

**FEDERAL AVIATION ADMINISTRATION
AIRWORTHINESS DIRECTIVES**

**SMALL AIRPLANES, ROTORCRAFT, GLIDERS,
BALLOONS, & AIRSHIPS**

BIWEEKLY 2019-22

10/14/2019 - 10/27/2019



Federal Aviation Administration
Continued Operational Safety Policy Section, AIR-141
P.O. Box 25082
Oklahoma City, OK 73125-0460

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SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

AD No.	Information	Manufacturer	Applicability
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Information Key: E - Emergency; COR - Correction; S – Supersedes; R - Replaces

Biweekly 2019-01

2018-26-02	R 2016-25-19	Airbus Helicopters	AS350B3; EC130B4; EC130T2 helicopters
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Biweekly 2019-02

We published no ADs for the Small AD Biweekly during this period.

Biweekly 2019-03

2019-01-02		Aspen Avionics, Inc.	Evolution Flight Display (EFD) EFD1000 Primary Flight Display, EFD1000 Multi-Function Display (MFD), EFD1000 Emergency Backup Display, or EFD500 MFD units
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Biweekly 2019-04

2019-02-02		Pacific Aerospace Ltd.	FBA-2C1, FBA-2C2, FBA-2C3, and FBA-2C4 airplanes
2019-02-05	R 2013-11-03	Viking Air Limited	CL-215-1A10, CL-215-6B11 airplanes

Biweekly 2019-05

2014-05-06 R2	R 2014-05-06 R1	Airbus Helicopters Deutschland GmbH	EC135 P1, P2, P2+, T1, T2, and T2+; MBB-BK 117 C-2 helicopters
2018-21-14		Zodiac Aerotechnics	MC10 series crew oxygen mask regulators
2018-22-11		Safran Helicopter Engines	ASTAZOU XIV B and H model engines
2019-03-02		Pacific Aerospace Limited	750XL airplanes
2019-03-05		Bell Helicopter Textron Canada Limited	429 helicopters

Biweekly 2019-06

2019-03-12		Airbus Helicopters	EC225 LP helicopters
2019-05-03		Leonardo S.p.A.	AB139 and AW139; AW169 and AW189 helicopters
2019-05-04		MD Helicopters, Inc.	369A, 369D, 369E, 369FF, 369H, 369HE, 369HM, 369HS, 500N, and 600N helicopters
2019-05-05	R 97-26-03	Airbus Helicopters Deutschland GmbH	MBB-BK 117 A-1, MBB-BK 117 A-3, MBB-BK 117 A-4, MBB-BK 117 B-1, MBB-BK 117 B-2, and MBB-BK 117 C-1 helicopters
2019-05-06		Airbus Helicopters Deutschland GmbH	EC135P1, EC135P2, EC135P2+, EC135P3, EC135T1, EC135T2, EC135T2+, and EC135T3 helicopters

Biweekly 2019-07

We published no ADs for the Small AD Biweekly during this period.

Biweekly 2019-08

2019-04-01		HPH s. r.o.	Glasfögel 304C, Glasfögel 304CZ, and Glasfögel 304CZ-17 gliders
2019-05-15		Pilatus Aircraft Ltd	PC-7 airplanes
2019-06-04		Bell Helicopter Textron Canada Limited	429 helicopters
2019-06-05		Airbus Helicopters Deutschland GmbH	MBB-BK 117 A-1, MBB-BK 117 A-3, MBB-BK 117 A-4, MBB-BK 117 B-1, MBB-BK 117 B-2, MBB-BK 117 C-1, and MBB-BK 117 C-2 helicopters
2019-06-10		Vulcanair S.p.A.	AP68TP-300 “SPARTACUS”; AP68TP-600 “VIATOR” airplanes
2019-06-11		Pacific Aerospace Limited	750XL airplanes
2019-07-02		Robinson Helicopter Company	R66 helicopters

Biweekly 2019-09

2019-07-07		Airbus Helicopters Deutschland GmbH	BO-105A, BO-105C, BO-105S, BO105LS A-3, MBB-BK 117A-1, MBB-BK 117A-3, MBB-BK 117A-4, MBB-BK 117B-1, MBB-BK 117B-2, MBB-BK 117C-1, MBB-BK 117C-2, and MBB-BK 117D-2 helicopters
2019-07-08		GA 8 Airvan (Pty) Ltd	GA8 and Model GA8-TC320 airplanes
2019-07-10	A 2010-26-09	Northrop Grumman LITEF GmbH	LCR-100 Attitude and Heading Reference System

SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

AD No.	Information	Manufacturer	Applicability
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2019-08-51	E	Cirrus Design Corporation (Cirrus)	SF50 airplanes
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Biweekly 2019-10

We published no ADs for the Small AD Biweekly during this period.

