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**INSTRUCTIONS**  
for  
**CONTINUED AIRWORTHINESS**  
for  
**VHF COMMUNICATIONS**  
**TAIL BOOM ANTENNA MOUNT KIT**

**407-018-005 Mid Mount / 407-018-006 Aft Mount**

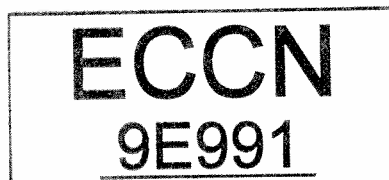
**STC: SR02121LA**

**FOR**

**BELL HELICOPTER TEXTRON MODEL 407 HELICOPTERS**

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

**January 29, 2010**



**RESTRICTED DISCLOSURE NOTICE**

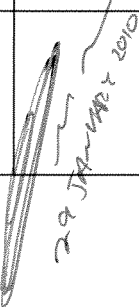
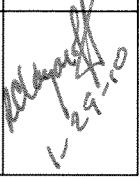
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**LOG OF REVISIONS**

Date	Revision	Description	Affected Pages	Approved / Date	Accepted / Date
01/11/08	IR	Original Release	All	—	—
01/29/10	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., VHF Communications Tail Boom Antenna Mount Kit (407-018-005 Mid Mount / 407-018-006 Aft Mount)** installed in accordance with STC SR02121LA on Bell Helicopter Textron model 407 helicopters.

**1.1 DISTRIBUTION**

These instructions are provided with each model 407 VHF Communications Tail Boom Antenna 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](mailto:techsupport@aero-access.com)

**2.0 DESCRIPTION**

The Aeronautical Accessories, Inc. VHF Communications Tail Boom Antenna Mount Kit provides a means for mounting a VHF Communications antenna on the aircraft tail boom.

### 3.0 MAINTENANCE INSTRUCTIONS

#### 3.1 100 HOUR INSPECTION

The Tail Boom Antenna Mount Kit shall receive a 100 Hour visual 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 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
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 Tail Boom Antenna 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: 407-018-005 / 407-018-006 ANTENNA 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 VHF Communication Tail Boom Antenna Mounts.

**NOTE**

Removal of 407-018-005 Mid Mount and 407-018-006 Aft Mount kits follow identical procedures.

1. Remove and retain the (4, typical, MS24694-S4 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 (4, typical) MS24694-S60 Screws securing the 407-017-401 Mid / 407-017-301 Aft Outer Mount Assembly to tailboom and 407-017-501 Mid / 407-017-601 Aft Inner Mount Assembly. Remove and retain 407-017-401 Mid / 407-017-301 Aft Outer Mount Assembly and 407-017-501 Mid / 407-017-601 Aft Inner Mount Assembly.
3. 407-017-401 Mid / 407-017-301 Aft Outer Mount Assembly and 407-017-501 Mid / 407-017-601 Aft Inner Mount Assembly removal from aircraft complete.

**NOTE**

407-017-433 Mid / 407-017-333 Aft Doubler and 407-017-139 Mid / 407-017-149 Aft Shim removal from tail boom is not recommended unless required due to damage.

Should 407-017-433 Mid / 407-017-333 Aft Doubler and 407-017-139 Mid / 407-017-149 Aft Shim removal be required, reference AAI Installation Instructions, report AA-00047, revision F or later approved revision, for instructions.

**4.2 INSTALLATION: 407-018-005 / 407-018-006 ANTENNA MOUNT KIT**  
(See Figures 1 and 2.)**CAUTION**

**Disconnect battery prior to installing Antenna Mount Kit.**

**NOTE**

Remove tailboom access panel and tailboom horizontal access panel to gain access to area of VHF Communication Tail Boom Antenna Mounts.

**NOTE**

Installation of 407-018-005 Mid Mount and 407-018-006 Aft Mount kits 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 (4, typical) MS24694-S60 Screws, secure the 407-017-401 Mid / 407-017-301 Aft Outer Mount Assembly to tail boom and 407-017-501 Mid / 407-017-601 Aft Inner Mount Assembly.
3. 407-017-401 Mid / 407-017-301 Aft Outer Mount Assembly and 407-017-501 Mid / 407-017-601 Aft Inner Mount Assembly installation to aircraft complete.
4. Using the retained (4, typical, MS24694-S4) 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**

407-018-005 VHF Communications Antenna Mid Mount Kit

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

407-018-006 VHF Communications Antenna Aft Mount Kit

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

\* Does not include antenna weight.

