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INSTRUCTIONS for CONTINUED AIRWORTHINESS for RADAR ALTIMETER MOUNT KIT

407-016-005

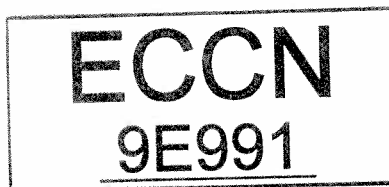
STC: SR02162LA

FOR

BELL HELICOPTER TEXTRON MODEL 407 HELICOPTERS

**Report No. AA-TBA-16-008
Revision A**

February 5, 2010



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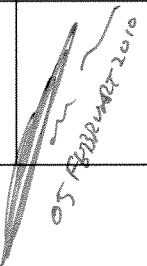

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LOG OF REVISIONS

Date	Revision	Description	Affected Pages	Approved / Date	Accepted / Date
01/11/08	IR	Original Release	All	—	—
02/05/10	A	Revised document to AAI format; reorganized document section order; deleted N/A sections; revised inspection requirements, added conditional inspection; revised removal and replacement section (Section 4.0) to provide greater detail; revised figures 1 and 2 for clarity	All		

LIST OF EFFECTIVE PAGES

All pages contained herein are at latest revision shown in Log of Revisions.

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1.0 INTRODUCTION

These instructions contain the information necessary to inspect and maintain the **Aeronautical Accessories, Inc., Radar Altimeter Mount Kit (407-016-005)** installed in accordance with STC SR02162LA on Bell Helicopter Textron model 407 helicopters.

1.1 DISTRIBUTION

These instructions are provided with each model 407 Radar Altimeter Mount Kit. Any airworthiness or flight safety revisions will be immediately made available to all affected owners.

1.2 REVISION

A Log of Revision section is included in these instructions and will be utilized to document all changes. Change recommendations should be submitted to:
Aeronautical Accessories Inc.
P.O. Box 3689
Bristol, TN 37625-3689
Email: techsupport@aero-access.com

2.0 DESCRIPTION

The Aeronautical Accessories, Inc. Radar Altimeter Mount Kit provides a means for mounting a Radar Altimeter on the aircraft tail boom.

3.0 MAINTENANCE INSTRUCTIONS**3.1 100 HOUR INSPECTION**

The Radar Altimeter Mount Kit shall receive a 100 Hour inspection consisting of the following items.

1. Visually inspect aluminum brackets for cracks, nicks or deep scratches, and indications of corrosion.
2. Visually inspect hardware for security and tightness.
3. Visually inspect hardware for signs of fretting or working.
4. Utilize the 100 Hour Inspection Record provided in Appendix A to document inspection completion.

TABLE 1. DAMAGE AND REPAIR LIMITS

Component	Maximum Allowable Damage And Repair Limits (Damage and corrosion may be repaired as noted in Section 3.3 Repair, if it does not exceed these limits.)		
	Scratches / Nicks / Dents and Corrosion	Cracks	Fastener Hole Elongation
Outer / Inner Mount (Mid/Aft)	To a depth of .010"	None	None
Doubler (Mid/Aft)	To a depth of .010"	None	None
Shim	None	None	None

3.2 CONDITIONAL INSPECTIONS

A conditional inspection does not occur at a specified time. It is caused by known or suspected unusual events, malfunctions, or defects. The Radar Altimeter Mount Kit shall receive a conditional inspection in cases of known or suspected rotor strikes, hard landings, lightning strikes, or flight through hail.

1. Perform 100 Hour Inspection detailed in Section 3.1.

3.3 REPAIR

Repair scratches, nicks, or corrosion as follows:

1. On metal components, lightly polish the affected area using Scotch-Brite pads. Ensure the limits presented in Table 1 are not exceeded. Take care to remove as little of the component protective coatings as possible. Clean repaired area with isopropyl alcohol; brush Alodine bare aluminum areas per MIL-DTL-5541; apply two coats of epoxy polyamide primer to repaired area; paint to match original finish, as applicable.

NOTE

If cracks are present, replace part. Crack repairs are not authorized.

4.0 REMOVAL AND REPLACEMENT INFORMATION

(See Figures 1 and 2 and Tables 2 and 3 for parts identification information.)

WARNING

DO NOT USE A METAL TOOL TO REMOVE SEALANT FROM FUSELAGE, ANTENNA MOUNT, AND/OR ANTENNA.

