



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0600; Project Identifier AD-2021-01160-R]

RIN 2120-AA64

Airworthiness Directives; Bell Textron Inc., Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Supplemental notice of proposed rulemaking (SNPRM).

SUMMARY: The FAA is revising a notice of proposed rulemaking (NPRM) that would have applied to all Bell Textron Inc., Model 204B, 205A, 205A-1, 205B, and 210 helicopters. This AD was prompted by an accident and incidents involving failure of the tail boom attachment structure. This action revises the NPRM by changing the proposed required actions and adding a special flight permit limitation. The FAA is proposing this airworthiness directive (AD) to address the unsafe condition on these products. Since these actions would impose an additional burden over those in the NPRM, the agency is requesting comments on this SNPRM.

DATES: The FAA must receive comments on this SNPRM by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

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](https://www.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](https://www.regulations.gov) by searching for and locating Docket No. FAA-2022-0600; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains the NPRM, this SNPRM, any comments received, and other information. The street address for Docket Operations is listed above.

Material Incorporated by Reference:

- For Bell material, contact Bell Textron Inc., P.O. Box 482, Fort Worth, TX 76101; phone (450) 437-2862 or (800) 363-8023; fax (450) 433-0272; email productsupport@bellflight.com; website: bellflight.com/support/contact-support.

- You may view this service information at the 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.

Other Related Service Information: For other service information identified in this SNPRM, contact Bell Textron Inc., P.O. Box 482, Fort Worth, TX 76101; phone (450) 437-2862 or (800) 363-8023; fax (450) 433-0272; email productsupport@bellflight.com; website: bellflight.com/support/contact-support.

FOR FURTHER INFORMATION CONTACT: Michael Perrin, Aviation Safety Engineer, FAA, 1801 S Airport Road, Wichita, KS 67209; phone: (562) 627-5362; email: Michael.j.perrin@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-2022-0600; Project Identifier AD-2021-01160-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 again 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 SNPRM.

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 SNPRM 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 SNPRM, 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 SNPRM. Submissions containing CBI should be sent to Michael Perrin, Aviation Safety Engineer, FAA, 1801 S Airport Road, Wichita, KS 67209; phone: (562) 627-5362; email: Michael.j.perrin@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 2021-15-14, Amendment 39-21661 (86 FR 39942, July 26, 2021) (AD 2021-15-14) for various restricted category helicopters. AD 2021-15-14 was prompted by an accident involving a Model UH-1B helicopter and two forced landings involving Model UH-1H and UH-1F helicopters, due to tail boom attachment structure failures. Each of the three events involved a failure of the upper left-hand (LH) tail boom attachment fitting, which is the most heavily loaded at the four tail boom attach points. The FAA issued AD 2021-15-14 to address fatigue cracking of tail boom attachment fittings, cap angles, longerons, and bolts.

Due to their similarity to the Model UH-1B, UH-1H, and UH-1F helicopters, the FAA determined that Bell Textron Inc., Model 204B, 205A, 205A-1, 205B, and 210

helicopters are also affected by the same unsafe condition and issued an NPRM to propose the same actions as those required in AD 2021-15-14. The NPRM published in the Federal Register on June 7, 2022 (87 FR 34587) to amend 14 CFR part 39, and would have applied to Bell Textron Inc., Model 204B, 205A, 205A-1, 205B, and 210 helicopters. The NPRM proposed to require revising the helicopter's existing rotorcraft flight manual (RFM) to incorporate pre-flight checks; removing excess paint and sealant, and cleaning certain parts; and repetitive inspections of structural components that attach the tail boom to the fuselage. Depending on the inspection results, the NPRM proposed to require repairing or replacing components, or re-bonding the structure.

Actions Since the NPRM was Issued

Since the FAA issued the NPRM, the FAA has determined changes to the proposed required actions are necessary, primarily based on comments received from several commenters and additional review. The FAA has also determined to require a special flight permit limitation as proposed in this SNPRM.

Comments

The FAA received comments from four commenters. The following discussion presents the comments received on the NPRM and the FAA's response.

Requests to Withdraw the NPRM

Request: Delta Helicopters Ltd. (DHL) and Remote Helicopters Ltd. (RHL) stated that because Bell service information and established maintenance programs already provide the needed requirements to address the unsafe condition, the proposed AD is not necessary. Additionally, an individual commenter stated the proposed requirements will not prevent a sudden failure and stated that daily nut and bolt inspections, replacement of bolts and nuts at scheduled intervals, and maintaining proper torque would be just as effective as the requirements proposed in the NPRM.

