www.regulations.gov. If you do not want your personal contact information to be publicly viewable, do not include it in your comment or any accompanying documents. Instead, provide your contact information on a cover letter. Include your first and last names, email address, telephone number, and optional mailing address. The cover letter will not be publicly viewable as long as it does not include any comments.

Include contact information each time you submit comments, data, documents, and other information to DOE. No faxes will be accepted.

Comments, data, and other information submitted to DOE electronically should be provided in PDF (preferred), Microsoft Word or Excel, WordPerfect, or text (ASCII) file format. Provide documents that are not secured, written in English and free of any defects or viruses. Documents should not contain special characters or any form of encryption and, if possible, they should carry the electronic signature of the author.

Campaign form letters. Please submit campaign form letters by the originating organization in batches of between 50 to 500 form letters per PDF or as one form letter with a list of supporters' names compiled into one or more PDFs. This reduces comment processing and posting time.

Confidential Business Information. Pursuant to 10 CFR 1004.11, any person submitting information that he or she believes to be confidential and exempt by law from public disclosure should submit via email two well-marked copies: One copy of the document marked confidential including all the information believed to be confidential, and one copy of the document marked non-confidential with the information believed to be confidential deleted. DOE will make its own determination about the confidential status of the information and treat it according to its determination.

It is DOE's policy that all comments may be included in the public docket, without change and as received, including any personal information provided in the comments (except information deemed to be exempt from public disclosure).

Signing Authority

This document of the Department of Energy was signed on January 9, 2022, by Kelly J. Speakes-Backman, Principal Deputy Assistant Secretary for Energy Efficiency and Renewable Energy, pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE **Federal Register** Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the **Federal Register**.

Signed in Washington, DC, on January 11, 2022.

Treena V. Garrett,

Federal Register Liaison Officer, U.S. Department of Energy.

[FR Doc. 2022–00725 Filed 1–14–22; 8:45 am]

BILLING CODE 6450–01–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. FAA–2021–0775; Notice No. 25–21–03–SC]

Special Conditions: FedEx Express, Airbus Model A321–200 Airplanes; Installation of an Infrared Laser Countermeasure System

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed special conditions.

SUMMARY: This action proposes special conditions for the Airbus Model A321–200 airplane. This airplane, as modified by FedEx Express (FedEx), will have a novel or unusual design feature when compared to the state of technology envisioned in the airworthiness standards for transport category airplanes. This design feature is a system that emits infrared laser energy outside the aircraft as a countermeasure against heat-seeking missiles. The applicable airworthiness regulations do not contain adequate or appropriate safety standards for this design feature. These proposed special conditions contain the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

DATES: Send comments on or before March 4, 2022.

ADDRESSES: Send comments identified by Docket No. FAA–2021–0775 using any of the following methods:

- *Federal eRegulations Portal:* Go to *https://www.regulations.gov/* and follow the online instructions for sending your comments electronically.
- *Mail:* Send comments to Docket Operations, M–30, U.S. Department of Transportation (DOT), 1200 New Jersey Avenue SE, Room W12–140, West Building Ground Floor, Washington, DC 20590–0001.
- *Hand Delivery or Courier:* Take comments to Docket Operations in Room W12–140 of the West Building Ground Floor at 1200 New Jersey Avenue SE, Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- *Fax:* Fax comments to Docket Operations at 202–493–2251.

Privacy: Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received without change, to *https://www.regulations.gov/,* including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact received about this proposal.

Confidential Business Information

Confidential Business Information (CBI) is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this document contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this document, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as ''PROPIN.'' The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this document. Send submissions containing CBI to the person indicated in the Contact section below. Comments that the FAA receives which are not specifically designated as CBI will be placed in the public docket for this rulemaking.

Docket: Background documents or comments received may be read at *https://www.regulations.gov/* at any time. Follow the online instructions for accessing the docket or go to Docket Operations in Room W12–140 of the West Building Ground Floor at 1200 New Jersey Avenue SE, Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Eric Peterson, Safety Risk Management

Section, AIR–633, Policy and Innovation Division, Aircraft Certification Service, Federal Aviation Administration, 2200 South 216th Street, Des Moines, Washington 98198; telephone and fax 206–231–3413; email *Eric.M.Peterson@faa.gov.*

SUPPLEMENTARY INFORMATION:

Comments Invited

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

The FAA will consider all comments received by the closing date for comments. The FAA may change these proposed special conditions based on the comments received.

