Proposed Rules

Federal Register
Vol. 90, No. 19
Thursday, January 30, 2025

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2025–0011; Project Identifier AD–2024–00618–R]

RIN 2120–AA64

Airworthiness Directives; Robinson Helicopter Company Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to supersede Airworthiness Directive (AD) 2024–19–11, which applies to all Robinson Helicopter Company Model R44 and R44 II helicopters. AD 2024–19–11 requires visually inspecting a certain flex plate assembly (flex plate) and certain clutch shaft forward yokes (yokes), including each flex plate bolt, and depending on the results, taking corrective actions. AD 2024–19–11 also requires removing certain yokes from service within a specified threshold, or as an alternative, performing in-depth inspections. Since the FAA issued AD 2024–19–11, it has been determined that clarifications regarding the alternative inspections are necessary. This proposed AD would retain all the requirements of AD 2024–19–11 and would clarify that the alternative inspections are repetitive and add a particular paint remover option to use when performing those alternative inspections. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by March 17, 2025.

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 *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.

AD Docket: You may examine the AD docket at *regulations.gov* under Docket No. FAA–2025–0011; 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 NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

Related Material:

- For Robinson material identified in this proposed AD, contact Robinson Helicopter Company, Technical Support Department, 2901 Airport Drive, Torrance, CA 90505; phone: (310) 539–0508; fax: (310) 539–5198; email: *ts1@robinsonheli.com;* website: *robinsonheli.com.*

FOR FURTHER INFORMATION CONTACT: Eric Moreland, Aviation Safety Engineer, FAA, 3960 Paramount Boulevard, Lakewood, CA 90712; phone: (562) 627–5364; email: *Eric.R.Moreland@faa.gov.*

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the **ADDRESSES** section. Include ''Docket No. FAA–2025–0011; Project Identifier AD–2024–00618–R'' at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may revise this proposal because of those comments.

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

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as ''PROPIN.'' The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Eric Moreland, Aviation Safety Engineer, FAA, 3960 Paramount Boulevard, Lakewood, CA 90712; phone: (562) 627–5364; email: *Eric.R.Moreland@faa.gov.* Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued AD 2024–19–11, Amendment 39–22853 (89 FR 78785, September 26, 2024) (AD 2024–19–11), for all Robinson Helicopter Company Model R44 and R44 II helicopters. AD 2024–19–11 was prompted by reports of a fractured yoke on the main rotor (M/R) drive due to fatigue cracking.

AD 2024–19–11 requires visually inspecting flex plate part number (P/N) C947–1, yoke P/N C907–1 or C907–2, as applicable, yoke P/N C908–1, and each flex plate bolt, and depending on the results, replacing parts. AD 2024–19–11 also requires removing yoke P/N C907–1 or C907–2, as applicable, from service before reaching a specified threshold or, as an alternative to removing the part from service, using a 10X or higher power magnifying glass, visual inspecting the yoke and, depending on the results, magnetic particle inspecting the yoke or replacing parts. The FAA issued AD 2024–19–11 to detect fatigue cracking on the yoke, which if not addressed, could result in loss of M/R drive and subsequent loss of control of the helicopter.

Actions Since AD 2024–19–11 Was Issued

Since the FAA issued AD 2024–19–11, the FAA has determined that clarification regarding the alternative yoke inspections and the addition of a particular paint remover option to use when performing the alternative inspections are necessary. This proposed AD clarifies that the alternative inspections are repetitive and adds the option to use Bonderite stripper S–ST 5251 instead of Cee-Bee stripper A–292 since Cee-Bee stripper A–292 could be difficult for some operators to obtain.

FAA's Determination

The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Related Material

The FAA reviewed Robinson Helicopter Company R44 Maintenance Manual and Instructions for Continued Airworthiness, Volume 1, Chapter 2 and Chapter 23, dated September 2023, which specifies procedures for inspecting the yoke and flex plate of the M/R drive, removing paint, applying torque, and performing a magnetic particle inspection.

