

# **FEDERAL AVIATION ADMINISTRATION AIRWORTHINESS DIRECTIVES**

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

**BIWEEKLY 2016-24**

*11/14/2016 - 11/27/2016*



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 2016-01**

2015-26-04	S 2002-13-11	Airbus Helicopters	EC120B helicopters
2015-26-08		Piper Aircraft, Inc.	PA-44-180, PA-44-180T airplanes
2015-26-10		Sikorsky Aircraft Corporation	S-76A, S-76B, and S-76C helicopters

**Biweekly 2016-02**

2015-12-09 R1	R 2015-12-09	Airbus Helicopters Deutschland GmbH	EC135P1, EC135T1, EC135P2, EC135T2, EC135P2+, EC135T2+, and MBB-BK 117 C-2
2016-01-01		Piper Aircraft, Inc.	PA-46-500TP
2016-01-06		Agusta S.p.A.	AB139 and AW139
2016-01-14		Airbus Helicopters Deutschland GmbH	MBB-BK 117 A-1, A-3, A-4, B-1, B-2, C-1, and C-2
2016-01-15		Agusta S.p.A.	AB139 and AW139
2016-01-19		MD Helicopters Inc.	500N and 600N

**Biweekly 2016-03**

2015-22-51		Agusta S.p.A.	A109A and A109AII helicopters
2016-02-06		Bell Helicopter Textron Canada Limited	429 helicopters

**Biweekly 2016-04**

2016-03-02		Turbomeca S.A.	ARRIEL 2C, 2C1, 2C2, 2S1, and 2S2 turboshaft engines
2016-03-05	S 2014-13-01	Airbus Helicopters Deutschland GmbH	MBB-BK 117 C-2 and MBB-BK 117 D-2 helicopters
2016-04-05	S 2014-03-18	B-N Group Ltd.	BN-2, BN-2A, BN-2A-2, BN-2A-3, BN-2A-6, BN-2A-8, BN-2A-9, BN-2A-20, BN-2A-21, BN-2A-26, BN-2A-27, BN-2B-20, BN-2B-21, BN-2B-26, BN-2B-27, BN2A MK. III, BN2A MK. III-2, and BN2A MK. III-3 airplanes

**Biweekly 2016-05**

2016-04-04		M7 Aerospace LLC	SA26-AT, SA226-T(B), SA226-AT, SA226-T, SA226-TC, SA227-AC (C-26A), SA227-AT, SA227-BC (C-26A), SA227-CC, SA227-DC (C-26B), and SA227-TT
2016-04-14		Turbomeca S.A.	Arriel 1E2
2016-04-15		MD Helicopters Inc.	369A, 369D, 369E, 369FF, 369HE, 369HM, 369HS, 500N, and 600N
2016-05-06	S 2014-07-52	Airbus Helicopters	AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350C, AS350D, AS350D1, AS355E, AS355F, AS355F1, AS355F2, AS355N, and AS355NP

**Biweekly 2016-06**

2016-04-12		Turbomeca S.A.	Arriel 2B, 2B1, 2C, 2C1, 2C2, 2D, 2E, 2S1, and 2S2 turboshaft engines
2016-05-01	R 96-12-12	Piper Aircraft, Inc.	PA-31, PA-31-300, PA-31-325 and PA-31-350
2016-05-08	R 2006-23-17	Turbomeca S.A.	Turmo IV A and IV C turboshaft engines.
2016-05-09		MD Helicopters, Inc.	369A (Army OH-6A), 369H, 369HE, 369HM, 369HS, and 369D; 369E, 369F and 369FF, 500N
2016-05-10		Airbus Helicopters	AS 365 N3, EC 155B, and EC155B1
2016-05-11		Sikorsky Aircraft Corporation	S-92A
2016-05-13		Pratt & Whitney Canada Corp.	PT6A-60AG, BS919 and BS1048; PT6A-65AG, BS708, BS903, BS1101, and BS1102; PT6A-67AF; and PT6A-67AG
2016-06-01	S 2007-06-06	B-N Group Ltd.	BN-2, BN-2A, BN-2A-2, BN-2A-3, BN-2A-6, BN-2A-8, BN-2A-9, BN-2A-20, BN-2A-21, BN-2A-26, BN-2A-27, BN-2B-20, BN-2B-21, BN-2B-26, BN-2B-27, BN2A MK. III, BN2A MK. III-2, BN2A MK. III-3 BN2A, BN2B, and BN2A MKIII, BN2A, BN2B, and BN2A MKIII

**Biweekly 2016-07**

2016-06-09		Turbomeca S.A.	Makila 2A and 2A1
2016-07-01	S 2014-07-04R1	Sikorsky Aircraft Corporation	S-92A
2016-07-02		Honeywell International Inc.	TFE731-4, -4R, -5AR, -5BR, and -5R
2016-07-11		Weatherly Aircraft Company	201, 201A, 201B, 201C, 620, 620A, 620B, 620B-TG, and 620TP

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

AD No.	Information	Manufacturer	Applicability
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**Biweekly 2016-08**

