

# Nomad

# ALERT SERVICE BULLETIN

## AILERONS AND ENGINE COWLS - INSPECTION AND TEMPORARY RESTRICTIONS

### 1. PLANNING INFORMATION

#### A. Effectivity

(1) Aircraft affected:

- (a) **N22 Series** line sequence numbers 1 to 9, 11 to 29, 31, 33, 35, 37, 39 to 41, 43, 45, 47 to 59, 61, 63, 65 to 70, 82 to 88, 90 to 95, 97, 100, 102 to 114, 116, 118, 125, 126, 131 to 134, 136 to 138, 141, 143 to 170.
- (b) **N24 Series** line sequence numbers 10, 30, 32, 34, 36, 38, 42, 44, 46, 60, 62, 64, 71 to 81, 89, 96, 98, 99, 101, 115, 117, 119 to 124, 127 to 130, 135, 139, 140, 142.

#### B. Reason

- (1) Service Bulletin ANMD-57-9 required the inspection of ailerons and the incorporation of an aileron spar strengthening modification (Mod N634) following several incidents where ailerons were damaged in flight. Such failures were attributed to overspeed, possibly as a result of gusts or windshear with the flaps extended. Security of the engine cowls is also believed to be a factor in some of the incidents. This modification was designed to provide compliance with the current airworthiness requirements for onset of gusts at the flap limiting speed. Since then one N24A model aircraft fitted with Mod N634 has suffered an aileron failure.
- (2) As a precautionary interim measure, pending further investigation, Service Bulletin ANMD-57-11 introduced aileron and engine cowl inspections and operational limitations.
- (3) Additional operational information is provided:
  - (a) Deleted
  - (b) enabling crew to identify when an aileron has been damaged.
- (4) ANMD-57-11 Revision 4 revised the placard requirements of ANMD-57-11 Revision 3 to reflect a relaxation of flap restrictions.

#### Reason for Revision 5

- (5) Removal of interim restrictions and reversion to Flight Manual Flap limiting speeds. Recommended approach procedures are revised to reduce the possibility of exceeding the flap speed limit.
- (6) Co-ordination of all other Service Bulletin inspections and adjustments required to allow removal of interim restrictions.

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### C. **Description**

(1) Part 1 — Inspection.

(a) Both LH and RH ailerons are to be inspected for buckling, damage and balance condition in accordance with Service Bulletin ANMD-57-17.

(b) Both engine cowls (upper and lower) are to be inspected for security and condition.

(2) Part 2 — Interim Restrictions no longer apply.

For all operations with flaps selected refer to applicable Flight Manual and the instructions in Para 2.F. of this Service Bulletin.

(3) Part 3 — Deleted

(4) Part 4 — Flaps Down Operations

(a) Deleted

(b) Deleted

(c) Aileron damage in flight is likely to be associated with loose or damaged engine cowls and operation at full flap. Associated indications to the crew are likely to be restricted lateral control as well as longitudinal short period oscillations combined with fore and aft control column movement. These oscillations may increase significantly in magnitude.

Should any of the above symptoms be experienced with full flap selected, the recommended immediate course of action is to raise the flaps to 10°, adjusting speed to 90 KIAS accordingly.

### D. **Compliance**

(1) Compliance with this Service Bulletin is mandatory.

(2) Deleted

(3) Compliance with this issue of ANMD-57-11 is to be effected at the next 300 Hourly Inspection or within 12 months after receipt of this Service Bulletin.

#### **NOTE**

Airworthiness Directive GAF-N22/69 is expected to be cancelled in due course as a result of this revision.

### E. **Approval**

The requirement detailed herein has been approved by a person authorised under Civil Aviation Regulation 35 and conforms with the type certificate requirements.

### F. **Manpower**

Approximately 1.0 manhour.

### G. **Materials, Price and Availability**

None

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

None

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

Not applicable

### J. **References**

Service Bulletin ANMD-57-9

Service Bulletin ANMD-54-2

Service Bulletin ANMD-32-20 Rev 1

Service Bulletin NMD-57-17

### K. **Publications Affected**

Flight Manual

## 2. **ACCOMPLISHMENT INSTRUCTIONS**

A. Deleted

B. Deleted

### C. **Part 1 - Inspection**

- (1) Inspect the ailerons as instructed in Service Bulletin NMD-57-17 (Aileron Inspection).
- (2) Inspect both engine cowls (upper and lower) for security and condition with particular attention given to corroded or poorly fitting hinges and latches as well as to any deformation of the cowls.
- (3) Refer to Service Bulletin ANMD-54-2 for improved cowl latching.

### **NOTE**

Defects are to be reported to Boeing Aircraft Systems - ASTA and are to be rectified before further flight.

### D. **Part 2 - Interim Restrictions**

Deleted

### E. **Part 3**

Deleted

### F. **Part 4 - Flaps Down Operations**

- (1) Ensure landing gear power lever microswitches are set as per the Maintenance Manual. For aircraft already complying with Service Bulletin ANMD-32-20, incorporate Service Bulletin ANMD-32-20 Revision 1.
- (2) Remove all placards required by previous revisions of this Service Bulletin.

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- (3) Manufacture new placards similar to Figure 1 (N22B and N22C) or Figure 2 (N24A and N22S) and locate on instrument panel where it can be clearly seen by the pilot.

On completion of the instructions listed above, normal (i.e. pre-ANMD-57-11) Flight Manual speeds shall be observed. To reduce the possibility of exceeding flap limit speeds, the recommended approach technique is as follows:

N22B, N22C:	Flaps 20°	90 KIAS
N24A, N22S:	Flaps 10°	90 KIAS

These recommendations will be incorporated in the applicable Flight Manual by amendment action.

### 3. MATERIALS INFORMATION

Not applicable

### 4. SPECIAL TOOLS AND EQUIPMENT

None

### 5. RECORDING ACTION

Record compliance with Service Bulletin ANMD-57-11 Rev 5 in the Airframe Log Book.

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**RECOMMENDED APPROACH  
FLAPS 20 DEG AT 90 KIAS**

**Figure 1 N22B and N22C**

**RECOMMENDED APPROACH  
FLAPS 10 DEG AT 90 KIAS**

**Figure 2 N24A and N22S**