Background

On October 16, 2019, FedEx applied for a supplemental type certificate to install a laser-based missile-defense system, which directs infrared laser energy toward heat-seeking missiles, on the Airbus Model A321–200 airplane. This airplane, which is a derivative of the Airbus Model A321 series airplanes currently approved under Type Certificate No. A28NM, is a twin-engine, transport-category jet with allowable seating for 220 passengers, and a maximum takeoff weight of 89,000 pounds.

Type Certification Basis

Under the provisions of title 14, Code of Federal Regulations (14 CFR) 21.101, FedEx must show that the Airbus Model A321–200 airplane, as changed, continues to meet the applicable provisions of the regulations listed in Type Certificate No. A28NM, or the applicable regulations in effect on the date of application for the change, except for earlier amendments as agreed upon by the FAA.

If the Administrator finds that the applicable airworthiness regulations (*e.g.,* 14 CFR part 25) do not contain adequate or appropriate safety standards for the Airbus Model A321–200 airplane because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.16.

Special conditions are initially applicable to the model for which they are issued. Should the applicant apply for a supplemental type certificate to modify any other model included on the same type certificate to incorporate the same novel or unusual design feature, these special conditions would also apply to the other model under § 21.101.

In addition to the applicable airworthiness regulations and special conditions, the Airbus Model A321–200 airplane must comply with the fuel-vent and exhaust-emission requirements of 14 CFR part 34, and the noise-certification requirements of 14 CFR part 36.

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

Novel or Unusual Design Features

The Airbus Model A321–200 airplane, as modified by FedEx, will incorporate the following novel or unusual design feature:

A system that emits infrared laser energy outside the aircraft.

Discussion

In recent years, in several incidents abroad, civilian aircraft were fired upon by man-portable air defense systems (MANPADS). This has led several companies to design and adapt systems like a laser-based missile-defense system for installation on civilian aircraft, to protect those aircraft against heat-seeking missiles. The FedEx missile-defense system directs infrared laser energy toward an incoming missile, in an effort to interrupt the missile's tracking of the aircraft's heat.

Infrared laser energy can pose a hazard to persons on the aircraft, on the ground, and on other aircraft. The risk is heightened because infrared light is invisible to the human eye. Human exposure to infrared laser energy can result in eye and skin damage, and affect a flight crew's ability to control the aircraft. Infrared laser energy also can affect other aircraft, whether airborne or on the ground, and property, such as fuel trucks and airport equipment, in a manner that adversely affects aviation safety.

FAA design standards for transport category airplanes did not envisage that a design feature could project infrared laser energy outside the airplane. The FAA's design standards are inadequate to address this capability. Therefore, this system is a novel or unusual design feature, and the FAA has developed these proposed special conditions to establish a level of safety equivalent to that of the regulations.

Special conditions are also warranted, per 14 CFR 21.16, because FAA design standards are inappropriate for this design feature. Title 14, Code of Federal Regulations 25.1301 requires installed equipment to be of a design that is appropriate for its intended function. The FAA has no basis to determine whether this missile-defense system will successfully perform its intended function of thwarting heat-seeking missiles.

The special conditions that the FAA proposes, to address the installation of the missile-defense system on this model of airplane, are as follows.

Ground Activation. Condition 1 requires the design to have means to prevent inadvertent operation of the system while the airplane is on the ground, including during maintenance. These means must identify and address all foreseeable failure modes that may result in inadvertent operation. These modes include errors in airplane maintenance and operating procedures, such as erroneously setting the system to ''air'' mode while the airplane is on the ground. The applicant could show such failure modes, their risks, and how they will be addressed, by conducting safety assessments and incorporating prevention strategies into the design.

In-Flight Activation. Condition 2 requires that the system be designed so that in-flight operation does not result in damage to the airplane or to other aircraft, or injury to any person. To account for these effects, the applicant's analysis should include effects from the system's erroneous operation, from system failures, and from failures that may not be readily detectable prior to flight (*i.e.,* latent failures). The applicant may address this condition through safety assessments and incorporation of prevention strategies into its design. The ''operation'' addressed by Condition 2 includes all operation of the system, whether intentional, inadvertent, or automatic.

Markings, instructions, and other information. Conditions 3, 4, and 5 are intended to protect certain categories of persons based upon their expected interaction with the system. These conditions require the design to supply certain safety information to these persons.

Condition 3 requires the design to provide pertinent laser-safety information to maintenance and service personnel at the location of the installation. At a minimum, such ''pertinent'' information will include information about potential hazards to persons who are using optical magnification devices, such as magnifying glasses or binoculars. The warning information should be consistent with the laser's classification in 21 CFR 1040.