DHL stated that although damage does occur, sudden failures will not occur unless the helicopter is being operated outside of its capabilities and not being inspected properly as already prescribed by Bell in related alert service bulletins (ASBs). RHL stated that the proposed requirements in the NPRM are not necessary because properly accomplishing the service information from Bell and operating the helicopter within the

appropriate parameters are sufficient. The FAA infers that these commenters are requesting that the FAA withdraw the NPRM.

FAA Response: The FAA disagrees. While an operator may incorporate into its maintenance program the inspections in the manufacturer's service bulletins referenced by the commenters, not all operators are required to do so. In order for these inspections to become mandatory, and to correct the unsafe conditions identified in the NPRM, the FAA must issue an AD.

Request: DHL, RHL, and one individual commenter each stated that the restricted category helicopters and the Bell Textron Inc., Model 204 and 205 helicopters have significant dissimilarities. DHL stated that the comparison between restricted category and Bell Textron Inc., Model 204B and 205A-1 helicopters is not accurate, and the Model 205 structure has more in common with the structure of a Model 212 helicopter.

RHL stated that the tail boom inspection for the Model UH-1 helicopter is more difficult because of lack of access to the inspection areas. Accordingly, RHL stated that lack of access to the inspection areas is not a problem for Bell Textron Inc., Model 205 helicopters, and because of this, the inspection areas for these helicopters are inspected on a regular basis.

Additionally, one individual commenter stated the structural design of the tail boom and the fuselage attachment structure is different when comparing Model UH helicopters to Bell Textron Inc., Model 205A, 205A-1, 205B, and 210 helicopters, and that these helicopters are more robust than the Model UH helicopter. The individual commenter also stated the failures mentioned in the NPRM occurred only on Model UH helicopters used during heli-logging, and heavy lift activities, but that commenter has never seen these failures during heavy lift activities in the Bell Textron Inc., Model 205A-1 helicopter. Finally, the individual commenter stated the proposed AD is unwarranted and without basis to include the Bell Textron Inc., Model 205A, 205A-1, 205B, and 210 helicopters in the applicability as they are closer in similarity to the Bell Textron Inc., Model 212 helicopter. The FAA infers that these commenters are requesting that the FAA withdraw the NPRM.

FAA Response: The FAA disagrees. An examination of the structures of both the Model UH-1 helicopters and the Bell Textron Inc., Model 204 and 205 helicopters indicated no significant differences between the commercial and military model helicopters. Furthermore, there have been reported tail boom attachment failures involving the Bell Textron Inc., Model 205 helicopter. Additionally, performing heavy lift operations such as logging could accelerate failures in the tail boom attachment region. The FAA expects that the number of tail boom attachment failures will increase over time and will also include those aircraft not involved in heavy lift operations.

Request for Changes to the Required Actions

Request: DHL commenter stated that stripping paint is not necessary to detect damage during routine maintenance.

FAA Response: The FAA agrees and has revised this SNPRM accordingly.

Request: One individual commenter stated inspection requirements are part of the Instructions for Continued Airworthiness and should not be included in a flight manual. The individual commenter stated a mandatory inspection is a stand-alone inspection and is not related to the operation of an aircraft, which is the main reason for a flight manual. Furthermore, the commenter stated maintenance personnel would not review or reference a flight manual for inspection requirements.

FAA Response: The FAA agrees and has revised this proposed AD accordingly by removing the requirement of revising the rotorcraft flight manual from the required actions.

Comment Regarding an Alternative Method of Compliance (AMOC) Request

Request: One individual commenter requested the ability to submit a request for an AMOC for the tail boom sensor supplemental type certificate.

FAA Response: The FAA agrees that operators may request approval of an AMOC under the provisions of paragraph (j) of this SNPRM.

FAA's Determination

The FAA is proposing this AD after determining the unsafe condition described previously is likely to exist or develop in other products of the same type design. Certain changes described above expand the scope of the NPRM. As a result, it is necessary to

reopen the comment period to provide additional opportunity for the public to comment on this SNPRM.

Related Service Information under 1 CFR part 51

The FAA reviewed Bell Alert Service Bulletin (ASB) 210-21-15, Revision A, dated February 23, 2022 (ASB 210-21-15, Rev A). This service information specifies procedures for replacing the steel alloy barrel nuts with nickel alloy barrel nuts, inspecting, and replacing the tail boom attachment hardware, stabilizing the tail boom attachment hardware torque, applying torque seals, and subsequently checking the torque.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Other Related Service Information

The FAA reviewed Bell ASB 205-21-118, Bell ASB 204B-21-75, and Bell ASB 205B-21-72, each Revision A and dated February 23, 2022. This service information specifies the same procedures as ASB 210-21-15, Rev A.

