

# Nomad

# SERVICE BULLETIN

## REPLACEMENT OF VHF COMMUNICATIONS ANTENNA (MODIFICATION N368 TO CUSTOMER OPTIONS G73, G73-24, G121, G121-24, G295 AND G295-24).

### 1. PLANNING INFORMATION

#### A. Effectivity

##### (1) Aircraft Affected

Any of the following aircraft whose log books do not already record the embodiment of Mod N368 or compliance with Service Bulletin NMD-23-3.

(a) Nomad N22-Series aircraft fitted with Customer Option G73, G121 or G295.

(b) Nomad N24-Series aircraft fitted with Customer Option G73-24, G121-24 or G295-24.

Pre-certification implementation of the intent of this service bulletin is recorded in the airframe log book as Mod. N368.

##### (2) Spares Affected

Nil

#### B. Reason

To prevent icing conditions adversely affecting the VHF communications antenna.

#### C. Description

The antenna type AV529 is replaced by type DM C70-1 and a new support bracket provided.

#### D. Compliance

Incorporation of this Service Bulletin for those aircraft requiring approval for flight into known or forecast icing conditions is mandatory and must be complied with in conjunction with those Customer Options and Modifications listed in Customer Option G286 Flight Manual Supplement. For all other aircraft it is recommended that this Service Bulletin is incorporated at the operator's earliest convenience.

#### E. Approval

The modification detailed herein has been approved pursuant to Air Navigation Regulation 40 and conforms with the type certification requirements.

#### F. Manpower

Two manhours

#### G. Material, Price and Availability

The parts required to incorporate this Service Bulletin (Ref Para 3.) are to be locally manufactured or procured from the operator's stock or local sources.

Page No	1	2	3	4	5	6
Rev No	0	0	0	0	0	0

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## SERVICE BULLETIN

### H. **Tooling, Price and Availability**

None required.

### I. **Weight and Balance**

Negligible effect

### J. **References.**

MM. Maintenance Manual

### K. **Publications Affected**

Maintenance Manual, Wiring Diagram Manual and Illustrated Parts Catalogue sections of the following Customer Option Supplements:

G73  
G73-24  
G121  
G121-24  
G295  
G295-24

## 2. **ACCOMPLISHMENT INSTRUCTIONS**

- A. Remove the overhead lining in the rear fuselage as required (Ref MM Chap 25-50-00).
- B. Remove antenna Type AV529.
  - (1) Set the BATTERY switch on the overhead console to OFF.
  - (2) Disconnect the coaxial lead from the antenna.
  - (3) Remove the rubber sealant from the antenna mounting screws and remove the screws securing the antenna base to the rear fuselage top skin.
  - (4) Remove the antenna from the aircraft.
  - (5) Remove and discard the antenna base gasket.
- C. Drill out the rivets securing the support bracket PN 1/N-82-254 to the rear fuselage top skin and discard the support bracket.

### **NOTE**

Pop rivets are inserted from within the rear fuselage and solid rivets inserted from the outside.

- D. Cut away the section of the aircraft skin as shown in Figure 1 and smooth the edges around the cut out.
- E. Manufacture the new support bracket PN 1/N-82-516 (Ref Figure 2), reinforcing plate PN 1A/N-03-696 and packing plate PN 1B/N-03-696 (Ref Figure 3).

