



適航指令發布單

Airworthiness Directive Issuance Form

民航局 AD 編號 AD number	CAA-2019-11-004	發布日期 Date issued	2019/11/27
適用之航空產品 Applied to (models, serial numbers or part numbers, as applicable)	This AD applies to all General Electric Company (GE) GE90-115B model turbofan engines with engine serial numbers 907451, 907464, 907504, 907564, 907574, 907599, 907601, and 907618.		
主旨摘要	This AD requires the removal from service of the Interstage Seal, part number 2505M72P01, from the affected engines.		
民航局 CAA <input type="checkbox"/> 本國產品 Native products <input type="checkbox"/> 其他個案 Other	設計國民航主管機構 Original Authorities <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input checked="" type="checkbox"/> FAA <input type="checkbox"/> EASA <input type="checkbox"/> Brazil <input type="checkbox"/> Transport Canada Civil Aviation <input type="checkbox"/> DGAC </div> <div style="width: 50%;"> <input type="checkbox"/> Germany LBA <input type="checkbox"/> CAA-NL <input type="checkbox"/> UK CAA <input type="checkbox"/> Japan CAB <input type="checkbox"/> CAA of Israel <input type="checkbox"/> Other _____ </div> </div>		
	設計國 AD 編號 Original AD number	2019-21-51	
	1. 直接採用原 AD 之內容?(Is the original AD directly adopted?) <input checked="" type="checkbox"/> 是(Yes) <input type="checkbox"/> 否(No) _ a. 生效日期另訂為(Re-specify the effective date as) : _____ b. 執行時限另訂為(Re-specify the compliance time or period as) : _____ 2. 使用人是否需要將 AD 執行結果向民航局提出報告?(Do Users need to report the status of compliance to the CAA?) <input type="checkbox"/> 是(Yes) <input checked="" type="checkbox"/> 否(No)		
備註 Note	ATA 72. This AD is effective December 6, 2019 to all persons except those persons to whom it was made immediately effective by Emergency AD 2019-21-51(CAA-2019-10-010 緊急), issued on October 23, 2019.		
註： 1. AD 內容後附。 2. 航空器產品使用人得向民航局提出豁免、替代符合方法、執行時限之展延之申請。 3. 如有任何問題，請聯絡交通部民用航空局初始適航科。Tel：(02)2349-6331~3, Fax：(02)2545-8464, e-mail： adcaa@mail.caa.gov.tw Note： 1. The AD text is enclosed. 2. Exemption, an alternative method of compliance or adjustment of the compliance time may be proposed to the CAA for approval. 3. For further information, please contact Civil Aeronautics Administration on Tel：(02)2349-6331~3, Fax：(02)2545-8464, e-mail： adcaa@mail.caa.gov.tw			

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2019-0894; Product Identifier 2019-NE-32-AD; Amendment 39-19798; AD 2019-21-51]

RIN 2120-AA64

Airworthiness Directives; General Electric Company Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain General Electric Company (GE) GE90-115B model turbofan engines. Emergency AD 2019-21-51 was sent previously to all known operators of the GE GE90-115B model turbofan engines with certain engine serial numbers. This AD requires the removal from service of the Interstage Seal, part number 2505M72P01, from the affected engines. This AD was prompted by a recent event involving an uncontained high-pressure turbine (HPT) failure, resulting in an aborted takeoff and debris penetrating the airplane's fuselage and the other engine. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective December 6, 2019 to all persons except those persons to whom it was made immediately effective by Emergency AD 2019-21-51, issued on October 23, 2019, which contained the requirements of this amendment.

The FAA must receive comments on this AD by January 6, 2020.

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.

For service information identified in this final rule, contact General Electric Company, GE Aviation, 1 Neumann Way, Cincinnati, OH 45125; phone: 877-432-3272; fax: 877-432-3329;

email: aviation.fleetsupport@ge.com. You may view this service information at the FAA, Engine and Propeller Standards Branch, 1200 District Avenue, Burlington, MA, 01803. For information on the availability of this material at the FAA, call 781-238-7759. It is also available on the internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0894.

Examining the AD Docket

You may examine the AD docket on the internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0894; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the regulatory evaluation, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Herman Mak, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7147; fax: 781-238-7199; Email: herman.mak@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

On October 23, 2019, the FAA issued Emergency AD 2019-21-51, which requires the removal from service of the GE GE90-115B model turbofan engine Interstage Seal, part number 2505M72P01, from the affected engines. That emergency AD was sent previously to all known operators of GE GE90-115B model turbofan engines with certain engine serial numbers. This action was prompted by a recent event involving an uncontained HPT failure, that resulted in an aborted takeoff, debris penetrating the airplane's fuselage and the other engine. This condition, if not addressed, could result in uncontained HPT failure, release of high-energy debris, damage to the engine, damage to the airplane, and loss of the airplane.

