



DATE: October 23, 2019
AD #: 2019-21-51

Emergency Airworthiness Directive (AD) 2019-21-51 is sent to owners and operators of General Electric Company (GE) Model GE90-115B model turbofan engines with certain engine serial numbers.

Background

This emergency AD was prompted by an event that occurred on October 20, 2019, in which a Boeing Model 777-300ER airplane powered by GE GE90-115B model turbofan engines experienced an uncontained high-pressure turbine (HPT) failure that resulted in an aborted takeoff. Debris impacted the aircraft fuselage and the other engine. Uncontained HPT failure, if not addressed, could result in release of high-energy debris, damage to the engine, damage to the airplane, and possible loss of the airplane.

Relevant Service Information

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

FAA's Determination

The FAA is issuing this AD because the Agency 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. Due to the need to correct an urgent safety of flight situation, good cause exists to make this AD effective in less than 30 days.

AD Requirements

This AD requires the removal from service of the GE GE90-115B model turbofan engine Interstage Seal, part number 2505M72P01, from the affected engines.

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.

Presentation of the Actual AD

The FAA is issuing this AD under 49 U.S.C. Section 44701 according to the authority delegated to me by the Administrator.

2019-21-51 General Electric Company: Product Identifier 2019-NE-32-AD.

(a) Effective Date

This Emergency AD is effective upon receipt.

(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 debris penetrating the 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 possible 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 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)(1) 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

(1) For further 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; E-mail: herman.mak@faa.gov.

(2) For service information identified in this AD, 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 referenced service information at the FAA, Engine and Propeller Standards Branch, 1200 District Avenue, Burlington, MA 01803.

Issued in Burlington, Massachusetts, on October 23, 2019.

Karen M. Grant, Acting Manager,
Engine and Propeller Standards Branch,
Aircraft Certification Service.