



**APPROVAL:**

The engineering design aspects of this bulletin are Transport Canada approved.

**MANPOWER:**

Approximately 12.0 man-hours are required to complete this bulletin. Man-hours are based on hands-on time, and may vary with personnel and facilities available.

**WARRANTY:**

Owners/operators of 427 helicopters who comply with the instructions outlined in this bulletin will receive a special 100% warranty credit for the part contained in the "Required Material" section of this bulletin. In addition, labor in amount of \$660.00 USD will be allowed to incorporate this bulletin.

To receive this credit:

- Purchase the required parts from an approved BHTI supply source.
- Comply with the instructions contained in this bulletin no later than April 30, 2002.
- Submit a completed malfunction report to BHTI Warranty no later than 30 days after completion of this bulletin.

**-NOTE-**

Customers who fail to comply with the instruction in this bulletin after April 30, 2002 are not eligible for the special warranty credit provisions listed above.

**MATERIAL:**

**Required Material:**

The following material is required for the accomplishment of this bulletin and may be obtained through your Bell Helicopter Textron Supply Center.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Quantity</u>
427-035-836-137	Upper Cap	2

**Consumable Material:**

The following material is required to accomplish this bulletin, but may not require ordering, depending on the operator's consumable material stock levels. This material may be obtained through your Bell Helicopter Textron Supply Center.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Quantity</u>	<u>Reference</u>
180 Grit Cloth	Abrasive cloth	1	C-406
TT-1735 Isopropyl	Isopropyl Alcohol	1	C-385
299-947-100TY2CL2PT	Adhesive (Note)	1	C-317
MIL-P-85582, TY1, CL2	Primer	1	C-246
425-2in	Tape	1	C-439

**Note:** Alternate P/N 299-947-359 TY1

### SPECIAL TOOLS:

No special tools required

### WEIGHT AND BALANCE:

-NOTE-

There are two possible Weight and Balance configurations.  
Pre-ASB 427-01-01 and Post-ASB 427-01-01.

- A) Weight and balance for A/C with Auxiliary Fins 427-035-836-101 / -102 that have not complied with ASB 427-01-1 (tuning weight relocation of).

<u>Weight</u>	<u>Longitudinal</u>		<u>Lateral*</u>	
	<u>Arm</u>	<u>Moment</u>	<u>Arm</u>	<u>Moment</u>
-2.0 Lbs	442.6 in.	-885.2 in-Lbs	0.0 in.	0 in-Lbs
-0.9 kg	11242 mm	-102.0 kg x mm/100	0 mm	0 kg x mm/100

- In lateral calculations, - is left and + is right.

- B) Weight and balance for A/C with Auxiliary Fins 427-035-836-105 / -106 or equivalent of, which have ASB 427-01-01, complied with. These Auxiliary Fins will have the tuning weights in the lowered position as per ASB 427-01-01.

<u>Weight</u>	<u>Longitudinal</u>		<u>Lateral*</u>	
	<u>Arm</u>	<u>Moment</u>	<u>Arm</u>	<u>Moment</u>
-2.5 Lbs	439.6 in.	-1117 in-Lbs	0.0 in.	0 in-Lbs
-1.1 kg	11166 mm	-126.6 kg x mm/100	0 mm	0 kg x mm/100

- In lateral calculations, - is left and + is right.

**ELECTRICAL LOAD DATA:**

Not affected

**REFERENCES:**

BHT-ALL-SPM

BHT-427-IPB Illustrated Parts Breakdown

BHT-427-MM Maintenance Manual

**PUBLICATIONS AFFECTED:**

BHT-427-IPB Illustrated Parts Breakdown

BHT-427-MM Maintenance Manual

**ACCOMPLISHMENT INSTRUCTIONS:**

1. Auxiliary Fins, which are already installed on an aircraft, may be modified without removal from the horizontal stabilizer.
2. Gain access to the upper area of both right and left hand Auxiliary Fins. Protect horizontal stabilizer with soft cover material while work is in progress.

**CAUTION**

**Do not apply pressure or load to horizontal stabilizer during accomplishment of this bulletin.**

**-NOTE-**

All work will be accomplished on the upper part of the right and left hand Auxiliary Fins. The following procedure is the same for both sides.

**CAUTION**

**When cutting composites, wear safety glasses, dust mask and long sleeved protective clothing. Glass or carbon fiber dust can cause irritation to the eyes, skin and lungs.**

3. Remove tuning weights P/N 407-023-003-145, -135 and pad P/N 427-035-836-129, from upper weight location on L.H. / R.H. Auxiliary Fins 427-035-836-105 / -106. For Auxiliary Fins 427-035-836-101 / -102, remove weight 407-023-003-145 and pad 427-035-836-129. These parts will not be reinstalled.

