



THE FLIGHT TEST SAFETY COMMITTEE

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November 25, 2014

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Subj: NTSB RECOMMENDATIONS A-12-59/A-12-60/A-12-61

Dear Chairman Hart:

The following is the Flight Test Safety Committee (FTSC or "Committee") initial response to National Transportation Safety Board (NTSB) recommendations A-12-59, A-12-60 and A-12-61 regarding the flight test accident involving a Gulfstream Aerospace GVI (G650) test aircraft ("Flight 153") at Roswell, New Mexico on April 2, 2011.

Recommendation A-12-59

"In collaboration with the Federal Aviation Administration, develop and issue flight test operating guidance for manufacturer's that address the deficiencies documented in this report regarding flight test operating policies and procedures and their implementation, and encourage manufacturers to conduct flight test operations in accordance with the guidance."

FTSC Action:

The Flight Test Safety Database (FTSD) at: <http://ftsdb.grc.nasa.gov/> was established to provide the flight test community an easily accessible repository for test maneuver descriptions, test hazards and hazard mitigation techniques. To enhance the volume and breadth of content on the site, the FTSC issued a letter to manufacturers soliciting "best practice" information, optimized operating procedures and useful guidance that could be shared among manufacturers and flight test community members. Although the FAA declined to co-author the request letter, the FTSC will retain their participation in committee collection, collation and dissemination of manufacturer flight test policy, guidance, and procedural practices that may be beneficial on the FTSD. The FTSC will continue to promote flight test proven methods and lessons learned to the flight test community through well-established symposia, workshops and committee meetings while strongly encouraging usage of the FTSD. The Committee considers this recommendation OPEN until the best practice solicitation effort is complete and material uploaded to the FTSD (expected completion: Sep 2015).

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Recommendation A-12-60

“In collaboration with the Federal Aviation Administration, develop and issue flight test safety guidelines based on best practices in aviation safety management, and encourage manufacturers to incorporate these guidelines into their flight test safety programs.”

FTSC Action:

The Flight Test Safety Committee hosts two annual workshops – one in the U.S. and the other in Europe. These international events provide an effective exchange of flight test safety related information and safety guidance deliverables. Relevant briefing topics are then identified for presentation at the full-membership symposia of the Society of Experimental Test Pilots (SETP) and the Society of Flight Test Engineers (SFTE). Member chapter organizations typically request similar material for those unable to attend the other conferences. Implementation of the Safety Management System (SMS) construct is a recognized best practice in flight departments but relatively new to the flight test community. Notwithstanding, many of the components already exist within flight test departments and simply need to be integrated into the SMS framework. The FTSC is underway at adapting the SMS auditing protocols from the International Business Aircraft Council (IBAC – specifically, the International Standard for Business Aircraft Operations IS-BAO) and the Safety Management International Collaborative Group (SMICG). Key elements of FAA AC 120-92 (Safety Management Systems for Aviation Service Providers), FAA Order 4040.26 (Aircraft Certification Service Flight Test Risk Management Program), and FAA Order 8000.369 (Safety Management System Guidance) will also be incorporated. The Committee considers this action to remain OPEN until beta testing has been completed on sample audit protocols at which time they will be offered to the test community writ-large via FTSD, SETP and SFTE web sites (estimated completion: Sep 2015).

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Recommendation A-12-61

“Encourage members to provide notice of, and coordinate high-risk flight tests with airport operations and aircraft rescue and firefighting personnel.”

FTSC Action:

Several manufacturer test organizations have produced quick reference guides for airport first-responders that detail normal and emergency aircraft entry, critical component location, and unique test aircraft cabin configurations. Prior to the commencement of test, many organizations stipulate a briefing be provided to rescue crews to identify key safety features and abnormal access methods (such as external “cut here” markings). As with the other NTSB recommendation actions herewith, the Committee intends to provide sample guides on the FTSD and recommend notification to test site operations officials and rescue personnel as part of test execution pre-deployment checklist. The Committee considers this action OPEN pending the posting of recommended aircraft familiarization and rescue guides to the FTSD (estimated completion: Mar 2015).

In summary,

The FTSC is an all-volunteer committee that is part of the Society of Experimental Test Pilots (SETP) Foundation (501c(3) not-for-profit) chartered to enhance flight test safety through professional enrichment and industry-wide collaboration. The Committee is comprised of industry experts, manufacturer flight test safety representatives, and FAA/EASA flight test experienced personnel. Components of the NTSB recommendations are already being exercised, and with improvements to the FTSD resource center, the tools will be easily accessed and scalable to all flight test activities. The Committee is encouraged by increasing participation and collaboration among OEMs to share and embrace best practices that will ensure flight test risks are continually mitigated to the maximum extent practicable.

Very truly yours,



Gerald Whites
Chairman, Flight Test Safety Committee