Proposed AD Requirements in this SNPRM

This proposed AD would require for Bell Textron Inc., Model 204B helicopters, with the tailboom assembly removed, removing the upper left-hand (LH) bolt from service and inspecting the bolt's associated attachment hardware, and depending on the inspection results, removing the associated nut from service. This proposed AD would also require visually inspecting each bulkhead, bolt hole, attachment fitting, the three other nuts, the upper right-hand bolt, and two lower bolts, including the bolt shank and head radii. Depending on inspection results, this proposed AD would require repairing or replacing an affected bulkhead or affected fitting, removing certain part-numbered nuts, removing any affected nut and its associated bolt from service, and removing any affected bolt from service.

This proposed AD would require for Bell Textron Inc., Model 205A, 205A-1, and 205B helicopters, with the tail boom assembly removed, removing the upper LH bolt from service, and inspecting its associated barrel nut and retainer, and depending on the inspection results, removing barrel nut and retainer from service. This proposed AD

would also require visually inspecting each bulkhead, bolt hole, attachment fitting, the three other barrel nuts, associated retainers, the upper right-hand bolt, and two lower bolts, including the bolt shank and head radii. Depending on inspection results, this proposed AD would require repairing or replacing an affected bulkhead or affected fitting, removing certain part-numbered barrel nuts and retainers, removing any affected barrel nuts and its associated bolt from service, and removing any affected bolt from service.

This proposed AD would require for Bell Textron Inc., Model 210 helicopters, with the tail boom supported, removing the upper LH steel alloy barrel nut, retainer, and bolt from service. This proposed AD would also require removing the countersunk washer and plain washers, and replacing them with a new certain part-numbered nickel alloy barrel nut, new retainer, new bolt, an airworthy countersunk washer, and airworthy plain washers. This proposed AD would also require visually inspecting the upper RH bolt and its associated hardware, and depending on the inspection results, removing the upper RH bolt and barrel nut from service. Additionally, this proposed AD would require visually inspecting the two lower bolts and the associated barrel nuts, and depending on the inspection results, removing any affected barrel nut and its associated bolt from service, and removing any affected bolt from service.

Additionally, this proposed AD would require for all applicable helicopters, after the initial inspections have been completed, applying a coating of grease to each bolt shank only, installing the applicable hardware, and torquing each bolt by using the torque value information identified in this proposed AD or identified in ASB 210-21-15, Rev A as applicable.

Thereafter, for all applicable helicopters, this proposed AD would require inspecting the torque applied on each bolt to determine if the torque has stabilized and, depending on the results, replacing and inspecting certain tail boom attachment point hardware and repeating the torque inspections, or applying torque stripes.

Lastly, this proposed AD would prohibit installing certain part-numbered steel alloy nuts on any Model 204B helicopters; and would prohibit installing certain part-numbered steel alloy barrel nuts on any Model 205A, 205A-1, 205B, and 210 helicopters.

Differences Between this SNPRM and the Service Information

The service information specifies checking torque, whereas this proposed AD would require inspecting torque because that action must be accomplished by persons authorized under 14 CFR 43.3.

When stabilizing the tail boom attachment hardware torque, the service information does not specify what to do if the torque on a tail boom attachment bolt is below the minimum allowable torque limit, whereas this proposed AD would require replacing and inspecting certain tail boom attachment point hardware, stabilizing the torque of the replaced hardware set, and applying torque stripes.

Costs of Compliance

The FAA estimates that this proposed AD would affect 62 (five Model 204B helicopters, fifty-three Model 205A, 205A-1, and 205B helicopters, and four Model 210 helicopters) of U.S. registry. Labor costs are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this proposed AD.

For the initial requirements for Model 204B helicopters, inspecting or replacing up to four bolts (which includes applying a coating of grease), inspecting each bulkhead, inspecting each fitting and bolt hole, inspecting and stabilizing the torque, and applying torque stripes would take up to approximately 8.5 work-hours for an estimated labor cost of up to \$723. The parts cost for an upper LH bolt would be approximately \$196 and the parts cost for the other bolts would be approximately \$89 per bolt. The parts cost for four new nuts would be approximately \$680. The parts cost to apply torque stripes would be a nominal amount. The estimated cost for these actions would be up to approximately \$1,866 per helicopter and \$9,330 for the U.S. fleet.