2016-07-13		GE Aviation Czech s.r.o	M601E-11
2016-07-19		Technify Motors GmbH	TAE 125-02-99 and TAE 125-02-114
2016-07-21	R 2015-20-13	Piper Aircraft, Inc.	PA-28-161, PA-28-181, and PA-28R-201
2016-07-24		Textron Aviation, Inc.	310 through 310R, E310H, E310J, T310P through T310R, 310J-1, 320 through 320F, 320-1, 335, 340, 340A, 401 through 401B, 402 through 402C, 411, 411A, 414, 414A, and 421 through 421C
2016-07-26	R 2010-23-02	Airbus Helicopters	SA-365N, SA-365N1, AS-365N2, and AS 365 N3
2016-07-27		Airbus Helicopters	SA341G and SA342J
2016-07-29		Airbus Helicopters	EC225LP, AS332C, AS332L, AS332L1, and AS332L2
2016-08-08	S 92-06-10	SOCATA	MS 880B, MS 885, MS 892A-150, MS 892E-150, MS 893A, MS 893E, MS 894A, MS 894E, Rallye 100S, Rallye 150ST, Rallye 150T, Rallye 235E, and Rallye 235C

**Biweekly 2016-09**

2016-08-16		Turbomeca S.A.	Arriel 2E turboshaft engines
2016-08-17	2010-19-51	Bell Helicopter Textron Canada	222, 222B, 222U, 230, and 430 helicopters
2016-08-21		Kaman Aerospace Corporation	K-1200 helicopters

**Biweekly 2016-10**

2015-09-04 R1	R 2015-09-04	DG Flugzeugbau GmbH	DG-1000T gliders
2016-06-06		Quest Aircraft Design, LLC	KODIAK 100 airplanes
2016-08-18		Piper Aircraft, Inc	PA-31-350 airplanes
2016-08-19		Mitsubishi Heavy Industries, Ltd	MU-2B-30, MU-2B-35, and MU-2B-36 , MU-2B-36A and MU-2B-60 airplanes,
2016-08-20	S 2014-12-51	Airbus Helicopters (Previously Eurocopter France)	EC130B4 and EC130T2
2016-09-02		Turbomeca S.A.	Astazou XIV B and XIV H turboshaft engines
2016-09-09	S 2013-08-17	Airbus Helicopters (Previously Eurocopter France)	SA-365N, SA-365N1, AS-365N2, AS 365 N3, and SA-366G1 helicopters
2016-10-01		M7 Aerospace LLC	SA226-AT, SA226-T, SA226-T (B), SA226-TC, SA227-AC (C-26A), SA227-AT, SA227-BC (C-26A), SA227-CC, SA227-DC (C-26B), and SA227-TT airplanes
2016-10-03		Viking Air Limited	DHC-3 airplanes

**Biweekly 2016-11**

2016-10-03	COR.	Viking Air Limited	DHC-3 airplanes
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**Biweekly 2016-12**

2016-11-09		Turbomeca S.A.	Arriel 1D and 1D1
2016-11-10	S 2000-20-11	BLANIK LIMITED	L-13 Blanik and L-13 AC Blanik
2016-11-11		EVEKTOR, spol. s.r.o.	L 13 SEH VIVAT and L 13 SDM VIVAT
2016-11-12	S 2000-20-12	EVEKTOR, spol. s.r.o.	L 13 SEH VIVAT and L 13 SDM VIVAT
2016-11-13	S 99-19-33	BLANIK LIMITED	L-13 Blanik and L-13 AC Blanik
2016-11-20		B/E Aerospace	Protective Breathing Equipment (PBE)
2016-11-21		Airbus Helicopters Deutschland GmbH	EC135P1, EC135P2, EC135P2+, EC135T1, EC135T2, and EC135T2+
2016-12-01		Pilatus Aircraft LTD.	PC-12, PC-12/45, PC-12/47, and PC-12/47E
2016-12-02		Various Aircraft	See AD
2016-12-51	E	Airbus Helicopters	AS332L2 and Model EC225LP

**Biweekly 2016-13**

2016-12-06		Turbomeca S.A.	MAKILA 2A and MAKILA 2A1 turboshaft engines
2016-12-07	S 2010-11-10	Turbomeca S.A.	Astazou XIV B and XIV H turboshaft engines
2016-12-08		GROB Aircraft AG	G115EG airplanes
2016-12-13	S 2000-05-17	Airbus Helicopters	EC120B helicopters
	S 2001-04-12		
2016-13-04		BRP-Powertrain GmbH & Co KG	Rotax model 912 F2, 912 F3, 912 F4, 912 S2, 912 S3, 912 S4, 914 F2, 914 F3, and 914 F4 reciprocating engines

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**Biweekly 2016-14**

2016-12-51		Airbus Helicopters	AS332L2 and EC225LP
2016-13-07		Airbus Helicopters	AS 365 N3
2016-14-05	R 2008-15-06	Textron Aviation Inc	175, 175A
2016-14-06	R 2006-13-05	Pacific Aerospace Limited	750XL

**Biweekly 2016-15**

2016-15-02		M7 Aerospace LLC	SA26-AT, SA26-T, SA226-AT, SA226-T, SA226-T(B), SA226-TC, SA227-AC (C-26A), SA227-AT, SA227-BC (C-26A), SA227-CC, SA227-DC (C-26B), and SA227-TT
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**Biweekly 2016-16**

