

# Flight Test Safety Workshop April 23-25, 201 New Orleans, LA







#### SETP/SFTE - Flight Test Safety Committee

#### Mission:

To initiate and sustain a flight test related safety organization to promote flight safety, reduce the risk of mishap, promote risk reduction management and continually improve the profession's communication and coordination.

International cooperative effort with the Army, Navy, Air Force, Marine Corps, NASA, FAA, Industry and Academia.

www.flighttestsafety.org



# The FTSC stated Safety and Risk Management GOALS

- To foster an interchange of information related to "flight test lessons learned", in order to reduce potential mishaps.
- To promote an atmosphere of sharing "lessons learned" and "best practices" for risk reduction management.
- To direct the effort of flight test safety through education.
- Increase the effectiveness and scope of risk management processes.
- Empower individuals to act on or elevate safety concerns through cultural change.
- Establish policy and an environment that induces wanted self-generated safety and risk management behavior.
- Establish programs that provide incentives for individuals that demonstrate safety and risk management principles.
- To develop a career model for Flight Test Safety Professionals.





#### **Board of Directors**

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#### Flight Test Safety Database

http://ftsdb.grc.nasa.gov



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#### Welcome



For years the international Flight Test community has had a need for easy access to flight test maneuver descriptions, test hazards and hazard mitigation techniques.

This database is a step in that direction and builds on similar efforts by the Flight Test Safety Committee, The Society of Experimental Test Pilots, The Society of Flight Test Engineers and other professional organizations. Our object is to identify and document hazards and mitigations associated with flight testing and provide a compilation of the flight test industry's corporate knowledge regarding flight test safety risk assessment. Where applicable, the database cross-references FAR guidance from Parts 23, 25 and other flight-test related sections. It also discusses typical industry risk levels assigned to specific types of tests. All data has been reviewed by at least 2 persons with extensive Flight Test and/or Aviation Safety Experience. We hope you find this tool useful, and solicit your feedback and contributions as we work to keep it up to date.

Data Items were last added or updated on 9/13/2010

**Database Search** 

#### **Partners**



NAVWAIR



Site Last Updated On: 7/15/2010 Webmaster: Michael Gregory NASA Official: Barton Henwood

- Freedom of Information Act
- President's Management Agenda
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#### **Previous Workshops**

- 2004 Pensacola, FL
- 2005 Seattle, WA
- 2006 Atlantic City, NJ
- 2007 San Diego,
- 2007 London, UK
- 2008 Melbourne, FL
- 2008 Amsterdam, The Netherlands
- 2009 Ottawa, CA
- 2009 Vienna, Austria
- 2010 San Jose ,CA

"Managing Risk for Flight Test

"Back to Basics"

"Defining the Edge"

"The Human-Machine Interface and its Relationship to Understanding and Managing Human Error" "First Flight"

" Configuration Management and Control -Know what you are testing "



#### Previous Workshops

- 2010 London, UK
- 2011 Pensacola, FL
- 2011- Salzburg, Austria
- 2012 Seattle, WA
- 2012 Salzburg, Austria

"Last Flights "

"Demonstrating Prototype Aircraft – Risk and Preparation"

"I Learned About Flight Test From..."

"Loss of Control – In-flight"



#### Flight Test Safety Tutorials Presented

2006: Threat and Error Management for Flight Test: Captain Don Gunther, Continental Airlines

2007: Global War on Error for Flight Test: Pat Daily and Rogers Smith, Convergent Knowledge

2008: Faitigue and the Test Team: Dr. Mark Rosekind, Alertness-Solutions

2008: A Field Guide to Understanding Human Behavior: Prof. Dr Sidney Decker Professor of Human Factors and Flight Safety, and Director of Research at Lund University, School of Aviation, Sweden.

2009: The Human-Machine Interface and it relationship to Understanding and Managing Human Error: Kathy H. Abbott, PhD, FAA; Robert Sumwalt, Board Member NTSB; Scott Shappell, PhD, Wiegmann, Shappell & Associates, LLC



#### Flight Test Safety Tutorials Presented

- 2009: Spatial Disorientation Threat and Overcomings: Dr. Eric Groen and Dr Willem Bles, TNO, The Netherlands; Dr. Mayrhofer and Dipl.-Ing. Huhne AMST; Capt. Dave Carbaugh, Boeing
- 2010: Safety Management Systems: Capt Miguel Ramos, ICAO; Charles Huber, FAA; Jim Richmond, FAA
- 2011: Global War on Error: Pat Daily, Convergent Performance
- 2012: Brain Rules: Dr. John Medina, Professor of Bioengineering, University of Washington School of Medicine
- 2013: Aviation Physiology and the Human Factors Element: Rogers Shaw, Civil Aerospace Medical Institute



## Awards Program

#### Tony LeVier Flight Test Safety Award

- Established by the FTSC in 1999 in memory of Tony LeVier.
- Sponsored by GENTEX
- Recognizes an individual or individuals who have made a significant contribution to the flight test safety community over a period of time. Exception is a singular event that saves human life, aircraft or program where no safety rules were violated.