Proposed AD Requirements in This NPRM

This proposed AD would retain all requirements of AD 2024–19–11 and update the alternative action to repetitively inspect a yoke that has reached the specified threshold instead of replacing it.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 1,725 helicopters of U.S. registry. The FAA estimates the following costs to comply with this proposed AD. Labor costs are estimated at $85 per work-hour.

Visually inspecting a flex plate would take 0.25 work-hour for an estimated cost of $21 per helicopter and $36,225 for the U.S. fleet. If required, replacing a flex plate would take 1 work-hour and parts would cost $1,240 for an estimated cost of $1,325 per helicopter.

Visually inspecting a yoke, including inspecting each flex plate bolt, would take 1.25 work-hours for an estimated cost of $106 per helicopter and $182,850 for the U.S. fleet.

Replacing a yoke would take 6 work-hours and parts would cost $890 for an estimated cost of $1,400 per helicopter and $2,415,000 for the U.S. fleet, per replacement cycle.

Alternatively, removing paint and inspecting a yoke using 10X or higher power magnifying glass would take 1.5 work-hours for an estimated cost of $128 per helicopter. If required, performing a magnetic particle inspection would take 1.5 work-hours for an estimated cost of $128 per helicopter.

Applying torque to a set of bolts, nuts, and palnuts would take 1 work-hour for an estimated cost of $85 per helicopter.

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.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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, I certify that the proposed regulation:

(1) Is not a ''significant regulatory action'' under Executive Order 12866,

(2) Would not affect intrastate aviation in Alaska, and

(3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

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

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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:

■ a. Removing Airworthiness Directive 2024–19–11, Amendment 39–22853 (89 FR 78785, September 26, 2024); and

■ b. Adding the following new airworthiness directive:

Robinson Helicopter Company: Docket No. FAA–2025–0011; Project Identifier AD–2024–00618–R.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by March 17, 2025.

(b) Affected ADs

This AD replaces AD 2024–19–11, Amendment 39–22853 (89 FR 78785, September 26, 2024).

(c) Applicability

This AD applies to Robinson Helicopter Company Model R44 and R44 II helicopters, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) Code 6310, Engine/Transmission coupling.

(e) Unsafe Condition

This AD was prompted by reports of a fractured clutch shaft forward yoke (yoke) on the main rotor (M/R) drive due to fatigue cracking. The FAA is issuing this AD to detect fatigue cracking on the yoke. The unsafe condition, if not addressed, could result in loss of M/R drive and subsequent loss of control of the helicopter.

