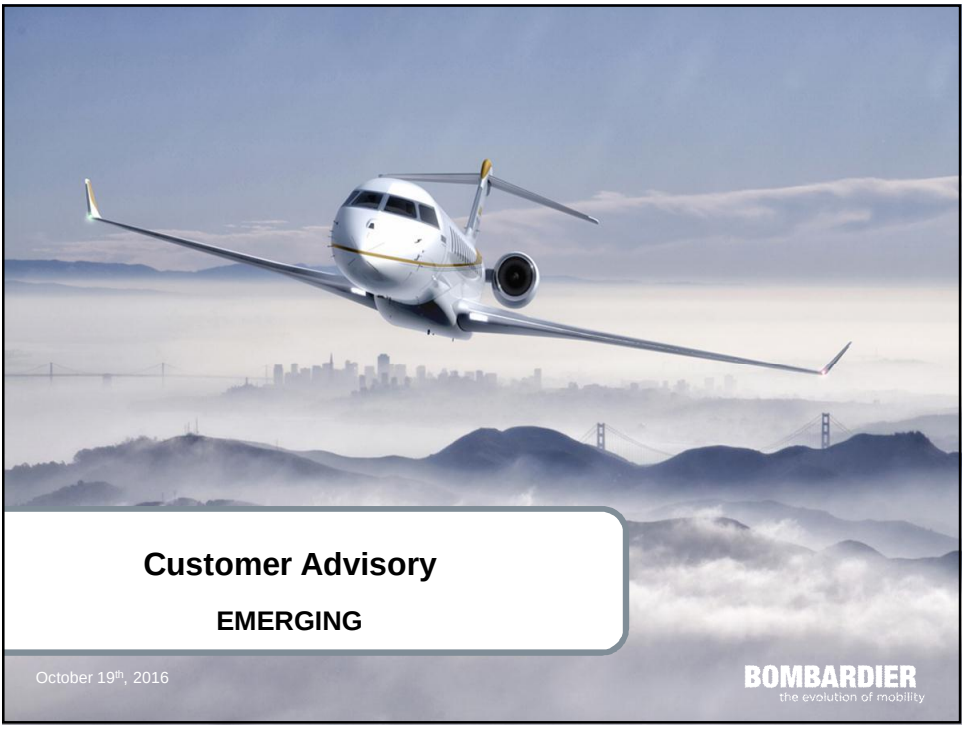

Customer Advisory

EMERGING

October 19th, 2016

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EMERGING TOPICS

- VFG
- ENGINE MOUNT BOLT
- WHEEL SPEED TRANSDUCER HARNESS SHEARED

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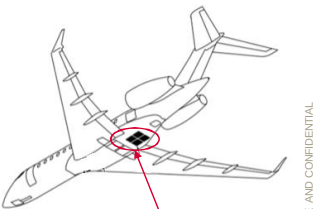
BELLY FAIRING PANELS 185CL/186CR

There have been 9 reported cases where aft belly fairing access panels have departed during flight. Three of those incidents occurred in the last quarter of 2015.



Key Factors:

- Sealant or other F.O.D. contamination in receptacles
- Appropriateness of fasteners type
- Stress margins

Short Term Solution:

- Advisory wire AW700-53-0540, rev. 1 released (Feb.25th, 2016)

Long Term Solution:

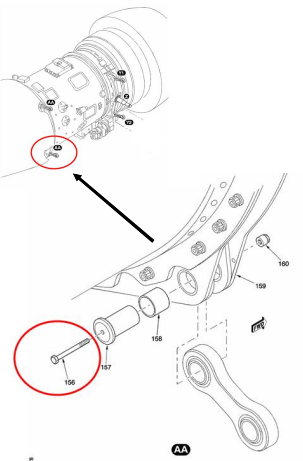
- Revise Installation
- Fastener type at critical locations

ENGINE MOUNT BOLT

During unscheduled inspection of the L/H engine, the Aft Lower Mount bolt was found broken and the pin backed out.

The investigation has not shown any evidence that the root cause is linked to any non-conformity in hardware or normal maintenance practices as published in the Aircraft Maintenance Manual (AMM) or production practices.

The bolt failed under static tension loading. No evidence of fatigue.



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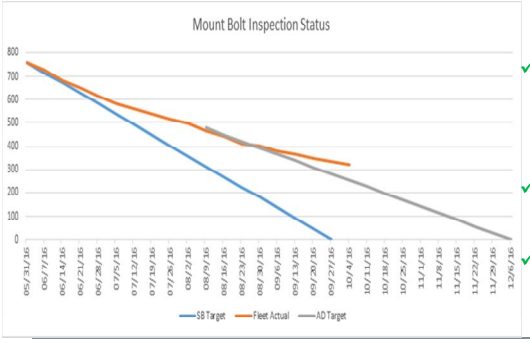
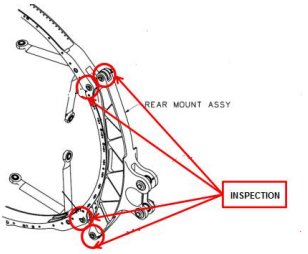
ENGINE MOUNT BOLT

Mitigation

Fleet Inspection of existing Aft mount bolts

- Visual inspection of torque stripe
- Torque check of fastener torque of 150 in/lbs
- Gap check under head of engine mount pin.





- ✓ BBA Service Bulletin:
  - SB700-71-002; SB700-71-1A11-002; SB700-71-5002; SB700-71-6002
    - Rev 1, released : June 30th 2016
- ✓ TCCA AD CF-2016-23
  - Released July 28th , 2016
- ✓ Advisory Wire AW700-71-0557
  - Rev 2, released August 23rd, 2016

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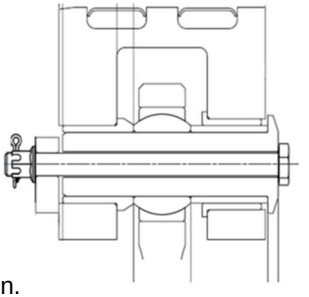
ENGINE MOUNT BOLT

Solution

Corrective Action - Mount bolt installation redesign

- The new bolts remains a 0.3125in bolt at either end of the dogbone links
- Bolts also made from Inco718 material but without an impedance ring
- New castellated nut made from A286 silver coated material, self-locking feature
- Secondary locking feature provided by cotter pin.



Fleet corrective action will be carried out via Service Bulletin ECD Q4/2016

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WHEEL SPEED TRANSDUCER HARNESS SHEARED

Five (5) occurrences of Outboard Brake Fail CAS message posted after landing. Upon troubleshooting the crew discovered the WST harness completely sheared.

Investigation is on-going with the vendor will focus on :

- Design evolution of the WST
- Material / manufacturing process change
- Effect of water on the WST
  - Effectiveness of the Service Bulletin (SB700-32-028 rev2; SB700-1A11-32-015 rev2; SB700-32-6010 rev1 & SB700-32-5010 rev1) - Application of Sealant at the Axle Trailing Arm and Wheel Speed Transducer-Harness.
    - Released October 15th, 2015.
  - AW700-32-0573 - Main Landing Gear Trailing Arm Water Ingress Survey
    - Released Sept 13th, 2016
    - Limited feedback received so far.