-NOTE-

The tuning weights on the lower part of Auxiliary Fin will remain unchanged.

4. Auxiliary Fins 427-035-836-101 / -102 that have not had ASB 427-01-1 complied with, must omit this step. Clean threads of inserts in Auxiliary Fins 427-035-836-105 / -106, where weights were removed, using acetone (C-316) or equivalent. Fill inserts flush to surface of skin using adhesive C-317. Tape (C-439) may be applied over inserts to ensure adhesive cures flush to surface of panel.

**CAUTION**

**DO NOT SAND INTO FIBERS OF SKIN DURING FINISH REMOVAL.**

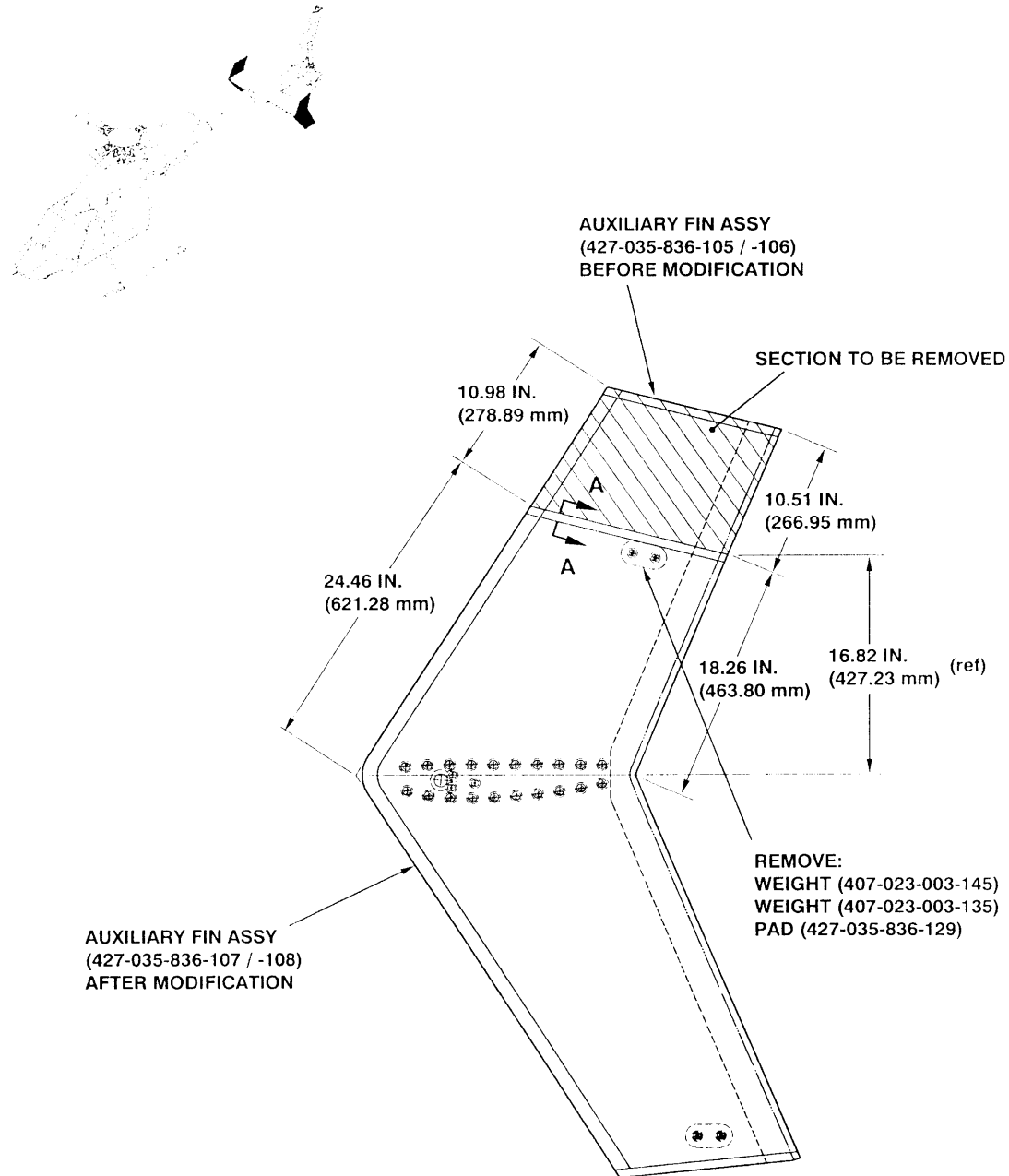
5. Remove surface finish in cut-line area of Auxiliary Fin using abrasive paper C-423 and hand sanding method only. Remove finish until copper mesh is visible. Sanding of copper mesh is acceptable as long as the under laying carbon skin is not damaged. Refer to Figure 1, View A-A.
6. Mark cut-line on both sides of Auxiliary Fin as shown in Figure 1.

