121-288

Federal Register

Tuesday,
January 15, 2002

Part V

Department of Transportation

Federal Aviation Administration

14 CFR Parts 25 and 121
Security Considerations in the Design of the Flightdeck on Transport Category Airplanes; Final Rule
Advisory Circulars (AC) 25.795–1, Flightdeck Intrusion Resistance, and AC 25.795–2, Flightdeck Penetration Resistance; Notice

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Parts 25 and 121

[Docket No. FAA–2001–11032; Amendment No. 25–106 and 121–288]

RIN 2120–AH56

Security Considerations in the Design of the Flightdeck on Transport Category Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment implements two security design requirements governing transport category airplanes. This amendment requires a means to protect the flightdeck from unauthorized intrusion and small arms fire or fragmentation devices. The FAA is also requiring that certain airplanes operating in part 121 service comply with this amendment to prevent unauthorized access to the flightdeck. These amendments are being adopted to further enhance air carrier security in response to the heightened threat to U.S. civil aviation.

DATES: This amendment is effective January 15, 2002. Comments must be received on or before March 18, 2002.

ADDRESSES: Address your comments to the Docket Management System, U.S. Department of Transportation, Room Plaza 401, 400 Seventh Street, SW., Washington, DC 20590–0001. You must identify the docket number FAA–2001–11032 at the beginning of your comments, and you should submit two copies of your comments. If you wish to receive confirmation that FAA received your comments, include a self-addressed, stamped postcard.

You may also submit comments through the Internet to *http://dms.dot.gov*. You may review the public docket containing comments to this final rule in person in the Dockets Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Dockets Office is on the plaza level of the NASSIF Building at the Department of Transportation at the above address. Also, you may review public dockets on the Internet at *http://dms.dot.gov*.

Comments that you may consider to be of a sensitive security nature should not be sent to the docket management system. Send those comments to the FAA, Office of Rulemaking, ARM–1, 800 Independence Avenue, SW, Washington DC 20591.

FOR FURTHER INFORMATION CONTACT: Jeff Gardlin, FAA Airframe and Cabin Safety Branch, ANM–115, Transport Airplane Directorate, Aircraft Certification Service, 1601 Lind Avenue SW., Renton, Washington 98055–4056; telephone (425) 227–2136, facsimile (425) 227–1149, e-mail: *jeff.gardlin@faa.gov*.

SUPPLEMENTARY INFORMATION:

Comments Invited

This final rule is being adopted without prior notice and prior public comment. The Regulatory Policies and Procedures of the Department of Transportation (DOT) (44 FR 1134; February 26, 1979), however, provides that, to the maximum extent possible, operating administrations of the DOT should provide an opportunity for public comment on regulations issued without prior notice. Accordingly, interested persons are invited to participate in this rulemaking by submitting such written data, views, or arguments, as they may desire. Comments relating to the environmental, energy, federalism, or international trade impacts that might result from this amendment are also invited. Comments must include the regulatory docket or amendment number and must be submitted in duplicate to the DOT Rules Docket address specified above.

All comments received, as well as a report summarizing each substantive public contact with FAA personnel concerning this final rule; and request for comments, will be filed in the docket. The docket is available for public inspection before and after the comment closing date.

The FAA will consider all comments received on or before the closing date for comments. Late filed comments will be considered to the extent practicable. This final rule may be amended in light of the comments received.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this document must include a pre-addressed, stamped postcard with those comments on which the following statement is made: "Comments to Docket No. FAA–2001–11032." The postcard will be date stamped and mailed to the commenter.

Availability of Rulemaking Documents

You can get an electronic copy using the Internet by taking the following steps:

(1) Go to the search function of the Department of Transportation's electronic Docket Management System (DMS) Web page (*http://dms.dot.gov/search*).

(2) On the search page type in the last four digits of the Docket number shown at the beginning of this amendment. Click on "search."

(3) On the next page, which contains the Docket summary information for the Docket you selected, click on the document number of the item you wish to view.

You can also get an electronic copy using the Internet through FAA's Web page at *http://www.faa.gov/avr/arm/nprm/nprm.htm* or the **Federal Register**'s Web page at *http://www.access.gpo.gov/su_docs/aces/aces140.html*.

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

Small Business Regulatory Enforcement Fairness Act

The Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996 requires FAA to comply with small entity requirements for information or advice about compliance with statutes and regulations within its jurisdiction. Therefore, any small entity that has a question regarding this document may contact their local FAA official, or the person listed under **FOR FURTHER INFORMATION CONTACT**. You can find out more about SBREFA on the Internet at our site, *http://www.gov/avr/arm/sbrefa.htm*. For more information on SBREFA, e-mail us at *9-awa-sbrefa@faa.gov*.

Background

On September 11, 2001, the United States experienced terrorist attacks when airplanes were commandeered and used as weapons. These actions demonstrated the need to improve the security of the flightdeck. On November 19, 2001, Congress enacted Public Law 107–71, the Aviation and Transportation Security Act (the Act). Section 104 (a) of the Act, Improved Flight Deck Integrity Measures, states:

(a) IN GENERAL.—As soon as possible after the date of enactment of this Act, the Administrator of the Federal Aviation Administration shall—

(1) Issue an order (without regard to the provisions of chapter 5 of title 5, United States Code)—

(A) Prohibiting access to the flightdeck of aircraft engaged in passenger air transportation or intrastate air transportation that are required to have a door between the passenger and pilot compartments under title 14, Code

of Federal Regulations, except to authorized persons;

(B) Requiring the strengthening of the flightdeck door and locks on any such aircraft operating in air transportation or intrastate air transportation that has a rigid door in a bulkhead between the flightdeck and the passenger area to ensure that the door cannot be forced open from the passenger compartment;

(C) Requiring that such flightdeck doors remain locked while any such aircraft is in flight except when necessary to permit access and egress by authorized persons; and

(D) Prohibiting the possession of a key to any such flightdeck door by any member of the flightcrew who is not assigned to the flightdeck;

(2) Take such other action, including modification of safety and security procedures and flightdeck redesign, as may be necessary to ensure the safety and security of the aircraft.

The Act directs that the FAA issue an order fulfilling the requirements of paragraph (a)(1) of Section 104 as a final rule, without seeking public comment prior to adoption. The Act specifies that improved flightdeck security must be applied to airplanes operating in air transportation that are currently required to have flightdeck doors.

This final rule is intended to implement Section 104(a) of the Act. Thus, as explained more fully below, it prohibits access to the flightdeck, requires strengthening of the flightdeck doors, requires flightdeck doors to remain locked, and prohibits possession of keys to the flightdeck door by those members of the crew not assigned to the flightdeck. While the Act and the deadlines established in the Act provide both the impetus and the authority for issuance of this rule as a final rule without notice and comment, both the FAA and the broader aviation community have for some time been engaged in efforts to address the issue of flightdeck security. In addition, since the events of September 11, the FAA has issued a series of Special Federal Aviation Regulations (SFAR 92, 92–1, and 92–2) which are also pertinent to the issues addressed in this final rule. Before describing the terms of the final rule, therefore, we summarize below for context the various regulatory efforts that have considered flightdeck security and which further support the issuance of this final rule.

FAA/Industry/International Design Efforts

Because of the work on flight deck security that had been initiated by the FAA and the aviation community through the International Civil Aviation Organization (ICAO) and the Aviation Rulemaking Advisory Committee (ARAC), the objectives of this amendment already have broad acceptance. The ICAO is an international body consisting of 187 member countries which has adopted standards under Amendment 97 to ICAO Annex 8 relating to the incorporation of security into the design of airplanes including the following subjects:

(1) Survivability of systems,

(2) Fire suppression,

(3) Smoke and fumes protection (cabin and flightdeck),

(4) Least risk bomb location and design,

(5) Pilot compartment small arms and shrapnel penetration, and

(6) Interior design to deter hiding of dangerous articles and enhance searching.

This rule only addresses ICAO requirements regarding protecting the pilot compartment. The remainder of the ICAO requirements will be addressed in subsequent rulemaking action.

In addition to participating in the development of international standards through the ICAO, the FAA considers maintaining harmonized standards between the United States and Europe to be a high priority. The FAA has found that carrying out this harmonization task is best achieved by a joint activity with its European counterpart, the Joint Aviation Authorities (JAA) and through ARAC, the FAA developed protection for the pilot compartment beyond the ICAO standard.

The ARAC is composed of 76 member organizations with a wide range of interests in the aviation community and provides the FAA with firsthand information and insight regarding proposed new or revised rules. In 1999, ARAC established a Working Group of airplane design specialists and aviation security specialists from the aviation industry and the governments of Europe, the United States, Brazil and Canada. The Working Group was tasked to develop harmonized security related design provisions based on Amendment 97 to Annex 8 of the Convention on International Civil Aviation. One of the requirements covered by the tasking is protection of the flightdeck. The Working Group was also tasked to consider improving the resistance to flightdeck intrusions while still ensuring compliance with the other requirements.

The Working Group developed specific recommendations for implementing security provisions into the design of transport category airplanes. The ARAC has approved those recommendations with respect to protection of the flightdeck and recommended them to the FAA for rulemaking. The FAA has accepted ARAC's recommendations, and the rulemaking contained in this amendment follows from those recommendations and the activity of the Working Group.

The FAA is expediting rulemaking action with regard to protection of the flightdeck based on the events of September 11, 2001, and the requirements of the Act. The remainder of the tasks assigned to the working group will be completed and forwarded to the FAA in the near future. The FAA intends to go forward with additional rulemaking after those recommendations are received.

Other Rulemaking To Protect the Flightdeck

Following the events of September 11, 2001, the FAA issued a series of Special Federal Aviation Regulations (SFAR 92, 92–1 and 92–2) to enable passenger air carriers to make short-term modifications to their flightdeck doors to enhance security. These modifications can be made quickly and will significantly improve the intrusion resistance of the flightdeck, even though they might not meet all regulatory requirements. The SFARs provided temporary regulatory relief from certain airworthiness standards so that security enhancements could be made as quickly as possible. In contrast, this amendment establishes the long-term standards for doors. This amendment will supersede the short-term SFAR requirements before the SFAR expires.

To date the SFAR 92 series rules have authorized, but not required, the short-term modifications. Concurrent with this amendment the FAA is issuing an SFAR 92–3 that will require the short-term modifications. The level of security enhancement mandated by SFAR 92–3 is intended to mirror those changes already made voluntarily by operators.

