

Title:	Roundtable for New System Safety Professionals
CEU:	0.15 CEU
Schedule:	Monday, 1:30 to 3:00
Room:	Annapolis
Presenter:	John Leipper (Air Launch Missile Safety Engineering Team Leader, Marine Corps Program Department; Fallbrook, California)
Description:	This tutorial is designed for new System Safety Professionals. The Roundtable discussion began its life in 2000, at the Fort Worth conference and for the past 7 years it has continued to be a success. Though this session is designed for new System Safety Professionals, many seasoned Safety professionals will be present. With this quorum a wide variety of safety concerns will be addressed and specific questions from participants will be answered.

Title:	Impact of Lead(Pb)-free Materials on Electronic System Safety
CEU:	0.15 CEU
Schedule:	Monday, 1:30 to 3:00
Room:	Chesapeake A
Presenter:	Andrew D. Kostic, Ph. D. (Northrop Grumman Electronic Systems; Baltimore, MD)
Description:	This tutorial will discuss the impact that lead (Pb)-free materials have had on the safety of electronic systems. Failure mechanisms and the reliability impact associated with lead (Pb)-free materials will be reviewed. Methods of mitigation and their relative effectiveness will also be examined.

Tutorials and Panels—Tuesday

Title:	STPA: A New Technique for Hazard Analysis based on STAMP
CEU:	0.6 CEU
Schedule:	Tuesday, 8:00 to 10:40 and 2:20 to 5:00
Room:	Room C
Presenter:	Professor Nancy G. Leveson, Ph.D. (Massachusetts Institute of Technology; Cambridge, MA)
Description:	Most of the common hazard analysis techniques used today date back to the 1950's and 1960's, with little change in the intervening years. These traditional techniques are being overwhelmed by the increasing complexity of the systems we are building today, by the introduction of digital technology and software, and by the increased reliance on distributed human-machine decision-making and control. In this tutorial, we will teach a new model of accident causation and the new approach to hazard analysis built upon it called STPA that allows handling much greater complexity and the new types of technology common today. It also has the ability to consider the social and organizational factors ("safety culture") factors in accidents and incidents along with the technical. STPA is being used successfully on complex systems today. The tutorial will cover fundamental principles as well as examples and class exercises.

Title:	Structured Safety Cases: Concepts, Practicalities and Tools
CEU:	0.6 CEU
Schedule:	Tuesday, 8:00 to 11:30 and 1:30 to 5:00
Room:	Calvert
Presenter:	Dr. George Cleland (Adelard LLP, London, UK)
Description:	This tutorial will develop the motivation and context of Safety Cases. In particular it will introduce the concept of Structured Safety Cases using the standard Safety Case notations: 'Claim-Argument-Evidence' and Goal Structuring Notation. It will discuss a phased approach to Safety Case development: determining safety requirements; demonstrating satisfaction of these requirements at an equipment level and at an operational level; showing on-going safety under maintenance and modification; and finally safe disposal/decommissioning. The tutorial will be illustrated throughout using Adelard's Assurance and Safety Case Environment (ASCE). The approach will be reinforced through small group exercises based upon safety standard MIL STD 882E.

Title:	Aviation Issues with the MIL-STD-882D Matrix
CEU:	0.1 CEU
Schedule:	Tuesday, 10:50 to 11:30
Room:	Frederick
Presenter:	Don Swallom (AMCOM Safety Office Aviation System Safety Division; Redstone Arsenal, AL)
Description:	A March 2007 memo issued by Under Secretary of Defense for Acquisition, Technology and Logistics mandates that "prior to exposing people, equipment, or the environment to known system-related ESOH hazards -- the associated risk levels, as defined in MIL-STD-882D, must be accepted by the authorities identified in DODI 5000.2." This tutorial will examine what that means for aviation systems. There are four tables in MIL-STD-882D that define the ESOH risk levels and they are usually combined to produce a risk assessment matrix. Though labeled as "example," when mandated to be applied to aviation systems for the assessment, reporting, and acceptance of risk, this matrix exhibits some significant problems that should be examined. These include how it lays out over the risk space and how this lay out effects the direct application of the matrix. the matrix has logarithmic scales there are mathematical relationship between the cells which should be used in assigning risk levels and both the severity and probability scales should be evenly proportioned to enable this rational assignment of risk levels to each cell. Of particular issue is the mathematical size of the "D" probability level of the 882D matrix and the impact this has. The concept of having one

generic matrix for all DOD systems to enable uniform assessment, reporting, and acceptance of risk within the DOD has merit, however each family of systems must derive its own numerical probability axis for its matrix that makes sense for that family of systems.