For the initial requirements for Model 205A, 205A-1, and 205B helicopters, replacing the four steel alloy barrel nuts with new nickel alloy barrel nuts, inspecting or replacing up to four bolts (which includes applying a coating of grease), inspecting each bulkhead, inspecting and stabilizing the torque, and applying torque stripes would take up to approximately 8.5 work-hours for an estimated labor cost of up to \$723. The parts cost for the four new nickel alloy barrel nuts (including retainers) would be approximately \$680. The parts cost for an upper LH bolt would be approximately \$196 and the parts

cost for the other bolts would be approximately \$89 per bolt. The parts cost to apply torque stripes would be a nominal amount. The estimated cost for these actions would be up to approximately \$1,866 per helicopter and \$98,898 for the U.S. fleet.

For the initial requirements for Model 210 helicopters, replacing the four steel alloy barrel nuts with new nickel alloy barrel nuts, inspecting or replacing up to four bolts (which includes applying a coating of grease), inspecting and stabilizing the torque, and applying torque stripes would take up to approximately 8.5 work-hours for an estimated labor cost of up to \$723. The parts cost for the four new nickel alloy barrel nuts (including retainers) would be approximately \$680. The parts cost for an upper LH bolt would be approximately \$196 and the parts cost for the other bolts would be approximately \$89 per bolt. The parts cost to apply torque stripes would be a nominal amount. The estimated cost for these actions would be up to approximately \$1,866 per helicopter and \$7,464 for the U.S. fleet.

For all applicable helicopters, inspecting the torque applied on each bolt would take approximately 1 work-hour for an estimated cost of \$85 per helicopter and \$5,270 for the U.S. fleet, per inspection cycle.

For all applicable helicopters, replacing an upper LH bolt, stabilizing the torque, and applying a torque stripe would take up to approximately 5 work-hours. The parts cost for an upper LH bolt would be approximately \$196 and the parts cost to apply a torque stripe would be a nominal amount. The estimated cost for these actions would be up to approximately \$621 per helicopter and \$38,502 for the U.S. fleet, per replacement cycle. Inspecting one of the other bolts, stabilizing the torque, and applying a torque stripe would take up to approximately 3.5 work-hours for an estimated cost of \$298 per other bolt and \$18,476 for the U.S. fleet per other bolt per inspection cycle. If required, replacing a bolt following that inspection would take a minimal amount of additional time and the parts cost would be approximately \$89.

If required as a result of failing any torque inspection required by this proposed AD, visually inspecting a nut or a barrel nut, replacing a bolt, stabilizing the torque, and applying a torque stripe would take up to approximately 5.5 work-hours per failed hardware set. The parts cost for an upper LH bolt would be approximately \$196 and the

parts cost for the other bolts would be approximately \$89 per bolt. The parts cost to apply a torque stripe would be a nominal amount. The estimated cost for these actions would be \$664 (upper LH bolt) or \$557 (other bolts), per failed hardware set. If required, replacing a nut following that inspection would take a minimal amount of additional time and the parts cost for a nut would be approximately \$89 per nut, and if required, replacing a barrel nut following that inspection would take a minimal amount of additional time and the parts cost for a barrel nut (including retainer) would be approximately \$173 per barrel nut.

The corrective action that may be needed as a result of the bulkhead inspection could vary significantly from helicopter to helicopter. The FAA has no data to determine the costs to accomplish the corrective action or the number of helicopters that may require corrective action.

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 this 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 adding the following new airworthiness directive:

Bell Textron Inc.: Docket No. FAA-2022-0600; Project Identifier AD-2021-01160-R.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bell Textron Inc., Model 204B, 205A, 205A-1, 205B, and 210 helicopters, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) 5302, Rotorcraft Tail Boom.

(e) Unsafe Condition

This AD was prompted by an accident and incidents involving failure of the tail boom attachment structure. The FAA is issuing this AD to address fatigue cracking of tail

boom attachment fittings, cap angles, longerons, and bolts. The unsafe condition, if not addressed, could result in separation of the tail boom from the helicopter and subsequent loss of control of the helicopter.

(f) Compliance

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

(g) Allowable Torque Values (in-lbs)

Tail Boom Attachment Point	Model 204B	Model 205A/205A-1	Model 205B	Model 210
Upper left-hand bolt	570-610	1000-1200	1000-1200	1300-1600
Upper right-hand bolt	360-380	1000-1200	1000-1200	1000-1200
Lower left-hand bolt	360-380	400-430	400-430	400-430
Lower right-hand bolt	360-380	400-430	400-430	400-430

(h) Required Actions

(1) Within 300 hours time-in-service (TIS) or 90 days after the effective date of this AD, whichever occurs first, accomplish the actions required by paragraphs (h)(1)(i), (ii), or (iii) of this AD as applicable to your model helicopter. For purposes of this AD, the word “new” is defined as having zero total hours TIS.

