The Most Pressing Issues Facing System Safety

BRIEFINGS AND PANEL DISCUSSION

PRESENTED BY THE
G-48 SYSTEM SAFETY COMMITTEE
AT THE
34th INTERNATIONAL SYSTEM SAFETY CONFERENCE

Orlando, FL – 10 August 2016

What is the G-48 Committee?

- Founded in 1966 under (then) EIA
- Mission is to compile, develop, improve, and publish best practices in the discipline of System Safety
- Membership includes System Safety experts from Industry, Government, Military, Liaison Orgs.
- Meets 3x/year – Winter (during RAMS), May, and late summer (during Int'l System Safety Conference)
- Previous Parent Organizations: EIA, GEIA, ITAA, TechAmerica
- Transfer to SAE International announced 7/10/13

Background and Overview of this Panel

- Born from an Action Item at G-48 Meeting No. 129, August 2011, Las Vegas
- Originally intended to be a tutorial on Best Practices, planned for Atlanta conference, 2012
- May 2012 – changed focus to be a panel
- May 2013 (Meeting No. 134) – decided on the "Most Pressing Issues" theme
- First edition – August 2013, Boston (4 panelists)
- Second edition – August 2014, St. Louis (6 panelists)
- Third edition – August 2015, San Diego (4 panelists)

Presentations

- The Business Case for Using a Numbered Logarithmic Risk Severity Scale – Don Swallom, U.S. Army Aviation and Missile Command
- System Safety Improvement Opportunities Related to Hazard Tracking Systems for System-of-Systems – Tony Zenga, CMTIGROUP Inc.
- System Safety in Rapid Collaborative Development – Lynece Pfledderer, Lockheed Martin
- Review of Safety Principals by Automation Level within Automotive Industry – Mark A. Vernacchia, General Motors

Introduction of Panelists (Cont.)

Don Swallom

Safety Engineer, Army Aviation and Missile Command

USAF helicopter pilot, staff officer, developmental engineer

Chief, Safety, Arnold Engineering Development Center -- World's largest complex of aerospace ground testing facilities

ISSS Fellow and past president of the Tennessee Valley Chapter

Introduction of Panelists (Cont.)

Tony Zenga

30+ years of experience in RAMS Safety Critical systems, including Aerospace / Space Systems, Air Traffic Control, Communications Based Train Control / Mass Transit, and Defense programs

RAMS engineer staff or consultant for:

- Alcatel / Thales
- Bombardier Transportation and Aerospace
- Canadian National Railway
- Canadian Space Agency
- Department of National Defense R&D Canada
- Esterline
- Hispano-Suisa (SNECMA)
- Hughes Aircraft / Raytheon Canada Sys Div
- Paramax Electronics currently Lockheed Martin
- SAE - COMAC

Introduction of Panelists

Lynece Pfledderer

Group Technical Staff at Lockheed Martin, and MFC Product Safety Officer staff

ISSS Director of Conferences, 2013-2015, and ISSC Protocol Chair since 2012

Over 25 years in system safety and human factors on a wide variety of advanced technology, defense and commercial programs

G-48 member since 2009, and other safety standards development working groups

Introduction of Panelists (Cont.)

Mark A. Vernacchia

- GM Technical Fellow
- Principal System Safety Engineer for GM Propulsion Systems Worldwide
- BSME – Purdue University
- MSES - Rensselaer Polytechnic Institute
- Professional Engineer - State of Michigan
- Over 20 years of systems engineering
- Over 13 years of system safety experience