Discussion of the Final Rule

Part 25 Requirements

Applicability

As directed by Section 104 of the Act, this amendment applies to "aircraft engaged in passenger air transportation or intrastate air transportation that are required to have a door between the passenger and pilot compartments under title 14, Code of Federal Regulations."

The only regulation currently addressing this issue is 14 CFR

121.313(f), which, for airplanes operated under that part, requires installation of a "door between the passenger and pilot compartments, with a locking means to prevent passengers from opening it without the pilot's permission, except that nontransport category airplanes certificated after December 31, 1964, are not required to comply with this paragraph." The exception for nontransport category airplanes certificated after December 31, 1964, generally covers smaller commuter category airplanes. This amendment applies to the airplanes subject to the 14 CFR 121.313(f) requirement. In addition, as discussed under the heading "Operating Requirements," we are amending § 121.313 to apply these requirements to transport category all-cargo airplanes that have flightdeck doors installed on the effective date of this amendment. As discussed under the heading, "Future Rulemaking," the FAA may consider imposing similar requirements for other airplanes in the future.

Section 104(a)(1)(B) of the Act provides that this new requirement must apply to affected aircraft that have a "rigid" door. Neither the Act nor 14 CFR 121.313(f) distinguishes between rigid doors and non-rigid doors, and the FAA is not aware of a practicable distinction between such doors that could be used in this rulemaking or in the implementation of the new regulation. Therefore, this amendment applies to all affected doors between pilot and passenger compartments, without distinction based on rigidity. To the extent that such application may be seen as exceeding the authority provided by Section 104 of the Act to issue this regulation without notice and comment procedures, we find good cause under 5 U.S.C. 553(b)(3)(B) for not following those procedures. As explained, it is impracticable to define a distinction based on rigidity that would enable the FAA to comply with the Act's requirement to issue this regulation for "rigid" doors, while excluding "non-rigid" doors. In addition, we find that, even if such a distinction could be drawn, it would be contrary to the intent of the Act, and the purpose of this rulemaking, which is to enhance the security of flightdeck doors for airplanes that are required to have them.

Accordingly, this amendment adds a new § 25.795 addressing the incorporation of security into transport category airplane flightdeck design. This rule applies whenever the airplane is required to have a flightdeck door. Some airplanes are equipped with crew rest areas that have doors that lead from the passenger cabin into the crew rest area, as well as a door from the crew rest area into the flightdeck. For the purposes of compliance with this amendment, the door leading into the crew rest area from the passenger cabin is the affected door.

The FAA invites comments on the applicability of this regulation. Commenters should clearly delineate their rationale for a different applicability in terms of how the security and safety issues are addressed. Because such discussions are also sensitive from a security standpoint, the FAA may screen such comments before placing them in the public docket. Send those comments to the FAA, Office of Rulemaking, ARM–1, 800 Independence Avenue, SW, Washington DC 20591.

Flightdeck Security Intrusion by Persons

Section 25.795(a)(1) requires that the flightdeck door installation be designed to resist intrusion by any person who attempts to enter the flightdeck by physically forcing his or her way through the door. In this context, the door installation includes the door, its means of attachment to the surrounding structure, and the attachment structure on the bulkhead itself. The integrity of the locking/latching/hinge mechanism, as well as the door panel itself, can be improved so that intrusion resistance is significantly enhanced.

There are numerous data concerning the forces a person can exert on a door. *National Institute of Law Enforcement and Criminal Justice (NILECJ) standard 0306.00* released in May 1976, for the Physical Security of Door Assemblies and Components, provides standards and guidance to assess a door's resistance to intrusion. The highest level of intrusion resistance in the NILECJ standard uses impacts of 200 Joules. In conjunction with industry, the FAA determined that a higher standard was necessary and achievable. This final regulation requires that the door resist impacts with energies equal to 300 Joules (221.3 foot-pounds), which is fifty percent higher than the highest level of intrusion resistance in the NILECJ standard. In order to address resistance to pulling on the doorknob or handle, the regulation also includes a requirement for application of a 250 pound tensile load. This value was selected to provide intrusion resistance from pulling comparable to the 300 Joules impact resistance requirement. The requirement is not intended to prevent entry by a person using extraordinary means or with a large amount of time to work on opening the door. It is intended to deter attempts at entry and delay attempts until other actions can be taken to prevent entry.

The FAA has captured applicable reference data and test methods in Advisory Circular (AC) 25.795–1, "Flightdeck Intrusion Resistance," and considers these acceptable for demonstrating compliance. The methods of compliance described in the AC consist of impact tests at critical points on the door, as well as resistance to pulling. Critical locations are expected to be the door latch and hinge, as well as the panel itself, but will depend on the design. The FAA will also consider other valid compliance methods if proposed by an applicant.

An additional aspect of intrusion resistance is the interior configuration in the vicinity of the door. Small changes to the interior can make it difficult for an intruder to have direct access to the door, and therefore difficult to exert much force. Changes to the interior should also be included as part of the design considerations to meet this requirement.

Ballistic Penetration

Section 25.795(a)(2) requires design precautions to be taken to minimize the penetration of shrapnel from a fragmentation device and small arms projectiles (i.e., ballistics) which might be fired through the flightdeck doors from occupied compartments. While not explicitly mentioned in the Act, these protections are key elements of protecting the flightdeck from intrusion as required by § 104(a)(1)(B) of the Act because any compromise to the integrity of the flightdeck door from a ballistic threat could enable an intruder to gain access to the flightdeck. It would be impracticable to protect the door without including a ballistic protection component. To the extent that this may be seen as exceeding the authority provided by Section 104 of the Act to issue this regulation without notice and comment procedures, we find good cause under 5 U.S.C. 553(b)(3)(B) for not following those procedures.

Ballistic resistance will also protect the pilot from trauma from ballistics entering the flightdeck. Further, the potential loss of critical flight instrumentation and control is also acute if ballistics penetrate the flightdeck. The disabling of critical systems from a single ballistic penetration is achievable with the concentration of most systems controls within a small sector of the flightdeck. Electronic displays of basic flight information are similarly unprotected and vulnerable. It is not the intent of this requirement to make the flightdeck

"impenetrable," but to provide a high level of protection.

This final rule requires protection for all features of the flightdeck door to the extent necessary to prevent penetration of likely projectiles. We have determined protection equivalent to Level IIIA of the National Institute of Justice Standard (NIJ) standard 0101.04 is sufficient to protect against the most powerful handgun projectiles and grenade shrapnel that could be encountered on civil airplanes, and have adapted the relevant portions of this standard for this application in AC 25.795–2, Flightdeck Penetration Resistance. Protection would be required at all points where penetration of small arms fire could cause a hazard. This would include design details such as hinges, grills, and latches.

The FAA has reviewed several material concepts to address this requirement, including metallic alloys, ceramics, cermets, polymers, strong fibers and composites, and determined that the proposal is both practical and cost-effective. Advisory Circular 25.795–2 includes a detailed discussion of both material types and methods of compliance. A notice of issuance of AC 25.795–1 and AC 25.795–2 is published in this same part of the **Federal Register**. However, it is the FAA's intention to accept certain material types and installation approaches without the need for actual test if it can be shown that the material and its installation would meet the intent of the rule. If an applicant elected to use other means, the AC would also provide for use of alternative materials and installations in compliance with performance standards specified in the rule.

Existing Requirements

The flightdeck door is subject to several requirements that affect its structural integrity. These include protection during decompression where the door may incorporate venting features to prevent a large pressure differential build up; egress considerations to permit the flightcrew to enter the passenger cabin in the event the door becomes jammed during an accident; and provisions to enable rescue personnel to enter the flightdeck in the event members of the flightcrew are unable to exit on their own. The door may also be integral in meeting ventilation requirements. There is, of course, the potential for designs that meet this new rule to conflict with existing requirements, but the FAA has determined that all the requirements can be accommodated by proper design of the door installation.

The balance between providing access to rescue personnel while providing intrusion resistance may be the most difficult element. On some airplanes, there are exits inside the flightdeck that can be opened from the outside and in such cases, there is no requirement for the flightdeck door to have provision for entry by rescue personnel. For future airplanes, this is the most direct way to address the potential conflicts in the requirements. On airplanes where the flightdeck exits cannot be opened from the outside, rescue personnel must gain access to the flightdeck via the flightdeck door. As stated earlier, the objective of this amendment is to either directly prevent the entry of a person or sufficiently delay them until other actions could be taken to prevent them from being able to continue their attempted entry. In that regard, to meet the intent of this amendment, the size and location of any removable panels should be sufficiently awkward to inhibit that person's entry. The FAA expects that rescue personnel would have additional equipment at their disposal to gain access through the flightdeck door and be able to exert more force than would an individual acting in flight. Therefore, there should be no inherent reason that the two requirements cannot both be met.

Inflight Access by Cabin Crew

While not explicitly a current requirement, the FAA has long recognized a need to provide for in-flight flightdeck entry by the cabin crew should a flightcrew member become incapacitated; because the consequences of not providing such access could be catastrophic. Since § 121.313(g) resulted in flight attendants having access to a key to the flightdeck door, this issue has been addressed fairly simply in the past. As required by Section 104(a)(1)(D) of the Act, however this rule will prohibit the possession of flightdeck door keys by the cabin crew during flight, as discussed under "Operating Requirements."

The FAA expects that other means to enable a flight attendant to enter the flightdeck, without the use of force, will be available through more sophisticated systems that do not require forcible entry, and that these means will be available only to the cabin crew and only in an emergency situation. Various approaches are possible and do not require detailed discussion here. This capability is considered necessary, however, and it would be impractical to impose the requirement for intrusion resistant flightdeck doors without addressing this issue at the same time. Indeed, Congress recognized in § 104(a)(1)(c) of the Act that there would be times when it would be necessary for authorized persons to enter the flightdeck.

Therefore, § 25.772 is being amended to require that there be a means to allow the flight attendants to enter the flightdeck should the flightcrew become incapacitated. Such means are only intended to be used in an emergency situation, and would require complementary operational procedures to facilitate their use. As discussed below, § 121.313(j) permits a combination of procedures and hardware to provide access by flight attendants in light of this aggressive compliance schedule specified in this amendment.