(i) For Model 204B helicopters, accomplish the actions required by paragraphs (h)(1)(i)(A) through (C) of this AD.

(A) With the tail boom assembly removed, remove the upper left-hand (LH) tail boom attachment bolt (bolt) from service and inspect its associated tail boom attachment nut (nut) for mechanical damage, corrosion, a crack, damaged threads, and wear, and to determine whether it is a steel alloy part number (P/N) NAS679A, NAS1291, or MS21042. If there is any mechanical damage, corrosion, a crack, a damaged thread, or wear, or if nut P/N NAS679A, NAS1291, or MS21042 is installed, before further flight, remove the nut from service.

(B) Visually inspect each bulkhead (FS 195.00 and FS 195.03) and the bolt holes for mechanical damage, corrosion, and cracks; visually inspect each attachment fitting for mechanical damage, corrosion, cracks, and loose fasteners; determine if any of the three other nuts are a steel alloy P/N NAS679A, NAS1291, or MS21042; and visually inspect

the other three nuts, the upper right-hand (RH) bolt, and two lower bolts for mechanical damage, corrosion, cracks, damaged threads, and wear, including the bolt shank and head radii of the bolts for a damaged thread, wear, and mechanical damage.

(1) If there is any mechanical damage, corrosion, or cracks on any bulkhead (FS 195.00 or FS 195.03), or any mechanical damage, corrosion, or cracks on any bolt holes, or if there is any mechanical damage, corrosion, cracks, or loose fasteners on any attachment fitting, before further flight, repair or replace the affected bulkhead or the affected attachment fitting, as appropriate, in accordance with FAA-approved procedures.

(2) If there is any mechanical damage, corrosion, a crack, a damaged thread, or wear on any nut, or if nut P/N NAS679A, NAS1291, or MS21042 is installed, before further flight, remove the affected nut from service. If there is a crack on any nut, before further flight, also remove its associated bolt from service.

(3) If there is any mechanical damage, corrosion, a crack, a damaged thread, or wear on the on the upper RH bolt or two lower bolts, which includes the bolt shank or head radii, before further flight, remove the affected bolt from service.

(C) Apply a coating of Aerial ThixO #2 (3810-0) or Aerial ThixO SYN (3820-0) aviation grease to each bolt shank only. Install the hardware set of each tail boom attachment point (nickel alloy nut P/N 90-132L7 or 90-132L6, as applicable to the affected tail boom attachment point, new upper LH bolt P/N NAS627-21, upper RH and two lower bolts P/N NAS626-20, countersunk washer, and plain washers). Torque each bolt by using the torque value information identified in paragraph (g) of this AD.

(ii) For Model 205A, 205A-1, and 205B helicopters, accomplish the actions required by paragraphs (h)(1)(ii)(A) through (C) of this AD.

(A) With the tail boom assembly removed, remove the upper LH bolt from service and inspect its associated tail boom attachment barrel nut (barrel nut) and retainer for mechanical damage, corrosion, a crack, damaged threads, and wear, and to determine whether it is a steel alloy barrel nut P/N NAS577B8A. If there is any mechanical damage, corrosion, a crack, a damaged thread, or wear, or if barrel nut P/N NAS577B8A is installed, before further flight, remove the barrel nut and its associated retainer from service.

(B) Visually inspect each bulkhead (BS 17.31 and FS 243.89) and the bolt holes for mechanical damage, corrosion, and cracks; visually inspect each attachment fitting for mechanical damage, corrosion, cracks, and loose fasteners; determine if any of the three other barrel nuts are steel alloy P/N NAS577B8A or P/N NAS577B6A; and visually inspect the other three barrel nuts and the associated retainers, the upper RH bolt, and two lower bolts for mechanical damage, corrosion, cracks, damaged threads, and wear, including the bolt shank and head radii of the bolts for a damaged thread, wear, and mechanical damage.

(1) If there is any mechanical damage, corrosion, or cracks on any bulkhead (BS 17.31 or FS 243.89), or any mechanical damage, corrosion, or cracks on any bolt holes, or if there is any mechanical damage, corrosion, cracks, or loose fasteners on any attachment fitting, before further flight, repair or replace the affected bulkhead or the affected attachment fitting, as appropriate, in accordance with FAA-approved procedures.

