

DUNCAN INTELLIGENCE

GII and GIII Chapter 5 and GIV Maintenance Manual Changes

•By Jim Overheul

There have been a few noteworthy Chapter 5 and Maintenance Manual changes.

GII and GIII: There has been an addition of the Fuselage Station 793 aft bulkhead cap angle inspection and the scrap requirement of the Throttle Cable Assembly, Aft section.

GIV: The Thrust Reverser-Wear Inspection procedure has been removed from the Maintenance Manual. This means all Thrust Reverser assemblies will have to be sent to Gulfstream Savannah for this inspection.

Is your GII or GIII aircraft coming up on the Vertical Stabilizer Attach Fitting-Removal/Inspection? Are you thinking of doing ASC431 GII or ASC235 GIII Vertical Stabilizer access cover installation to comply with the Vertical Stabilizer Attach Fitting-Alternative Inspection? You may want to consider doing the Fuselage Station 793 aft bulkhead cap angle inspection before doing the alternative inspection. If a crack is found during this inspection, the vertical fin will have to be removed to replace the cap angles. Out of five GIIs we have inspected recently, three have required cap angle replacement. We recommend inspection of the other cap angles at F.S.757 and F.S. 713 for similar defects while the vertical fin is removed for the repair. We have found several other issues that may require vertical fin removal while doing these ASCs. This bulkhead cap angle inspection may include the GIV in the future because of like design.

The Value of Recurring Inspections

•By Chris Gress

Some Gulfstream systems utilize the Fenwal Overheat Detectors P/N 17343-XX-450, -600, -860 and other dash numbers in their detection systems. The dash numbers indicate the temperature

setting/range of the detector. These fire detectors must be removed for inspection and function testing. The detector must be taken to extreme temperatures per testing requirements to confirm proper operation. Surprisingly, we see about a 5% failure rate. The typical failures are: the detector switches on at too low or too high of a temperature, the detector operates inter-mittently or the detector does not switch on at all. These failures could cause intermittent indications, or possibly cause the detector to not function properly in a real emergency.

Do Your Engines Have Nuisance Fuel or Oil Leaks?

•By Jim Overheul

Some recent maintenance events have reinforced my belief that it is important to pursue fuel or oil leaks regardless how small they may seem. We recommend that you at least identify the location and leak rate.

During a recent shop visit, a Tay engine was identified as having a fuel leak. The area was clean-ed and a maintenance run was conducted. The leak location was identified. During further investigation, it was discovered a fuel tube had no o-ring present at time of disassembly. Components were inspected, an o-ring was installed and no leaks were noted during the follow-up maintenance run. We also recently saw a similar leak due to a missing o-ring, involving oil instead of fuel, on a Spey engine. In addition to missing o-rings, we have found numerous other reasons for leaks ranging from loose hardware to damaged components. It should also be noted that in most cases, the leaks were not identifiable at idle but required upper power settings to identify. This also applies to engine component removal and replacement leak checks.