We have concluded that this requirement is comfortably within the scope of those provisions authorized by Section 104 of the Act as with other provisions discussed previously, however, to the extent that this provision may be seen as exceeding the authority provided by Section 104 to issue this regulation without notice and comment procedures, the FAA finds good cause under 5 U.S.C. 553(b)(3)(B) for not following those procedures on the grounds that strengthening the flightdeck door, as required by the Act, without providing for access to the flightdeck by authorized personnel in case of flightcrew incapacitation, would create a serious safety problem that was not intended by Congress. Therefore, providing notice and prior opportunity to comment on this provision is impracticable and contrary to the public interest.

Operating Requirements

Flightdeck Door Requirements

As required by the Act, the FAA is revising § 121.313 to impose new flightdeck door requirements on existing airplanes that are required to have such doors. The FAA has also considered the issue of airplanes that carry cargo, but are permitted to also carry certain persons as defined in § 121.583 who are not flightcrew members. On many of these airplanes, there is a door between the flightdeck and the occupied compartment. Current regulations do not ensure that a person intent on using an airplane as a weapon would be unable to board all-cargo airplanes. Therefore, in cases where these airplanes already have a flightdeck door, the FAA has determined that the door should meet the new standards adopted here. As already noted for other provisions, this requirement is not specifically addressed in the Act. To the extent that this provision may be seen

as exceeding the authority provided by Section 104 to issue this regulation without notice and comment procedures, the FAA finds good cause under 5 U.S.C. 553(b)(3)(B) for not following those procedures on the grounds that addressing only passenger carrying airplanes with flightdeck doors would omit a significant number of airplanes that are similarly situated.

Section 121.313(f) does not require such all-cargo airplanes to have a door between the flightcrew compartment and other occupied compartments. In order to preclude removal of flightdeck doors as a means to avoid compliance with this requirement, the rule applies to all-cargo airplanes that have flightdeck doors installed on the effective date of this amendment.

In addition, as discussed under the heading "Future Rulemaking," the FAA is considering the need to require a flightdeck door on all-cargo airplanes. Such action will be considered in light of comments received and would be an expansion of the requirements of § 121.313(f).

A new § 121.313(j) is added to reference the new part 25 standard for the door separating the flightdeck from the passenger compartment. With respect to the requirements of § 25.772(c), which would require systems that would permit entry by flight attendants but not permit entry by other persons, these systems must have a high degree of reliability, and the FAA considers that it may not be practical to develop and install such systems within the compliance time of this rule. However, operational procedures coupled with simpler, more robust systems could be readily implemented. Procedures could include having a flight attendant occupy a flightdeck seat whenever one pilot must leave the flightdeck. Any system that must be activated by a flightcrew member (either to permit or deny entry) must be operable from the crewmember's duty station. Therefore, § 121.313(j) will require each operator to establish methods to enable a flight attendant to enter the flightdeck in the event that a flightcrew member becomes incapacitated. As with § 25.772(c), these methods are intended to be used under emergency conditions and not for routine access to the flightdeck.

As noted previously, some airplanes are equipped with a crew rest area that is accessible from both the flightdeck and the passenger compartment. Current practice in the application of section 121.313(f) is that the entry to such areas from the passenger compartment is required to have a locked door. Section 121.313(f) is revised to clarify this requirement, and the new requirement of section 121.313(j) for strengthened doors also applies to these doors.

The rule will require that doors meeting this standard be installed no later than April 9, 2003. The FAA evaluated several factors in establishing this compliance time. Before enactment of the Act, multiple industry groups had developed a proposal for the performance of flightdeck doors that addresses intrusion and ballistic protection. The industry proposal closely parallels the changes to part 25 adopted by this rule. Therefore, the FAA does not anticipate significant problems in complying with this requirement. The FAA is requiring that all airplanes affected by § 121.313(f) incorporate flightdeck doors meeting the requirements of § 25.795 (a)(1) and (2) by April 9, 2003. This date corresponds to the termination date of the previously issued SFAR 92 (and its successors), and is the date by which all airplanes modified under the provisions of the SFAR must be in full compliance with their respective airworthiness requirements. This is an aggressive schedule; given events of September 11, 2001, however, the nature of the issue demands aggressive action.

Flightdeck Access Provisions

This amendment also changes the requirements governing access to the flightdeck in flight. Section 104(a)(1)(D) of the Act requires the Administrator to issue an order prohibiting possession of flightdeck door keys by other than flightdeck crewmembers. The FAA has determined that this limitation is intended to address operations in flight, rather than possession of keys at all times. Section 121.313(g) currently requires that non-flightdeck crewmembers have keys in flight and this rule amends (g) to meet Section 104(a)(1)(D) of the Act. Section 121.313(g) is revised to achieve three important safety goals. In the first sentence, the requirement is to have keys available that will unlock doors that lead from a passenger compartment to an emergency exit. The second regulatory requirement is that each crewmember has a key to doors specified in the first sentence, unless that door is a flightdeck door.

The last regulatory requirement is that before April 9, 2003, other crewmembers, (*e.g.* flight attendants) may have a key but only if the flightdeck door has an internal locking device installed, operative, and in use. This exception is a result of SFAR 92–2. The SFAR authorizes short-term flightdeck door reinforcement efforts, which include internal locks. When those locks are installed and in use, the key to the door will no longer open the door so it is ineffective as a key. As noted in the SFAR, such internal flightdeck locking devices have to be designed so that they can only be unlocked from inside the flightdeck (*e.g.* deadbolt locks or bars). The keys themselves have multiple uses in the passenger cabin such as opening medical supplies, defibrillators and cabin crew rest areas. Denying access to the keys when they will not open the flightdeck door only inconveniences the cabincrew with no benefit of safety. The exception, which expires with the SFAR in April 9, 2003, will satisfy the requirement of the Act to prohibit possession by flight attendants of keys that can be used to gain entry to the flightdeck.

Section 121.547 addresses who may be admitted to the flightdeck and in some cases the conditions for admission to the flightdeck. Section 121.547(a)(1) and (a)(2) remain unchanged and thus crewmembers, FAA inspectors, and NTSB representatives who are performing official duties may be admitted to the flightdeck.

Several changes have been made to § 121.547(a)(3). In the current § 121.547(a)(3), only the pilot in command (PIC) had to give permission for the people listed in paragraph (a)(3) to be admitted to the flightdeck. Because of the demands of aviation safety and security, in the amended section, admission to the flightdeck is also conditioned on the permission of the part 119 certificate holder and the Administrator. To the extent this provision may be seen as exceeding the authority provided by Section 104 of the Act to issue this regulation without notice and comment procedures, we find good cause under 5 U.S.C. 553(b)(3)(B) for not following those procedures. The Act requires limitations on those authorized access to the flightdeck. Inherent in issuing such a rule is a basis for determining authorization and it would be impracticable to issue a rule without such procedures. This amendment is being made pursuant to 5 USC 553(b)(3)(B), 49 USC Section 44701(a)(5), and Section 104(a)(2) of the Act.

In complying with §§ 121.547(a)(3) and 121.547(c)(4), the air carrier must keep security directives in mind when deciding whether to issue authorization to enter the flightdeck for purposes of riding in the jumpseat. The changes to the regulatory text in § 121.547(a)(4) are clarifying in nature and need not undergo normal notice and comment procedures. As the discussion in this

preamble indicates, the discretion the FAA had with the current § 121.547(a)(4) to issue authorization to enter the flightdeck will now be systemically overseen and controlled.

Existing § 121.547(a)(4) is modified slightly in the new rule for clarification purposes only. In the current rule in order for a person to gain entry to the flightdeck that person must have permission of three people including the "certificate holder." In the revised language the agency adds the phrase "an appropriate management official of part 119" certificate holder to make clear which certificate holder the agency is referring to. Similar changes have been made to § 121.547(c)(4), (c)(5) and (c)(6). Because these changes are clarifying in nature, notice and comment procedures are not required.

In current § 121.581(c), the regulations allowed on certain aircraft, that did not have an observer seat on the flightdeck, that the cockpit door could remain open when an FAA inspector is conducting an inspection. Under the current rule the FAA inspector would conduct the inspection in a forward passenger seat. The last section of current § 121.581(c) is being deleted because allowing cockpit doors to remain open during flight is inconsistent with Section 104(a)(1)(C) of the Act. This amendment is being adopted without following APA notice and comment procedures pursuant to Section 104(a)(1) of the Act.

Section 121.587 is being revised to require that the flightcrew compartment door be closed and locked at all times when the aircraft is being operated. Previously, the rules only required the door to be closed and locked during flight. With this amendment, the door will also have to be closed and locked during taxi, takeoff, and landing roll. The "good cause" justification for not using the normal APA notice and comment procedures is that the recent terrorist attacks make clear that security and safety dictate that—except as provided in § 121.587(b)— the door shall be closed and locked at all times when the aircraft is being operated. As has been discussed regarding other provisions of this amendment, to the extent this provision may be seen as exceeding the authority provided by Section 104 of the Act to issue this regulation without notice and comment procedures, the FAA finds good cause under 5 U.S.C. 553(b)(3)(B) for not following those procedures. Prohibiting access, as required by the Act, without addressing all phases of operation, would leave a potentially serious loophole in the requirement that was not intended by Congress. Therefore, providing notice and prior opportunity to comment on this provision is impracticable and contrary to the public interest.

Current § 121.587(b)(1) allows the flightdeck door to remain opened during takeoff and landing if the crew compartment door is the means of access to a required passenger emergency exit or floor level exit. This section is being deleted for the same reasons that § 121.587(a) is being amended.

Section 121.587(b)(3) currently permits the flightdeck door to be open if the use of the observer seat (jumpseat) will not permit the door to be closed. This section is deleted because Section 104(a)(1)(C) of the Act does not allow for such a provision. Thus, the flightdeck door may not be ajar to accommodate a jumpseat occupant for the duration of the flight. The legislative history for Section 104(a) of the Act indicates that on the rare occasions when a flightdeck door will be opened during flight, Congress expected the opening of that door to be brief and that the door will be closed and locked quickly.

Future Rulemaking

As noted previously, the regulations currently only require the installation of a flightdeck door for passenger-carrying transport category airplanes operating under part 121. In light of the events of September 11, 2001, and in accordance with Sections 104(a)(1)(c) and 104(a)(2) of the Act, the FAA is reviewing the need for flightdeck doors on all air carrier airplanes, including US cargo operations. In addition, as the events of September 11, 2001, make clear, additional security measures will also be required for aircraft operated by foreign operators. The 33rd ICAO Assembly unanimously passed a resolution that calls on all States to implement additional security measures and directs the ICAO Council to strengthen ICAO security standards. The FAA is working with civil aviation authorities and with ICAO to rapidly develop and implement measures that will improve flightdeck security.