2016-16-03		Pacific Aerospace Limited	FU24-954 and FU24A-954
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**Biweekly 2016-17**

2016-16-12		Continental Motors, Inc.	-520 and -550 reciprocating
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**Biweekly 2016-18**

2016-17-04		All Hot Air Balloons	with BALÓNY KUBÍČEK spol. s r.o. Model Kubíček burners.
2016-17-05	S 2009-13-04	RUAG Aerospace Services GmbH	228-100, 228-101, 228-200, 228-201, 228-202, and 228-212
2016-17-07		PILATUS Aircraft Ltd	PC-7
2016-17-08	R 2016-07-24	Textron Aviation, Inc.	310 through 310R, E310H, E310J, T310P through T310R, 310J-1, 320 through 320F, 320-1, 335, 340, 340A, 401 through 401B, 402 through 402C, 411, 411A, 414, 414A, and 421 through 421C
2016-18-05		PILATUS AIRCRAFT LTD	PC-12, PC-12/45, PC-12/47, and PC-12/47E

**Biweekly 2016-19**

2016-17-04 R1	R 2016-17-04	ALL HOT AIR BALLOONS	With a BALÓNY KUBÍČEK spol. s r.o. Model Kubíček burner; and fuel hose(s) made of "EGEFLEX" material.
2016-18-18		Agusta S.p.A.	A109A, A109A II, A109C, A109E, A109K2, A109S, and AW109SP

**Biweekly 2016-20**

2016-18-17		Honeywell International Inc.	TPE331-3U, -3UW, -5, -5A, -5AB, -5B, -6, -6A, -8, -10, -10AV, -10GP, -10GT, -10N, -10P, -10R, -10T, -10U, -10UA, -10UF, -10UG, -10UGR, -10UR, and -11U; and TSE331-3U
2016-19-08		Viking Air Limited	DHC-2 Mk. I, DHC-2 Mk. II, and DHC-2 Mk. III
2016-19-15		REIMS AVIATION S.A.	F406
2016-20-01		Bell Helicopter Textron Canada Limited	427 and 429

**Biweekly 2016-21**

2016-20-04		Airbus Helicopters	SA 341G and SA 342J
2016-21-01		Bell Helicopter Textron	430
2016-21-04		Continental Motors, Inc.	TSIO-550-K, TSIOF-550-K, TSIO-550-C, TSIOF-550-D, and TSIO-550-N reciprocating engines

**Biweekly 2016-22**

2016-21-02		Sikorsky Aircraft Corporation	S-92A
2016-21-03		Airbus Helicopters	MBB-BK 117 C-2
2016-21-07	R 2015-12-04	Honeywell International Inc.	TPE331-1, -2, -2UA, -3U, -3UW, -5, -5A, -5AB, -5B, -6, -6A, -10, -10AV, -10GP, -10GT, -10P, -10R, -10T, -10U, -10UA, -10UF, -10UG, -10UGR, -10UR, -11U, -12JR, -12UA, -12UAR, and -12UHR
2016-22-01		Schempp-Hirth Flugzeugbau GmbH	Discus-2a, Discus-2b, Discus-2c, Discus 2cT, Ventus-2a, Ventus-2b
2016-22-02		Embraer S.A.	EMB-500, EMB-505
2016-22-06		Diamond Aircraft Industries GmbH	DA 40 NG, DA 42 NG, DA 42 M-NG
2016-22-07	S 75-26-05	Bell Helicopter Textron	204B, 205A, and 205A-1

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AD No.	Information	Manufacturer	Applicability
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2016-22-08		Airbus Helicopters Deutschland GmbH Helicopters	MBB-BK 117 C-2
<b>Biweekly 2016-23</b>			
2016-22-12		Pilatus Aircraft Ltd.	PC-6, PC-6-H1, PC-6-H2, 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, and PC-6/C1-H2
2016-23-03		Diamond Aircraft Industries GmbH	DA 40 NG
<b>Biweekly 2016-24</b>			
2016-23-04		BRP-Powertrain GmbH & Co KG	Rotax model 912 F2, 912 F3, 912 F4, 912 S2, 912 S3, and 912 S4 engines, and Rotax 914 F2, 914 F3, and 914 F4 engines
2016-23-05	S 2007-25-08	Airbus Helicopters	SA-365N1, AS-365N2, AS 365 N3, SA-366G1, EC 155B, and EC155B1
2016-23-06		Various Aircraft	See AD
2016-23-09		Various Restricted Category Helicopters	TH-1F, UH-1B, UH-1F, UH-1H, and UH-1P helicopters
2016-23-10		Sikorsky Aircraft Corporation	S-76D helicopters
2016-24-51	E	Sikorsky Aircraft Corporation	S-92A helicopters



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**2016-23-04 BRP-Powertrain GmbH & Co KG (formerly BRP-Rotax GmbH & Co KG, Bombardier-Rotax GmbH & Co. KG, and Bombardier-Rotax GmbH):** Amendment 39-18711; Docket No. FAA-2016-9103; Directorate Identifier 2016-NE-18-AD.