Title:	System Safety/Systems Engineering Approaches Health Hazard Management
CEU:	0.6 CEU
Schedule:	Tuesday, 8:00 to 11:30 and 1:30 to 5:00
Room:	Lombard/Camden
Presenter:	Mark Geiger, M.S., CIH, CSP (Chief of Naval Operations, Safety Liaison Office; Arlington, VA); Tee Guidotti, M.D, Ph.D. (George Washington University; Washington, DC); Scott Sirchio (Naval Surface Warfare Center Carderock Division; Carderock, MD); George Murnyak, CIH (US Army Center for Health Promotion and Preventive Medicine, Aberdeen Proving Ground, MD); Kurt Yankaskas (Naval Sea System Command (NAVSEA); Washington, DC); Robert S. Kennedy, Ph.D., CPE (Consultant; Orlando, FL); Jennifer McGovern Narkevicius, Ph.D. (Jenius LLC, California, MD); Don Goddard (US Army Center for Health Promotion and Preventive Medicine; Aberdeen Proving Ground, MD)
Description:	The tutorial will support process development and management through identification of risk factors associated with common health hazards to include chemical materials/process, noise and physical agents. Regulatory aspects will be discussed only in the context of design criteria and evaluation of personnel exposures. Morning sessions will address chemical hazard evaluation and risk management as an aspect of process safety engineering. The afternoon topics will provide an overview of common physical agent hazards with focus on noise, vibration and human/system interfaces (human systems integration and ergonomics).

Title:	Risk Management Principles and Techniques
CEU:	0.2 CEU
Schedule:	Tuesday, 8:00 to 10:40
Room:	Chesapeake A
Presenter:	Richard B. Jones, Ph.D. (HSB Soloman Associates; Dallas, TX)
Description:	Even though risk management is not a new topic in life, science, or business, there has been a growing emphasis on applying formal risk-based methods to decision-making. This tutorial provides a foundation for scientists, engineers, and business executives to explicitly apply risk-based approaches to help solve problems in their disciplines. The emphasis in the tutorial is on understanding risk and its many attributes. There are both subjective and quantitative examples to illustrate risk management techniques that have applied to a wide range of engineering, financial, and management situations.

Title:	System Safety 101
CEU:	0.6 CEU
Schedule:	Tuesday, 8:00 to 11:30 and 1:30 to 5:00
Room:	Chesapeake B
Presenter:	Rene Fitzpatrick (Raytheon Missile Systems; Tucson, AZ)
Description:	This tutorial will present the various analyses and tasks performed on a system safety program, beginning with proposal support and ending with demilitarization/disposal. This tutorial is presented from a contractor's perspective and although it is focused on a US Navy application, the analyses/tasks/reports addressed as part of the tutorial are applicable for a variety of programs.

Title:	ODUSD(I&E) Role and Activities Integrating ESOH in Acquisition
CEU:	0.1 CEU
Schedule:	Tuesday, 4:20 to 5:00
Room:	Frederick
Presenter:	Trish Huheey (Office of the Secretary of the Deputy Under Secretary of Defense for Installations and Environment; Washington, DC)
Description:	This presentation will describe the ODUSD (I&E) role and responsibility within the systems acquisition process and a brief background on the OSD policy focus to institute a standardized, risk-based approach to management of environment, safety, and occupational health (ESOH) hazards, and associated risks throughout the system life cycle, by using the system safety methodology defined in MIL-STD-882D. The presentation will provide a summary of events that led to the ODUSD(I&E), as chair of the DoD Acquisition ESOH IPT, to accept the request of the Lead Standardization Activity, SAF/AQR, to review and revise MIL-STD-882D to more closely align with DoD policy, goals, and objectives. The presentation will cover the process/approach used to develop a draft 882E, the general principals guiding of the revision by the IPT, and the key changes incorporated thus far.

