

GII® - G550® (ATA 10/32): Amber Main Gear Door Open, L-R Message after Gear Retraction

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After takeoff and selecting the landing gear handle up, the G550 crew received an amber Main Gear Door Open, L message on the Crew Alerting System (CAS), as well as the red light illuminating in the gear handle. The crew followed Quick Reference Handbook (QRH) procedures, cycled the landing gear handle down, and elected to return to the departure field. After an uneventful landing, the crew determined the cause of the amber message and red light in the landing gear handle.

The aircraft had been parked outside at this particular location, with mooring lines attached to the main and nose gear tie downs. When the tie downs were removed, the left main gear mooring ring remained extended and not secured by safety wire as recommended in Aircraft Maintenance Manual (AMM) Chapter 10. The mooring rings are "spring" loaded by torsion springs and should stow parallel to the strut. In this case the left strut tie down torsion spring was broken, and the mooring ring stayed perpendicular to the strut. When the landing gear was retracted with the tie down ring extended in the perpendicular position, it did not allow

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the gear follow-up door to close, which caused the landing gear indications in the cockpit. Inspection determined there was only minor damage to the follow-up door. The left strut tie down ring was lowered and secured with safety wire. The crew was able to continue their trip as scheduled, with a disposition to have the door repaired at home station.

Operators are reminded that some locations around the world require the aircraft to be moored when parked outside. For example, in Beijing, China, the airworthiness authorities require aircraft to be moored when parked outside for extended periods of time.

The mooring requirements for Gulfstream aircraft, located in AMM 10-20-00, are as follows: "If wind is expected to exceed 30 knots, the aircraft should be housed. If housing aircraft or flying aircraft to a safe location is not possible, the aircraft should be moored." There is also a CAUTION that states: "After mooring and before flight, check that mooring rings are free to pivot and torsion springs are holding rings in contact with main and nose struts." As an added precaution, it is strongly recommended the rings be safety wired to the strut after use.

As a reminder to all operators and technicians, these items should be checked during pre-flight and crew walk around inspections, especially if the aircraft has been moored. →