-NOTE-

The recommended tools for cutting carbon fiber are pneumatic high-speed drill (grinder) motor capable of 20,000 RPM and reinforced high-speed cutting disk, 3in. (76MM) diameter, 0.035 in. (.9MM) thick.

7. Cut through skin and core using thin high speed cutting disk. Remove upper portion of Auxiliary Fin and discard. Refer to Figure 1 for cut-line dimension.
8. Clean debris and dust from honeycomb core using light air pressure.
9. Inspect skin in cut area for delamination using a light tap test.
10. Seal exposed honeycomb core and edges of carbon fiber skin using adhesive C-317 as shown in Figure 1, View A-A. Allow adhesive to cure approximately 2 hours before installing new cap P/N 427-035-836-137.
11. Clean faying surface of Auxiliary Fin and inner surface of new upper cap P/N 427-035-836-137 using alcohol C-385.
12. Apply a thin layer of adhesive to faying surfaces of new cap P/N 427-035-836-137 and skin as shown in Figure 1, View A-A.

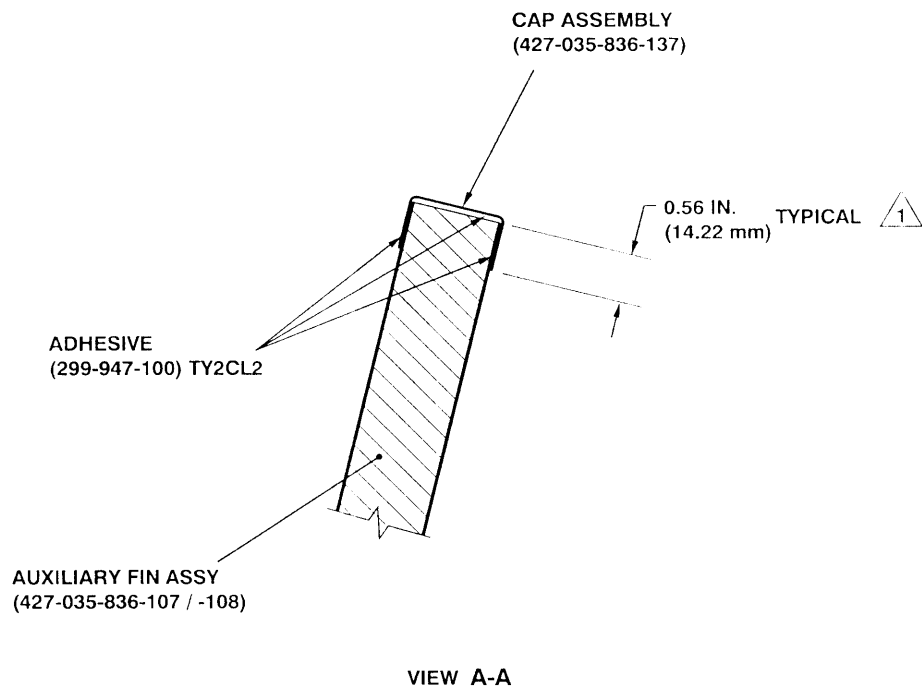
13. Install new upper cap P/N 427-035-836-137 in place as shown in Figure 1 View A-A.
14. Remove excess adhesive at edges of new upper cap P/N 427-035-836-137.
15. After adhesive has cured, apply Epoxy primer C-246 or C-204 to modified area.
16. Restore surface finish of Auxiliary Fins as required. Refer to BHT-ALL-SPM.
17. Adjust weight and balance as required. Refer to M/M.
18. Annotate records to reflect compliance with this bulletin.




VIEW LOOKING INBOARD LEFT  
HAND SIDE OF AUXILIARY FIN

**AUXILIARY FIN 427-035-836-107 / -108**

FIGURE 1



NOTE

 Remove finish in faying surface area of new cap (427-035-836-137)

AUXILIARY FIN P/N 427-035-836-107 / -108

VIEW A-A