# Tony Levier Flight Test Safety Award Winners

- 1999 Eric E. Fiore (M), Bombardier Aerospace
- 2000 Rodrigo J. Huete (AF), FAA
- 2001 David Houle, Former President of SFTE
- 2002 Bruce A. Peterson (F)
- 2003 Auto ACAS Team
- 2004 LCDR William Patton, Aviation Safety Officer and Program Manager and Mr. Thomas Roberts, Research, Development, Test, and Evaluation Safety Manager, Navel Test Wing Atlantic (NTWL) Safety Office
- 2005 Ralph Mohr, Boeing
- 2006 Terry Smith, BAE (RET)
- 2007 John E. Cashman, Boeing
- 2008 Flight Test Safety Data Base Team (FTSDB) Barton Henwood, NASA Dryden Flight Research Center; Rodrigo Huete, FAA New York Aircraft Certification Office; John Hed FAA, Seattle Aircraft Certification Office; and Greg Lewis, National Test Pilot School
- 2009 Jerry "Mac" McCawley, Sikorsky
- 2010 Dave Downey, Bell
- 2011 Tom Roberts, Naval Test Wing Atlantic
- 2012 Eugene Arnold, John Hed (FAA), Mike Carriker, Randy Neville and Jennifer-Ellen Gessler (Boeing)



### Awards Program

#### European Flight Test Safety Award

- Established, October 2007, by Heidi Biermeier, with support from Tore Reimers, Al Lawless and Chris Worning. In memory of Gérard Guillaumaud.
- The award serves as a motivation and recognition of an accomplishment in the interest of flight test safety. The accomplishment may either be an exceptional act which contributed to avoiding a test accident, or a presentation within the framework of the European Flight Test Safety Workshop which contributed most to improving flight test safety



# European Flight Test Safety Award Winners

- 2007 Dr. Dieter Reisinger, MSc, Director Quality Operations, AUSTRIAN AIRLINES
- 2008 Mr. Gerard Temme, Joint Aviation Authorities (JAA)/The Transport and Water Management Inspectorate (IVW), The Netherlands
  - 2009 Mr. Pat Svatek, Naval Air Systems Command
- 2010 Mr. Billie Flynn, Experimental Test Pilot, Lockheed Martin Aeronautics Company and Mr. Mark Skoog, Program Manager, NASA Dryden
- 2011 Maj Gen Desmond E. Barker, SAAF
- 2012 Dave Carbaugh, Chief Test Pilot, Boeing

# Bombardier Best Presentation North American Workshop

Established, May 2010, Flight Test Safety Committee and Bombardier.

- For best presentation at the North American Flight Test Safety Workshop that fits the theme of the workshop.
- 2010 winner: "Time Safety Margin: A Generalized Methodology for Dive Safety Planning" presented by Jim Brown for Bill Gray
- 2011 winner: "A Discussion of the Last Flight of X-31A Aircraft # 1 presented by Pat Stoliker, NASA DFRC
- 2012 winner: "Envelope Expansion Dives: Refining Build-up Techniques presented by Aaron Tobias and Moe Girard, Cessna Aircraft Company



# **Gulfstream 650 Accident NTSB Recommendations**

- To the Flight Test Safety Committee:
- In collaboration with the Federal Aviation Administration, develop and issue flight test operating guidance for manufacturers that addresses 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.
- In collaboration with the Federal Aviation Administration, develop and issue flight test safety program guidelines based on best practices in aviation safety management, and encourage manufacturers to incorporate these guidelines into their flight test safety programs.
- Encourage members to provide notice of and coordinate high-risk flight tests with airport operations and aircraft rescue and firefighting personnel.



### **Future Events**

April 23-25, 2013, New Orleans, LA Workshop Chairman: Jim Richmond "Flight Test: A History Full of Firsts"

Oct 28-30, 2013, Amsterdam, The Netherlands Workshop Chairman: Arun Karwal, NLR

May 2014, Savannah, GA Workshop Chairman: Tom Huff

Oct 2014, Bordeaux, France?

May 2015, Wichita, KS?