Condition 4 requires the airplane instructions for continued airworthiness to contain the appropriate warnings

related to the laser's classification. Like the warning information to be provided at the location of the laser system's installation, the purpose of this condition is to ensure any person maintaining the system is aware of the hazards, including those related to the use of magnifying glasses or binoculars.

Condition 5 requires the applicant to update the airplane operating limitations and information required under 14 CFR 25.1581. The airplane flight-manual supplement insert must describe the intended function of the missile-defense system, its intended operation, and the phases of flight in which it may be used. The insert also must add a caution that describes the significant risk of injury the missile-defense system poses to others while in proximity to other aircraft, airports, and populated areas.

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

After considering public comment, should the FAA impose these special conditions on the applicant, and issue a supplemental type certificate for the installation of this system, such approvals would not constitute approval to operate the system. FAA Advisory Circular 70–1, ''Outdoor Laser Operations,'' provides guidance on obtaining operational approval.

Applicability

As discussed above, these proposed special conditions are applicable to the Airbus Model A321–200 airplane, as modified by FedEx, with the laser-based missile-defense system installed. Should FedEx apply at a later date for a supplemental type certificate to modify any other model included on Type Certificate No. A28NM to incorporate the same novel or unusual design feature, these special conditions would apply to that model as well.

Conclusion

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

List of Subjects in 14 CFR Part 25

Aircraft, Aviation safety, Reporting and recordkeeping requirements.

Authority Citation

The authority citation for these special conditions is as follows:

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

The Proposed Special Conditions

Accordingly, the Federal Aviation Administration (FAA) proposes the following special conditions as part of the type certification basis for the Airbus Model A321–200 airplane with a laser-based missile-defense system, as modified by FedEx.

1. The system must have means that prevent the inadvertent activation of the system on the ground, including during airplane maintenance and ground handling. Such means must address all foreseeable failure modes and operating and maintenance errors.

2. The system must be designed so that its operation in-flight does not result in damage to the airplane or other aircraft, or injury to any person. Operation of the system must not be capable of compromising continued safe flight and landing of other aircraft and the airplane on which it is installed, either by direct damage, laser-reflective damage, or through distraction or incapacitation of crew.

3. Laser-safety information for maintaining or servicing the airplane must be prominently placarded on the airplane or laser-based missile-defense system at the location of the laser installation.

4. Instructions for continued airworthiness for installation, removal, and maintenance of the laser-based missile-defense system must contain warnings appropriate to the laser classification concerning the hazards associated with exposure to laser radiation. This includes instructions regarding potential hazards to personnel who are using optical magnification devices such as magnifying glasses or binoculars.

5. The airplane flight manual supplement (AFMS) must describe the intended functions of the installed laser systems, to include identifying the intended operations and phases of flight. The AFMS must state: *Caution:* The operation of the installed laser system could pose significant risk of injury to others while in proximity to other aircraft, airports, and populated areas.

Issued in Kansas City, Missouri, on January 7, 2022.

Patrick R. Mullen,

Manager, Technical Innovation Policy Branch, Policy and Innovation Division, Aircraft Certification Service.

[FR Doc. 2022–00505 Filed 1–14–22; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2021–1183; Project Identifier AD–2021–01193–E]

RIN 2120–AA64

Airworthiness Directives; CFM International, S.A. Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for all CFM International, S.A. (CFM) LEAP–1A23, LEAP–1A24, LEAP–1A24E1, LEAP–1A26, LEAP–1A26CJ, LEAP–1A26E1, LEAP–1A29, LEAP–1A29CJ, LEAP–1A30, LEAP–1A32, LEAP–1A33, LEAP–1A33B2, and LEAP–1A35A model turbofan engines. This proposed AD was prompted by the detection of melt-related freckles in the billet, which may reduce the life of certain compressor rotor stages 6–10 spools, high pressure turbine (HPT) rotor interstage seals, HPT rotor stage 2 disks, low pressure turbine (LPT) stage 1 disks, LPT stage 2 disks, LPT stage 3 disks, and LPT stage 4 disks. This proposed AD would require revising the airworthiness limitations section (ALS) of the applicable CFM LEAP–1A Engine Shop Manual (ESM) and the operator's existing approved continuous airworthiness maintenance program (CAMP) to incorporate reduced life limits for these parts. This proposed AD would also require the removal of certain LPT stage 4 disks identified by serial number (S/N) prior to their new life limits. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by March 4, 2022.

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- *Federal eRulemaking Portal:* Go to *https://www.regulations.gov.* Follow the instructions for submitting comments.
- *Fax:* (202) 493–2251.
- *Mail:* U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- *Hand Delivery:* Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.