The FAA expects that ICAO will adopt requirements for intrusion resistant flightdeck doors to complement the existing Annex 8 requirements, and make those requirements a condition of operation under Annex 6. The FAA is aware of efforts underway in ICAO to do this, and will support those efforts. The FAA also expects that the CAA of those countries overseeing operators with part 129 operations specifications approvals will adopt their own standards for improved flightdeck security, similar to what the FAA is adopting here, and make those requirements applicable to their existing fleets. Given the urgency of the situation, such requirements and modifications necessary to meet those requirements should be established by April 2002, such that airplanes operating in the United States, whether foreign or domestic, will have improved flightdeck security by April 9, 2003.

To facilitate and promote a global effort such as this, the FAA intends to consult and work with other regulatory authorities over the next several months. On the basis of these consultations, the FAA will determine whether specific rulemaking in part 129 is required. Such a rule, if necessary, would likely require compliance with the same standards imposed by this amendment, or with an equivalent standard imposed by the State of Registry or the equivalent ICAO requirement, at the discretion of the Administrator.

As discussed earlier, the FAA issued the SFAR 92 series of rules to authorize, and now mandate, installation of internal locking devices on flight deck doors on part 121 aircraft. These modifications provide immediate flightdeck security improvements until the installation of permanent solutions as outlined in this amendment. The SFAR 92 authority was first issued on October 9, 2001, and operators immediately began modifying doors. The FAA expects part 129 operators to install and use similar locking devices and that their States of Registry would issue waivers similar to SFAR 92 to allow these modifications. The FAA views these modifications as essential to near-term security of aircraft, whether they are operated in part 121, or part 129 operations to and from the US. The FAA has the continued expectation that part 129 operators and their States of Registry will take the necessary actions to install internal locking devices and that those modifications will be made on or before the date set for full part 121 installation in February 2002 by SFAR 92–3. The FAA will closely monitor the activities of part 129 operators to determine if the locking devices are installed and used in the time frame provided by SFAR 92–3 and will initiate rulemaking if they are not.

In addition, Section 104(c) of the Act states the following:

"The Administrator shall investigate means of securing the flightdeck of scheduled passenger aircraft operating in air transportation or intrastate air transportation that do not have a rigid fixed door with a lock between the passenger compartment and the

flightdeck and issue such an order as the Administrator deems appropriate to ensure the inaccessibility, to the greatest extent feasible, of the flightdeck while the aircraft is so operating, taking into consideration such aircraft operating in regions where there is minimal threat to aviation security or national security." This section addresses both airplane type and mode of operation.

The FAA will consider whether other types of airplanes should be equipped with flightdeck doors meeting the standards of this amendment, and solicits comments on this issue. Commuter category airplanes will be a focus of the FAA's deliberations on potential future applicability. Other changes, as outlined in Section 104(a)(2) of the Act, may also be proposed.

The FAA solicits comments on the need to expand the requirement for installation of a flightdeck door to other domestic operations. The FAA intends to propose further rulemaking if it determines that the current requirements of § 121.313(f) need to be expanded to other operations. For example, during cargo operations under part 121, operators are allowed to transport certain persons that are identified in § 121.583. The FAA is considering whether it is necessary to require improved flightdeck security on all cargo airplanes. The FAA is also considering whether to require strengthening flightdeck doors on transport category aircraft operated under parts 91, 125 and 135. We solicit comments on this issue.

As noted, this amendment only addresses the flightdeck door, as required by the Act. However, the FAA considers that a comprehensive assessment of flightdeck security must include all barriers between the flightdeck and occupied areas. Therefore, the FAA intends to propose further rulemaking that would apply the requirements adopted here to flightdeck bulkheads, floors and ceilings that separate the pilot and passenger compartments for new type designs under part 25. At that time, the need to consider the ballistic protection capability of the door after it has been tested for intrusion resistance would also become a requirement.

The FAA also expects to further amend new § 25.795 to add the remainder of the ARAC recommendations concerning survivability of systems, cargo fire suppression, smoke and fumes protection (cabin and flightdeck), least risk bomb location and design, and interior design to deter hiding of dangerous articles and enhance searching. Therefore other paragraphs in § 25.795 of this amendment are identified and marked as "reserved."

Paperwork Reduction Act

In accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)), the FAA has determined that there are no requirements for information collection associated with this rule.

International Compatibility

In keeping with US obligations under the Convention on International Civil Aviation, it is FAA policy to comply with International Civil Aviation Organization (ICAO) Standards and Recommended Practices to the maximum extent practicable. As discussed earlier, this rule is partially responsive to Amendment 97 to ICAO Annex 8, and the FAA plans further action to address the remainder of the Amendment 97 requirements.

Good Cause for Immediate Adoption

As discussed previously, the Act requires that this regulation be issued without prior public notice and opportunity to comment.

For those provisions that are arguably not required to be adopted by the Act, Section 553(b)(3)(B) and 553(d)(3) of the Administrative Procedures Act (APA) (5 U.S.C. §§ 553(b)(3)(B) and 553(d)(3) authorize agencies to dispense with certain notice procedures for rules when they find "good cause" to do so. Under § 553(b)(3)(B), the requirements of notice and opportunity for comment do not apply when the agency, for good cause, finds that those procedures are "impracticable, unnecessary, or contrary to the public interest." Section 553(d)(3) allows an agency, upon finding good cause, to make a rule effective immediately, thereby avoiding the 30-day delay effective date requirement in § 553.

For the reasons discussed previously, the FAA finds that notice and public comment on this final rule are impracticable, unnecessary, or contrary to the public interest. The provisions of this final rule require implementation of two security design requirements related to protection of the flightdeck. It provides means to protect the flightdeck from small arms fire or fragmentation devices, as well as means to protect against intrusion into the flightdeck by unauthorized persons.

Regulatory Evaluation Summary

Changes to Federal regulations must undergo several economic analyses. First, Executive Order 12866 directs each Federal agency proposing or adopting regulation to first make a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. In developing US standards, this act requires agencies to consider international standards, and use them where appropriate as the basis for US standards. Fourth, the Unfunded Mandates Act of 1995 requires agencies to prepare a written assessment of the costs and benefits, and other effects of proposed and final rules. An assessment must be prepared only for rules that impose a Federal mandate on state, local, or tribal governments, or on the private sector, likely to result in a total expenditure of $100 million or more (adjusted for inflation) in any one year.

In conducting these analyses, the FAA determined that this rule has benefits that justify the costs; will not have a significant impact on a substantial number of small entities; has no effect on trade-sensitive activity; and does not impose an unfunded mandate on state, local, or tribal government, or on the private sector.

Benefits and Costs

This rule is the first of a series of FAA rules to improve flightdeck integrity, as directed by the Aviation and Transportation Security Act. This rule establishes the requirements for flightdeck door enhancements. As such, the benefits of this rule are to ensure the safety and security of the flying public. Since this rule is one of several being introduced to avoid a reoccurrence of an event like that of September 11, 2001, the benefits will be shared by the entire set of rules designed to prevent such a reoccurrence.

Once the terrorist attacks of September 11, 2001, demonstrated the potential damage from using an aircraft as a weapon of mass destruction, flightdeck security was catapulted as an issue of very high public interest. Only days after the September 11, 2001, attacks, President Bush identified flightdeck security as an issue requiring immediate action, and improvements to flightdeck security is one of several recommendations set forth by the Secretary of Transportation's Rapid Response Team on Aircraft Security. Congress followed with the introduction of the Aviation and Transportation Security Act, and many carriers have voluntarily retrofitted their fleets with improved flightdeck doors.

The cost of the September 11, 2001, catastrophic terrorist act cannot be measured easily in dollars. While those losses are estimated to be potentially in the tens of billions of dollars, the costs of another incident could possibly be even higher. Based on changes in the aviation security risk, and the Aviation and Transportation Security Act, the FAA believes that the benefit of this regulation is warranted to prevent flightdeck access by unauthorized persons.

Applicants for new, amended, or supplemental type certificates under part 25 will be affected by this rule. These applicants typically include manufacturers and modifiers. The additional cost to an airplane manufacturer is the additional cost of the door, because the flightdeck door installation costs in a new airplane are roughly equal. The increased purchase cost of a $9,000 hardened flightdeck door over that of a $6,000 current door is $3,000. Based on this incremental cost of $3,000, and the expected manufacturing of 360 airplanes under a new type certificate, the cost of this rule to part 25 manufacturers is expected to be $1.1 million ($0.7 million, discounted). Additionally, some certification costs will be incurred to prove compliance of the new door, but these costs are expected to be relatively small, at approximately $0.1 million.

For the analysis affecting part 121 operators, the aviation industry provided estimated purchase and installation costs of future compliant flightdeck doors to range from a base case of $12,000 ($9,000 for the door and $3,000 for installation) to an upper bound of $17,000, which includes the certification costs. Our current information indicates that $12,000 will provide a door that meets the standards set forth in this rule. Alaska Airlines removed and installed doors thought to meet the new specifications for $12,000 per airplane, and jetBlue was able to do so for $10,000 per aircraft. Even though multiple sources have lent support to the base case cost of $12,000, no flightdeck door has been approved to the new specification. Given the uncertainty as to the actual cost of purchasing and installing approved flightdeck doors, the FAA has provided an upper-bound estimate of $17,000. The FAA solicits comments with supporting documentation with respect to projected costs of upgrading flightdeck doors.

The FAA expects that, now that the specifications are published, many carriers will initiate steps toward compliance even before the rule takes effect. Approximately 340 aircraft are expected to already be compliant with this rule. Operators beyond those that are affected by this rule may also choose to voluntarily comply. The FAA estimates that 6,631 transport category airplanes flown in scheduled commercial service will still need to have their flightdeck doors hardened. The base case cost of purchase and installation of these doors results in a $79.6 million expense to the operators with the upper bound costs reaching $112.7 million.

