Gulfstream
A GENERAL DYNAMICS COMPANY

MAINTENANCE AND OPERATIONS LETTER

November 11, 2005
GIV-MOL-05-0018

TO: All Gulfstream IV Operators

SUBJECT: Auto Flight (ATA 22) – Alert Customer Bulletin (ACB) to Inspect Elevator and Aileron Actuator Load Relief Bungee Spring

A G450 operator recently reported longitudinal oscillations of + / - 1 degree soon after takeoff when the autopilot system was selected. The pilot disengaged the autopilot system and manually flew the aircraft, noting the same small pitch oscillation.

On approach and landing the flight crew reported normal pitch control. However, as the control column was relaxed after touchdown, the Hardover Prevention System (HOPS) activated, illuminating the ELEV HYD OFF message on the Crew Alerting System (CAS).

Investigation revealed the spring internal to the Part Number (PN) 1159C20014-5 elevator actuator load relief bungee had failed. The failed bungee resulted in erratic auto pilot system and manual inputs to the elevator actuator, causing the longitudinal oscillation. Due to similar flight control system design, the potential exists for this condition to occur on Gulfstream IV aircraft.

To address this condition, Gulfstream is developing an ACB to inspect for broken internal springs in all PN 1159C20014-5 elevator and aileron load relief bungees. Operators will be instructed to replace any failed bungees with PN 1159C20014-005, PN 1159C20014-5 Mod A or PN 1159C20014-7 units. The ACB, which is expected to be issued the week of November 14, 2005, will include a requirement that operators accomplish the bulletin within 30 days. As a terminating action, Gulfstream will administer a managed fleet program to remove all PN 1159C20014-5 elevator and aileron bungees from service.

An interim revision to the Aircraft Maintenance Manual (AMM) will be released concurrently with the ACB to include a requirement to inspect all installed PN 1159C20014-5 load relief bungees at a scheduled maintenance interval until the bungees can be replaced. Additionally, Aircraft Flight Manual (AFM) preflight procedures are being developed to identify a failed bungee condition during flight control checks.

If you have questions or comments regarding this communication, please contact Gulfstream Customer Support [redacted]

Sincerely,

[redacted]

Mark Burns
Vice President, Customer Support