NOMAD N22-SERIES AND N24-SERIES AIRCRAFT AILERON PRIMARY CABLES 1 AND 2 INSPECTION AND MODIFICATION (N586)

1. PLANNING INFORMATION

A. Effectivity

(1) Aircraft Affected

All Nomad N24 Series and N22 Series aircraft whose log books do not already record the embodiment of Mod N586 or compliance with Service Bulletin NMD-27-29.

Pre-certification implementation of the intent of this Service Bulletin is recorded in the Airframe Log book as Mod N586.

(2) Spares Affected

Nil

B. Reason

Instances have been reported of wire wear and breakage in the Aileron Primary Control Cables between Fuselage Sta 120.0 and Sta 223.0 (N22) and Sta 120.0 and Sta 251.0 (N24).

C. **Description**

- Part (1). The aileron primary control cables 1 and 2 are inspected for wear or wire breakage.
- Part (2). Modifications to improve the cable life will be advised at the next Revision of this Service Bulletin.

D. Compliance

Part (1). Within 600 hours total time in service or within 100 hours time in service for aircraft in excess of 600 hours total time in service.

E. Approval

The inspection 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

Nil.

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H. Tooling - Price and Availability

Nil.

I. Weight and Balance

Negligible effect.

J. References

Maintenance Manual

Illustrated Parts Catalogue

FAA AC 43.13 Cable Inspection Standards and Techniques
DOA AAC 61-1 Cable Inspection Standards and Techniques

K. Publications Affected

Nil.

2. ACCOMPLISHMENT INSTRUCTIONS

A. Part 1 Inspection

WARNING

DO NOT OPERATE THE FLIGHT CONTROLS WHILST PERSONNEL ARE WORKING IN THE AREA. SERIOUS INJURY COULD OCCUR.

The following are definitions of terms used in steps (2), (3) and (4):

Wire	Each individual cylindrical steel thread.
Strand	Each group of wires helically twisted or laid.
Cable	A group of strands helically twisted or laid around a central core strand.

- Remove the trim panels from the cabin walls to gain access to the aileron primary control cables 1 and 2.
- (2) Inspect the cables for wear and broken wires at all fairleads, pulleys or any ducting or looms that may foul the cables anywhere along their length. Particular care should be taken when inspecting in the area of the pulley located at Sta 126.75 and the fairlead at Sta 132.0. Care should be also be taken at Sta 212.97 (N22) or Sta 222.97 (N24) (Ref MM Chap 27-10-00, Figure 201, Sheet 2).
- (3) Cables with outer wires worn more than 50% of their diameter at any location should be replaced immediately. Cables with more than four broken wires in any individual strand or more than six broken wires in any 2.0 inch length of cable should also be replaced immediately.

- (4) Cables with six or fewer broken wires and not more than four broken wires in any strand within any 2.0 inch length of cable may remain in service provided:
 - (a) The broken wires are confined by the cable and do not obstruct free movement of the controls.
 - (b) The cables are inspected thoroughly at 100 hourly intervals until the cables are replaced.
- (5) If the cables have been replaced cheek the rigging of the aileron flying controls including break-out cheeks (Ref MM Chap 27-10-00).

NOTE

For aircraft fitted with Autopilot (Ref Option G48 (N22) or G48-24 (N24)), refer to Service Bulletin NMD-27-22 for rigging instructions.

WARNING

AFTER ALL MAINTENANCE ACTIVITIES INVOLVING FLYING CONTROLS, OR WHENEVER FLYING CONTROL SERVICING AND ACCESS PANELS ARE REMOVED ENSURE THAT THE AREAS CONCERNED ARE CLEAN AND FREE FROM FOREIGN OBJECTS.

(6) Refit all covers and panels removed to gain access to the aileron primary cables.

NOTE

Prior to fitting covers, panels, etc., a double inspection of the flying controls must be carried out.

3. MATERIAL INFORMATION

A. Parts Required per Aircraft

Nil

B. Parts Modified and Re-identified by Operator

None.

C. Parts Required to Modify Spares

None.

D. Removed Parts

None.

4. SPECIAL TOOLS AND EQUIPMENT

None.

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Record compliance with Service Bulletin M-27-29 Part 1 in the airframe log book.