Nomad
ALERT SERVICE BULLETIN

Reference No 257

TRANSMITTAL LETTER

FOR

ALERT SERVICE BULLETIN ANMD–27–44

FLIGHT CONTROLS — FLAPS — COMPONENTS SAFE LIVES

Reason

1. Several Nomad aircraft have exceeded safe lives of flap control components.

Remarks

3. This Bulletin has an immediate effect on flight safety.

Instructions

4. Insert the Service Bulletin ANMD–27–44, dated 4 March 94 annotate index accordingly.

Revision Status

Original	4 March 94

D J PILKINGTON
TECHNICAL SERVICES MANAGER

4 March 94

AEROSPACE TECHNOLOGIES OF AUSTRALIA
A.C.N. 008 622 008
A BOEING AUSTRALIA COMPANY

ANMD-27-44

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Nomad
ALERT SERVICE BULLETIN

FLIGHT CONTROLS — FLAPS —

COMPONENT SAFE LIVES

1. **PLANNING INFORMATION**

A. **Effectivity**

(1) Aircraft Affected

Nomad Aircraft Line sequence No 56, 62, 66, 68, 69, 70, 119 and 122.

(2) Spares Affected

None.

B. **Reason**

According to the current aircraft usage records maintained at ASTA Defence, the above eight aircraft have exceeded the safe (retirement) lives of flap control components listed below.

Component	Retirement life
Flap Control Rod PN 1/N–45–1139/1140	12000 LANDINGS
Flap Control Bellcrank PN 1/N–45–1017/1018	10000 LANDINGS
Flap Control Bellcrank PN 1/N–45–1020/1019	10000 LANDINGS

NOTE

Previously published safe lives were in TIS hrs with the stated assumption of 1 flight per hour TIS and stating that any operator whose flight durations are less than 1 hr should contact ASTA for revised hours as safe life time may be reduced.

This Alert Service Bulletin is issued to provide flight safety information.

C. **Description**

The following flap control components are to be immediately replaced with new items.

Component	Part No. Basic	Part No. Assy.
Flap Control Rod		1/N–45–1139/1140
Flap Control Bellcrank	PN 1/N–45–1017/1018	1/N–45–1015/1016
Flap Control Bellcrank	PN 1/N–45–1020	1/N–45–1019

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NOTE

- Our records show that several of the above aircraft have had replacement flap rods (1/N–45–1139/1140) and replacement bellcranks (1/N–45–1017/1018) earlier in their service life consequently replacement parts would not be required at this time. This must be confirmed by log book entries otherwise the parts must be replaced.
- Our records show that all of the above aircraft need replacement bellcranks PN 1/N–45–1019/1020.

D. **Compliance**

(1) Incorporation of Service Bulletin ANMD–27–44 is mandatory.

(2) Replacement of required items is to be done as per para 2.A., before the next flight.

(3) If the replacement parts are unavailable then the inspections specified in para 2.B. are to be carried out before next flight.

NOTE

If the inspected parts have no defects then the aircraft may be flown for up to 200 more landings after which time the parts must be replaced.

E. **Approval**

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

Civil Aviation Authority has been requested to issue an Airworthiness Directive.

F. **Manpower**

Inspection — 8 manhours.

Repair — 10 manhours.

G. **Material – Price and availability**

ASTA Defence holds sufficient parts in stock. Price and availability will be provided upon request to Customer Services.

H. **Tooling**

None required.

I. **Weight and Balance Change**

None.

J. **References**

Maintenance Manual	Chap 27–50–08
Illustrated Parts Catalogue	Chap 27–50–00

K. **Publications Affected**

Inspection Requirement Manual – Existing safe life component schedule, shown in the Temporary Revision –1 dated 4 Nov 92 to the IRM is to be revised by Revision 3 to the IRM, to be issued in April 1994. This Revision includes a new table of safe life components schedule.

2. **ACCOMPLISHMENT INSTRUCTIONS**

A. Repair

CAUTION

ENSURE THERE ARE NO OBSTRUCTIONS IN THE PATH OF THE FLAPS.

(1) Extend the flaps (Ref MM Chap 27–50–00).

CAUTION

WITH THE FLAPS EXTENDED TAKE CARE TO AVOID FOULING THE FLAPS WHEN OPENING THE MAIN CABIN DOOR. ONLY THE REAR HALF OF THE DOOR CAN BE USED AND PARTICULAR CARE MUST BE TAKEN DURING WINDY OR GUSTY CONDITIONS.

(2) Make sure aircraft electrical power is switched OFF and the flap circuit breakers are tripped.

(3) Gain access to flap control rods PN 1/N–45–1139/1140, flap control bellcranks PN 1/N–45–1017/1018 and bellcranks PN 1/N–45–1020/1019 (Ref fig 1) by removing necessary access panels (Ref MM Chap 27–50–08).

(4) Support the flap control surfaces.

(5) As required, remove the existing flap control rods PN 1/N–45–1139/1140, bellcranks PN 1/N–45–1017/1018 and PN 1/N–45–1020/1019 (Ref fig 1) and replace with new items.

(6) Remove the flap control surface supports.