Biweekly 2019-11

2019-08-10		Bell Helicopter Textron Canada Limited (Bell)	Model 206A, 206B, 206L, 206L-1, 206L-3, 206L-4, and 407 helicopters
2019-08-13		Textron Aviation, Inc.	Models 525, 525A, and 525B airplanes
2019-09-02	R 2018-17-01	Bell Helicopter Textron, Inc. (Bell)	Bell Model 212, 412, 412CF, and 412EP helicopters
2019-09-03		Airbus Helicopters	Model AS332C, AS332C1, AS332L, and AS332L1 helicopters
2019-10-51	E	Airbus Helicopters Deutschland GmbH (Airbus)	Model MBB-BK 117 C-2 helicopters

Biweekly 2019-12

2019-09-04		Leonardo S.p.A.	Model AW109SP helicopters
2019-10-04		BRP-Rotax GmbH & Co KG	BRP-Rotax GmbH & Co KG (Rotax) 912 F2, 912 F3, and 912 F4, 912 S2, 912 S3, and 912 S4, Rotax 914 F2, 914 F3, and 914 F4, and Rotax 912 F2, 912 F3, 912 F4, 912 S2, 912 S3, 912 S4, 914 F2, 914 F3, and 914 F4 engines
2019-10-07		Pilatus Aircraft Ltd	Models PC-6, PC-6/350, PC-6/350-H1, PC-6/350-H2, PC-6/A, PC-6/A-H1, PC-6/A-H2, PC-6/B-H2, PC-6/B1-H2, PC-6/B2-H2, PC-6/B2-H4, PC-6/C-H2, PC-6/C1-H2, PC-6-H1, PC-6-H2 airplanes
2019-11-04		Airbus Helicopters Deutschland GmbH	Model MBB-BK 117 D-2 helicopters
2019-11-05		Bell Helicopter Textron Canada Limited	429 helicopters

Biweekly 2019-13

2019-08-51		Cirrus Design Corporation	Model SF50 airplanes
2019-10-06		Aviat Aircraft Inc	Models A-1C-180 and A-1C-200 airplanes
2019-11-07		Rolls-Royce plc	(RR) RB211-524G2-19, RB211-524G2-T-19, RB211-524G3-19, RB211-524G3-T-19, RB211-524H2-19, RB211-524H2-T-19, RB211-524H-36 and RB211-524H-T-36 engines
2019-11-08		International Aero Engines	PW1133G-JM, PW1133GA-JM, PW1130G-JM, PW1129G-JM, PW1127G-JM, PW1127GA-JM, PW1127G1-JM, PW1124G-JM, PW1124G1-JM, and PW1122G-JM model turbofan engines
2019-12-01		CFM International S.A	LEAP-1B21, -1B23, -1B25, -1B27, -1B28, -1B28B1, -1B28B2, -1B28B3, -1B28B2C, -1B28BBJ1, and -1B28BBJ2 model turbofan
2019-12-05		CFM International S.A	CFM56-5B1, -5B2, -5B4, -5B5, -5B6, -5B7, -5B1/P, -5B2/P, -5B3/P, -5B4/P, -5B5/P, -5B6/P, -5B7/P, -5B8/P, -5B9/P, -5B3/P1, -5B4/P1, -5B1/2P, -5B2/2P, -5B3/2P, -5B4/2P, -5B6/2P, -5B9/2P, -5B3/2P1, -5B4/2P1, -7B20, -7B22, -7B24, -7B26, -7B27, -7B22/B1, -7B24/B1, -7B26/B1, -7B26/B2, -7B27/B1, -7B27/B3, -7B20/2, -7B22/2, -7B24/2, -7B26/2, -7B27/2, -7B27A model turbofan engines