(f) Compliance

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

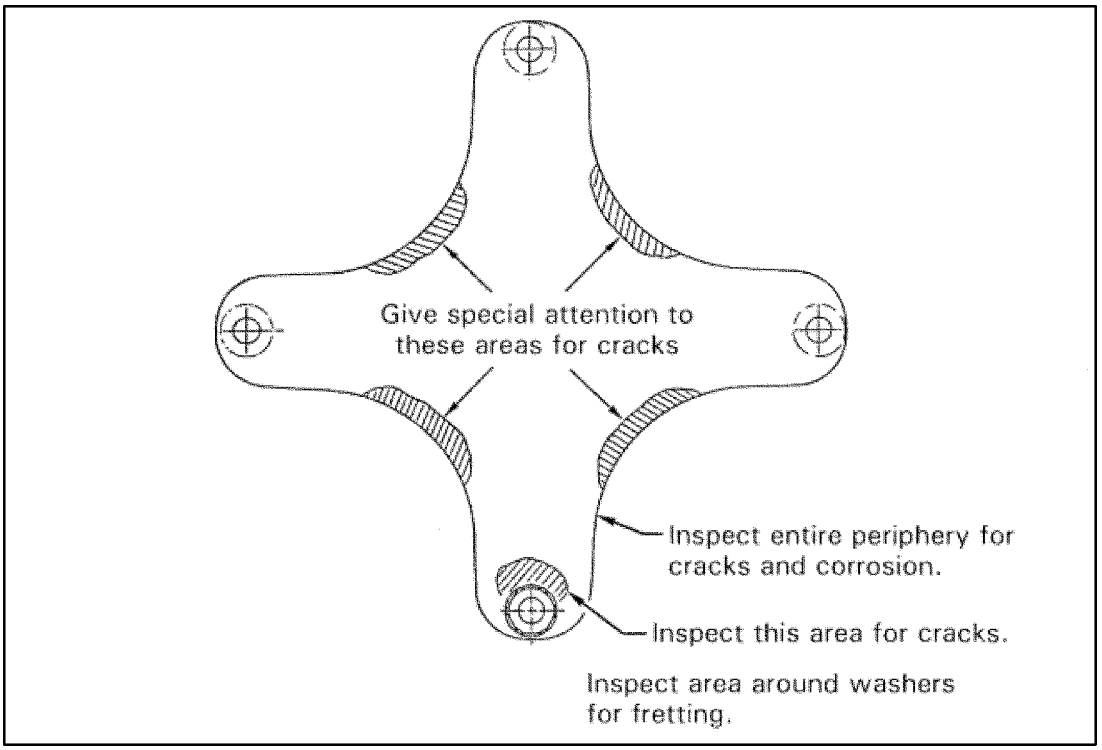
(g) Required Actions

(1) Within 100 hours time-in-service (TIS) after the effective date of this AD, accomplish the actions required by paragraphs (g)(1)(i) through (iii) of this AD.

(i) Visually inspect forward flex plate assembly part number (P/N) C947–1 (flex plate) for any loose fasteners, cracks, fretting, corrosion, wear, and to ensure that the washers are bonded to both sides of each flex plate arm, in the areas depicted in Figure 1 to paragraph (g)(1)(i) of this AD. If there is any loose fastener (can be moved by hand), crack, fretting, corrosion, or wear that consists of the washers not securely bonded to both sides of each flex plate arm, before further flight, remove the flex plate from service and replace it with an airworthy flex plate.

Note 1 to paragraph (g)(1)(i): The flex plate may be installed in order to accomplish the visual inspection.

Figure 1 to Paragraph (g)(1)(i)—Flex Plate Inspection



(ii) Visually inspect yoke P/N C907–1 or C907–2, as applicable, and yoke P/N C908–1, for any cracks, corrosion, and fretting. If there is any crack, corrosion, or fretting, before further flight, remove the yoke from service and replace it with an airworthy yoke, and torque each newly-installed bolt, nut, and palnut P/N B330–19 using the torque value information in Appendix 1 to this AD.

(iii) Visually inspect each flex plate bolt for any missing or unaligned torque stripes, loose fasteners, loose nuts, and to ensure that palnuts are installed. If there is a missing or unaligned torque stripe, loose fastener (can be moved by hand), loose nut (can be turned by hand), or if a palnut is not installed, before further flight, remove the associated yoke from service and replace it with an airworthy yoke, and torque each newly-installed bolt, nut, and palnut P/N B330–19 using the torque value information in Appendix 1 to this AD.

(2) Within the compliance times specified in Table 1 to the introductory text of paragraph (g)(2) of this AD, accomplish the actions required by paragraph (g)(2)(i) of this AD or, as an alternative to accomplishing the actions required by paragraph (g)(2)(i) of this AD, accomplish the actions required by paragraph (g)(2)(ii) of this AD within the same compliance times.

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Table 1 to the Introductory Text of Paragraph (g)(2)

Helicopter Groups	Compliance Times
For Model R44 helicopters having serial number 0002, or 0004 through 9999 inclusive, except not 1140, and R44 II helicopters having serial number 1140 or 10001 through 29999 inclusive.	Prior to accumulating 2,200 total hours TIS on any yoke P/N C907-1 or C907-2 or within 12 years since first installation of yoke P/N C907-1 or C907-2 on any helicopter, whichever occurs first; or within 100 hours TIS after the effective date of this AD; whichever occurs later, and thereafter before accumulating 2,200 total hours TIS on any yoke P/N C907-1 or C907-2 or within 12 years since first installation of yoke P/N C907-1 or C907-2 on any helicopter, whichever occurs first.