(2) If there is any mechanical damage, corrosion, a crack, a damaged thread, or wear on any barrel nut or retainer, or if barrel nut P/N NAS577B8A or NAS577B6A is installed, before further flight, remove the affected barrel nut and retainer (as a pair) from service. If there is a crack on any nut, before further flight, also remove its associated bolt from service.

(3) If there is any mechanical damage, corrosion, a crack, a damaged thread, or wear on the upper RH bolt or two lower bolts, which includes the bolt shank or head radii, before further flight, remove the affected bolt from service.

(C) Apply a coating of Aerial ThixO #2 (3810-0) or Aerial ThixO SYN (3820-0) aviation grease to each bolt shank only. Install the hardware set of each tail boom attachment point (nickel alloy barrel nut P/N NAS577C6A or P/N NAS577C8A and retainer P/N NAS578C6A or P/N NAS578C8A, as applicable to the affected tail boom attachment point, new upper LH bolt P/N NAS628-22, upper RH and two lower bolts P/N NAS628-22 or NAS626-18, as applicable to the affected tail boom attachment point, countersunk washer, and plain washers). Torque each bolt by using the torque value information identified in paragraph (g) of this AD.

(iii) For Model 210 helicopters, accomplish the actions required by paragraphs (h)(1)(iii)(A) through (C) of this AD.

(A) With the tail boom supported, remove the upper LH bolt, and the steel alloy barrel nut P/N NAS577B9A, including the retainer, from service. Remove the countersunk washer, and plain washers, and install new nickel alloy barrel nut P/N NAS577C9A, new retainer P/N NAS578C9A, airworthy countersunk washer, airworthy plain washers, and a new bolt in accordance with the Accomplishment Instructions, Part I, paragraphs 5 through 7 of Bell Alert Service Bulletin (ASB) 210-21-15, Revision A, dated February 23, 2022 (ASB 210-21-15, Rev A).

(B) Remove the upper RH bolt, steel alloy barrel nut P/N NAS577B8A, countersunk washer, and plain washers. Visually inspect the upper RH bolt for any corrosion, damaged threads, wear, and fatigue cracking. If the upper RH bolt has any corrosion, damaged threads, wear, or fatigue cracking, before further flight, remove the upper RH bolt from service. Visually inspect the removed barrel nut for cracking. If there is any cracking in the barrel nut, before further flight, remove the upper RH bolt from service. Regardless of the result of the upper RH steel alloy barrel nut inspection, replace the barrel nut with a new nickel alloy barrel nut P/N NAS577C8A and new retainer P/N NAS578C8A. Install a new upper RH bolt or reinstall the existing upper RH bolt (if no cracks in the barrel nut, and no corrosion, damaged threads, wear, or fatigue cracking in the bolt were identified), by following the Accomplishment Instructions, part I, paragraphs 11 and 12, including the caution above paragraph 11, of ASB 210-21-15, Rev A.

(C) Remove one of the lower bolts, its lower steel alloy barrel nut P/N NAS577B6A, countersunk washer, and plain washers. Visually inspect that lower bolt for any corrosion, damaged threads, wear, and fatigue cracking. If the lower bolt has any corrosion, damaged threads, wear, or fatigue cracking, before further flight, remove the lower bolt from service. Visually inspect the removed lower barrel nut for cracking. If there is any cracking in the lower barrel nut, before further flight, remove the lower bolt from service. Regardless of the result of that lower steel alloy barrel nut inspection, replace the barrel nut with a new nickel alloy barrel nut P/N NAS577C6A and new

retainer P/N NAS578C6A. Install a new lower bolt or reinstall the existing lower bolt (if no cracks in the barrel nut, and no corrosion, damaged threads, wear, or fatigue cracking in the bolt were identified), by following the Accomplishment Instructions, part I, paragraphs 16 through 17, including the caution above paragraph 16, of ASB 210-21-15, Rev A. Repeat the actions required by this paragraph for the other lower attachment point.

(2) For helicopters identified in paragraph (c) of this AD, after accumulating 1 hour TIS, but not to exceed 5 hours TIS, after accomplishing the actions required by paragraph (h)(1) of this AD, using the torque value information identified in paragraph (g) of this AD, as applicable to your model helicopter, inspect the torque applied on each bolt. Thereafter, repeat the torque inspection of each bolt after accumulating 1 hour TIS, but not to exceed 5 hours TIS, to determine if the torque has stabilized. Do not exceed three torque inspections total for each bolt, and accomplish the actions required by paragraphs (h)(2)(i) and (ii) of this AD.