In addition, the FAA estimates that the additional 50 pounds resulting from a heavier door will result in additional fuel requirement costs of $27.5 million ($20.7 million, discounted) over ten years. Without exception, every flightdeck door manufacturer claimed that their version of a secure flightdeck door could be installed by airline technicians overnight, or during an extended overnight. Several carriers have already begun, and in some cases completed, the retrofit. These carriers were able to perform the retrofit during overnight maintenance on 340 aircraft in less than two months. Based on this information, the FAA believes that all carriers will have an opportunity to have the doors installed overnight or during a maintenance check, thereby eliminating the need to take the aircraft out of service for any amount of time.

The total cost of this rule to part 121 operators is, therefore, expected to range from the base case of $107.1 million ($98.5 million, discounted) to $140.2 million ($131.0 million, discounted) over the 10-year period. The FAA requests comments as to how many aircraft are already compliant with the rule, the costs incurred in retrofitting such aircraft (including down-time costs), and how many carriers are expected to be compliant prior to the implementation of the rule. Since the FAA may extend the flightdeck door requirements in the future, the FAA requests similar comments from part 91, 125, and 135 operators.

This rule is part of a series of FAA rules intended to prevent another attack similar to the one of September 11, 2001. The FAA cannot provide a reasonable quantitative estimate of benefits because the extremely high benefits that are involved in avoiding another similar attack, both in terms of averted loss of life and property, and avoided damage to the economy, will most likely be in the tens of billions of dollars, a figure that overshadows any cost associated with this series of rules. The purpose of this particular rule concerning flightdeck security is to expedite an important element of the Aviation Transportation Security Act. Accordingly, the FAA believes that the rule is cost-beneficial and is necessary to ensure a high level of aviation safety by providing compliance specification for hardened flightdeck door standards to the industry.

Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (RFA) establishes "as a principle of regulatory issuance that agencies shall endeavor, consistent with the objective of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the business, organizations, and governmental jurisdictions subject to regulation." To achieve that principle, the RFA requires agencies to solicit and consider flexible regulatory proposals and to explain the rationale for their actions. The RFA covers a wide range of small entities, including small businesses, not-for-profit organizations, and small governmental jurisdictions.

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

However, if an agency determines that a proposed or final rule is not expected to have a significant economic impact on a substantial number of small entities, section 605(b) of the 1980 act provides that the head of the agency may so certify and a regulatory flexibility analysis is not required. The certification must include a statement providing the factual basis for this determination, and the reasoning should be clear.

In response to the Aviation and Transportation Security Act, this rule requires the strengthening of the flightdeck doors for part 25 manufacturers, and all aircraft with cockpit doors that operate under part 121. A full Regulatory Flexibility Analysis is not necessary for the reasons presented below.

The Small Business Administration classifies aircraft manufacturers with less than 1,500 employees as small entities. All part 25 US transport-aircraft category manufacturers have more than 1,500 employees. The current United States part 25 airplane manufacturers include: Boeing, Cessna Aircraft, Gulfstream Aerospace, Learjet (owned by Bombardier), Lockheed Martin, McDonnell Douglas (a wholly-owned subsidiary of The Boeing Company), Raytheon Aircraft, and Sabreliner Corporation. Thus, no part 25

manufacturer is considered a small entity.

To determine the potential economic impact on small entities conducting business as part 121 operators, the FAA performed the following analysis. First, the FAA estimated the number of small entities affected by this final rule. Next, the FAA estimated the compliance cost, and then the economic impact.

This final rule requires enhanced cockpit doors and other improvements to be made by part 121 operators who operate transport category, passenger and cargo aircraft which have a door between the cockpit and passenger compartments. Using the criterion from the North American Industry Classification System of the SBA, the affected entities that had less than 1,500 employees were estimated. This procedure resulted in a list of 43 US operators with less than 1,500 employees, operating under part 121 that would be affected by this rule.

The estimated compliance cost and economic impact for each small entity involved several analytical steps. First, the fleet of aircraft operated by part 121 small entities was determined. The FAA obtained the small entities' fleets using data from the BACK Associates Fleet Database. The BACK Associates Fleet Database provided US operator and airplane detail by FAR part number and operator. Second, the purchase and installation cost of the hardened flightdeck doors was then estimated for the fleet of each small entity. Third, an annual reoccurring cost was estimated for the additional fuel required as a result of the increased weight of the hardened doors.

The estimated total compliance cost of each small entity equals the sum of the costs of the enhanced cockpit door plus the additional annual cost attributable to the increased fuel consumption. The purchase and installation cost of the enhanced cockpit doors was estimated to be in the range between $12,000 and $17,000 per airplane. Additional fuel cost was calculated using data from the FAA's Economic Values for Evaluation of Federal Aviation Administration Investment and Regulatory Programs, the December 7, 2001 update of Energy Information Administration's Weekly Petroleum Status Report, and the FAA Aerospace Forecasts.

The increase cost in fuel consumption was based on the projected aircraft Utilization and rate of fuel burn increase. This cost was obtained by multiplying the fifty pounds of additional weight times the carrier hours flown times the fuel burn rate in gallons/pound/hour times the cost of fuel per gallon. This calculation was performed for each of the next ten years using the projected cost of fuel discounted to the present value.

The degree to which small entities can "afford" the cost of compliance is determined by the availability of financial resources. The initial implementation costs of the final rule may be financed from a variety of sources. As a proxy for the firm's ability to afford the cost of compliance, the FAA calculated the ratio of the total present value cost of the rule as a percentage of annual revenue. (The FAA obtained annual operator revenue from current public filings, the 2000 winter edition of the World Aviation Directory, and US DOT Form 41 schedules). Using this methodology, it was found that of the 43 small entities potentially affected by this final rule, the total present value cost of the rule exceeded 2 percent of only two entities' total revenue.

In the interest of fully assessing the impact of this final rule on small entities, the FAA explored the potential competitive impact. The route structures and specific markets of five firms were examined. The affected firms sometimes compete with large carriers. These large carriers will incur the same fixed and marginal cost per airplane. Many routes served by the five small entities could be considered local monopolies in which the affected carrier is the only provider of service. As a result of operating in these "niche" markets, a carrier would be able to pass some of the cost to its passengers. Thus, as a result of this rule there is expected to be little change in competition, and little change in market share within the industry.

The FAA has determined that:

(1) No part 25 manufacturers are small entities.

(2) A substantial number of small operators will not be significantly impacted by this rule.

Accordingly, pursuant to the Regulatory Flexibility Act, 5 U.S.C. 605(b), the Federal Aviation Administration certifies that this final rule will not have a significant impact on a substantial number of small entities.

Trade Impact Assessment

The Trade Agreement Act of 1979 prohibits Federal agencies from engaging in any standards or related activities that create unnecessary obstacles to the foreign commerce of the United States. Legitimate domestic objectives, such as safety, are not considered unnecessary obstacles. The statute also requires consideration of international standards and, where appropriate, that they be the basis for US standards.

In accordance with the above statute, the FAA has assessed the potential effect of this rule and has determined that the objective of this rule is the safety and security of the United States, and therefore not considered an unnecessary obstacle to international trade.

Unfunded Mandates Act Assessment

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 will impose an enforceable duty upon state, local, and tribal governments, in the aggregate, of $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 meaningful and timely opportunity to provide input in the development of regulatory proposals or rules.

This final rule does not contain any Federal intergovernmental or private sector mandate because Congress has authorized money for the purpose of implementing aircraft security initiatives, including the fortification of cockpit doors. Therefore, the requirements of Title II of the Unfunded Mandates Reform Act of 1995 do not apply.

Regulations Affecting Interstate Aviation in Alaska

Section 1205 of the FAA Reauthorization Act of 1996 (110 Stat. 3213) requires the Administrator, when modifying regulations in title 14 of the CFR in manner affecting interstate

aviation in Alaska, to consider the extent to which Alaska is not served by transportation modes other than aviation, and to establish such regulatory distinctions as he or she considers appropriate. Because this rule applies to the certification of transport category airplanes and their operation, it could affect interstate aviation in Alaska. The FAA therefore specifically requests comments on whether there is justification for applying the rule differently in interstate operations in Alaska.

Executive Order 13132, Federalism

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

Environmental Analysis

FAA Order 1050.1D defines FAA actions that may be categorically excluded from preparation of a National Environmental Policy Act (NEPA) environmental impact statement. In accordance with FAA Order 1050.1D, appendix 4, paragraph 4(j), this rulemaking action qualifies for a categorical exclusion.

Energy Impact

The energy impact of the notice has been assessed in accordance with the Energy Policy and Conservation Act (EPCA) Pub. L. 94–163, as amended (42 U.S.C. 6362) and FAA Order 1053.1. It has been determined that this rulemaking action is not a major regulatory action under the provisions of the EPCA.

List of Subjects

14 CFR Part 25

Aircraft, Aviation safety, Federal Aviation Administration, Reporting and recordkeeping requirements.

14 CFR Part 121

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

The Amendment

In consideration of the foregoing, the Federal Aviation Administration (FAA) amends parts 25 and 121 of Title 14 Code of Federal Regulations as follows:

PART 25—AIRWORTHINESS STANDARDS: TRANSPORT CATEGORY AIRPLANES

1. The authority citation for parts 25 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701, 44702, 4794.

2. Section 25.772 is amended by revising the introductory language and paragraph (a) and by adding a new paragraph (c) to read as follows:

§ 25.772 Pilot compartment doors.

For an airplane that has a lockable door installed between the pilot compartment and the passenger compartment:

(a) For airplanes with a maximum passenger seating configuration of more than 20 seats, the emergency exit configuration must be designed so that neither crewmembers nor passengers require use of the flightdeck door in order to reach the emergency exits provided for them; and

* * * * *

(c) There must be an emergency means to enable a flight attendant to enter the pilot compartment in the event that the flightcrew becomes incapacitated.

3. Part 25 is amended by adding a new § 25.795 to read as follows:

§ 25.795 Security considerations.

(a) *Protection of flightdeck.* If a flightdeck door is required by operating rules, the door installation must be designed to:

(1) Resist forcible intrusion by unauthorized persons and be capable of withstanding impacts of 300 Joules (221.3 foot-pounds) at the critical locations on the door, as well as a 250 pound (1113 Newtons) constant tensile load on the knob or handle, and

(2) Resist penetration by small arms fire and fragmentation devices to a level equivalent to level IIIa of the National Institute of Justice Standard (NIJ) 0101.04.

(b) [Reserved]

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

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

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

5. Section 121.313 is amended by revising paragraphs (f) and (g) and adding paragraph (j) to read as follows:

§ 121.313 Miscellaneous equipment.

