

*Nomad*

# ALERT SERVICE BULLETIN

Reference No. 102

ORIGINAL TRANSMITTED BY TELEX 9-9-1981SUBJECT: INSPECTION OF AUTOPILOT AILERON SERVO UNIT  
BRIDLE CABLE ASSEMBLY P/N 1/N-45-1317.

## 1. Effectivity

All Nomad N22-Series and N24-Series aircraft fitted with two axis or three axis autopilot systems (Ref Option G48, G48-22S, G48-24 (two axis autopilot systems) or G101 or G101-24 (three axis autopilot systems).

## 2. Compliance

Para. 5 Part 1 - within 10 hours flying time after receipt of this Alert Service Bulletin. Para. 5 Part 2 or Part 3 (if necessary) immediately after Para. 5 Part 1.

## 3. Reason

An instance has occurred in which the aileron servo unit bridle cable assembly P/N 1/N-45-1317 failed adjacent to the clamp attaching it to the aileron primary cable. The failed cable assembly jammed and limited the aileron range of movement.

## 4. Approval

The inspection and rectification procedures detailed herein have been approved pursuant to Air Navigation Regulation 40 and conform with the type certification requirements.

## 5. Accomplishment Instructions

This Alert Service Bulletin requires the removal and inspection of cable assembly P/N 1/N-45-1317 and the subsequent replacement of the cable assembly if found to be damaged.

### Part 1 - Inspection

- (a) Ensure all electrical power is switched off.
- (b) Remove the cabin interior trim as necessary (Ref. M.M. 25-20-00) to gain access to the compartment below the LH pilot's seat.
- (c) Remove cable assembly P/N 1/N-45-1317 (Ref. Option G48 or G48-24, M.M. Section Maintenance Practices, Para. 1J) and inspect for broken strands particularly where cable clamp assembly P/N 1/N-45-1315 (Ref Option G48 or G48-24. IPC Section Figure 1 Sheet 2 item -35) has been fitted.

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- (d) If the cable assembly is undamaged, refit the cable assembly (Ref. Option G48 or G48-24 MM Section, Maintenance Practices para. 1K and procedures described in Part 2 below).
- (e) If the cable assembly is damaged, replace with a new cable assembly (Ref Part 2) or deactivate the autopilot system (Ref. Part 3) pending availability of replacement cable assembly P/N 1/N-45-1317.

Part-2 Replacement of Cable Assembly P/N 1/N-45-1317.

- (a) Ensure all electrical power is switched off.
- (b) Remove the damaged cable assembly and replace with new cable assembly (Ref Option G48 or G48-24 MM Section, Maintenance Practices Para. J and K) after first checking and re-tensioning the aileron primary cables as necessary. (Ref. MM 27-10-00).

NOTE: Before tensioning the primary aileron cables ensure that both aileron servo bridle cables are either slack or disconnected from the primary cables.

NOTE: The free length of cable in cable assembly P/N I/N-45-1317 as shown in figure 1 sheet 2 of Option G48 or G48-24 IPC Section, is not to scale. The free length of cable between the clamp assembly (item -35) and the turn-buckle (item 33) is approximately 0.25 inches.

WARNING: ALWAYS TENSION THE AILERON PRIMARY CABLES WITH THE BRIDLE CABLES DISCONNECTED OR SLACK.

- (c) After tensioning the bridle cable assembly, recheck the aileron primary cable tension and make minor adjustments to both the aileron primary and bridle cables tensions if necessary to achieve correct tension in these cables.

Part 3 - Deactivation of Autopilot (For operations with cable assembly P/N 1/N-45-1317 removed).

- (a) Ensure all electrical power is switched off.
- (b) Remove and retain both upper and lower clamp assemblies from the aileron primary cables.
- (c) Stow and secure all bridle cable assemblies clear of the aileron control system.
- (d) Disconnect and stow electrical connector from the aileron servo unit.
- (e) Disconnect and stow electrical connectors from the horizontal stabiliser and horizontal stabiliser trim servo units.

- (f) If Option G101 or G101-24 is fitted, disconnect and stow the electrical connector from the rudder servo unit.
- (g) Check and adjust the aileron primary cable tensions (Ref MM 27-10-00).
- (h) Manufacture label stating autopilot inoperative, and fit adjacent to the autopilot computer control panel.
- (j) Reporting - Report aircraft flying hours and cable assembly condition to G.A.F. Product Support (TELEX NOMAD AA34397). Advise if any previous history of bridle cable damage or replacement and aircraft flying hours (if applicable).

6. Continuing Periodic Inspection

Repeat Para. 5 Part 1 at 100 hours Time in Service intervals until further advised.

7. Recording

Record compliance with the following in the airframe log book.

- (1) Alert Service Bulletin ANMD-27-20.
- (2) At every 100 hours Time in Service - Inspection of Autopilot Aileron Servo Unit Bridle Cable Assembly P/N 1/N-45-1317 in accordance with Alert Service Bulletin ANMD-27-20 Para. 5 Part 1.

8. Revision to Maintenance Data

Operators are requested to insert the following data into the Inspection Requirements Manual, GAF Publication 12.39-1 Part 1, Page 5, Para 4.

This data will be included in the next revision to be issued for the Inspection Requirements Manual.

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Advance Revision to the Inspection Requirements Manual, GAF Publication 12-39-1

Part 1, Page 5, Para 4

After last line Add "If Autopilot Option G48, G48-24, G101 or G101-24 is fitted, inspect the autopilot bridle cable assemblies for flats, fraying, kinking, binding and corrosion. Check the cable clamps for security."

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