5.4.2 Calculate the annual input to the pool heater as:

\[ \text{E}_{\text{IN}} = \text{E}_F + \text{E}_{\text{AE}} \]

where:

\[ \text{E}_F = \text{as defined in 5.2 of this appendix} \]

\[ \text{E}_{\text{AE}} = \text{as defined in 5.3 of this appendix} \]

5.4.3 Calculate the pool heater integrated thermal efficiency (TEi) (in percent).

\[ \text{TEi} = 100 \left( \frac{\text{E}_{\text{OUT}}}{\text{E}_{\text{IN}}} \right) \]

where:

\[ \text{E}_{\text{OUT}} = \text{as defined in 5.4.1 of this appendix} \]

\[ \text{E}_{\text{IN}} = \text{as defined in 5.4.2 of this appendix} \]

\[ 100 = \text{conversion factor, from fraction to percent} \]

OUT = as defined in 5.3 of this appendix

IN

\[ \text{F} = \text{E} \]

IN

\[ \text{F} = \text{E} \]

\[ \text{OUT} = \text{as defined in 5.3 of this appendix} \]

\[ \text{OUT} = \text{as defined in 5.3 of this appendix} \]

5.4.2 Calculate the annual input to the pool heater:

\[ \text{OUT} = \text{as defined in 5.3 of this appendix} \]

\[ \text{IN} = \text{as defined in 5.3 of this appendix} \]

\[ 100 = \text{conversion factor, from fraction to percent} \]

\[ \text{F} = \text{E} \]

\[ \text{F} = \text{E} \]

\[ \text{OUT} = \text{as defined in 5.3 of this appendix} \]

\[ \text{OUT} = \text{as defined in 5.3 of this appendix} \]

5.4.3 Calculate the pool heater integrated thermal efficiency (TEi) (in percent):

\[ \text{TEi} = 100 \left( \frac{\text{E}_{\text{OUT}}}{\text{E}_{\text{IN}}} \right) \]

where:

\[ \text{E}_{\text{OUT}} = \text{as defined in 5.4.1 of this appendix} \]

\[ \text{E}_{\text{IN}} = \text{as defined in 5.4.2 of this appendix} \]

\[ 100 = \text{conversion factor, from fraction to percent} \]

\[ \text{OUT} = \text{as defined in 5.3 of this appendix} \]

\[ \text{IN} = \text{as defined in 5.3 of this appendix} \]

\[ \text{F} = \text{E} \]

\[ \text{F} = \text{E} \]

\[ \text{OUT} = \text{as defined in 5.3 of this appendix} \]

\[ \text{OUT} = \text{as defined in 5.3 of this appendix} \]

5.4.2 Calculate the annual input to the pool heater:

\[ \text{OUT} = \text{as defined in 5.3 of this appendix} \]

\[ \text{IN} = \text{as defined in 5.3 of this appendix} \]

\[ 100 = \text{conversion factor, from fraction to percent} \]

\[ \text{F} = \text{E} \]

\[ \text{F} = \text{E} \]

\[ \text{OUT} = \text{as defined in 5.3 of this appendix} \]

\[ \text{OUT} = \text{as defined in 5.3 of this appendix} \]

5.4.3 Calculate the pool heater integrated thermal efficiency (TEi) (in percent):

\[ \text{TEi} = 100 \left( \frac{\text{E}_{\text{OUT}}}{\text{E}_{\text{IN}}} \right) \]

where:

\[ \text{E}_{\text{OUT}} = \text{as defined in 5.4.1 of this appendix} \]

\[ \text{E}_{\text{IN}} = \text{as defined in 5.4.2 of this appendix} \]

\[ 100 = \text{conversion factor, from fraction to percent} \]

\[ \text{OUT} = \text{as defined in 5.3 of this appendix} \]

\[ \text{IN} = \text{as defined in 5.3 of this appendix} \]

5.4.2 Calculate the annual input to the pool heater:

\[ \text{OUT} = \text{as defined in 5.3 of this appendix} \]

\[ \text{IN} = \text{as defined in 5.3 of this appendix} \]

\[ 100 = \text{conversion factor, from fraction to percent} \]

\[ \text{F} = \text{E} \]

\[ \text{F} = \text{E} \]

\[ \text{OUT} = \text{as defined in 5.3 of this appendix} \]

\[ \text{OUT} = \text{as defined in 5.3 of this appendix} \]