(i) If the torque on a bolt is below the minimum allowable torque limit as a result of any instance of the torque inspection or if after three torque inspection attempts, the torque on any bolt has not stabilized, before further flight, accomplish the actions required by paragraphs (h)(2)(i)(A) and (B) of this AD.

(A) Remove the hardware set of one failed tail boom attachment point (nut, bolt, countersunk washer, and plain washers for Model 204B helicopters, and barrel nut, bolt, retainer, countersunk washer, and plain washers for Model 205A, 205A-1, 205B, and 210 helicopters). For Model 204 helicopters, remove the nut from service and for Model 205A, 205A-1, 205B, and 210 helicopters remove the barrel nut and retainer from service as applicable to the affected tail boom attachment point. Visually inspect the removed bolt for any corrosion, damaged threads, wear, and fatigue cracking. If the bolt has any corrosion, a damaged thread, wear, or fatigue cracking, before further flight, remove the bolt from service.

(B) Apply a coating of Aerial ThixO #2 (3810-0) or Aerial ThixO SYN (3820-0) aviation grease to the bolt shank only. Install a new bolt or reinstall the existing bolt (if no corrosion, damaged threads, wear, or fatigue cracking in the bolt were identified), and

the hardware set of the affected tail boom attachment point (new nut P/N 90-132L6 or 90-132L7, countersunk washer, and plain washers for Model 204B helicopters, and new nickel alloy barrel nut P/N NAS577C6A, NAS577C8A or P/N NAS577C9A and new retainer P/N NAS578C6A, NAS578C8A, or P/N NAS577C9A, countersunk washer, and plain washers for Model 205A, 205A-1, 205B, and 210 helicopters) as applicable to the affected tail boom attachment point. Torque the bolt by using the torque value information identified in paragraph (g) of this AD. Repeat the actions required by paragraphs (h)(2)(i)(A) and (B) of this AD, for each failed tail boom attachment point, one hardware set at a time. Then repeat the actions required by paragraph (h)(2) of this AD just for each newly installed or reinstalled bolt until the torque for all four tail boom attachment points stabilize.

(ii) If the torque for all four tail boom attachment points has stabilized, before further flight, apply a torque stripe to all four bolts.

(3) For helicopters identified in paragraph (c) of this AD, within 600 hours TIS or 12 months, whichever occurs first, after applying torque stripes to all four bolts as required by paragraph (h)(2)(ii) of this AD, and thereafter within intervals not to exceed 600 hours TIS or 12 months, whichever occurs first, inspect the torque applied on each bolt using the torque value information identified in paragraph (g) of this AD, as applicable to your model helicopter. If the torque on any bolt is below the minimum allowable torque limit, accomplish the actions required by paragraphs (h)(3)(i) and (ii) of this AD.

(i) Before further flight, remove the hardware set of one failed tail boom attachment point (nut, bolt, countersunk washer, and plain washers for Model 204B helicopters, and barrel nut, retainer, bolt, countersunk washer, and plain washers for Model 205A, 205A-1, 205B, and 210 helicopters) and then accomplish the actions required by paragraphs (h)(3)(i)(A), (B), or (C) of this AD as applicable to your model helicopter.

(A) For Model 204B helicopters, visually inspect the removed nut for cracking, corrosion, and loss of tare torque. If the nut has any cracking, corrosion, or loss of tare torque, before further flight, remove the nut from service and replace with a new nut P/N

90-132L7 or 90-132L6 as applicable to the tail boom attachment point. Regardless of the result of the nut inspection, remove the bolt from service and replace it with a new bolt by applying a coating of Aerial ThixO #2 (3810-0) or Aerial ThixO SYN (3820-0) aviation grease to the bolt shank only, and install the hardware set of the tail boom attachment point (nut, bolt, and countersunk washer, and plain washers). Torque each bolt by using the torque value information identified in paragraph (g) of this AD. Repeat the actions required by this paragraph for each failed tail boom attachment point, one hardware set at a time.

(B) For Model 205A, 205A-1, and 205B, helicopters, visually inspect the removed barrel nut for cracking, corrosion, and loss of tare torque. If the barrel nut has any cracking, corrosion, or loss of tare torque, before further flight, remove the barrel nut and retainer from service and replace them with a new nickel alloy barrel nut P/N NAS577C6A, or NAS577C8A, and new retainer P/N NAS578C6A, or NAS578C8A, with the P/N of the new nickel alloy barrel nut and the P/N of the new retainer being as applicable to the affected tail boom attachment point. Regardless of the result of the barrel nut inspection, remove the bolt from service and replace it with a new bolt. Apply a coating of Aerial ThixO #2 (3810-0) or Aerial ThixO SYN (3820-0) aviation grease to each bolt shank only. Install the hardware set of each tail boom attachment point (nickel alloy barrel nut, retainer, bolt, countersunk washer, and plain washers). Torque each bolt by using the torque value information identified in paragraph (g) of this AD. Repeat the actions required by this paragraph for each failed tail boom attachment point, one hardware set at a time.