Biweekly 2019-14

2019-12-06		Leonardo S.p.A.	Model AW139 helicopters
2019-12-12		Piper Aircraft, Inc.	Model PA-46-600TP (M600) airplanes
2019-12-14		Airbus Helicopters Deutschland GmbH	Model MBB-BK 117 C-2 helicopters
2019-12-15		Leonardo S.p.A	Model AB139 and AW139 helicopters
2019-12-18		Robinson Helicopter Company	Model R44 II helicopters

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Biweekly 2019-15

2019-12-09		Rockwell Collins, Inc.	Flight Display System
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Biweekly 2019-16

2019-13-03		Trig Avionics Limited	TT31 Mode S transponders, AXP340 Mode S transponders and KT74 Mode S transponders
2019-13-05		Sikorsky Aircraft Corporation	Model S-92A helicopters
2019-14-01		Rolls-Royce Deutschland Ltd & Co KG	TAY 650-15 and TAY 651-54 turbofan engines
2019-14-05		B/E Aerospace Fischer GmbH	Common Seats 170/260 H160
2019-15-05		Rolls-Royce Deutschland Ltd & Co KG	Trent 1000-AE3, Trent 1000-CE3, Trent 1000-D3, Trent 1000-G3, Trent 1000-H3, Trent 1000-J3, Trent 1000-K3, Trent 1000-L3, Trent 1000-M3, Trent 1000-N3, Trent 1000-P3, Trent 1000-Q3 and Trent 1000-R3 engines

Biweekly 2019-17

2019-14-11		Diamond Aircraft Industries GmbH	Model DA 42 NG and Model DA 42 M-NG airplanes
2019-15-06	R 2018-22-07	Engine Alliance	GP7270, GP7272, and GP7277 model turbofan engines
2019-16-01		International Aero Engines AG	AG (IAE) V2525-D5 and V2528-D5 model turbofan engines
2019-16-02		GE Honda Aero Engines	HF120 model turbofan engines
2019-16-04	R 2019-03-04	Engine Alliance	GP7270 and GP7277 model turbofan engines

Biweekly 2019-18

2019-16-14	R 2018-25-01	Rolls-Royce Deutschland Ltd & Co KG	Trent 1000-A, Trent 1000-AE, Trent 1000-C, Trent 1000-CE, Trent 1000-D, Trent 1000-E, Trent 1000-G, and Trent 1000-H turbofan
2019-16-15		Pratt & Whitney	PW1519G, PW1521G, PW1521GA, PW1524G, PW1525G, PW1521G-3, PW1524G-3, PW1525G-3, PW1919G, PW1921G, PW1922G, PW1923G, and PW1923G-A model turbofan

Biweekly 2019-19

2019-10-51		Airbus Helicopters Deutschland GmbH	MBB-BK 117 C-2 helicopters
2019-16-16	R 2018-18-02	Airbus Helicopters	AS350B, AS350B1, AS350B2, AS350B3, and AS350BA helicopters
2019-17-02		Airbus Helicopters Deutschland GmbH	EC135P1, EC135P2, EC135P2+, EC135P3, EC135T1, EC135T2, EC135T2+, and EC135T3 helicopters
2019-18-01		International Aero Engines AG	AG V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, and V2533-A5 model turbofan
2019-18-02		Leonardo S.p.A	AW169 helicopters

Biweekly 2019-20

2019-18-08	R 2019-16-04	Engine Alliance	GP7270 and GP7277 model turbofan
2019-19-11		Pratt & Whitney	PW1519G, PW1521G, PW1521GA, PW1524G, PW1525G, PW1521G-3, PW1524G-3, PW1525G-3, PW1919G, PW1921G, PW1922G, PW1923G, and PW1923G-A turbofan engines

Biweekly 2019-21

2019-19-12	R 2018-10-07	Sikorsky Aircraft Corporation	Model S-76C helicopters
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Biweekly 2019-22