For Model R44 helicopters having serial number 30001 and subsequent.	Prior to accumulating 2,400 total hours TIS on any yoke P/N C907-1 or C907-2 or within 12 years since first installation of yoke P/N C907-1 or C907-2 on any helicopter, whichever occurs first; or within 100 hours TIS after the effective date of this AD; whichever occurs later, and thereafter before accumulating 2,400 total hours TIS on any yoke P/N C907-1 or C907-2 or within 12 years since first installation of yoke P/N C907-1 or C907-2 on any helicopter, whichever occurs first.

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(i) Remove the yoke from service and replace it with an airworthy yoke, and torque each newly-installed bolt, nut, and palnut P/N B330–19 using the torque value information in Appendix 1 to this AD, or

(ii) With yoke P/N C907–1 or C907–2 removed, as applicable, remove the paint from the yoke using Cee-Bee stripper A–292 or Bonderite stripper S–ST 5251 without using a plastic media abrasive paint stripper and accomplish the actions required by paragraphs (g)(2)(ii)(A) and (B) of this AD.

(A) Using 10X or higher power magnifying glass, visually inspect the yoke for any crack, seam, lap, shut, and any flaw that is open to the surface. If there is any crack, seam, lap, shut, or flaw, before further flight, remove the yoke from service and replace it with an airworthy yoke, and torque each newly-installed bolt, nut, and palnut P/N B330–19 using the torque value information in Appendix 1 to this AD.

(B) If the yoke is not removed from service as a result of the actions required by paragraph (g)(2)(ii)(A) of this AD, perform a magnetic particle inspection for any crack, seam, lap, shut, and any flaw that is open to the surface using a method in accordance with FAA-approved procedures. If there is any crack, seam, lap, shut, or flaw, before further flight, remove the yoke from service and replace it with an airworthy yoke, and torque each newly-installed bolt, nut, and palnut P/N B330–19 using the torque value information in Appendix 1 to this AD.

(h) Special Flight Permit

A one-time flight permit may be issued in accordance with 14 CFR 21.197 and 21.199 to fly to a maintenance area to perform the required actions in this AD, provided there are no passengers onboard.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, West Certification 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 West Certification Branch, send it to the attention of the person identified in paragraph (j) of this AD. Information may be emailed to: *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) Additional Information

For more information about this AD, contact Eric Moreland, Aviation Safety Engineer, FAA, 3960 Paramount Boulevard, Lakewood, CA 90712; phone: (562) 627–5364; email: *Eric.R.Moreland@faa.gov.*

(k) Material Incorporated by Reference

None.

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Appendix 1 to AD ####–##–####

NOTE

1. Torque values are in inch-pounds unless otherwise specified.
2. Torque values include nut self-locking torque.
3. Increase torque values 10% if torqued at bolt head.
4. Wet indicates threads lubricated with A257-9 anti-seize.
5. For elbow and tee fittings which require alignment, torque to indicated value, then tighten to desired position.
6. Tolerance is ± 10% unless range is specified.
7. Unless otherwise specified, thread sizes 8-32 and smaller are not used for primary structure and do not require control of torques.

