Reference No. 20

## ALERT SERVICE BULLETIN

Priority Telex dated 5th February, 1977.

FROM PRODUCT SUPPORT DEPARTMENT GOVERNMENT AIRCRAFT FACTORIES ALERT SERVICE BULLETIN N22-28-4

- 1. SUBJECT FUEL DISTRIBUTION CONTROLS
- 2. EFFECTIVE ALL NOMAD N22 and N22B AIRCRAFT
- 3. COMPLIANCE IMMEDIATE AND PRIOR TO NEXT FLIGHT
- 4. TWO INCIDENTS NOW REPORTED WHEREBY MOVEMENT OF THE FUEL SELECTOR CROSSFEED CONTROL KNOB, IN THE COCKPIT OVERHEAD CONSOLE HAS NOT BEEN TRASMITTED FULLY TO THE WING MOUNTED FUEL DIRECTIONAL CONTROL VALVES.
- 5. THIS CONDITION BROUGHT ABOUT BY ABNORMAL WEAR OCCURRING ON SQUARE DRIVE END OF SPUR GEAR PT. NO. 1/N-80-123 IPC REF. 28-20-01 FIG 1 ITEM 18 AND ALLOWING SLIPPAGE OF SELECTOR KNOB PT. NO. 1/N-80-154 IPC REF. 28-20-01 FIG 1 ITEM 11 AROUND SQUARE DRIVE.
- 6. THIS CAN RESULT IN COMPLETE FUEL SHUT\_OFF TO BOTH ENGINES EVEN THOUGH SELECTOR KNOB IS IN A CORRECT LOCATION AND IF OCCURRING IN FLIGHT CONDITION COULD HAVE CATASTROPHIC RESULTS.
- 7. REQUEST IMMEDIATE INSPECTION OF CONDITION OF SQUARE DRIVE END OF SPUR GEAR BY REMOVAL OF SELECTOR KNOB AND SPUR GEAR.
- 8. IF SQUARE DRIVE END SHOWS SIGNS OF WEAR AND ROUNDING OFF, OR HAS APPRECIABLE FREE MOVEMENT WITHIN SQUARE HOLE IN SELECTOR KNOB THEN BOTH COMPONENTS SHOULD BE REPLACED IMMEDIATELY.
- 9. IF CONDITION ACCEPTABLE THEN REPLACEMENT AND CONTINUED OPERATION IS PERMISSABLE.
- 10. UPON REASSEMBLY CARE MUST BE TAKEN WHEN MESHING SPUR GEAR WITH RACK END OF CONTROL CABLE TO ENSURE CORRECT ALIGNMENT BETWEEN FUEL SELECTOR KNOB POSITION AND POSITION OF DIRECTIONAL CONTROL VALVES MOUNTED ON FRONT FACE OF INBOARD SECTION OF FRONT WING SPAR.
- 11. CHECK THAT WITH SELECTOR KNOB IN BOTH TANKS POSITION THE ARROWS ON THE ENDS OF THE DIRECTIONAL VALVE SPINDELS ARE BOTH POINTING OUTBOARD AND PARALLEL WITH THE WINGSPAR FLANGES.
- 12. PLEASE ADVISE GAF OF FINDINGS FOLLOWING ABOVE INSPECTION
- 13. DESIGN INVESTIGATION NOW UNDER WAY AT GAF WITH VIEW TO INTRODUCTION OF IMPROVEMENTS IN THIS AREA WHICH WILL PREVENT REPITITION OF THE ABOVE FAULT AND ISSUE OF FORMAL SERVICE BULLETIN WILL FOLLOW.
- 14. UNTIL IMPROVEMENTS IMPLEMENTED IT IS RECOMMENDED THAT THE ABOVE INSPECTION BE CARRIED OUT AT 100 HOURLY INTERVALS REGARDS SCHOFIELD.

CORRECTION: - Para 5, two places, I.P.C. Reference 28-20-01 Fig. 1 should read 28-20-01 Fig 2.