(C) For Model 210 helicopters, visually inspect the removed barrel nut for cracking, corrosion, and loss of tare torque. If the barrel nut has any cracking, corrosion, or loss of tare torque, before further flight, remove the barrel nut and retainer from service and replace them with a new nickel alloy barrel nut P/N NAS577C6A, NAS577C8A, or NAS577C9A, and new retainer P/N NAS578C6A, NAS578C8A, or NAS578C9A, with the P/N of the new nickel alloy barrel nut and the P/N of the new retainer being as applicable to the affected tail boom attachment point. Regardless of the result of the barrel nut inspection, remove the bolt from service and replace it with a new bolt, apply a

coating of Aerial ThixO #2 (3810-0) or Aerial ThixO SYN (3820-0) aviation grease to each bolt shank only, and torque each bolt by using the torque value information identified in paragraph (g) of this AD. Repeat the actions required by this paragraph for each failed tail boom attachment point, one hardware set at a time.

(ii) After accumulating 1 hour TIS, but not to exceed 5 hours TIS after accomplishing the actions required by paragraph (h)(3)(i) of this AD, using the torque value information identified in paragraph (g) of this AD as applicable to your model helicopter, inspect the torque applied on each newly installed bolt. Thereafter, repeat the torque inspection of those bolts after accumulating 1 hour TIS, but not to exceed 5 hours TIS, to determine if the torque has stabilized. Do not exceed three torque inspections total for those bolts and accomplish the actions required by paragraphs (h)(2)(i) and (ii) of this AD.

(4) For helicopters identified in paragraph (c) of this AD, within 5,000 hours TIS or 5 years after accomplishing the actions required by paragraph (h)(1) of this AD, whichever occurs first, and thereafter, within intervals not to exceed 5,000 hours TIS or 5 years, whichever occurs first, accomplish the actions required by paragraphs (h)(4)(i) and (ii) of this AD.

(i) Accomplish the actions required by paragraphs (h)(1)(i), (ii), or (iii) of this AD, as applicable to your model helicopter.

(ii) After accumulating 1 hour TIS, but not to exceed 5 hours TIS after accomplishing the actions required by paragraph (h)(4)(i) of this AD, using the torque value information identified in paragraph (g) of this AD as applicable to your model helicopter, inspect the torque applied on each bolt. Thereafter, repeat the torque inspection of those bolts after accumulating 1 hour TIS, but not to exceed 5 hours TIS, to determine if the torque has stabilized. Do not exceed three torque inspections total for those bolts and accomplish the actions required by paragraphs (h)(2)(i) and (ii) of this AD.

(5) As of the effective date of this AD, do not install the following parts identified in paragraphs (h)(5)(i) and (ii) of this AD on any helicopter.

(i) For Model 204B helicopters; steel alloy nut P/N NAS679A, NAS1291, or MS21042.

(ii) For Model 205A, 205A-1, 205B, and 210 helicopters; steel alloy barrel nut P/N NAS577B9A, P/N NAS577B8A, or P/N NAS577B6A.

(i) Special Flight Permit

A one-time special flight permit may be issued in accordance with 14 CFR 21.197 and 21.199 in order to fly to a maintenance area to perform the required actions in this AD.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Central 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 certification office, send it to the attention of the person identified in paragraph (k) of this AD. Information may be emailed to fwaco@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.

(k) Related Information

For more information about this AD, contact Michael Perrin, Aviation Safety Engineer, FAA, 1801 S Airport Road, Wichita, KS 67209; phone: (562) 627-5362; email: Michael.j.perrin@faa.gov.

(l) 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) Bell Alert Service Bulletin 210-21-15, Revision A, dated February 23, 2022.

(ii) [Reserved]

(3) For service information identified in this AD, contact Bell Textron Inc., P.O. Box 482, Fort Worth, TX 76101; phone (450) 437-2862 or (800) 363-8023; fax (450) 433-0272; email productsupport@bellflight.com; or website: bellflight.com/support/contact-support.

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

(5) You may view this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, visit www.archives.gov/federal-register/cfr/ibr-locations or email fr.inspection@nara.gov.

Issued on April 26, 2024.

James D. Foltz,
Deputy Director, Compliance & Airworthiness Division,
Aircraft Certification Service.

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