**(a) Effective Date**

This AD is effective December 7, 2016.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to BRP-Powertrain GmbH & Co KG Rotax model 912 F2, 912 F3, 912 F4, 912 S2, 912 S3, and 912 S4 engines, and Rotax 914 F2, 914 F3, and 914 F4 engines with:

(1) Engine serial numbers (S/Ns) listed in Planning Information, Paragraph 1, Criterion A, of BRP-Powertrain GmbH & Co KG Alert Service Bulletin (ASB) ASB-912-069R1/ASB-914-051R1 (one document), Revision 1, dated July 22, 2016.

(2) Carburetor part numbers (P/Ns) and S/Ns listed in Planning Information, Paragraph 1, Criterion B, of BRP-Powertrain GmbH & Co KG ASB ASB-912-069R1/ASB-914-051R1 (one document), Revision 1, dated July 22, 2016; or

(3) Carburetor floats, P/N 861185, that do not have 3 dots molded on the surface, and installed after May 9, 2016.

**(d) Reason**

This AD was prompted by a report of a quality escape in the manufacturing of the affected carburetor floats. We are issuing this AD to prevent failure of the carburetor float, failure of the engine, in-flight shutdown, and loss of the airplane.

**(e) Actions and Compliance**

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

(1) Within 25 flight hours (FHs) or 30 days after the effective date of this AD, replace any affected carburetor float with a float that is eligible for installation in accordance with the Accomplishment Instructions, Paragraph 3, of BRP-Powertrain GmbH & Co KG Rotax ASB ASB-912-069R1/ASB-914-051R1 (one document), Revision 1, dated July 22, 2016.

(2) After the effective date of this AD, do not install on any engine a carburetor float, P/N 861185, delivered between May 8, 2016, and July 17, 2016, that does not have 3 dots molded into the surface. If the delivery date is not documented, do not install the part.

**(f) Alternative Methods of Compliance (AMOCs)**

The Manager, Engine Certification Office, FAA, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request. You may email your request to: ANE-AD-AMOC@faa.gov.

**(g) Related Information**

(1) For more information about this AD, contact Michael Richardson-Bach, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7747; fax: 781-238-7199; email: michael.richardson-bach@faa.gov.

(2) Refer to MCAI European Aviation Safety Agency AD 2016-0144, dated July 19, 2016 (corrected July 25, 2016), for more information. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2016-9103.

**(h) 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) BRP-Powertrain GmbH & Co KG Alert Service Bulletin ASB-912-069R1/ASB-914-051R1 (one document), Revision 1, dated July 22, 2016.

(ii) Reserved.

(3) For BRP-Powertrain GmbH & Co KG service information identified in this AD, contact BRP-Powertrain GmbH & Co KG, Rotaxstrasse 1, A-4623 Gunskirchen, Austria; phone: +43 7246 6010; fax: +43 7246 601 9130; email: [airworthiness@brp.com](mailto:airworthiness@brp.com); Internet: <http://www.FLYROTAX.com>.

(4) You may view this service information at FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call 781-238-7125.

(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, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Burlington, Massachusetts, on November 7, 2016.

Ann C. Mollica,  
Acting Directorate Manager, Engine & Propeller Directorate,  
Aircraft Certification Service.



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**2016-23-05 Airbus Helicopters (Previously Eurocopter France):** Amendment 39-18712; Docket No. FAA-2016-9396; Directorate Identifier 2016-SW-034-AD.

**(a) Applicability**

This AD applies to Model SA-365N1, AS-365N2, AS 365 N3, SA-366G1, EC 155B, and EC155B1 helicopters with a tail rotor gearbox (TGB) pitch control rod assembly double bearing (bearing) part number (P/N) 704A33-651-093 or P/N 704A33-651-104 installed, certificated in any category.

**(b) Unsafe Condition**

This AD defines the unsafe condition as damage to the bearing, which could result in end play, loss of tail rotor pitch control, and subsequent loss of control of the helicopter.

**(c) Affected ADs**

This AD supersedes AD 2007-25-08, Amendment 39-15290 (72 FR 69604, December 10, 2007).

**(d) Effective Date**

This AD becomes effective December 12, 2016.

**(e) 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.

**(f) Required Actions**

(1) Before further flight and thereafter at the following intervals, check the TGB oil level:

(i) For Model SA-365N1, AS-365N2, and AS 365 N3 helicopters, at intervals not to exceed 10 hours time-in-service (TIS).

(ii) For Model SA366G1 helicopters, before the first flight of each day.

(iii) For Model EC 155B and EC155B1 helicopters, at intervals not to exceed 15 hours TIS.

(iv) The actions required by paragraph (f)(1) of this AD may be performed 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 in accordance with 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.

(2) If the oil level is not at maximum, before further flight, a qualified mechanic must fill it to the maximum level.

(3) Within 15 hours TIS, replace the bearing P/N 704A33-651-093 or P/N 704A33-651-104 with a bearing P/N 704A33-651-245 or P/N 704A33-651-246.

(4) Do not install bearing P/N 704A33-651-093 or P/N 704A33-651-104 on any helicopter.

**(g) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: David Hatfield, Aviation Safety Engineer, Safety Management Group, Rotorcraft Directorate, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5116; 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, we suggest 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.