5.4.3 Calculate the pool heater integrated thermal efficiency (TEi) (in percent):

\[ \text{TEi} = 100 \left( \frac{\text{E}_{\text{OUT}}}{\text{E}_{\text{IN}}} \right) \]

where:

\[ \text{E}_{\text{OUT}} = \text{as defined in 5.4.1 of this appendix} \]

\[ \text{E}_{\text{IN}} = \text{as defined in 5.4.2 of this appendix} \]

\[ 100 = \text{conversion factor, from fraction to percent} \]

\[ \text{OUT} = \text{as defined in 5.3 of this appendix} \]

\[ \text{IN} = \text{as defined in 5.3 of this appendix} \]
AS332M and AS332M1 helicopters; and ASB No. SA330–05.98 for Model SA330f and military Model SA330Ba, SA330Ca, SA330Fa, SA330H, SA330L, SA330j, SA330S1 and SA330Sm helicopters. Eurocopter reports that a tail rotor control turnbuckle ruptured because of corrosion. The damage was discovered during a flight-control check after the main gearbox was replaced. An investigation revealed that Mastinox sealant was missing between the turnbuckle tappings and end-fittings and led to the formation of galvanic corrosion. To prevent a turnbuckle from splitting, Eurocopter called for checking all tail rotor control turnbuckles for cracks and corrosion every 12 months. On June 5, 2013, Eurocopter revised all of the ASBs with Revision 1 to clarify a requirement.

Proposed AD Requirements

This proposed AD would require:
For helicopters delivered before March 1, 2013, within 110 hours time-in-service (TIS) or 3 months, whichever occurs first, and at intervals not to exceed 12 months thereafter, inspecting the turnbuckles for corrosion or a crack. The delivery date is the date the helicopter left Eurocopter’s manufacturing plant in France and is the date on the helicopter’s identification plate.

For helicopters delivered on or after March 1, 2013, within 12 months, and at intervals not to exceed 12 months thereafter, inspecting the turnbuckles for corrosion or a crack.

If there is corrosion or a crack on the tappings or middle hole of the internal surface of the turnbuckle, or if there is corrosion with a depth of more than 0.3 mm or a crack on the external surface of a turnbuckle, removing the turnbuckle from service before the next flight.

If corrosion is present at or less than a depth of 0.3 mm on the turnbuckle’s external surface, before the next flight, treating the affected turnbuckle to prevent corrosion and then removing the treated turnbuckle from service within 6 months from the date the part is treated for corrosion.

Differences Between This Proposed AD and the EASA AD

The EASA AD applies to Eurocopter Model AS332C1 helicopters. This proposed AD does not because Model AS332C1 helicopters are not type certificated in the United States.

Costs of Compliance

We estimate that this proposed AD would affect 46 helicopters of U.S. Registry and that labor costs average $85 a work-hour. Based on these estimates, we would expect the following costs:
- Inspecting the tail rotor control turnbuckles for corrosion or a crack would require 4 work-hours for a labor cost of $340. Parts would cost $148 for a total cost of $488 per helicopter, $22,448 for the U.S. fleet.
- Treating the turnbuckle to prevent corrosion would require 1 work-hour for a labor cost of $85. The cost of parts is minimal for a total cost of $85 per helicopter.
- Replacing the turnbuckle would not require additional labor costs because it can be done as part of the inspection. Parts would cost $173 for a total cost of $173 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.

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.

Regulatory Findings

We 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, I certify this proposed regulation:
1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

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

§ 39.13 [Amended]

1. The authority citation for part 39 continues to read as follows:
Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 (Amended)

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


(a) Applicability

This AD applies to Eurocopter France (Eurocopter) Model AS332C, AS332L1, AS332L2, EC225LP, and SA330 helicopters with a tail rotor control turnbuckle (turnbuckle), part number (P/N) 330A27–5031–20, installed, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as failure of a turnbuckle. This condition could result in loss of the tail rotor control and subsequent loss of helicopter control.

(c) Comments Due Date

We must receive comments by December 23, 2013.

(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. For helicopters delivered before March 1, 2013, within 110 hours time-in-service (TIS) or 3 months, whichever occurs first, and for helicopters delivered on or after March 1, 2013, within 12 months, and thereafter for all helicopters at intervals not to exceed 12 months, using a light source visually inspect the tappings, middle hole, and external surface of each turnbuckle for corrosion or a crack. Indications of corrosion include dirt, a bulge, faded paint, a powdery deposit, or a pit that is white or red in color.

2. For helicopters delivered before March 1, 2013, if an inspection reveals that Mastinox is missing between the turnbuckle tappings and end-fittings, remove the treated turnbuckle from service within 6 months from the date the part is treated for corrosion.