(7) Check the flap control system rigging (Ref MM Chap 27–50–00).

WARNING

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

(8) Refit all access panels removed.

(9) Retract the flaps.

B. **Inspection** – To be carried out if replacement parts are not available.

(1) Gain access to the flap control mechanism along the trailing edges of both wings by extending the flaps (Ref MM Chap 27–50–00, Flap Operation) and opening the trailing edge doors.

WARNING

ANY ITEM OR AREA WITH SUSPECTED CRACKING MUST BE NDI INSPECTED BEFORE THE NEXT FLIGHT, AND ANY ITEM OR AREA WITH CONFIRMED CRACKING MUST BE REPLACED BEFORE FURTHER FLIGHT.

(2) Flap Control Rod Inspection

(a) Visually inspect the inboard flap control rods PN 1/N–45–1139/1140 for cracking, fretting or corrosion and general condition, especially at the end fitting and taper pin areas (Ref Fig 2). A mirror will be required to view backside of the rods.

NOTE

- Fatigue related damage (cracking, fretting etc) is likely to be in proportion to the loading seen by the rod therefore these inboard rods are more likely to have such damage than the outer rods, since their loading is higher.
- Pay particular attention to the inspection of the end fitting attachment at wsta 32.20 (Ref Fig 2).

(b) If pin or end fitting looseness or fretting is detected or cracking is suspected, the flap control rod is to be removed before further flight (Ref MM Chap 27–50–08) and an NDI inspection carried out using the dye penetrant or similar method.

(c) If cracking is confirmed the item is to be renewed before further flight.

(3) Flap Bellcrank Inspections.

(a) Visually inspect each of the bellcranks PN 1/N–45–1019/1020 (4 off) and PN 1/N–45–1017/1018 (Ref Fig 1) for possible cracking, corrosion and general condition (Ref Fig 2).

(b) If cracking is detected or suspected, the bellcrank is to be removed before further flight (Ref MM Chap 27–50–00) and an NDI inspection carried out using the dye penetrant or similar method.

(c) If cracking is confirmed, the item is to be renewed before further flight.

WARNING

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

(4) Refit all access panels removed.

3. **MATERIAL INFORMATION**

None.

4. **RECORDING ACTION**

Record compliance with Service Bulletin ANMD–27–44 in the airframe log book.

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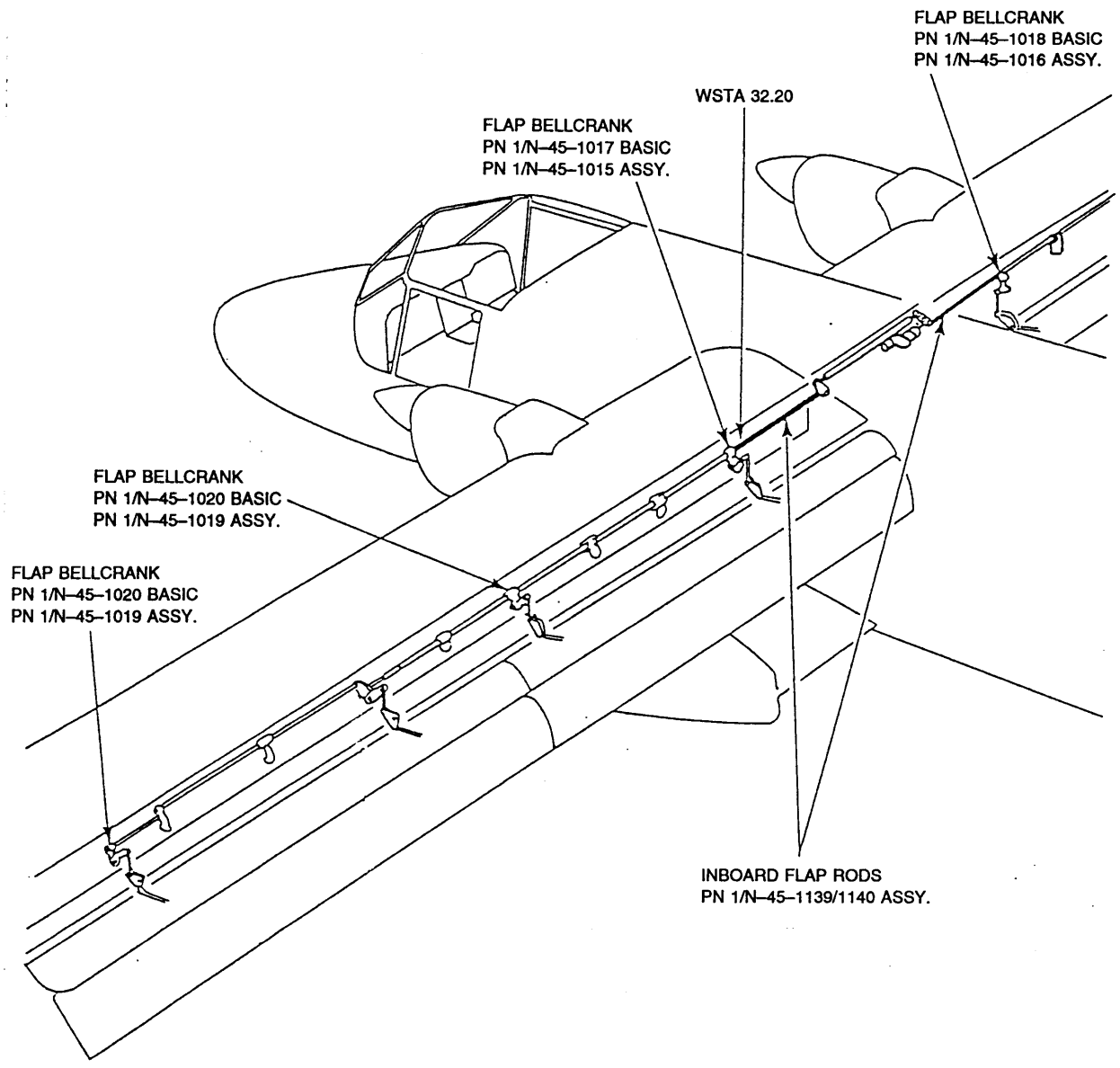