2019-19-13		Airbus Helicopters	EC225LP helicopters
2019-20-05	R 2018-15-01	Rolls-Royce Deutschland Ltd & Co KG	Trent 1000-A, Trent 1000-A2, Trent 1000-AE, Trent 1000-AE2, Trent 1000-AE3, Trent 1000-C, Trent 1000-C2, Trent 1000-CE, Trent 1000-CE2, Trent 1000-CE3, Trent 1000-D, Trent 1000-D2, Trent 1000-D3, Trent 1000-E, Trent 1000-E2, Trent 1000-G, Trent 1000-G2, Trent 1000-G3, Trent 1000-H, Trent 1000-H2, Trent 1000-H3, Trent 1000-J2, Trent 1000-J3, Trent 1000-K2, Trent 1000-K3, Trent 1000-L2, Trent 1000-L3, Trent 1000-M3, Trent 1000-N3, Trent 1000-P3, Trent 1000-Q3 and Trent 1000-R3 model turbofan
2019-21-51	E	General Electric Company	GE90-115B model turbofan



2019-19-13 Airbus Helicopters: Amendment 39-19749; Docket No. FAA-2019-0738; Product Identifier 2019-SW-017-AD.

(a) Applicability

This AD applies to Airbus Helicopters Model EC225LP helicopters, certificated in any category, with a main rotor gearbox (MGB) part number (P/N) 332A325001.XX, P/N 332A325002.XX, or P/N 332A325003.XX, with a main reduction gear module (main module), with modification (MOD) 07-53016 (16-roller free wheel of free wheel shaft P/N 332A322191.20) installed, P/N 332A325011.XX, P/N 332A325012.XX, or P/N 332A325013.XX, with “XX” denoting any dash number.

(b) Unsafe Condition

This AD defines the unsafe condition as wear of the ramps of the right-hand side (RH) free wheel shaft. During an in-flight shutdown of the left-hand side (LH) engine, this condition could result in reduced ability to transfer one engine inoperative (OEI) power from the RH engine to the main rotor, and subsequent reduced control of the helicopter.

(c) Effective Date

This AD becomes effective November 5, 2019.

(d) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(e) Required Actions

(1) Within 10 hours time-in-service (TIS), determine the total hours TIS of the RH and LH free wheel shafts since new or last RH free wheel shaft replacement during overhaul. For the purpose of this AD, if the total hours TIS of the RH and LH free wheel shafts are different, use the greater number of total hours TIS as the RH free wheel shaft total hours TIS.

(i) If the total hours TIS of the RH free wheel shaft is 1,000 or more hours TIS, before further flight, replace the MGB or replace the RH free wheel shaft under the supervision of an Airbus Helicopter Specialist that is qualified for this replacement.

(ii) If the total hours TIS of the RH free wheel shaft is less than 1,000 hours TIS, before exceeding 1,000 hours TIS, replace the MGB or replace the RH free wheel shaft under the supervision of an Airbus Helicopter Specialist that is qualified for this replacement.

(2) Within 10 hours TIS:

(i) Install one or two self-adhesive placards on the instrument panel in full view of the pilot and co-pilot with 6-millimeter red letters on a white background that state the information contained in Figure 1 to paragraph (e)(2)(i) of this AD. Refer to Figure 1 of Airbus Helicopters Emergency Alert Service Bulletin No. 04A016, Revision 1, dated June 28, 2019, for an example of this placard.

**The use of ENG1 “TRAINING IDLE”
switch is prohibited.**

**ENG2 “TRAINING IDLE” switch must be
systematically used.**

Figure 1 to Paragraph (e)(2)(i)

(ii) After installing the placard(s) required by paragraph (e)(2)(i) of this AD, before further flight, revise the limitations section of the Rotorcraft Flight Manual (RFM) for your helicopter by adding the information in Figure 2 to paragraph (e)(2)(ii) of this AD, by inserting a copy of this AD, or by making pen-and-ink changes. This action may be done by the owner/operator (pilot) holding at least a private pilot certificate and must be entered into the aircraft records showing compliance with this AD by following 14 CFR 43.9 (a)(1) through (4) and 14 CFR 91.417(a)(2)(v). The record must be maintained as required by 14 CFR 91.417, 121.380, or 135.439

The use of ENG1 “TRAINING IDLE” switch is prohibited.