## 8.0 PARTS BREAKDOWN

Tables 2 and 3 contain Parts Breakdown data for the model 407 VHF Communications Tail Boom Antenna 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

**TABLE 2. PARTS BREAKDOWN,  
407-018-005 ANTENNA MOUNT KIT, MID / 407-018-006 ANTENNA MOUNT KIT, AFT**

Qty -005	Qty -006	Part Number	Description	AV Code
1		407-017-139	Shim (Mid)	1
	1	407-017-149	Shim (Aft)	1
	1	407-017-601	Aft Inner Mount Assembly	1
1		407-017-501	Mid Inner Mount Assembly	1
1		407-017-401	Mid Outer Mount Assembly	1
	1	407-017-301	Aft Outer Mount Assembly	1
1	1	099-050-138	Adhesive	1
1	1	099-050-222	Proseal	1
	1	407-017-333	Aft Doubler	1
1		407-017-433	Mid Doubler	1
4	4	MS24694-S4	Screw	1
4	4	MS24694-S60	Screw	1
34	34	CR3213-4-3	Rivet	1
8	8	MS20426AD4-5	Rivet	1
1	1	MS35489-49	Grommet	1

**TABLE 3. PARTS BREAKDOWN,  
407-017-301 AFT / 407-017-401 MID OUTER MOUNT ASSEMBLY  
407-017-501 MID / 407-017-601 AFT INNER MOUNT ASSEMBLY**

Qty -301	Qty -401	Qty -501	Qty -601	Part Number	Description	AV Code
1				407-017-321	Aft Outer Mount	1
	1			407-017-421	Mid Outer Mount	1
		1		407-017-521	Mid Inner Mount	1
			1	407-017-621	Aft Inner Mount	1
		2	2	MS21075L3N	Nut Plate	1
4	4			MS21209F0810	Helicoil	1
		4	4	MS20426AD3-6-5	Rivet	1