* * * * *

(f) A door between the passenger and pilot compartments (i.e., flightdeck door), with a locking means to prevent passengers from opening it without the pilot's permission, except that nontransport category airplanes certificated after December 31, 1964, are not required to comply with this paragraph. For airplanes equipped with a crew rest area having separate entries from the flightdeck and the passenger compartment, a door with such a locking means must be provided between the crew rest area and the passenger compartment.

(g) A key for each door that separates a passenger compartment from another compartment that has emergency exit provisions. Except for flightdeck doors, a key must be readily available for each crewmember. Except as provided below, no person other than a person who is assigned to perform duty on the flightdeck may have a key to the flightdeck door. Before April 22, 2003, any crewmember may have a key to the flightdeck door but only if the flightdeck door has an internal flightdeck locking device installed, operative, and in use. Such "internal flightdeck locking device" has to be designed so that it can only be unlocked from inside the flightdeck.

* * * * *

(j) After April 9, 2003, for airplanes required by paragraph (f) of this section to have a door between the passenger and pilot or crew rest compartments, and for transport category, all-cargo airplanes that have a door installed between the pilot compartment and any other occupied compartment on January 15, 2002;

(1) Each such door must meet the requirements of §§ 25.795 (a)(1) and (2) in effect on January 15, 2002; and

(2) Each operator must establish methods to enable a flight attendant to enter the pilot compartment in the event that a flightcrew member becomes incapacitated. Any associated signal or confirmation system must be operable by each flightcrew member from that flightcrew member's duty station.

6. Section 121.547 is amended by revising paragraphs (a) (3) and (4) and paragraphs (c)(4) through (6) to read as follow:

§ 121.547 Admission to flight deck.

(a) * * *

(3) Any person who—

(i) Has permission of the pilot in command, an appropriate management official of the part 119 certificate holder, and the Administrator; and

(ii) Is an employee of—

(A) The United States, or

(B) A part 119 certificate holder and whose duties are such that admission to the flightdeck is necessary or advantageous for safe operation; or

(C) An aeronautical enterprise certificated by the Administrator and whose duties are such that admission to the flightdeck is necessary or advantageous for safe operation.

(4) Any person who has the permission of the pilot in command, an appropriate management official of the part 119 certificate holder and the Administrator. Paragraph (a)(2) of this section does not limit the emergency authority of the pilot in command to exclude any person from the flightdeck in the interests of safety.

* * * * *

(c) * * *

(4) A certificated airman employed by another part 119 certificate holder whose duties with that part 119 certificate holder require an airman certificate and who is authorized by the part 119 certificate holder operating the aircraft to make specific trips over a route;

(5) An employee of the part 119 certificate holder operating the aircraft whose duty is directly related to the conduct or planning of flight operations or the in-flight monitoring of aircraft equipment or operating procedures, if his presence on the flightdeck is necessary to perform his duties and he has been authorized in writing by a responsible supervisor, listed in the Operations Manual as having that authority; and

(6) A technical representative of the manufacturer of the aircraft or its components whose duties are directly related to the in-flight monitoring of aircraft equipment or operating procedures, if his presence on the flightdeck is necessary to perform his duties and he has been authorized in writing by the Administrator and by a responsible supervisor of the operations department of the part 119 certificate holder, listed in the Operations Manual as having that authority.

7. Section 121.581 is amended by revising paragraph (c) to read as follows:

§ 121.581 Observer's seat; en route inspections.

* * * * *

(c) For any airplane type certificated before December 20, 1995, for not more than 30 passengers that does not have an observer seat on the flightdeck, the certificate holder must provide a forward passenger seat with headset or speaker for occupancy by the Administrator while conducting en route inspections.

8. Section 121.587 is revised to read as follows:

§ 121.587 Closing and locking of flightcrew compartment door.

(a) Except as provided in paragraph (b) of this section, a pilot in command of an airplane that has a lockable flightcrew compartment door in accordance with § 121.313 and that is carrying passengers shall ensure that the door separating the flightcrew compartment from the passenger compartment is closed and locked at all times when the aircraft is being operated.

(b) The provisions of paragraph (a) of this section do not apply at any time when it is necessary to permit access and egress by persons authorized in accordance with § 121.547 and provided the part 119 operator complies with FAA approved procedures regarding the opening, closing and locking of the flightdeck doors.

Issued in Washington, DC, on January 10, 2002.

Jane F. Garvey,

Administrator.

[FR Doc. 02–965 Filed 1–10–02; 4:15 pm]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Parts 121, 125, and 135

[Docket Nos. 26930 & 27459]

RIN 2120-AE70 & 2120-AF09

Aircraft Ground Deicing and Anti-Icing Program & Training and Checking in Ground Icing Conditions

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule, confirmation of effective date, and disposition of comments.

SUMMARY: On September 29, 1992, and December 30, 1993, the FAA published interim final rules requiring deicing operations in ground icing conditions. The interim final rules require part 121 certificate holders to develop and comply with an FAA approved ground deicing/anti-icing program; part 125 certificate holders to provide pilot testing on conducting operations in ground icing conditions; part 135 certificate holders to provide pilot training on conducting operations in ground icing conditions; and part 125 and 135 certificate holders to check airplanes for contamination (*i.e.*, frost, ice, or snow) prior to takeoff when ground icing conditions exist. These rules were necessary to provide an added level of safety to flight operations during adverse weather conditions. The FAA invited comments on the interim final rules. This document responds to public comments and confirms the interim final rules as final rules. This action is part of our effort to address recommendations of the Government Accounting Office and the Management Advisory Council by reducing the number of aged items in the Regulatory Agenda.

EFFECTIVE DATE: This action makes final the interim final rules and confirms the original effective dates. The interim final rule on Aircraft Ground Deicing and Anti-Icing Program published at 57 FR 44924 is effective November 1, 1992. The interim final rule on Training and Checking in Ground Icing Conditions published at 58 FR 69620 is effective January 31, 1994.

ADDRESSES: The complete docket for the interim final rules on deicing may be examined at the Federal Aviation Administration, Office of the Chief Counsel, Attn: Rules Docket (AGC-200), Room 915-G, Docket Nos. 26930 & 27459, 800 Independence Ave., SW., Washington, DC 20591, weekdays (except federal holidays) between 9 a.m. and 5 p.m.

FOR FURTHER INFORMATION CONTACT: Daniel Meier, Air Carrier Operations Branch, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591; telephone 202-267-3749.

SUPPLEMENTARY INFORMATION:

Background

On July 23, 1992, the FAA published a Notice of Proposed Rulemaking (57 FR 32846) that would establish requirements for part 121 certificate holders to develop and comply with an FAA approved ground deicing/anti-icing program. The proposed rule was developed in response to a number of airplane accidents caused in part by icing and to recommendations from an international conference on aircraft deicing/anti-icing. Because of the urgency of the rulemaking, the FAA allowed for only a 15-day comment period.

On September 21, 1993, the FAA published proposed requirements for ground deicing procedures for parts 125 and 135 certificate holders (58 FR 49164). Under the proposal when ground icing conditions exist, parts 125 and 135 certificate holders would be required to check their airplanes for contamination prior to beginning takeoff. In addition, under the proposed changes to part 125, certificate holders would be required to provide pilot testing on ground deicing/anti-icing procedures, and under proposed changes to part 135, certificate holders would be required to provide pilot training on ground deicing/anti-icing procedures. The FAA proposed the requirements in response to part 135 accidents that were caused by pilots beginning takeoff with contamination adhering to critical airplane surfaces.

On September 29, 1992, the FAA published the part 121 interim rule (57 FR 44924) and on December 30, 1993, the FAA published the part 135 interim rule (58 FR 69620). The FAA requested comments on the interim final rules because the comment periods on the NPRMs were unusually short, and because the FAA anticipated that the first winter of implementation of the rules might provide additional information supporting either the continuation or modification of the rules. This action is in response to those comments and confirms the interim final rules as final rules.

Discussion of Comments

General

The FAA received 22 comments on the part 121 interim rule. Generally, most commenters favor the FAA's action. Several commenters address specific requirements in the part 121 interim rule and some recommend changes in the rule language.

The most significant issues addressed by commenters on the part 121 interim rule involve holdover times, pretakeoff checks, hard-wing aircraft, and the role of aircraft dispatchers. Additional issues addressed by commenters involve applicability, training, research, type of fluid, alternate procedures, need for an approved program, and air traffic control.

The FAA received only one comment on the part 135 interim rule. This commenter made specific recommendations to delete paragraphs from parts 125 and 135 that the

commenter claims are inconsistent with the "Clean Aircraft concept."

Icing Conditions

The only comment on the part 135 interim rule states that paragraph (a)(1) of both §§ 125.221 and 135.227, which permits takeoffs when there is frost adhering to the wings, or stabilizing or controlling surfaces, if the frost has been polished to make it smooth, is inconsistent with the Clean Aircraft concept. The commenter states that if this paragraph is included in the final rule it will allow the same type large turbine aircraft to be operated with less safety under parts 125 or 135 than under part 121.

FAA Response: While the FAA has no record of an unsafe operational history with aircraft operated under the current icing regulations of 14 CFR parts 125 and 135, we believe there may be validity to this comment and we may address the clean aircraft concept in a future agency action.

Holdover Times

The part 121 interim rule requires that a certificate holder's ground deicing/anti-icing program must include the certificate holder's holdover timetables and the procedures for the use of these tables by the certificate holder's personnel. The rule requires that takeoff after exceeding any determined holdover time is permitted only after (1) A pretakeoff contamination check determines that the wings, control surfaces, and other critical surfaces, as defined in the certificate holder's program, are free of frost, ice, or snow; or (2) it is otherwise determined by an approved alternative procedure that the wings, control surfaces, and other critical surfaces, as defined in the certificate holder's program, are free of frost, ice, or snow; or (3) the critical surfaces are redeiced and a new holdover time is determined.

Four commenters (Swissair, ALPA, Association of European Airlines (AEA), and an airline pilot) express concern with the reliability and use of holdover times. Swissair states it has always considered the holdover times as guideline and does not support the use of holdover time guidelines as the only criteria for a go/no-go decision. ALPA expresses a similar opinion. Three commenters (Canadair, ALPA, and an airline pilot) are concerned that with the wide range of holdover times pilots may mistakenly believe that a takeoff is safe, regardless of other factors, so long as it is made within the longer time limit. Swissair states that the range of holdover times cannot be considered "as a minimum/maximum value but rather more correctly as two maximums, depending on actual weather conditions." Canadair states that it is not clear whether a "certificate holder's program is expected to quote a single holdover time for a specific situation or a range * * *" and that if a range is intended, the FAA needs to clarify the significance of the minimum time.

