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## AIRWORTHINESS DIRECTIVE

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For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.1 (1) of CAR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

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### Gulfstream (Grumman) G1159 and G-IV Series Aeroplanes

**AD/G1159/41**

### **Engine Fire Extinguisher Bottle Electrical Connections**

**2/2002**

**Applicability:** Model G-IV series aeroplanes with serial numbers (S/N) 1253 through 1464 inclusive.

**Requirement:**

1. Perform a general visual inspection of the electrical connections of the fire extinguisher bottles for correct connections, in accordance with Gulfstream GIV Alert Customer Bulletin No 30, dated 2 November 2001.

*Note 1: For the purposes of this Directive, a general visual inspection is defined as: "A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or drop-light, and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked."*

2. If any incorrect electrical connection is detected during the Requirement 1 inspection, correct that connection in accordance with the Accomplishment Instructions of Gulfstream GIV Alert Customer Bulletin No 30.

*Note 2: FAA AD 2001-26-07Amdt 39-12571 refers.*

**Compliance:** For Requirement 1 - Within the next 25 flight hours after the effective date of this Directive, but no later than 3 March 2002 and thereafter before further flight, immediately following any maintenance affecting the fire extinguisher bottles.

For Requirement 2 - Before further flight, immediately following the Requirement 1 inspection.

This Airworthiness Directive becomes effective on 21 February 2002.

**Background:** The FAA has received a report that, during an inspection of a Gulfstream Model G-IV series airplane, the electrical connections for the left and right fire extinguisher bottle squibs were found to be improperly installed. The improper installation occurred either during manufacturing or during subsequent maintenance affecting the fire extinguisher bottles.

**Gulfstream (Grumman) G1159 and G-IV Series Aeroplanes**

AD/G1159/41 (continued)

The manufacturer states that a contributing factor for improper connection of the fire extinguisher bottle is the potential for the identification labels to migrate up the wiring harness, which increases the possibility for a technician to connect the wiring to incorrect terminals.

This condition, if not corrected, could cause fire extinguishing agent to be discharged into the wrong location, which could result in failure to extinguish an in-flight fire on an affected engine and jeopardize operation of the opposite engine. The FAA considers this interim action and further rulemaking may be necessary. G-IV aeroplanes with serial numbers below 1253 were the subject of AD/G1159/33 Amdt 3.



Eugene Paul Holzapfel  
Delegate of the Civil Aviation Safety Authority

14 January 2002