ENG2 “TRAINING IDLE” switch must be systematically used.

**Accomplishment of OEI training flight is allowed, provided that
only ENG2 “TRAINING IDLE” switch is used for that purpose.**

Figure 2 to Paragraph (e)(2)(ii)

(3) After the effective date of this AD, do not install an MGB P/N 332A325001.XX, P/N 332A325002.XX, or P/N 332A325003.XX, with a main reduction gear module (main module), with modification (MOD) 07-53016 (16-roller free wheel of free wheel shaft P/N 332A322191.20) installed, P/N 332A325011.XX, P/N 332A325012.XX, or P/N 332A325013.XX, with “XX” denoting any dash number unless the requirements of paragraph (e)(2) of this AD have been accomplished.

(4) As an optional terminating action for the requirements of this AD, install MGB P/N 332A325001.XX, P/N 332A325002.XX, or P/N 332A325003.XX, with a main module (12-roller free wheel), without MOD 07-53016 installed, P/N 332A325011.XX, P/N 332A325012.XX, or P/N 332A325013.XX, with “XX” denoting any dash number.

(f) Credit for Previous Actions

Actions accomplished before the effective date of this AD by following the procedures specified in Airbus Helicopters Emergency Alert Service Bulletin No. 04A016, Revision 1, dated June 28, 2019, are considered acceptable for compliance with the corresponding requirements specified in paragraphs (e)(1) through (e)(2)(i) of this AD.

(g) Special Flight Permits

A one-time special flight permit to a maintenance facility may be permitted.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Section, Rotorcraft Standards Branch, FAA, may approve AMOCs for this AD. Send your proposal to Rao Edupuganti, Aviation Safety Engineer, Regulations and Policy Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email 9-ASW-FTW-AMOC-Requests@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, the FAA suggests that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

(i) Additional Information

(1) Airbus Helicopters Emergency Alert Service Bulletin No. 04A016, Revision 1, dated June 28, 2019, which is not incorporated by reference, contains additional information about the subject of this AD. For service information identified in this AD, contact Airbus Helicopters, 2701 N Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at http://www.helicopters.airbus.com/website/en/ref/Technical-Support_73.html. You may review a copy of the service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177.

(2) The subject of this AD is addressed in European Aviation Safety Agency (EASA) No. 2019-0152-E, dated June 28, 2019. You may view the EASA AD on the internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2019-0738.

(j) Subject

Joint Aircraft Service Component (JASC) Code: 6320, Main Rotor Gearbox.

Issued in Fort Worth, Texas, on September 30, 2019.

Lance T. Gant,
Director, Compliance & Airworthiness Division,
Aircraft Certification Service.



2019-20-05 Rolls-Royce Deutschland Ltd & Co KG (Type Certificate previously held by Rolls-Royce plc) Turbofan Engines: Amendment 39-19758; Docket No. FAA-2019-0693; Product Identifier 2017-NE-43-AD.

(a) Effective Date

This AD is effective October 30, 2019.

(b) Affected ADs

This AD replaces AD 2018-15-01, Amendment 39-19333 (83 FR 34755, July 23, 2018).

(c) Applicability

This AD applies to Rolls-Royce Deutschland Ltd. & Co KG (Type Certificate previously held by Rolls-Royce plc) (RRD) Trent 1000-A, Trent 1000-A2, Trent 1000-AE, Trent 1000-AE2, Trent 1000-AE3, Trent 1000-C, Trent 1000-C2, Trent 1000-CE, Trent 1000-CE2, Trent 1000-CE3, Trent 1000-D, Trent 1000-D2, Trent 1000-D3, Trent 1000-E, Trent 1000-E2, Trent 1000-G, Trent 1000-G2, Trent 1000-G3, Trent 1000-H, Trent 1000-H2, Trent 1000-H3, Trent 1000-J2, Trent 1000-J3, Trent 1000-K2, Trent 1000-K3, Trent 1000-L2, Trent 1000-L3, Trent 1000-M3, Trent 1000-N3, Trent 1000-P3, Trent 1000-Q3 and Trent 1000-R3 model turbofan engines, with an engine serial number (ESN) listed in Appendix 1, 2, or 3 of Rolls-Royce plc (RR) Alert Non-Modification Service Bulletin (NMSB) Trent 1000 72-AK186, Revision 2, dated April 16, 2019, except those engines that have incorporated the modifications in RR Service Bulletin (SB) Trent 1000 72-H818, dated November 14, 2016, or RR SB Trent 1000 72-J559, dated November 27, 2017.