**(h) Additional Information**

(1) Airbus Helicopters Alert Service Bulletin No. AS365-01.00.67, No. EC155-04A014, and No. SA366-01.29, each Revision 0 and dated May 4, 2016, which are not incorporated by reference, contain additional information about the subject of this final rule. 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.airbushelicopters.com/techpub>. 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) AD No. 2016-0097R1, dated May 25, 2016. You may view the EASA AD on the Internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2016-9396.

**(i) Subject**

Joint Aircraft Service Component (JASC) Code: 6520 Tail Rotor Gearbox.

Issued in Fort Worth, Texas, on November 2, 2016.

Lance T. Gant,  
Manager, Rotorcraft Directorate,  
Aircraft Certification Service.



**2016-23-06 Various Aircraft:** Amendment 39-18713; Docket No. FAA-2016-9000; Directorate Identifier 2016-CE-027-AD.

**(a) Effective Date**

This airworthiness directive (AD) becomes effective December 23, 2016.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to all serial numbers (S/N) of the airplanes listed in table 1 of paragraph (c) of this AD, certificated in any category, that incorporate one of the following:

(1) A BRP-Powertrain GmbH & Co KG (formerly Rotax Aircraft Engines) 912 A series engine having a serial number with a carburetor part number (P/N) and S/N listed in table 2 of paragraph (c) of this AD, installed as noted, in cylinder head position 1 through 4; or

(2) an engine that, after May 8, 2016, has had an affected float, P/N 861185, installed in service as part of the airframe. Affected floats were initially delivered between May 9, 2016, and July 17, 2016, and do not have three dots stamped on the surface, as shown in paragraph 3.3) of the Accomplishment/Instructions in Rotax Aircraft Engines BRP Alert Service Bulletin ASB-912-069R1/ASB-914-051R1 (co-published as one document), Revision 1, dated July 22, 2016. A certification document (e.g., Form 1), delivery document or record of previous installation of the float are acceptable to determine an initial delivery on or before May 8, 2016.

**Table 1 of Paragraph (c)–Affected Airplanes**

Type certificate holder	Aircraft model	Engine model
Aeromot-Indústria; Mecânico-Metalúrgica Ltda	AMT-200	912 A2
Diamond Aircraft Industries	HK 36 R “SUPER DIMONA”	912 A
DIAMOND AIRCRAFT INDUSTRIES GmbH	HK 36 TS and HK 36 TC	912 A3
Diamond Aircraft Industries Inc.	DA20-A1	912 A3
HOAC-Austria	DV 20 KATANA	912 A3
Iniziative Industriali Italiane S.p.A.	Sky Arrow 650 TC	912 A2
SCHEIBE-Flugzeugbau GmbH	SF 25C	912 A2, 912 A3

**Table 2 of Paragraph (c)–Affected Carburetors**

Engine	Cylinder position	Carburetor P/N and S/N
912A1, 912A2, 912A3, 912A4	1 or 3	P/N 892500—S/Ns 161138 through 161143, 161483 through 161490, 161493 through 161507, 161516 through 161518, and 161526.
	2 or 4	P/N 892505—S/Ns 162193, 162194, 162196 through 162199, and 162205.

**(d) Subject**

Air Transport Association of America (ATA) Code 73: Engine–Fuel and Control.

**(e) Reason**

This AD was prompted by mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as a manufacturing defect found in certain carburetor floats. We are issuing this AD to require actions to prevent the fuel supply to the affected cylinder from becoming reduced or blocked, which could cause an in-flight engine shutdown and result in a forced landing and damage to the airplane or injury to the occupants.

**(f) Actions and Compliance**

Unless already done, do the following actions:

(1) Within the next 25 hours time-in-service after December 23, 2016 (the effective date of this AD) or within the next 30 days after December 23, 2016 (the effective date of this AD), whichever occurs first, replace all affected floats with a serviceable float following paragraph (3) Accomplishment/Instructions in Rotax Aircraft Engines BRP Alert Service Bulletin ASB-912-069R1/ASB-914-051R1 (co-published as one document), Revision 1, dated July 22, 2016.

(2) As of December 23, 2016 (the effective date of this AD), do not install a float, P/N 861185, that does not have three dots stamped on the surface, as shown in paragraph (3.3) of the Accomplishment/Instructions in Rotax Aircraft Engines BRP Alert Service Bulletin ASB-912-069R1/ASB-914-051R1 (co-published as one document), Revision 1, dated July 22, 2016.

**(g) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, Standards Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Jim Rutherford, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4165; fax: (816) 329-4090; email: jim.rutherford@faa.gov. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are

considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

**(h) Related Information**

Refer to MCAI European Aviation Safety Agency (EASA) AD No.: 2016-0144, correction dated July 25, 2016, and BRP-Powertrain GmbH & CO KG Rotax Aircraft Engines BRP Alert Service Bulletin ASB-912-069/ASB-914-051 (co-published as one document), dated July 14, 2016, for related information. You may examine the MCAI on the Internet at <https://www.regulations.gov/document?D=FAA-2016-9000-0002>.

**(i) 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 this AD specifies otherwise.

(i) Rotax Aircraft Engines BRP Alert Service Bulletin ASB-912-069R1/ASB-914-051R1 (co-published as one document), Revision 1, dated July 22, 2016.

