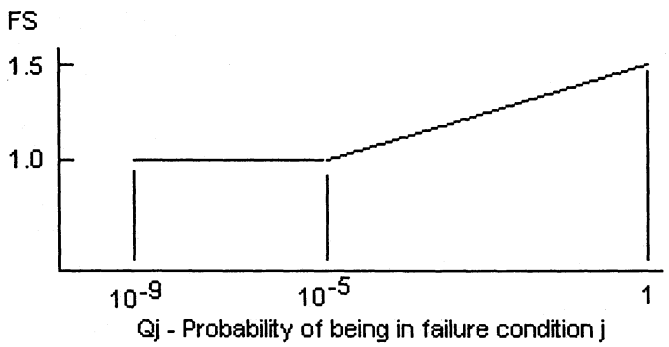
(D) the limit yaw maneuvering conditions specified in § 25.351.

(E) the limit ground loading conditions specified in §§ 25.473 and 25.491.

(ii) For static strength substantiation, each part of the structure must be able to withstand the loads in paragraph (c)(2)(i) of this special condition multiplied by a factor of safety, depending on the probability of being in this failure state. The factor of safety is defined in Figure 2.

Figure 2

Factor of safety for continuation of flight



$Qj = (T_j)(P_j)$

Where:

T_j = Average time spent in failure condition j (in hours)

P_j = Probability of occurrence of failure mode j (per hour)

Note: If P_j is greater than 10^{-3} per flight hour, then a 1.5 factor of safety must be applied to all limit load conditions specified in subpart C.

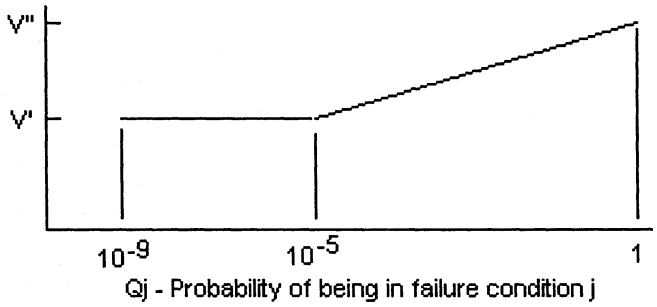
(iii) For residual strength substantiation, the airplane must be able to withstand two thirds of the ultimate loads defined in paragraph (c)(2)(ii). For pressurized cabins, these loads must be combined with the normal operating differential pressure.

(iv) If the loads induced by the failure condition have a significant effect on fatigue or damage tolerance, then their effects must be taken into account.

(v) Freedom from aeroelastic instability must be shown up to a speed determined from Figure 3. Flutter clearance speeds V′ and V″ may be based on the speed limitation specified for the remainder of the flight, using the margins defined by § 25.629(b).

Figure 3

Clearance speed



V′ = Clearance speed as defined by § 25.629(b)(2).

V″ = Clearance speed as defined by § 25.629(b)(1).

$Qj = (T_j)(P_j)$

Where:

T_j = Average time spent in failure condition j (in hours)

P_j = Probability of occurrence of failure mode j (per hour)

Note: If P_j is greater than 10^{-3} per flight hour, then the flutter clearance speed must not be less than V″.

(vi) Freedom from aeroelastic instability must also be shown up to V′ in Figure 3 above for any probable system failure condition combined with any damage required or selected for investigation by § 25.571(b).

(3) Consideration of certain failure conditions may be required by other sections of this Part, regardless of calculated system reliability. Where analysis shows the probability of these failure conditions to be less than 10^{-9}, criteria other than those specified in this paragraph may be used for structural substantiation to show continued safe flight and landing.

(d) *Warning considerations.* For system failure detection and warning, the following apply:

(1) The system must be checked for failure conditions, not extremely improbable, that degrade the structural capability below the level required by part 25 or significantly reduce the reliability of the remaining system. As far as reasonably practicable, the flightcrew must be made aware of these failures before flight. Certain elements of the control system, such as mechanical and hydraulic components, may use special periodic inspections, and electronic components may use daily checks in lieu of warning systems to achieve the objective of this requirement. These certification maintenance requirements must be limited to components that are not readily detectable by normal warning systems and where service history shows that inspections will provide an adequate level of safety.

(2) The existence of any failure condition, not extremely improbable, during flight that could significantly affect the structural capability of the airplane and for which the associated reduction in airworthiness can be minimized by suitable flight limitations must be signaled to the flightcrew. For example, failure conditions that result in a factor of safety between the airplane strength and the loads of part 25, subpart C, below 1.25 or flutter margins below V″ must be signaled to the crew during flight.

(e) *Dispatch with known failure conditions.* If the airplane is to be dispatched in a known system failure condition that affects structural performance or affects the reliability of the remaining system to maintain structural performance, then the provisions of these Special Conditions must be met, including the provisions of paragraph (b), for the dispatched condition and paragraph (c) for subsequent failures. Expected operational limitations may be taken into account in establishing P_j as the probability of failure occurrence for determining the safety margin in Figure 1. Flight limitations and expected operational limitations may be taken into account in establishing Qj as the combined probability of being in the dispatched failure condition and the subsequent failure condition for the safety margins in Figures 2 and 3. These limitations must be such that the probability of being in this combined failure state and then subsequently encountering limit load conditions is extremely improbable. No reduction in these safety margins is allowed if the subsequent system failure rate is greater than 1E–3 per flight hour.