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## SERVICE BULLETIN

- F. Remove the existing rivets at the positions marked A in Figure 1 and rivet the reinforcing plate PN 1A/N-03-696 to the aircraft skin at the positions marked A. Wet assemble the rivets PN MS20470AD4-4 with pigmented jointing compound.
- G. Using the new support bracket as a drill guide, drill four 11/64 inch diameter holes and a 9/16 inch diameter hole in the packing plate PN 1B/N-03-696 and the reinforcing plate.
- H. Drill 2.45 mm diameter holes in the new support bracket in positions shown in Figure 2 and secure anchor nuts PN MS21071-06 using rivets PN MS20426AD3-3.
- I. Clean the surfaces around the antenna mounting holes on the support bracket, packing plate and reinforcing plate back to bare metal.
- J. Using Brisal bonding paste, or equivalent, in the area of the antenna mounting holes, fit the packing plate in the cut out of the aircraft skin ensuring that the holes in the packing plate align with those in the reinforcing plate.
- K. Fit the support bracket in position shown in Figure 1 and secure to 1 stringers using pop rivets PN NAS1738E4-1. Ensure that the holes in the bracket align with those in the packing plate and reinforcing plate. Use Brisal bonding paste, or equivalent, in the area of the antenna mounting holes and wet assemble the securing rivets with pigmented jointing compound.
- L. Complete the riveting of the reinforcing plate to the aircraft skin and support bracket. Wet assemble the rivets PN MS20470AD4-4 using pigmented jointing compound.
- M. Prime reinforcing plate and paint external surface to suit aircraft.
- N. Fit New Antenna Type DM C70-1.
  - (1) Clean the antenna base and the relevant top skin area with a lint-free cloth moistened with petrol and dry the areas with a clean, lint-free cloth.
  - (2) Thoroughly clean the antenna attaching screws PN MS24693-S30, the anchor nuts and the screw holes. This ensures that an efficient electrical bond is obtained between the antenna and the aircraft skin.
  - (3) Apply a thin layer of synthetic rubber sealant to the antenna base, the top skin mounting area and both sides of the new base gasket.
  - (4) Place the base gasket on the top skin, ensuring that the base gasket is correctly aligned with the mounting holes.
  - (5) Position the antenna on the base gasket and attach the antenna with the screws PN MS24693-S30. Torque load the screws to between 10 and 15 lb inches.
  - (6) With approved test equipment determine the electrical bond resistance between any one antenna attaching screw and the fuselage skin, and check that the resistance is 0.006 ohm or less. If not, remove the antenna and repeat steps (1) to (6) inclusive.
  - (7) Seal the screw heads in the antenna base with PR1222 synthetic rubber sealant.
  - (8) Connect the coaxial lead to the antenna.

# Nomad

## SERVICE BULLETIN

(9) Test the complete VHF communicating system (Ref relevant manufacture's instruction book).

O. Replace the headlining in rear fuselage (Ref MM Chap 25-50-00).

### 3. MATERIAL INFORMATION

#### A. Parts Required Per Aircraft

(1) The following items are to be locally manufactured (Ref Figures 2 and 3).

Item P/N	Title	Qty
1/N-82-516	Bracket, Support	1
1A/N-03-696	Plate, reinforcing	1
1B/N-03-696	Plate, packing	1

(2) The following items are to be obtained from operator's stock or local sources:

Item PN	Title	Qty
MS21071-06	Nuts, anchor	4
MS20426AD3-3	Rivet, solid 100□ C/S	8
NAS1738E4-1	Rivet, pop	6
MS20470AD4-4	Rivet, solid U/H	26
DM C70-1	Antenna	1
MS24693-S30	Screw	4
PR1222	Sealant, synthetic rubber	AR
	Paste, bonding (Brisal	AR
	Compound, pigmented jointing	AR

#### B. Parts Modified and Re-identified by the Operator

None.

#### C. Parts Required to Modify Spares

None

#### D. Removed Parts

Item PN	Title	Qty	Recommended Disposition
AV529	Antenna	1	Return to Store
1/N-82-254	Bracket, support	1	Scrap

### 4. SPECIAL TOOLS AND EQUIPMENT

None

### 5. RECORDING ACTION

Record compliance with Service Bulletin NMD-23-3 in the airframe log book.