(ii) Reserved.

(3) For Rotax Aircraft Engines BRP service information identified in this AD, contact BRP-Powertrain GmbH & Co. KG, Welser Strasse 32, A-4623 Gunskirchen, Austria; phone: +43 7246 601 0; fax: +43 7246 601 9130; Internet: [www.rotax-aircraft-engines.com](http://www.rotax-aircraft-engines.com).

(4) You may view this referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148. In addition, you can access this service information on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9000.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Kansas City, Missouri, on November 7, 2016.

Pat Mullen,  
Acting Manager, Small Airplane Directorate,  
Aircraft Certification Service.



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**2016-23-09 Various Restricted Category Helicopters:** Amendment 39-18716; Docket No. FAA-2015-3820; Directorate Identifier 2014-SW-024-AD.

**(a) Applicability**

This AD applies to Model TH-1F, UH-1B, UH-1F, UH-1H, and UH-1P helicopters with a main rotor (M/R) blade, part number 204-011-250-005 or 204-011-250-113, installed.

**(b) Unsafe Condition**

This AD defines the unsafe condition as a crack in an M/R blade, which could result in failure of the M/R blade and subsequent loss of helicopter control.

**(c) Effective Date**

This AD becomes effective December 27, 2016.

**(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 25 hours time-in-service (TIS) or 2 weeks, whichever occurs first, and thereafter at intervals not to exceed 25 hours TIS or 2 weeks, whichever occurs first, clean the upper and lower exposed surfaces of each M/R blade from an area starting at the butt end of the blade to three inches outboard of the doublers. Using a 3X or higher power magnifying glass and a light, inspect as follows:

(i) Visually inspect the exposed area of the lower grip pad and upper and lower grip plates of each M/R blade for a crack and any corrosion.

(ii) On the upper and lower exposed surfaces of each M/R blade from blade stations 24.5 to 35 for the entire chord width, visually inspect each layered doubler and blade skin for a crack and any corrosion. Pay particular attention for any cracking in a doubler or skin near or at the same blade station as the blade retention bolt hole (blade station 28).

(iii) Visually inspect the exposed areas of each bond line at the edges of the lower grip pad, upper and lower grip plates, and each layered doubler (bond lines) on the upper and lower surfaces of each M/R blade for the entire length and chord width for an edge void, any corrosion, loose or damaged adhesive squeeze-out, and an edge delamination. Pay particular attention to any crack in the paint finish that follows the outline of a grip pad, grip plate, or doubler, and to any loose or damaged adhesive squeeze-out, as these may be the indication of an edge void.

(2) If there is a crack, any corrosion, an edge void, loose or damaged adhesive squeeze-out, or an edge delamination during any inspection in paragraph (e)(1) of this AD, before further flight, do the following:

(i) If there is a crack in a grip pad or any grip plate or doubler, replace the M/R blade with an airworthy M/R blade.

(ii) If there is a crack in the M/R blade skin that is within maximum repair damage limits, repair the M/R blade. If the crack exceeds maximum repair damage limits, replace the M/R blade with an airworthy M/R blade.

(iii) If there is any corrosion within maximum repair damage limits, repair the M/R blade. If the corrosion exceeds maximum repair damage limits, replace the M/R blade with an airworthy M/R blade.

(iv) If there is an edge void in the grip pad or in a grip plate or doubler, determine the length and depth using a feeler gauge. Repair the M/R blade if the edge void is within maximum repair damage limits, or replace the M/R blade with an airworthy M/R blade.

(v) If there is an edge void in a grip plate or doubler near the outboard tip, tap inspect the affected area to determine the size and shape of the void. Repair the M/R blade if the edge void is within maximum repair damage limits, or replace the M/R blade with an airworthy M/R blade.

(vi) If there is any loose or damaged adhesive squeeze-out along any of the bond lines, trim or scrape away the adhesive without damaging the adjacent surfaces or parent material of the M/R blade. Determine if there is an edge void or any corrosion by lightly sanding the trimmed area smooth using 280 or finer grit paper. If there is no edge void or corrosion, refinish the sanded area.

(vii) If there is an edge delamination along any of the bond lines or a crack in the paint finish, determine if there is an edge void or a crack in the grip pad, grip plate, doubler, or skin by removing paint from the affected area by lightly sanding in a span-wise direction using 180-220 grit paper. If there are no edge voids and no cracks, refinish the sanded area.

(viii) If any parent material is removed during any sanding or trimming in paragraphs (e)(2)(vi) or (e)(2)(vii) of this AD, repair the M/R blade if the damage is within maximum repair damage limits, or replace the M/R blade with an airworthy M/R blade.

#### **(f) Special Flight Permits**

Special flight permits are prohibited.

#### **(g) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Rotorcraft Certification Office, FAA, may approve AMOCs for this AD. Send your proposal to: Charles Harrison, Project Manager, Fort Worth Aircraft Certification Office, 10101 Hillwood Pkwy., Fort Worth, Texas 76177; telephone 817-222-5140; 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, we suggest 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.