2. Limit Pilot Forces

In addition to the requirements of § 25.397(c) the following special condition applies.

The limit pilot forces are:

a. For all components between and including the handle and its control stops.

Pitch	Roll
Nose up 200 lbf (pounds force).	Nose left 100 lbf.
Nose down 200 lbf	Nose right 100 lbf.

b. For all other components of the side stick control assembly, but

excluding the internal components of the electrical sensor assemblies to avoid damage as a result of an in-flight jam.

Pitch	Roll
Nose up 125 lbf	Nose left 50 lbf.
Nose down 125 lbf	Nose right 50 lbf.

3. High Intensity Radiated Fields (HIRF) Protection

a. *Protection from Unwanted Effects of High Intensity Radiated Fields.* Each electrical and electronic system which performs critical functions must be designed and installed to ensure that the operation and operational capability of these systems to perform critical functions is not adversely affected when the airplane is exposed to high intensity radiated fields.

b. For the purposes of this special condition, the following definition applies:

Critical Functions: Functions whose failure would contribute to or cause a failure condition that would prevent the continued safe flight and landing of the airplane.

Issued in Renton, Washington, on October 10, 2006.

Kalene C. Yanamura,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 06–8762 Filed 10–17–06; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. NM354; Notice No. 25–06–09–SC]

Special Conditions: Boeing Commercial Airplane Group, Boeing Model 777–200 Series Airplane; Overhead Cross Aisle Stowage Compartments

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed special conditions.

SUMMARY: The FAA proposes special conditions for the Boeing Model 777–200 series airplanes. This airplane, modified by Boeing Commercial Airplane Group, will have novel or unusual design features associated with overhead cross aisle stowage compartments. The applicable airworthiness regulations do not contain adequate or appropriate safety standards for these design features. These proposed special conditions contain the additional safety standards the Administrator considers necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

DATES: We must receive your comments on or before November 7, 2006.

ADDRESSES: You may mail or deliver comments on these special conditions in duplicate to: Federal Aviation Administration, Transport Airplane Directorate, Attn: Rules Docket (ANM–113), Docket No. NM354, 1601 Lind Avenue, SW., Renton, Washington 98057–3356. You must mark your comments: Docket No. NM354.

FOR FURTHER INFORMATION CONTACT: Jayson Claar, FAA, Airframe/Cabin Branch, ANM–115, Transport Airplane Directorate, Aircraft Certification Service, 1601 Lind Avenue, SW., Renton, Washington 98057–3356; telephone (425) 227–2194; facsimile (425) 227–1232.

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 ask that you send us two copies of written comments.

We will file in the docket all comments we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning these special conditions. You may inspect the docket before and after the comment closing date. If you wish to review the docket in person, go to the address in the **ADDRESSES** section of this preamble between 7:30 a.m. and 4 p.m., Monday through Friday, except Federal holidays.

We will consider all comments we receive on or before the closing date for comments. We will consider comments filed late if it is possible to do so without incurring expense or delay. We may change these special conditions based on the comments we receive.

If you want the FAA to acknowledge receipt of your comments on these proposed special conditions, include with your comments a pre-addressed, stamped postcard on which the docket number appears. We will stamp the date on the postcard and mail it back to you.

Background

On April 20, 2005, Boeing Commercial Airplane Group, Seattle, Washington, applied for a supplemental type certificate to permit installation of overhead cross aisle stowage compartments in Boeing 777–200 series airplanes. The Boeing Model 777–200 series airplanes are large twin engine airplanes with four pairs of Type A exits, a passenger capacity of 440, and a range of 5000 miles. (The Boeing 777–200 airplanes can be configured with various passenger capacities and range).

The regulations do not address the novel and unusual design features associated with the installation of overhead cross aisle stowage compartments installed on the Boeing Model 777–200, making these special conditions necessary. Generally, the requirements for overhead stowage compartments are similar to stowage compartments in remote crew rest compartments (i.e., located on lower lobe, main deck or overhead) already in use on Boeing Model 777–200 and –747 series airplanes. Remote crew rest compartments have been previously installed and certified in the main passenger cabin area, above the main passenger area, and below the passenger cabin area adjacent to the cargo compartment of the Boeing Model 777–200, and –300 series airplanes.

Type Certification Basis

Under the provisions of § 21.101, Boeing Commercial Airplane Group must show that the Boeing Model 777–200, as changed, continues to meet the applicable provisions of the regulations incorporated by reference in Type Certificate No. T00001SE or the applicable regulations in effect on the date of application for the change. The regulations incorporated by reference in the type certificate are commonly referred to as the ''original type certification basis.'' The regulations incorporated by reference in Type Certificate No. T00001SE for the Boeing Model 777–200 series airplanes include Title 14 Code of Federal Regulations (CFR), part 25, as amended by Amendments 25–1 through 25–82, except for § 25.571(e)(1) which remains at Amendment 25–71, with exceptions. Refer to Type Certificate No. T00001SE, as applicable, for a complete description of the certification basis for this model, including certain special conditions that are not relevant to these proposed special conditions.

If the Administrator finds the applicable airworthiness regulations (part 25 as amended) do not contain adequate or appropriate safety standards for the Boeing Model 777–200 because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.16.

In addition to the applicable airworthiness regulations and special