Related Service Information

The FAA reviewed GE Alert Service Bulletin GE90-100 S/B 72-A0826, dated October 23, 2019. The service information describes procedures for the removal of the Interstage Seal from affected GE GE90-115B model turbofan engines.

FAA's Determination

The FAA is issuing this AD because it evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

AD Requirements

This AD requires the removal from service of the Interstage Seal, part number 2505M72P01, from the affected engines.

FAA's Justification and Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of Emergency AD 2019-21-51, issued on October 23, 2019, to all known U.S. owners and operators of certain GE GE90-115B model turbofan engines. The FAA found that the risk to the flying public justifies waiving notice and

comment prior to adoption of this rule because the Interstage Seal must be removed within 25 flight cycles from the effective date of this AD. Additionally, no domestic operators use the affected engines. The AD is hereby published in the Federal Register as an amendment to section 39.13 of the Federal Aviation Regulations (14 CFR 39.13) to make it effective to all persons. Therefore, the FAA finds good cause that notice and opportunity for prior public comment are impracticable and unnecessary. In addition, for the reason stated above, the FAA finds that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety and was not preceded by notice and an opportunity for public comment. However, the FAA invites you to send any written data, views, or arguments about this final rule. Send your comments to an address listed under the ADDRESSES section. Include the docket number FAA-2019-0894 and Product Identifier 2019-NE-32-AD at the beginning of your comments. The FAA specifically invites comments on the overall regulatory, economic, environmental, and energy aspects of this final rule. The FAA will consider all comments received by the closing date and may amend this final rule because of those comments.

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 final rule.

Regulatory Flexibility Act

The requirements of the Regulatory Flexibility Act (RFA) do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because FAA has determined that it has good cause to adopt this rule without notice and comment, RFA analysis is not required.

Costs of Compliance

The FAA estimates that this AD affects zero engines installed on airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Action	Estimated Costs			
	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Remove the Interstage Seal	100 work-hours × \$85 per hour = \$8,500	\$509,600	\$518,100	\$0

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to engines, propellers, and associated appliances to the Manager, Engine and Propeller Standards Branch, Policy and Innovation Division.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will 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.

For the reasons discussed above, the FAA certifies that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866, and
- (2) Will not affect intrastate aviation in Alaska.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

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

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):



2019-21-51 General Electric Company: Amendment 39-19798; Docket No. FAA-2019-0894; Product Identifier 2019-NE-32-AD.

(a) Effective Date

This AD is effective December 6, 2019 to all persons except those persons to whom it was made immediately effective by Emergency AD 2019-21-51, issued on October 23, 2019, which contained the requirements of this amendment.

(b) Affected ADs

None.

(c) Applicability

This AD applies to all General Electric Company (GE) GE90-115B model turbofan engines with engine serial numbers 907451, 907464, 907504, 907564, 907574, 907599, 907601, and 907618.

(d) Subject

Joint Aircraft System Component (JASC) Code 7250, Turbine Section.

(e) Unsafe Condition

This AD was prompted by a recent event involving an uncontained high-pressure turbine (HPT) failure, resulting in an aborted takeoff, debris penetrating the aircraft's fuselage and the other engine. The FAA is issuing this AD to prevent failure of the HPT. The unsafe condition, if not addressed, could result in uncontained HPT failure, release of high-energy debris, damage to the engine, damage to the airplane, and loss of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Action

Within 25 flight cycles after the effective date of this AD, remove from service the Interstage Seal, part number 2505M72P01 with serial numbers GWN0TCL3, NCE062LD, NCE254LC, NCE314KU, NCE374LB, NCE527KT, NCE777LD, or NCE994KW.

Note 1 to paragraph (g): GE Alert Service Bulletin GE90-100 S/B 72-A0826, dated October 23, 2019, contains guidance for replacing the Interstage Seal.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, ECO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (i) of this AD. You may email your request to ANE-AD-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(i) Related Information

For more information about this AD, contact Herman Mak, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7147; fax: 781-238-7199; Email: herman.mak@faa.gov.

(j) Material Incorporated by Reference

None.

Issued in Burlington, Massachusetts, on November 14, 2019.
Robert J. Ganley,
Manager, Engine and Propeller Standards Branch,
Aircraft Certification Service.