We estimate that this proposed AD would affect 46 helicopters of U.S. Registry and that the labor costs average $85 a work-hour. Based on these estimates, we would expect the following costs:
- Inspecting the tail rotor control turnbuckles for corrosion or a crack would require 4 work-hours for a labor cost of $340. Parts would cost $148 for a total cost of $488 per helicopter, $22,448 for the U.S. fleet.
- Treating the turnbuckle to prevent corrosion would require 1 work-hour for a labor cost of $85. The cost of parts is minimal for a total cost of $85 per helicopter.
- Replacing the turnbuckle would not require additional labor costs because it can be done as part of the inspection. Parts would cost $173 for a total cost of $173 per helicopter.
surface of a turnbuckle, replace the turnbuckle before further flight.  
(ii) If there is a crack on the external surface of a turnbuckle, replace the turnbuckle before further flight.  
(iii) If there is corrosion on the external surface of a turnbuckle, remove the corrosion, recondition the surface, and measure the corrosion depth in accordance with paragraph 3.B.2.b.2 of Eurocopter Alert Service Bulletin (ASB) No. EC225–05A031, ASB No. AS332–05.09.05, or ASB No. SA330–05.09.8, all Revision 1 and all dated June 5, 2013, as applicable to your model helicopter, except that you are not required to interpret the results per ASB paragraph 1.E.2.  
(A) If the measured corrosion depth is greater than 0.3 mm, replace the turnbuckle before further flight.  
(B) If the measured corrosion depth is 0.3 mm or less, do the following:  
(1) Before further flight, treat the turnbuckle for corrosion in accordance with paragraph 3.B.2.c. of ASB No. EC225–05A031, ASB No. AS332–05.09.05, or ASB No. SA330–05.09.8, as applicable to your model helicopter.  
(2) Within 6 months from when the turnbuckle is treated for corrosion, replace the turnbuckle.  
(2) After installation of a turnbuckle, P/N 330A27–5031–20, with greater than 0 hours TIS, before next flight accomplish the actions of paragraph (e)(1) of this AD.  
(f) Special Flight Permit  
Special flight permits are prohibited.  
(g) Alternative Methods of Compliance (AMOCs)  
(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Robert Grant, Aviation Safety Engineer, Safety Management Group, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222–5110; email robert.grant@faa.gov.  
(2) For operations conducted under a 14 CFR part 119 operating certificate or under a 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  
The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2013–0081, dated March 26, 2013. You may view the EASA AD in the AD docket on the Internet at http://www.regulations.gov.  
(i) Subject  
Joint Aircraft Service Component (JASC) Code: 6700, Rotorcraft Flight Control.  
Issued in Fort Worth, Texas on September 27, 2013.  
Lance T. Gant,  
Acting Directorate Manager, Rotorcraft Directorate, Aircraft Certification Service.  
[FR Doc. 2013–24942 Filed 10–23–13; 8:45 am]  
BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION  
Federal Aviation Administration  
14 CFR Part 39  
RIN 2120–AA64  
Airworthiness Directives; The Boeing Company Airplanes  
AGENCY: Federal Aviation Administration (FAA), DOT.  
ACTION: Notice of proposed rulemaking (NPRM).  
SUMMARY: We propose to adopt a new airworthiness directive (AD) for all The Boeing Company Model 737–100, –200, –200C, –300, –400, and –500 series airplanes. This proposed AD was prompted by reports of cracks found in the aft support fitting, the rear spar upper chord, and the rear spar web. This proposed AD would require repetitive inspections for cracking of the aft support fitting for the main landing gear (MLG) beam, and the rear spar upper chord and rear spar web in the area of rear spar station (RSS) 224.14; and repair if necessary. We are proposing this AD to detect and correct such cracks, which could grow and result in a fuel leak and possible fire.  
DATES: We must receive comments on this proposed AD by December 9, 2013.  
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 http://www.regulations.gov. Follow the instructions for submitting comments.  
• Fax: 202–493–2251.  
• Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.  
For service information identified in this proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H–65, Seattle, WA 98124–2207; telephone 206–544–5000, extension 1; fax 206–766–5680; Internet https://www.myboeingfleet.com. You may review copies of the referenced service information at the FAA, at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425–227–1221.  
Examine the AD Docket  
You may examine the AD docket on the Internet at http://www.regulations.gov; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800–647–5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.  
FOR FURTHER INFORMATION CONTACT:  
SUPPLEMENTARY INFORMATION:  
Comments Invited  
We invite 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–2013–0866; Directorate Identifier 2013–NM–131–AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.  
We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.  
Discussion  
We have received five reports of cracks found in the aft support fitting for the MLG beam, and the rear spar upper chord and rear spar web in the area of rear spar station (RSS) 224.14. One report was of a vertical crack found in the rear spar web, along with cracks in the aft support fitting and rear spar upper chord. A second report indicated cracks found in two holes in the rear spar upper chord and rear spar web. A third report was of a crack in the rear spar upper chord that extended downward to the edge of the vertical flange and upward to the horizontal flange. The affected airplanes had accumulated between 42,988 and 66,572 total flight hours, and between 29,015