(d) Subject

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

(e) Unsafe Condition

This AD was prompted by the determination that certain intermediate-pressure turbine (IPT) blades are susceptible to shank corrosion which leads to cracking and possible blade separation. The FAA is issuing this AD to prevent the simultaneous failure of both engines installed on an airplane, during flight. The unsafe condition, if not addressed, could result in a dual engine in-flight shutdown and loss of the airplane.

(f) Compliance

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

(g) Required Actions

(1) For engines with an ESN listed in Appendix 1 of RR Alert NMSB Trent 1000 72-AK186, Revision 2, dated April 16, 2019 (“RR Alert NMSB Trent 1000 72-AK186”), prior to reaching the blade cycle life limit listed in Appendix 1 of RR Alert NMSB Trent 1000 72-AK186, or within 30 days of the effective date of this AD, whichever occurs later, remove the IPT blade set and replace with an IPT blade set eligible for installation.

(2) For engines with an ESN listed in Appendix 2 of RR Alert NMSB Trent 1000 72-AK186:

(i) If the engine is in an engine shop visit on the effective date of this AD, remove the IPT blade set and replace with an IPT blade set eligible for installation prior to returning the engine to service; or

(ii) If the engine is not in an engine shop visit on the effective date of this AD and the IPT blade set was not replaced during the previous engine shop visit, remove the IPT blade set and replace with an IPT blade set eligible for installation within 30 days of the effective date of this AD.

(3) For engines that have replaced the IPT blade set per RR NMSB Trent 1000 72-J442, Revision 3, dated October 8, 2018, or RR NMSB Trent 1000 72-J465, Revision 4, dated October 8, 2018, as applicable, remove and replace those blades prior to reaching the “Permitted Cycles of operation since installation in accordance with NMSB 72-J442 or 72-J465” listed in Appendix 3 of RR Alert NMSB Trent 1000 72-AK186, as applicable for each ESN, or within 30 days of the effective date of this AD, whichever occurs later.

Note 1 to paragraph (g): An IPT blade set eligible for installation is a full set of new IPT blades, or a full set of blades that have been inspected per RR NMSB Trent 1000 72-J442, Revision 3, dated October 8, 2018, or RR NMSB Trent 1000 72-J465 Revision 4, October 8, 2018, as applicable by engine model.

(h) Definition

For the purpose of this AD, an “engine shop visit” is the induction of an engine into the shop for maintenance involving the separation of pairs of major mating engine case flanges, except that the separation of engine flanges solely for the purposes of transportation without subsequent engine maintenance does not constitute an engine shop visit.

(i) 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 (j)(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.

(j) Related Information

(1) For more information about this AD, contact Martin Adler, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7088; fax: 781-238-7157; email: martin.adler@faa.gov.

(2) Refer to European Union Aviation Safety Agency (EASA) AD 2019-0135, dated June 11, 2019, for more information. You may examine the EASA AD in the AD docket on the internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2019-0693.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Rolls-Royce plc (RR) Alert Non-Modification Service Bulletin Trent 1000 72-AK186, Revision 2, dated April 16, 2019.

(ii) [Reserved]

(3) For RR service information identified in this AD, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, England, DE24 8BJ; phone: 011-44-1332-242424; fax: 011-44-1332-249936; email: http://www.rolls-royce.com/contact/civil_team.jsp; internet: <https://customers.rolls-royce.com/public/rollsroycecare>.

(4) You may view this service information at 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.

(5) You may view this service information at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fedreg.legal@nara.gov, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Burlington, Massachusetts, on October 3, 2019.

Robert J. Ganley,
Manager, Engine & Propeller Standards Branch,
Aircraft Certification Service.



FAA
Aviation Safety

EMERGENCY AIRWORTHINESS DIRECTIVE

www.faa.gov/aircraft/safety/alerts/

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.