FAA Response: The FAA agrees with the commenters that a holdover time should not be used as the sole criteria for a go/no-go decision before the expiration of the holdover time. The FAA stated this in the preamble to the interim final rule and in paragraph 8c of Advisory Circular 120–60, Ground Deicing and Anti-Icing Program. In the part 121 interim rule the FAA cautioned that the holdover timetables are for use in departure planning only and shall be used in conjunction with pretakeoff check procedures. These tables provide only approximate time ranges. Each pilot-in-command (PIC) determines the appropriate holdover time for the type of fluid and the actual weather conditions. The fact that a determined holdover time has not yet expired would not alone justify a decision to take off if other conditions, such as the rate or type of precipitation, had worsened, or if the PIC has other information, such as expected delays, to warrant redeicing or re-inspecting the aircraft. Conversely, the final rule does not prohibit takeoff after a holdover time has expired, if certain additional actions are taken, *e.g.*, a pretakeoff contamination check or an alternative check that indicates the aircraft is free of contamination.

The FAA agrees that the stated range in holdover times should not be used as a minimum and maximum value. The advisory circular specifically states that generally the maximum time within the holdover time range applies in light precipitation conditions and the minimum time applies to moderate to heavy precipitation conditions. In each case the holdover time is determined from within the stated range depending on the actual weather conditions. The FAA, therefore, has determined that the advisory circular provides sufficient guidance to pilots concerning holdover time; therefore, no further changes are required.

Aircraft Checks

If the determined holdover time has been exceeded, the part 121 interim final rule requires, as one alternative, a pretakeoff contamination check (§ 121.629(c)(3)(i)). A pretakeoff contamination check, as defined in § 121.629(c)(4), is a check to make sure the wings, control surfaces, and other critical surfaces, as determined in the certificate holders' program, are free of frost, ice, and snow. It must be accomplished from outside the aircraft unless the approved program specifies otherwise, and it must be completed within five minutes before takeoff.

A pretakeoff check is defined in § 121.629(c)(4) as a check of the aircraft's wings or representative aircraft surfaces for frost, ice, or snow within the holdover time. As stated in the preamble to the part 121 interim rule and to be consistent with the intended use of holdover timetables, certificate holders must accomplish a pretakeoff check whenever holdover timetables are used. Language has been added to § 121.629(c)(3) to make it clear that a pretakeoff check is integral to the use of holdover timetables.

The part 121 interim rule under § 121.629(d) also allows a certificate holder to continue to operate without a deicing program if the aircraft is checked to ensure that the wings, control surfaces, and other critical surfaces are free of frost, ice, and snow anytime conditions are such that frost, ice, or snow may reasonably be expected to adhere to the aircraft. The check must be completed within five minutes before takeoff and accomplished from outside the aircraft. This check is referred to as the "paragraph (d) outside-the-aircraft check." As stated in the preamble to the part 121 interim rule, accomplishing this check may not be a viable option at certain airports, at certain peak departure times, and during certain weather conditions.

Twelve commenters (ALPA, NTSB, ATA, Fokker, Canadair, de Havilland, an airline pilot, AEA, Federal Express, Swissair, Association of Flight Attendants, and Aviatrends) address the issue of aircraft checks. The three sub-issues these commenters address are: (1) The adequacy of any check made from within the aircraft; (2) how the five minutes is measured; and (3) other aircraft check issues.

(1) *Checks made from within the airplane.* The NTSB, ALPA, de Havilland, Association Flight Attendants, Aviatrends, and an airline pilot all voice concern for the reliability of any check made from within the airplane. The NTSB expressed particular concern for visual observations involving swept-wing airplanes without leading edge devices. Aviatrends cited specific examples in which reports filed under NASA's Aviation Safety Reporting System indicated problems with checks from inside the aircraft. In one case where both Type I and Type II fluid had been

applied, the first officer reported that it was impossible to see through Type II fluid on the cabin windows. A second report concluded that "the value of inspecting the wing for ice from inside the cabin, especially at night, is questionable" and the "Type II deicing fluid is the consistency of warm honey and when it covers the cabin windows very little can be seen through them." ALPA expressed similar concerns and concluded that "the inspection from inside the aircraft is therefore turned into a presumption."

FAA Response: Pretakeoff contamination checks, defined under § 121.629(c)(4) and required under § 121.629(c)(3)(i), must be accomplished from outside the aircraft unless the certificate holder's approved program specifies otherwise. Checks performed from inside the aircraft are not permitted unless the certificate holder has clearly defined and demonstrated procedures to allow the flight crew to assess the condition of the aircraft from inside the aircraft under various conditions (*e.g.*, lighting, weather, visibility, *etc.*). The certificate holder's program should emphasize that if any doubt exists as to the condition of the aircraft after conducting this check, takeoff must not be attempted. In addition, as stated in the preamble to the part 121 interim rule, the ultimate authority and responsibility for the operation of the aircraft remain with the PIC. Therefore, whenever the PIC is not fully satisfied with the reliability of a check conducted from inside the aircraft, the PIC is expected to get the aircraft redeiced or request that an additional check be conducted from outside the aircraft.

(2) *How the 5 minutes is measured.* Several commenters (Swissair, ATA, Fokker, and AEA) question the intent of the rule language that requires that the pretakeoff contamination check must "be conducted" and the paragraph (d) check must "occur" within five minutes prior to beginning takeoff. These commenters point out that if this check can take five to fifteen minutes to accomplish, as the FAA stated in the preamble to the part 121 interim rule, the rule would be impractical unless it is interpreted to mean that the takeoff must occur within five minutes of completion of the check. While seeking clarification of the five-minute time requirement, AEA states that a measurement of five minutes after completing the checks would be problematic and could be dangerous unless there is a differentiation based on the type of fluid used.

FAA Response: The FAA's intent was that the pretakeoff contamination check and the paragraph (d) outside-the-aircraft check must be completed within five minutes prior to beginning takeoff. The FAA believes that a pretakeoff contamination check or a paragraph (d) outside-the-aircraft check completed within no more than five minutes prior to beginning takeoff is sufficiently close to takeoff, in most weather conditions, to ensure absence of contamination. Five minutes is a maximum time. The FAA expects PICs to use good judgment when weather conditions might dictate a shorter time.

(3) *Other pretakeoff check issues.* Canadair states that there is still a possibility of confusion between the two similarly worded terms "pretakeoff check" and "pretakeoff contamination check" and recommends that the latter be renamed "external contamination check." AEA states its concern that since holdover times are only guidelines, they should not be used as "criteria to establish whether a more thorough check (pretakeoff contamination check) is required."

FAA Response: The FAA believes that the aviation industry has become familiar with the distinction between the two checks. As stated under item (1) above, a holdover time is never the sole criteria in determining whether a takeoff should be attempted or whether another check is warranted. The PIC's evaluation of all the relevant factors and his or her exercise of good judgment are expected.

Hard Wing Aircraft

The part 121 interim rule does not contain any specific additional requirements for hard wing aircraft (*i.e.* aircraft without wing leading edge devices). The NPRM preamble stated that the FAA has issued Airworthiness Directives (AD) requiring a tactile check of specific hard wing aircraft in ground icing conditions. The FAA stated in the preamble to the part 121 interim rule that it would continue to deal with aircraft specific requirements by using ADs.

Five commenters (NTSB, Fokker, de Havilland, the Air Transport Association, and Embraer) comment on the issue of ground deicing as it affects aircraft commonly referred to as hard wing aircraft. The NTSB believes that special operational procedures are justified for hard wing aircraft. Conversely, the other four commenters state that the FAA does not have any valid basis for imposing additional requirements (*e.g.* a tactile check) on hard wing aircraft with aft-mounted engines. Of these commenters, only Fokker offers specific evidence to support its position. Primarily, Fokker disputes the NASA report that served as a partial basis for the FAA's conclusions concerning hard wing aircraft. Fokker maintains that the NASA report is inaccurate and that data produced in subsequent tests conducted by NASA and earlier tests conducted in Sweden do not support the need for applying any additional procedures to hard wing aircraft.

FAA Response: The part 121 interim rule imposed no special requirements for hard wing aircraft; however, the FAA has issued AD 92–03–01 and AD 92–03–02, which require special procedures for certain model DC–9 and MD–80 airplanes. These special procedures are based on the fact that these airplanes have a wing design that is particularly susceptible to loss of lift due to wing icing. Minute amounts of ice or other contaminates on the leading edge of these hard wings can cause an increase in stall speed of up to 30 knots. This increased stall speed may be well above the stall warning activation speed. Because of this phenomena, special guidance applicable to hard wing aircraft have been included in Advisory Circular (AC) 120–60.

Roles of Dispatcher and Pilot-in-Command (PIC)

The part 121 interim rule addresses the duties and responsibilities of the PIC and the aircraft dispatcher in determining whether a takeoff can be safely accomplished (§ 121.629(b) and (c)).

Three commenters address the proper roles of PICs and aircraft dispatchers. Swissair agrees with the FAA that the ultimate responsibility for determining if the aircraft is airworthy is with the PIC once the aircraft is released from ground personnel. Two commenters, both aircraft dispatchers, believe that § 121.629, as amended in the part 121 interim rule, does not give proper recognition to what they believe are joint responsibilities of aircraft dispatcher and pilot-in-command as reflected in §§ 1221.395, 121.533, 121.593, 121.599(a), 121.601(a), 121.605, and 121.627(a). Both commenters state that the cited sections indicate a joint responsibility between the aircraft dispatcher and the PIC for the safety of a flight and that the dispatcher's responsibility does not end with the release of the aircraft by the dispatcher. Rather, the dispatcher continues to be involved in the operational control of the aircraft throughout the flight. One of these commenters recommends that § 121.629 should be revised to specifically state that the aircraft dispatcher is involved with the PIC in the operational control

of the aircraft and that this control includes dispatcher concurrence in computing or revising a holdover time and dispatcher initiation of an exterior tactile contamination check.