#### **(h) Additional Information**

Bell Helicopter Alert Service Bulletin (ASB) No. UH-1H-13-09, dated January 14, 2013, and Bell Helicopter Textron ASB No. 204-75-1 and ASB 205-75-5, both Revision C and both dated April 25, 1979, which are not incorporated by reference, contain additional information about the subject of this final rule. For service information identified in this final rule, contact Bell Helicopter Textron, Inc., P.O. Box 482, Fort Worth, TX 76101; telephone (817) 280-3391; fax (817) 280-6466; or at <http://www.bellcustomer.com/files/>. You may review a copy of this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177.

**(i) Subject**

Joint Aircraft Service Component (JASC) Code: 6210, Main Rotor Blades.

Issued in Fort Worth, Texas, on November 4, 2016.

Lance T. Gant,  
Manager, Rotorcraft Directorate,  
Aircraft Certification Service.



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**2016-23-10 Sikorsky Aircraft Corporation:** Amendment 39-18717; Docket No. FAA-2016-9281; Directorate Identifier 2016-SW-033-AD.

**(a) Applicability**

This AD applies to Model S-76D helicopters, certificated in any category.

**(b) Unsafe Condition**

This AD defines the unsafe condition as an inability of the autopilot to maintain level flight. This condition could result in a significant increase in pilot workload, pilot disorientation, and subsequent loss of control of the helicopter.

**(c) Effective Date**

This AD becomes effective December 12, 2016.

**(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**

Within 10 hours time-in-service, revise Section 1 Limitations, "Automatic Flight Control System" section, of the Rotorcraft Flight Manual by one of the following methods:

- (1) Insert Sikorsky S-76D SA S76D-RFM-000, Temporary Revision No. 7, approved May 19, 2016; or
- (2) Insert a copy of this AD; or
- (3) Make pen-and-ink changes to add the information in Figure 1 to paragraph (e) of this AD.

Barometric Altitude Hold (ALT) mode shall not be engaged with a rate of climb or descent greater than 1,000 fpm.

Figure 1 to Paragraph (e)

**(f) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Boston Aircraft Certification Office, FAA, may approve AMOCs for this AD. Send your proposal to: John Coffey, Flight Test Engineer, Boston Aircraft Certification Office,

Engine & Propeller Directorate, FAA, 1200 District Avenue, Burlington, Massachusetts 01803; telephone (781) 238-7173; email john.coffey@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest 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.

**(g) Subject**

Joint Aircraft Service Component (JASC) Code: 2210, Autopilot System.

**(h) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference 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) Sikorsky S-76D SA S76D-RFM-000, Temporary Revision No. 7, approved May 19, 2016.

(ii) Reserved.

(3) For Sikorsky service information identified in this AD, contact Sikorsky Aircraft Corporation, Customer Service Engineering, 124 Quarry Road, Trumbull, CT 06611; telephone 1-800-Winged-S or 203-416-4299; email: wcs\_cust\_service\_eng.gr-sik@lmco.com.

(4) You may view this service information at FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Fort Worth, Texas, on November 4, 2016.

Lance T. Gant,  
Manager, Rotorcraft Directorate,  
Aircraft Certification Service.



**DATE: November 18, 2016**

**AD #: 2016-24-51**

This Emergency Airworthiness Directive (Emergency AD) 2016-24-51 is being sent to owners and operators of Sikorsky Aircraft Corporation (Sikorsky) Model S-92A helicopters.

**Background**

This Emergency AD was prompted by a report of an operator losing tail rotor (TR) control while in a hover. A preliminary investigation determined that binding in the TR pitch change shaft (TRPCS) assembly double row angular contact bearing (bearing) resulted in reduced TR control. The investigation also found signs of excessive heat, which is an indicator of a binding bearing. Because binding will result in bearing failure rapidly, we are limiting this Emergency AD to TRPCS assemblies with less than 80 hours time-in-service (TIS). This Emergency AD requires, before further flight, removing from service any TRPCS assembly with less than 5 hours TIS since new or overhaul. For TRPCS assemblies that have 5 or more hours TIS since new or overhaul, this Emergency AD requires a one-time borescope and visual inspections of the TRPCS assembly and bearing to determine the condition of the bearings. The actions in this Emergency AD are intended to detect a binding bearing, prevent loss of TR control, and possible loss of control of the helicopter.

**FAA's Determination**

We are issuing this Emergency AD because we 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.

**Related Service Information**

We reviewed Sikorsky Alert Service Bulletin (ASB) 92-64-009, Basic Issue, dated November 2, 2016 (ASB 92-64-009). ASB 92-64-009 describes procedures for inspecting the TRPCS and bearing assemblies for damaged bearings and seals, purged grease with any metallic particles from the bearings, radial play in the bearings, and correct installation of the white Teflon seals, snap rings, and cotter pin.

## **Emergency AD Requirements**

This Emergency AD requires, before further flight, removing TRPCS assemblies with less than 5 hours TIS. This Emergency AD also requires, for TRPCS assemblies with 5 or more hours TIS since new or overhaul, borescope inspecting the TRPCS and bearing assemblies for damaged bearings and seals, purged grease with any metallic particles from the bearings, radial play in the bearings, and correct installation of the white Teflon seals, snap rings, and cotter pin, and determining whether there is free rotation in the angular contact bearing. These inspections are required before further flight for TRPCS assemblies that have between 5 and 15 hours TIS since new or overhaul. For TRPCS assemblies with more than 15 hours TIS, these inspections are required within 20 hours TIS or before reaching 80 hours TIS, whichever occurs first. If there is any damage to the bearings, restrictive radial play, purged grease with metallic particles, or missing or incorrect installation of the white Teflon seals, snap rings, or cotter pin, this Emergency AD requires replacing the TRPCS and bearing assembly before further flight.