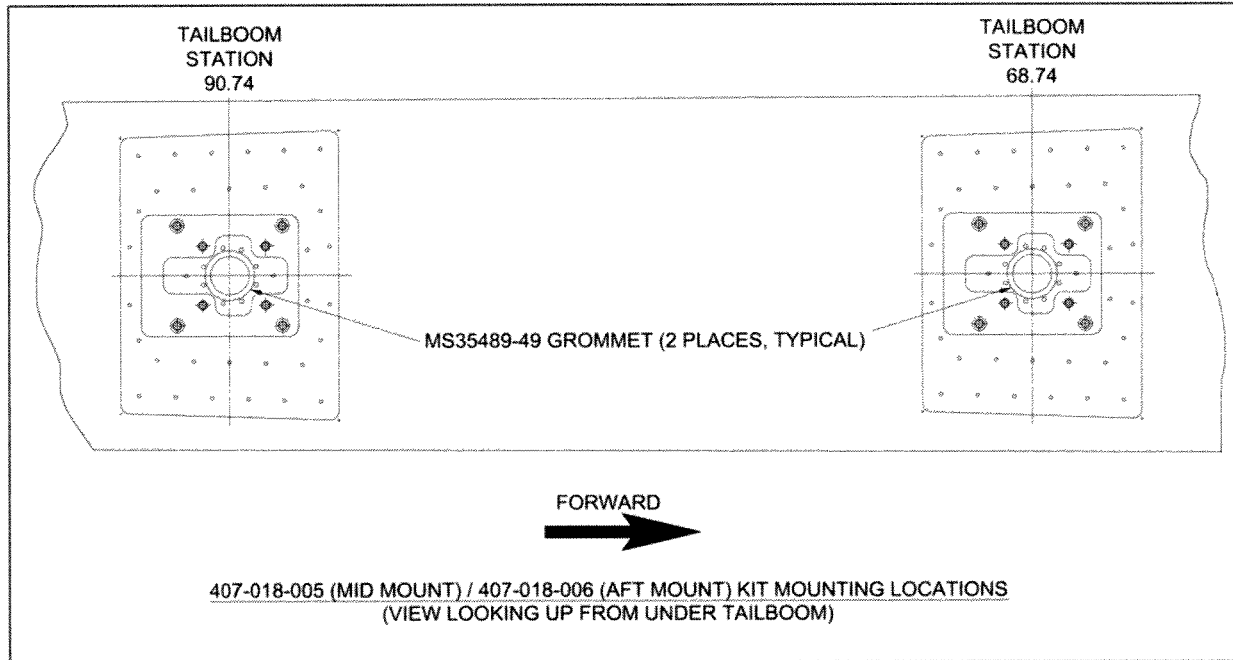


FIGURE 1. 407-018-005 / 407-018-006 KIT INSTALLATION LOCATIONS

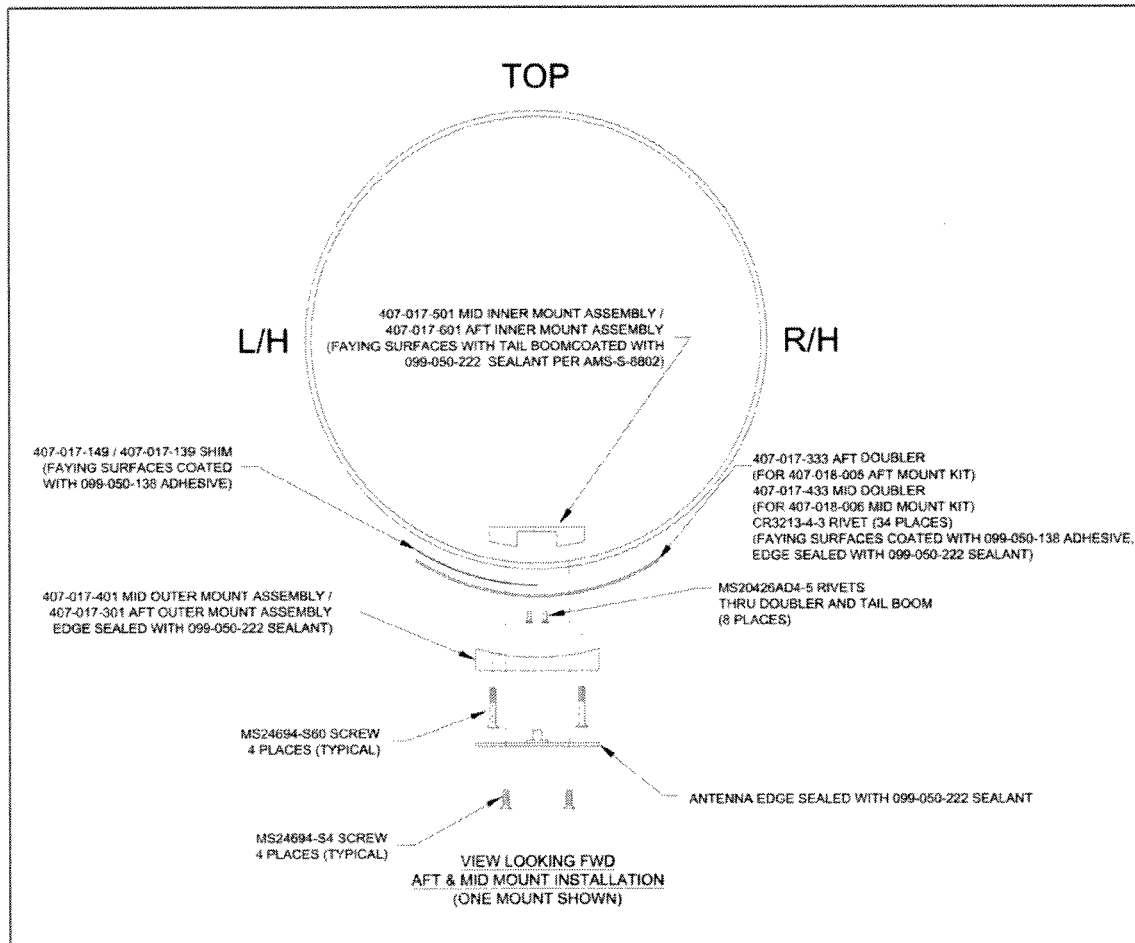


FIGURE 2. 407-018-005 / 407-018-006 KIT CROSS SECTIONAL VIEW

**APPENDIX A**

**100 Hour Inspection Record**

**Work Order Number:** \_\_\_\_\_

**Registration Number:** \_\_\_\_\_

**Serial Number:** \_\_\_\_\_

**Total Time:** \_\_\_\_\_

**Date:** \_\_\_\_\_

Inspect the Antenna 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** \_\_\_\_\_