4.1 REMOVAL: 407-016-005 RADAR ALTIMETER MOUNT KIT

(See Figures 1 and 2.)

NOTE

Disconnect the battery. Remove tailboom access panel and tailboom horizontal access panel to gain access to area of Radar Altimeter Mounts.

NOTE

Removal of 407-016-005 mid mount and aft mounts follow identical procedures.

1. Remove and retain the (4, typical, MS24694-S47 screws) securing any antenna mounted to the antenna mount. Further remove antenna in accordance with antenna manufacturer instructions. Retain antenna and any associated hardware.
2. Remove and retain the (2) MS24694-S60 and (2) MS24694-S63 Screws securing the 407-015-401 Aft / 407-015-301 Mid Outer Mount Assembly to tail boom and 407-015-501 Mid / 407-015-601 Aft Inner Mount Assembly. Remove and retain 407-015-401 Aft / 407-015-301 Mid Outer Mount Assembly and 407-015-501 Mid / 407-015-601 Aft Inner Mount Assembly.
3. 407-015-401 Aft / 407-015-301 Mid Outer Mount Assembly and 407-015-501 Mid / 407-015-601 Aft Inner Mount Assembly removal from aircraft complete.

NOTE

407-015-433 Mid / 407-015-333 Aft Doubler and 407-015-139 Mid / 407-015-149 Aft Shim removal from tail boom is not recommended unless required due to damage.

Should 407-015-433 Mid / 407-015-333 Aft Doubler and 407-015-139 Mid / 407-015-149 Aft Shim removal be required, reference AAI Installation Instructions, report AA-97147, revision L or later approved revision, for instructions.

4.2 INSTALLATION: 407-016-005 RADAR ALTIMETER MOUNT KIT
(See Figures 1 and 2.)**CAUTION**

Disconnect battery prior to installing Mount Kit.

NOTE

Remove tail boom access panel and tail boom horizontal access panel to gain access to area of Radar Altimeter Mounts.

NOTE

Installation of 407-01-005 mid mount and aft mounts follow identical procedures.

NOTE

Coat faying surfaces of Mount Assemblies with 099-050-222 Proseal prior to installation.

1. Locate mounting location inside tail boom of 407-017-501 Mid / 407-017-601 Aft Inner Mount Assembly.
2. Using the retained (2) MS24694-S60 and (2) MS24694-S63 Screws, secure the 407-015-401 Aft / 407-015-301 Mid Outer Mount Assembly to tail boom and 407-015-501 Mid / 407-015-601 Aft Inner Mount Assembly.
3. 407-015-401 Aft / 407-015-301 Mid Outer Mount Assembly and 407-015-501 Mid / 407-015-601 Aft Inner Mount Assembly installation to aircraft complete.
4. Using the retained (4, typical, MS24694-S47) screws, secure any removed antenna to the antenna mount. Further install antenna in accordance with antenna manufacturer instructions. Seal antenna edge with 099-050-222 Sealant; installation complete.

5.0 **RECOMMENDED OVERHAUL PERIODS**

No component overhaul required for this type design change.

6.0 **AIRWORTHINESS LIMITATIONS**

No airworthiness limitations associated with this type design change.

7.0 **WEIGHT AND BALANCE**

407-016-005 Radar Altimeter Mount Kit (Mid)

<u>Weight*</u>	<u>Station</u>	<u>Lateral Arm</u>
1.25 lbs (0.57 Kg)	68.74 in (1746.00 mm)	0.0 in (0.0 mm)

407-016-005 Radar Altimeter Mount Kit (Aft)

<u>Weight*</u>	<u>Station</u>	<u>Lateral Arm</u>
1.25 lbs (0.57 Kg)	90.74 in (2305.00 mm)	0.0 in (0.0 mm)

* Does not include antenna weight.

8.0 **PARTS BREAKDOWN**

Tables 2 and 3 contain Parts Breakdown data for the model 407 Radar Altimeter Mount Kit.