21 Oct 81

# Nomad

## SERVICE BULLETIN

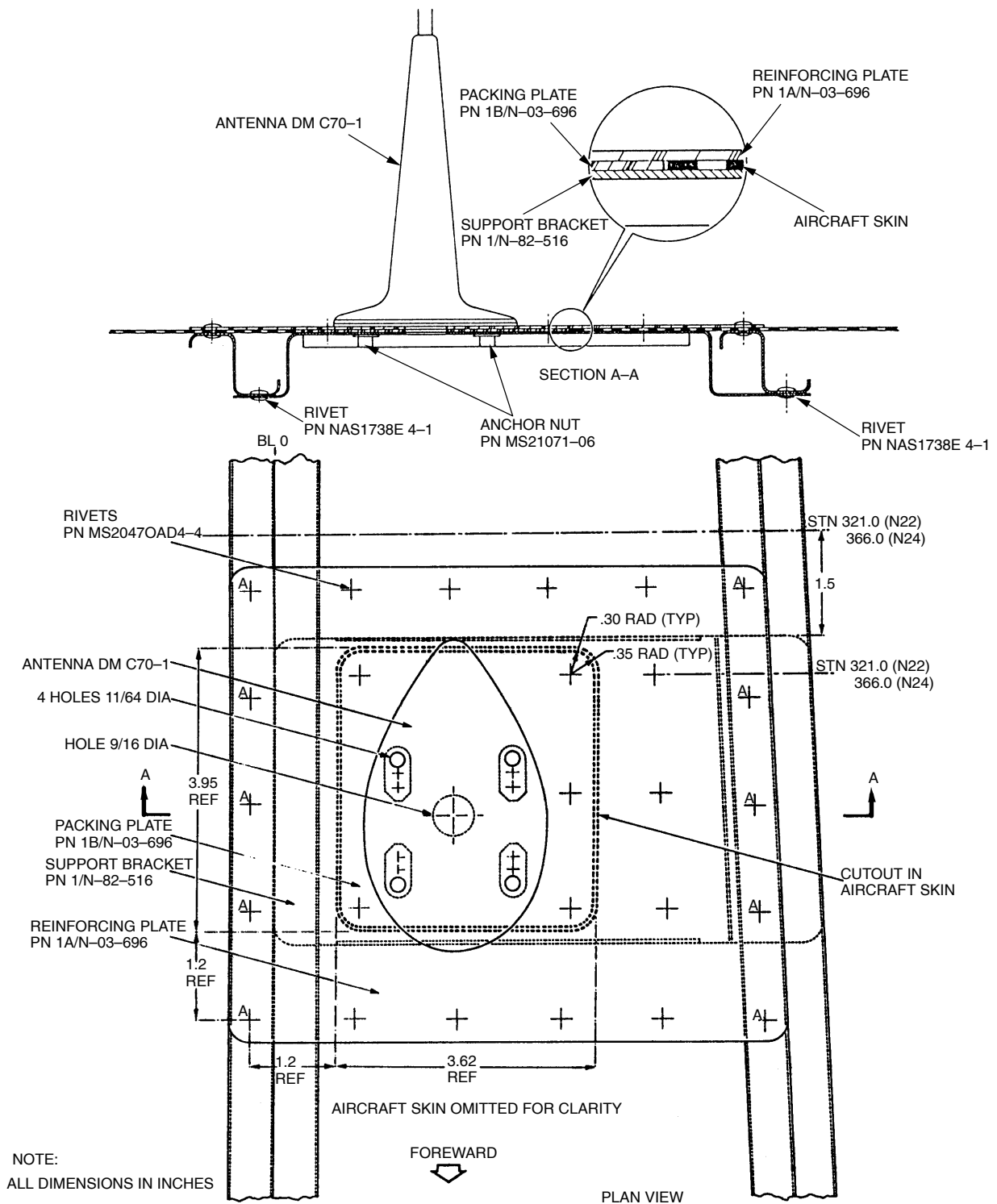


Figure 1 Installation of Mod N368

21 Oct 81

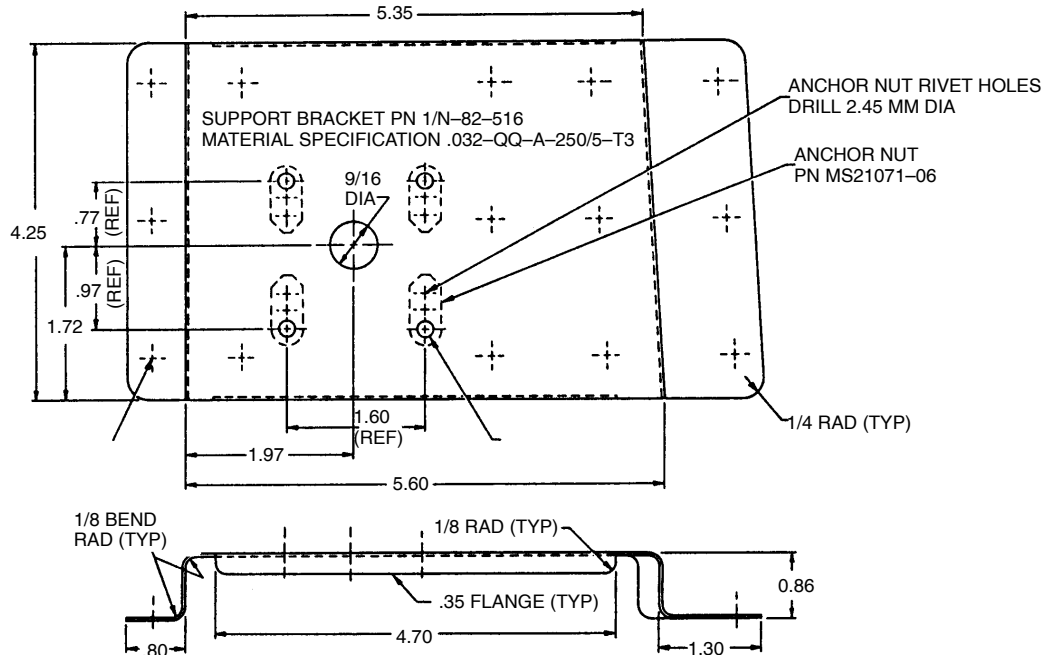
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**NMD-23-3**

Page 5 of 6

# Nomad

## SERVICE BULLETIN



NOTE:  
ALL DIMENSIONS IN INCHES EXCEPT  
WHERE OTHERWISE STATED

Figure 2

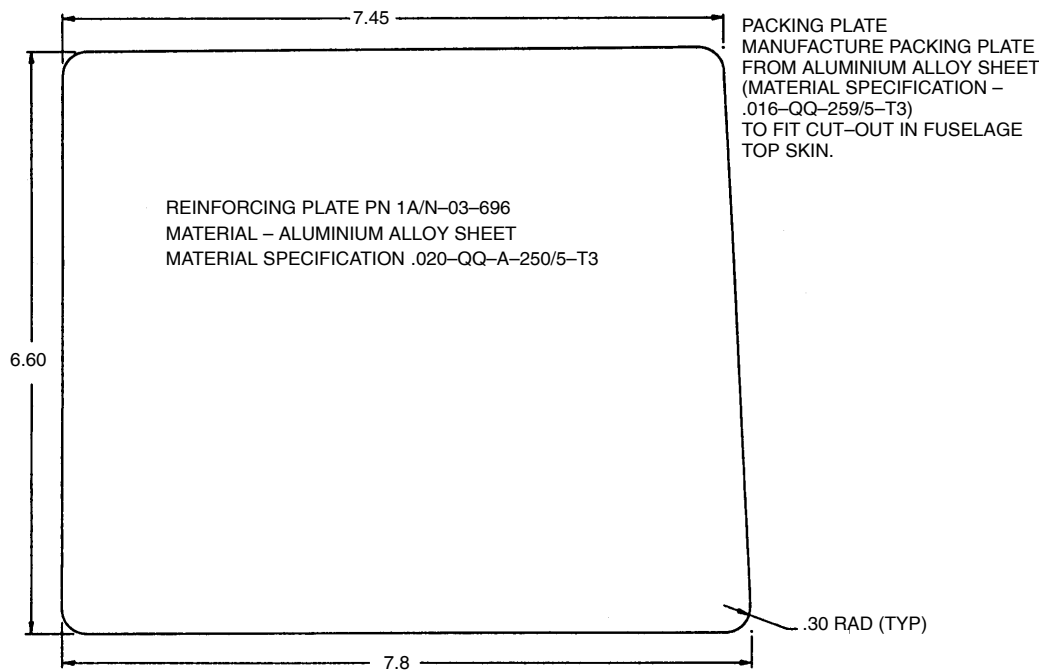


Figure 3