FAA Response: The FAA agrees that operational control of the aircraft is a joint responsibility between the PIC and the aircraft dispatcher. As stated in the preamble to the part 121 interim rule, a certificate holder's program may include holdover time coordination with the aircraft dispatcher; however, the real-time information required to determine or update the proper holdover time may be available only to the PIC. In this situation the PIC safety responsibility may require him or her to determine a holdover time without coordinating with the dispatcher. The FAA believes that the part 121 interim rule language does not diminish, and is consistent with, the traditional role of the aircraft dispatcher as stated in the sections cited above and therefore no change is made in the part 121 interim rule language.

Applicability

The part 121 interim rule applied to part 121 certificate holders only; however, the preamble for the interim final rule stated that the FAA would continue to study part 125 and 135 operations to determine if future rulemaking is required. Three comments address applicability. The NTSB reiterates its concern that the interim rule does not address part 125 and part 135 certificate holders. Empire Airlines states that, based on its experience as an operator under both parts 121 and 135, it believes a part 121-type program should not be imposed on part 135 operators. Canadair states that part 91 aircraft should also be included in any further study.

FAA Response: The FAA issued an interim final rule tailored to part 125 and 135 operators on December 30, 1993 (58 FR 69620). Presently, the FAA plans no part 91 rulemaking; however, guidance for part 91 operators on ground deicing/anti-icing practices and procedures is available in AC 120–58, Pilot Guide for Large Aircraft Ground Deicing, and AC 135–17, Pilot Guide for Small Aircraft Ground Deicing.

Training

The part 121 interim rule requires initial and recurrent ground training and testing for flight crewmembers and qualification for all other affected personnel. The training, testing, and qualifications must cover the use of holdover times, aircraft deicing/anti-icing procedures, contamination, types and characteristics of deicing/anti-icing fluids, cold weather preflight inspection procedures, and techniques for recognizing contamination.

Four commenters (NTSB, Fokker, Trans World Express and Finnair) address the issue of training. The NTSB states that the required recurrent training for flight crewmembers and involved ground personnel is "equally applicable to the FAA personnel involved in overseeing the airline programs." Fokker believes that flight crew training is most important in preventing ground icing accidents and recommends that the "FAA should emphasize training in the use of rotation techniques suited to conditions where ground icing can be anticipated." Trans World Express states that vendors (*e.g.* contract personnel who may work for several certificate holders) are required to receive the generic training over and over when the vendors really need it only once and recommends that the certificate holder be permitted to accept another certificate holder's qualification program for vendors as it pertains to deicing/anti-icing fluid application and dispersal. Finnair states that training is the most important short-term safety measure and should emphasize the overall picture of the conditions affecting the aircraft and not concentrate on any one item such as holdover timetables.

FAA Response: The FAA agrees with the NTSB regarding the need for FAA inspector ground deicing/anti-icing training. This training was provided to all Principal Aviation Safety Inspectors (Operations and Maintenance) before the part 121 interim rule was published.

The FAA agrees with Finnair and Fokker regarding their comments on training except to the extent that Fokker believes that pilots should be trained to use a different aircraft rotation technique during takeoff that, in its view, is more suited to conditions where ground icing can be anticipated. Training pilots in the proposed techniques, however, undermines the "clean aircraft" concept since the premise for using such techniques is that the PIC may be unsure of whether the aircraft is free of contamination. If contamination is adhering to critical surfaces of the aircraft, the takeoff would not comply with § 121.629(a), and the techniques recommended by Fokker are not a safe alternative to that compliance.

Conceptually, the FAA agrees with Trans World Express that redundant training is neither necessary nor useful for the trainee. On the other hand, the FAA cannot permit a certificate holder to use another certificate holder's or a vendor's deicing/anti-icing procedures unless those procedures have been approved by the principal inspectors of the certificate holder that wishes to use them.

Research

In the part 121 interim rule preamble, the FAA stated that further research is needed on issues such as the effects of airplane design on wing contamination and how this would affect pilot flying techniques. The preamble states that additional study is needed to assess the value of aircraft type specific pilot training for use in ground icing conditions. The NTSB and the Federal Express Corporation state support for further research of the type the FAA indicated in the part 121 interim rule preamble. Federal Express states support for further research on the use of holdover times and on the effects of airplane design and their interaction with contaminants, particularly for hard wing aircraft. The NTSB states that the highest research priority should be given to determining the possible contaminating effects of Type II fluids on runway friction. The NTSB also strongly supports continuing initiatives for the development of technical solutions to wing contaminant detection.

FAA Response: Within the past few years research has been initiated on several different areas related to the ground deicing problem. The FAA has published a report which describes ongoing research, entitled "Aircraft Ice Detectors and Related Technologies for Onground and Inflight Application." It is available to the public through the National Technical Information Service, Springfield, VA 22161. The FAA is continuing to analyze holdover times in an effort to make them a more precise tool for determining an aircraft's contamination status. The FAA and the United States Air Force are cooperating with NASA Ames Research Center in the development of a new more environmentally friendly deicing/anti-icing fluid. Many different corporations and individual entrepreneurs are developing detection systems that might be used to detect contamination on an aircraft's critical surfaces. The FAA's Technical Center has completed initial studies that indicate Type II fluids do not have a significant effect on runway friction.

Types of Fluids

The part 121 interim rule does not require using any specific deicing/anti-icing fluid. The ground deicing AC 120–60 gives guidance in the use of deicing/anti-icing fluids, stating the advantages and disadvantages of Type I and Type II fluids. Two commenters (Fokker and

Technoshield) address the question of Type II fluids. Fokker states that the FAA Advisory Circular incorrectly suggests that there may be disadvantages to Type II fluids with respect to decreasing the runway coefficient of friction. Technoshield suggests that the entire rulemaking will have the effect of precluding the use of Type I fluids.

FAA Response: As stated in the preamble to the part 121 interim rule, each type fluid has its benefits and intended usage. Each certificate holder, not the FAA, determines the type(s) of fluid to be used in its operations. Recent studies by the FAA indicate that no degradation of runway frictions greater than that occurring with water covered runway surfaces occurs with the use of Type II fluids.

The FAA does not believe that the rule affects the choice of fluid. Weather conditions and certificate holder practice will continue to determine the choice of fluid.

Alternative Procedures

Canadair suggests that it would be useful if the FAA issues advisory material on how to design, develop, and verify an alternative procedure for determination that critical surfaces are free of frost, ice, or snow, as is authorized under § 121.629(c)(3)(ii).

FAA Response: As was stated in the preamble to the part 121 NPRM, the "otherwise determined by an alternative procedure" language was included to cover changes in ambient conditions or industry development of approved new technologies. The FAA believes that certificate holders should take the initiative to develop such alternative procedures and submit them to the FAA for approval.

Need for Approved Program

ALPA states its belief that each carrier operating under part 121 should have an approved program and that, for the reasons stated in its earlier comments on the ground deicing NPRM, § 121.629(d) should be deleted.

FAA Response: The FAA believes that the only certificate holders under part 121 who do not have an approved ground deicing/anti-icing program are those who conclude it would be more cost effective to operate without such a program. These certificate holders might have to delay or cancel flights in icing conditions because the outside-the-aircraft check required under § 121.629(d) is not a viable option during certain weather conditions and at certain airports. If a certificate holder is able to conduct an outside-the-aircraft check and that check ensures that the aircraft is free of contamination, the FAA believes the check is an adequate substitute for an approved program.

Air Traffic Control

The NTSB referenced several of its previous recommendations that are not directly related to this rulemaking action but that are related to achieving more efficient planning for ground operations. The recommendations, if implemented, would reduce the probability that airplanes will exceed their deicing holdover times.

FAA Response: The FAA has undertaken a number of related actions, including, as part of certain airports' ground deicing plans, gate hold procedures (NTSB Recommendation A–93–19) and procedures that limit the time an aircraft spends on the ground after deicing (NTSB Recommendation A–93–20). These procedures have contributed to both improved safety during ground icing conditions and enhanced the overall departure and arrival rates during these conditions.

Environmental Analysis

These rules are federal actions that are subject to the National Environmental Police Act (NEPA). Under applicable guidelines of the President's Council on Environmental Quality and agency procedures implementing NEPA, the FAA normally prepares an environmental assessment (EA) to determine the need for an environmental impact statement (EIS) or whether a finding of no significant impact (FONSI) would be appropriate. (40 CFR 1501.3; FAA Order 1050.1D appendix 7. par. 3(a)). In the NPRMs the FAA invited comments on any environmental issues associated with the proposed rule, and specifically requested comments on the following: (1) Whether the proposed rule will increase the use of deicing fluids, (2) whether the proposed part 121 rule will encourage the use of Type II deicing fluid, (3) the impact, if any, of using these deicing fluids on taxiways "just prior to takeoff," and (4) containment methods currently used that can be adapted to other locations on an airport. Only a few commenters to the part 121 NPRM addressed these environmental issues and most of these commenters focused more on the effect of Federal, state, and local environmental requirements and the lack of local facilities, than on the questions of the potential environmental impact of deicing fluids. A summary of the comments received, the FAA's response, and the findings of the FAA's Environmental Assessment appear in the preamble to the part 121 interim rule.

The Environmental Assessment (EA) which supported a Finding of No Significant Impact (FONSI) is included in the docket for this rulemaking. Except for the NTSB suggestion that the FAA conduct further research on runway contaminants, no further comments on environmental issues associated with this rulemaking were received following publication of the part 121 and part 135 interim rules. Nonetheless, as part of its long term efforts, the FAA will continue to work with certificate holders and with airport operators to monitor the actual and potential environmental effects of this rule and will take appropriate steps as necessary.

Conclusion

After consideration of the comments submitted in response to the interim final rules, the FAA has determined that no further rulemaking action is necessary. The interim final rule amending part 121 of title 14 of the Code of Federal Regulations, Amendment No. 121–231, entitled Aircraft Ground Deicing and Anti-Icing Program, published at 57 FR 44924 on September 29, 1992, is adopted as a final rule. The interim final rule amending parts 125 and 135 of title 14 of the Code of Federal Regulations, Amendment Nos. 125–18 and 135–46, entitled Training and Checking in Ground Icing Conditions, published at 58 FR 69620 on December 30, 1993, is adopted as a final rule.

Issued in Washington, DC, on August 19, 2002.

Monte R. Belger,

Acting Administrator.

[FR Doc. 02–21575 Filed 8–26–02; 8:45 am]

BILLING CODE 4910–13–P