The column Availability Code (AV Code) specifies the procurement status for each part. The codes to identify if a part is procurable, procedure details to get an assembly or local manufacture code are as follows:

AV Code	Details
0	Nonprocurable part
1	Procurable part
2	Procure as detail parts only
3	Procurable as Next Higher Assembly
4	Local manufacture. Contact AAI Product Support Engineering (PSE)
5	Part replacement requires a fixture or special equipment. Contact AAI PSE
6	Non-stock procurable part

**INSTRUCTIONS for CONTINUED AIRWORTHINESS
Radar Altimeter Mount Kit**

**TABLE 2. PARTS BREAKDOWN,
407-016-005 RADAR ALTIMETER MOUNT KIT**

Qty	Part Number	Description	AV Code
1	407-015-139	Shim	1
1	407-015-149	Shim	1
1	407-015-601	Aft Inner Mount Assembly	1
1	407-015-501	Mid Inner Mount Assembly	1
1	407-015-401	Aft Outer Mount Assembly	1
1	407-015-301	Mid Outer Mount Assembly	1
2	099-050-138	Adhesive	1
2	099-050-222	Proseal	1
1	407-015-333	Aft Doubler	1
1	407-015-433	Doubler	1
8	MS24694-S60	Screw	1
8	MS24694-S62	Screw	1
8	MS24694-S63	Screw	1
8	MS24694-S65	Screw	1
76	CR3213-4-3	Rivet	1
16	MS20426AD4-5	Rivet	1
2	MS35489-49	Grommet	1
8	MS24694-S47	Screw	1

**TABLE 3. PARTS BREAKDOWN,
407-015-301 MID / 407-015-401 AFT OUTER MOUNT ASSEMBLY
407-015-501 MID / 407-015-601 AFT INNER MOUNT ASSEMBLY**

Qty -301	Qty -401	Qty -501	Qty -601	Part Number	Description	AV Code
1				407-015-321	Mid Outer Mount	1
	1			407-015-421	Aft Outer Mount	1
		1		407-015-521	Mid Inner Mount	1
			1	407-015-621	Aft Inner Mount	1
		2	2	MS21075L3N	Nut Plate	1
4	4			MS21209F1-10	Helicoil	1
		2	2	MS20426AD3-8	Rivet	1
		2	2	MS20426AD3-9	Rivet	1

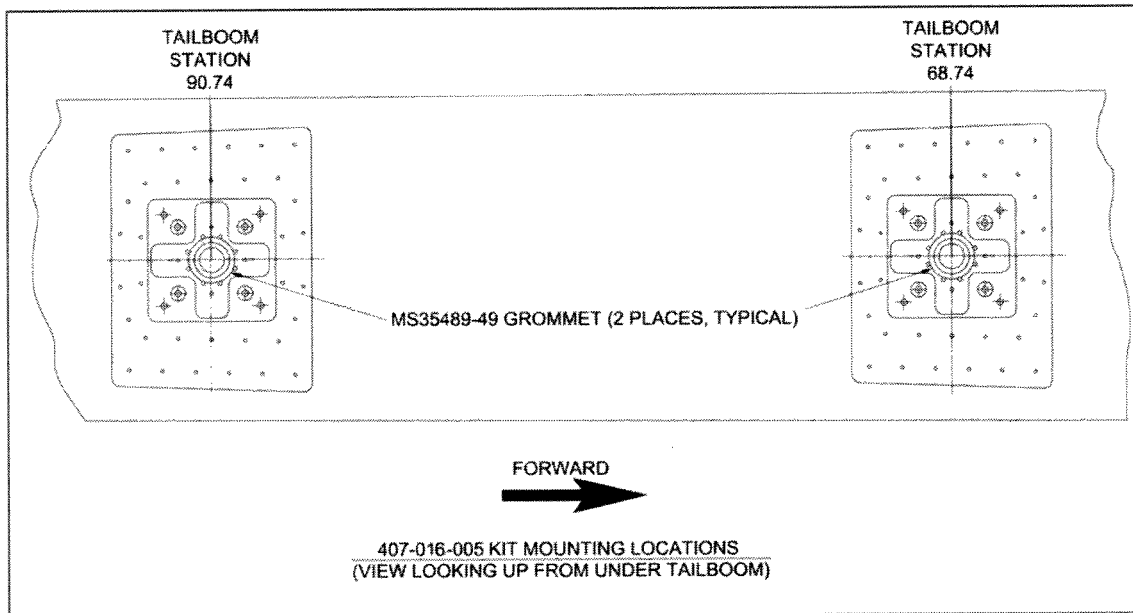


FIGURE 1. 407-016-005 KIT INSTALLATION LOCATIONS

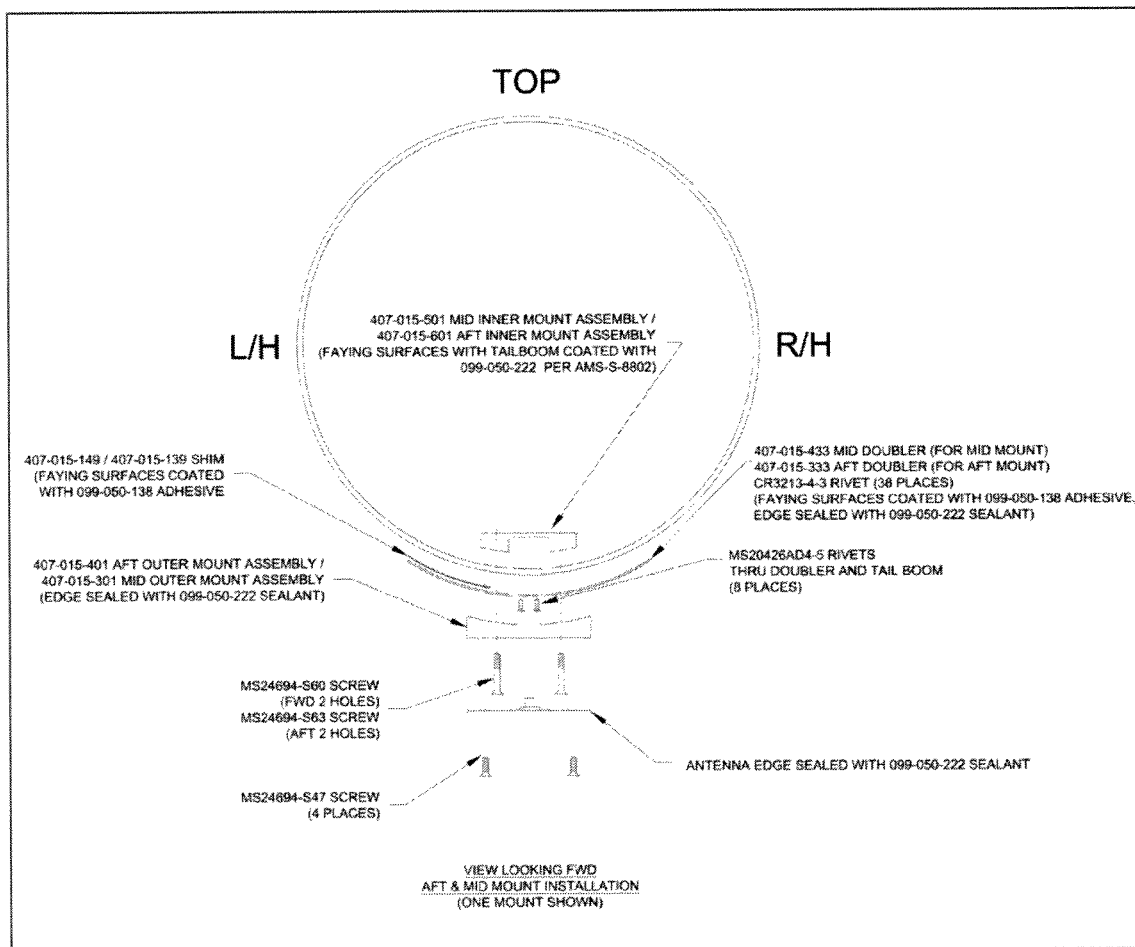


FIGURE 2. 407-016-005 KIT CROSS SECTIONAL VIEW

AERONAUTICAL ACCESSORIES, INC.

APPENDIX A

100 Hour Inspection Record

Work Order Number: _____

Registration Number: _____

Serial Number: _____

Total Time: _____

Date: _____

Inspect the Radar Altimeter Mount Kit in accordance with Section 3.1 100 Hour Inspection.

- 1. Visually inspect aluminum brackets for cracks, nicks or deep scratches, and corrosion. _____

NOTE

The indications of corrosion are 1) corrosion deposits (a white or gray powder on aluminum or rust colored deposits on steel), 2) pits in aluminum or steel surfaces, 3) blisters, bulging or flaking of protective coatings.

- 2. Visually inspect hardware for security and tightness. _____
- 3. Visually inspect hardware for signs of fretting or working. _____

Signature _____ A & P No. _____

Signature _____ Inspector _____