### **Differences Between This Emergency AD and the Service Information**

The ASB requires operators to contact Sikorsky if there are any discrepancies, this Emergency AD does not. The ASB allows 20 hours TIS to perform the visual bearing inspection if the borescope inspection has already been performed, while this Emergency AD allows 20 hours TIS for TRPCS assemblies with 15 or more hours TIS.

### **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.

We are 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.

### **Adoption of the Emergency Airworthiness Directive (AD)**

We are issuing this Emergency AD under 49 U.S.C. Sections 106(g), 40113, and 44701 according to the authority delegated to me by the Administrator.

**2016-24-51 Sikorsky Aircraft Corporation:** Directorate Identifier 2016-SW-075-AD.

#### **(a) Applicability**

This Emergency AD applies to Sikorsky Aircraft Corporation (Sikorsky) Model S-92A helicopters, certificated in any category, with a tail rotor pitch change shaft (TRPCS) assembly part number (P/N) 92358-06303-041 or P/N 92358-06303-042 with less than 80 hours time-in-service (TIS) installed, except those TRPCS assemblies manufactured or overhauled on or after November 3, 2016.

**(b) Unsafe Condition**

This Emergency AD defines the unsafe condition as a binding TRPCS bearing. This condition could result in loss of tail rotor (TR) control and possible loss of control of the helicopter.

**(c) Effective Date**

This Emergency AD is effective upon receipt.

**(d) Compliance**

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

**(e) Required Actions**

(1) For TRPCS assemblies with less than 5 hours TIS since new or overhaul, before further flight, remove the TRPCS assembly from service.

(2) For TRPCS assemblies with between 5 and 15 hours TIS since new or overhaul, before further flight, and for TRPCS assemblies with more than 15 hours TIS, within 20 hours TIS or before reaching 80 hours TIS, whichever occurs first:

(i) Borescope inspect the TRPCS assembly as follows, unless done within the previous 15 hours TIS.

(A) On the TR side of the TRPCS bearing, remove the plug from the end of the TRPCS, insert the borescope into the TRPCS, and determine whether the white Teflon seal and snap ring are installed. If the white Teflon seal or snap ring is missing, or if there is a rip, tear, or heat damage on the seal or if there is no gap in the snap ring, before further flight replace the TRPCS assembly.

(B) On the TR servo side of the TRPCS bearing, insert the borescope through the oil filler cap hole and determine whether the white Teflon seal, snap ring, and cotter pin are installed. If the white Teflon seal, snap ring, or cotter pin is missing, if there is a rip, tear, or heat damage on the seal, or if there is no gap in the snap ring, before further flight replace the TRPCS assembly.

(ii) If the TRPCS assembly has less than 10 hours TIS, perform ground operation with the rotor turning at 105% ( $N_r$ ) until the TRPCS assembly has accumulated 10 hours TIS, cycling the TR control pedals at least 10 times per hour.

(iii) Remove the TRPCS and inspect the SB2310 angular contact bearing for free rotation, purged grease with metal particles, a nick or a dent, and any cut, tear, or distortion on the bearing seal. If the bearing does not rotate freely; the bearing sounds rough or chatters; there is any purged grease with metal particles; a nick or dent; or if there is a cut, tear, or distortion in the bearing seal, before further flight, replace the TRPCS assembly.

**(f) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Boston Aircraft Certification Office, FAA, may approve AMOCs for this Emergency AD. Send your proposal to: Blaine Williams, Aerospace Engineer, Boston Aircraft Certification Office, Engine & Propeller Directorate, 1200 District Avenue, Burlington, Massachusetts 01803; telephone (781) 238-7161; email [blaine.williams@faa.gov](mailto:blaine.williams@faa.gov).

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest 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 Emergency AD through an AMOC.

**(g) Additional Information**

(1) For further information contact: Blaine Williams, Aerospace Engineer, Boston Aircraft Certification Office, Engine & Propeller Directorate, 1200 District Avenue, Burlington, Massachusetts 01803; telephone (781) 238-7161; email [blaine.williams@faa.gov](mailto:blaine.williams@faa.gov).

(2) For a copy of the service information referenced in this Emergency AD, contact: Sikorsky Aircraft Corporation, Customer Service Engineering, 124 Quarry Road, Trumbull, CT 06611; telephone 1-800-Winged-S or 203-416-4299; email: [wcs\\_cust\\_service\\_eng.gr-sik@lmco.com](mailto:wcs_cust_service_eng.gr-sik@lmco.com).

**(h) Subject**

Joint Aircraft Service Component (JASC) Code: 6720 Tail Rotor Control System.

Issued in Fort Worth, Texas, on November 16, 2016.

Lance T. Gant,

Manager, Rotorcraft Directorate,

Aircraft Certification Service.