FASTENER SERIES		SIZE	EXAMPLE FASTENER	TORQUE (IN.-LB)
NAS6603 thru NAS6608 Bolts NAS1303 thru NAS1308 Bolts NAS623 Screws NAS1351 & NAS1352 Screws NAS600 thru NAS606 Screws		10-32	NAS6603	50
		1/4-28	NAS6604	120
		5/16-24	NAS6605	240
		3/8-24	NAS6606	350
		7/16-20	NAS6607	665
		1/2-20	NAS6608	995
A142 screws AN3 Bolts AN4 Bolts AN6 Bolts AN8 Bolts	AN502 Screws AN503 Screws AN509 Screws AN525 Screws MS24694 Screws MS27039 Screws	10-32	A142-1, -3, -4; AN3	37
		1/4-28	AN4	90
		3/8-24	AN6	280
		1/2-20	AN8	795
STAMPED NUTS (PALNUTS) Palnuts are to be used only once and replaced with new when removed.		10-32	B330-7 (MS27151-7)	6–15
		1/4-28	B330-13 (MS27151-13)	11–25
		5/16-24	B330-16 (MS27151-16)	20–40
		3/8-24	B330-19 (MS27151-19)	29–60
		7/16-20	B330-21 (MS27151-21)	42–85
		1/2-20	B330-24 (MS27151-24)	54–110
TAPERED PIPE THREADS		1/8-27	See note 5	60
			Straight fittings only	120
		1/4-18	See note 5	85
			Straight fittings only	170
		3/8-18	See note 5	110
			Straight fittings only	220
		1/2-14	See note 5	160
			Straight fittings only	320
		3/4-14	See note 5	230
			Straight fittings only	460
ROD END JAM NUTS (AN315 and AN316)		10-32	AN315-3	15
		1/4-28	AN316-4	40
		5/16-24	AN316-5	80
		3/8-24	AN316-6	110

Issued on January 23, 2025.

Steven W. Thompson,

Acting Deputy Director, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2025–01949 Filed 1–29–25; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2024–2721; Project Identifier AD–2024–00610–E]

RIN 2120–AA64

Airworthiness Directives; General Electric Company Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain General Electric Company (GE) Model CF6–80E1A2, CF6–80E1A3, CF6–80E1A4, and CF6–80E1A4/B engines. This proposed AD was prompted by a manufacturer investigation that revealed certain high-pressure turbine (HPT) stage 1 and HPT stage 2 disks were manufactured from powder metal material suspected to contain iron inclusion. This proposed AD would require replacement of affected HPT stage 1 and HPT stage 2 disks with parts eligible for installation. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by March 17, 2025.

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 *regulations.gov.* Follow the instructions for submitting comments.
- *Fax:* (202) 493–2251.
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FOR FURTHER INFORMATION CONTACT: Alexei Marqueen, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198; phone: (781) 238–7178; email: *alexei.t.marqueen@faa.gov.*

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the **ADDRESSES** section. Include ''Docket No. FAA–2024–2721; Project Identifier AD–2024–00610–E'' at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may revise this proposal because of those comments.

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Background

The FAA was notified by the manufacturer of the detection of iron inclusion in an HPT stage 2 disk manufactured from the same powder metal material used to manufacture certain HPT stage 1 and HPT stage 2 disks for GE Model CF6–80E1A2, CF6–80E1A3, CF6–80E1A4, and CF6–80E1A4/B engines. Further investigation by the manufacturer revealed that the iron inclusion is attributed to deficiencies in the manufacturing process and may cause reduced material properties and a lower fatigue life capability, which may result in premature fracture and uncontained failure. The manufacturer also informed the FAA that additional risk assessments determined that there were no failed events associated with the discovery of this iron inclusion material on these engines, but concluded that replacement of the affected HPT stage 1 and HPT stage 2 disks is necessary to prevent any future failed events. The exposure of certain HPT stage 1 and HPT stage 2 disks to iron inclusion, if not addressed, could result in uncontained debris release, damage to the engine, and damage to the airplane.

FAA's Determination

The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Proposed AD Requirements in This NPRM

This proposed AD would require replacement of affected HPT stage 1 and HPT stage 2 disks with parts eligible for installation. Because affected operators are already aware of the proposed corrective action and have already performed the actions proposed in this AD, the FAA has determined that the compliance time to replace the affected HPT stage 1 and HPT stage 2 disks before further flight is appropriate.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect one engine installed on an airplane of U.S. registry.

The FAA estimates the following costs to comply with this proposed AD: