# SERVICE BULLETIN

SUBJECT: INTRODUCTION OF FIBREGLASS RUDDER TIP FAIRING

# 1. Planning Information

#### Effectivity Α.

## (1) Aircraft Affected

All Nomad N22-Series and N24-Series aircraft whose log books do not already record the embodiment of MOD N293 or compliance with Service Bulletin NMD-55-15.

## (2) Spares Affected

Refer Item 3.B.

#### В. Reason

Following some reports of cracks in the ABS plastic material at the beacon mounting location a stronger fibreglass rudder tip fairing is fitted.

#### C. Description

The ABS plastic fairing is removed and replaced with a fibreglass fairing with a packer fitted between the fairing and the beacon.

#### D. Compliance

It is recommended that this service bulletin be complied with if replacement of an A.B.S. fairing becomes necessary.

#### E. Approval

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

#### F. Manpower

4 Manhours.

## G. Material - Price and Availability

The part required to carry out this service bulletin is available through the operator's local distributor as a replacement spare.

# H. Tooling - Price and Availability

None Required

## J. Weight and Balance

The fibreglass rudder tip fairing fitted in lieu of the ABS tip fairing changes the balance of the rudder. The changes to the rudder weight and balance are as follows:

- (1) Rudder weight: +0.25 lb (0.11 Kg).
- (2) Total rudder mass balance weight: -0.14 lb (0.06 Kg).

The overall effects on the weight and balance of both N22-Series and N24-Series aircraft are considered to be negligible.

## K. References

MM - Maintenance Manual

IPC - Illustrated Parts Catalogue

SRM - Structural Repair Manual

## L. Publications Affected

MM - Maintenance Manual

IPC - Illustrated Parts Catalogue

## 2. Accomplishment Instructions

- A. Remove the rudder from the aircraft (Ref MM 55-40-00).
- B. Remove the rudder tip fairing (Ref Figure 1)
  - (1) Remove the anti-collision beacon (Ref MM 33-40-00).
  - (2) Drill out the 54 rivets retaining the rudder tip fairing to the rudder tip. Remove and discard the fairing.

- C. Fit the fibreglass rudder tip fairing
  - (1) Locate the fibreglass rudder tip fairing on the rudder tip. Using a hole locater and a No.30 (3.30 mm) drill, drill the 54 holes in the rudder tip fairing using the existing holes in the rudder tip mounting flange as a guide.
  - (2) Using a 5/32 inch (4.0 mm) drill, drill one hole in the front of the beacon mounting flange on the rudder tip fairing 0.4 inch from the top edge. Using one of the pre-drilled holes in the packer P/N 1A/N-03-679, attach the packer to the inside of the beacon mounting aperture with a service bolt, or other suitable fastener. Drill the remaining two holes through the packer (pre-drilled) and the fairing using the packer as a drill guide.
  - (3) Remove the packer and the rudder tip fairing from the rudder and remove any swarf, rivet tails or fibreglass dust from the top of the rudder tip.
  - (4) Refit the fibreglass rudder tip fairing to the rudder tip and rivet up using rivets P/N CR3223-4-2 and washers AN960-PD4. The washers are installed under the heads of the rivets.
  - (5) Reconnect the electrical wiring to the beacon and then install the packer and beacon into the aperture in the rudder tip fairing with the three screws and washers removed in Para 2A.(1).
  - (6) Clean the area around the joint between the beacon, packer and fairing with petroleum ether and, when dry, seal with a fillet of PR 1422-B2 or suitable alternative. Remove surplus sealant before it cures using a soft cloth soaked in petroleum ether.
- D. Balance the rudder (Ref SRM 55-40-00).
- E. Refit the rudder (Ref MM 55-40-00).

## 3. Material Information

A. Parts Required for Aircraft

One each of the following part is required per aircraft.

(1) <u>Item P/N</u> <u>Title</u> <u>Qty</u> 1/N-03-679/Spare Rudder Tip Fairing Assembly 1 (2) The following items are to be obtained from the operator's stock or local sources.

Item P/N	<u>Title</u>		Qty
PR 1422-B2 890B-2 RTV 738 CR 3223-4-2 AN 960-PD 4	Sealing Compound Sealing Compound (Proseal) Sealing Compound (Silastic) Rivet, Cherry Max Washer	) ) (alt)	A/R A/R A/R 54 54

B. Parts Modified and Re-identified by Operator

Old P/N	<u>Title</u>	P/N After Modification
1/N-33-125 to 12/N-33-125 (N22-Series A/C)	Rudder Assembly) ) )	Add S/B No. NMD-55-15 adjacent to component
101/N-33-125 to 110/N-33-125 (N24-Series A/C)	Rudder Assembly)	Part Numbers.

C. Parts Required to Modify Spares

Refer Para 3.A(1), (2) and (3).

D. Removed Parts

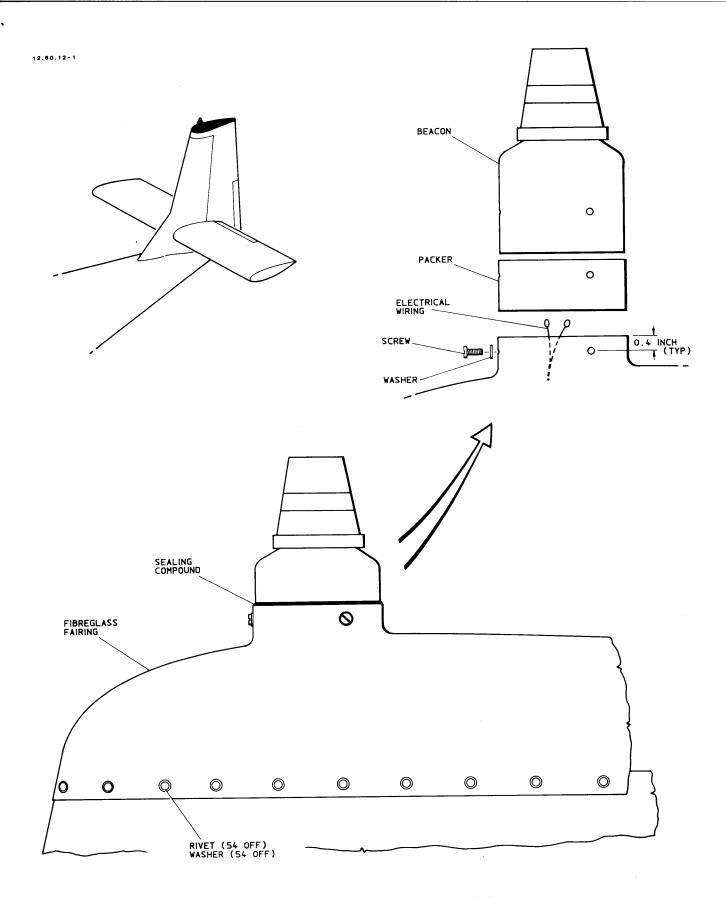
Item P/N	<u>Title</u>	Qty	Recommended Disposition
1/N-33-131	Rudder Tip Fairing	1	Scrap

E. Special Tools and Equipment

None

## F. Recording Action

Record compliance with Service Bulletin NMD-55-15 in the airframe log book, noting Serial Number of modified rudder. Add Service Bulletin NMD-55-15 adjacent to component Part Number on Mod/Serial No. Plate.



Installation of Rudder Tip Fairing
Figure 1