Figure 1 Flap Control Components, General Locations

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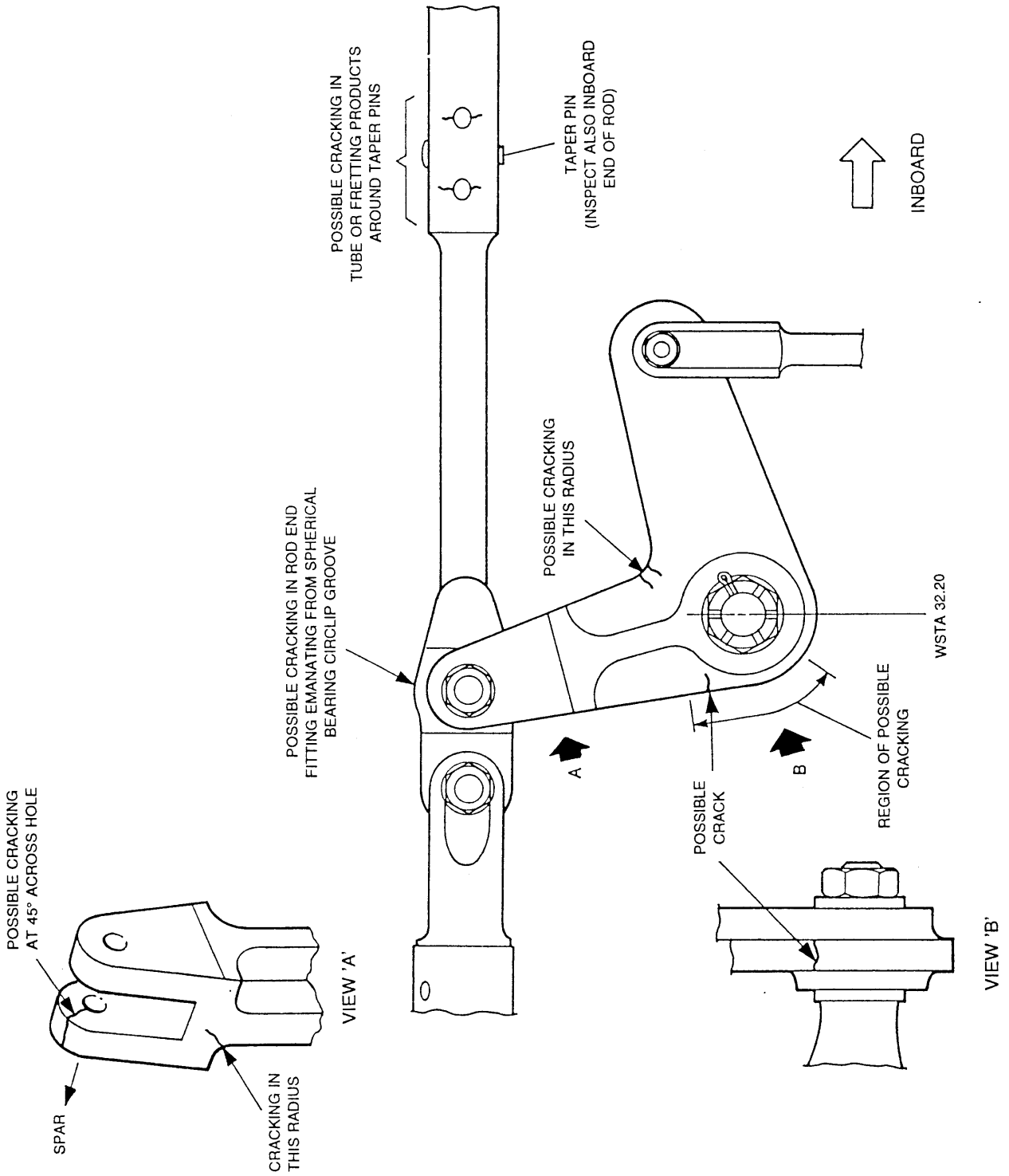

Figure 2 Possible Cracking on Flap Bellcrank and Flap Rod End Fittings