Title:	Operating a Web-Based Hazard Log Management Tool
CEU:	0.3 CEU
Schedule:	Tuesday, 1:30 to 5:00
Room:	Columbia
Presenter:	Michael Parkin BSC(Hons) MIET CEng MCGI (HVR Consulting Services Ltd, Alton, Hants, UK)
Description:	This tutorial introduces the web-based Hazard Log management tool recently introduced by the UK MoD, called e-Cassandra, to support their Safety Management Systems. This e-tool operates through a common database that enables the parties involved, who may be remotely located, access its contents through by means of an internet explorer application. This common database approach greatly facilitates the communication of key information between remote parties compared to attempting to assemble and communicate such information using discrete "local" databases as encountered using a desktop tool. In this context, for example, the data extracted would be used as the basis for overview reports, progress reviews, project planning, exception reports and similar necessary to minimizing the Risk of Accident. These aspects of the e-tool form the basis for this tutorial where they are introduced in terms of operating a web-based Hazard Log management where the Safety Management Teams works within a large and dispersed organization.

Title:	Arc Fault Circuit Interrupter: A New Level of Aircraft Safety
CEU:	0.1 CEU
Schedule:	Tuesday, 1:30 to 5:00
Room:	Pratt
Presenter:	Dr. Joe Engel
Description:	This tutorial will outline the nature and origin of dangerous electrical aircraft arcing and explain how today arc fault circuit interrupters can mitigate against such events. Should an electrical fault develop, the circuit protective device can analyze the fault event, categorize its risk potential, determine the appropriate response, and identify the fault location for isolation and maintenance activities. NavAir, FAA, major airframe manufacturers and several airline carriers have supported this advance. The present state of development will be explained, as well as planned future activity.

Title:	High Impact Communications Skills for Leaders
CEU:	0.2 CEU
Schedule:	Tuesday, 1:30 to 5:00
Room:	Pratt
Presenter:	Lisa Jeffery, MBA, MA (LC Jeffery Communications; Miami Beach, FL)
Description:	This is a lively workshop that helps you learn how to motivate and inspire others, and develop confidence and communication skills that have influence and impact. Learning public speaking skills helps you build confidence, overcome communication anxiety. You will learn master methods on how to present your thoughts clearly so they are meaningful to your listeners or audience. You'll learn to how to organize your thoughts to better 'speak on your feet'. You will learn to understand how other people perceive you, and how to project a better leadership image. Finally, you'll learn about some amazing scientific research that shows the impact and power of negative and positive communication.

Title:	Bringing Discipline to Our Discipline
CEU:	0.3 CEU
Schedule:	Tuesday, 1:30 to 5:00
Room:	Chesapeake A
Presenter:	Amy Bower (NASA Plumbrook); Dave West , (SAIC, Huntsville, AL); Tom Pfitzer (APT Research, Huntsville, AL); John Frost (Safety Engineering Services, Huntsville, AL); Ragnar Ekholm (Swedish Defence Materiel Administration, Sweden); and Terry Hardy (Federal Aviation Administration, Washington, DC)
Description:	For this tutorial, knowledgeable practitioners of system safety engineering have been invited to make presentations of cutting-edge innovations in the practice of the discipline. Topics will include establishing better standards of practice, as well as developing and applying new analytical techniques. Following each presentation, key points will be discussed by panel and audience members.

Title:	Safety Analysis of the Canadian Automated Air Traffic Systems (CAATS): a Retrospective View and Lessons Learned
CEU:	0.6 CEU
Schedule:	Wednesday, 8:00 to 11:30 and 1:30 to 5:00
Room:	Columbia
Presenter:	Laurent Fabre and Jeffrey Joyce, Ph.D., P.E. (Critical Systems Labs, Inc.; Vancouver, BC, CANADA); Robert Fletcher (NAV CANADA; Ottawa, CANADA); Drasko Sotirovski , (Raytheon)
Description:	This tutorial is a retrospective view of the approach used by Raytheon to analyze the functional safety of an advanced Air Traffic Management (ATM) system developed for use by air traffic controllers in Canadian airspace. Delivered in 2000 and first deployed in 2002, CAATS is representative of a new generation of ATM systems that generate and maintain 4-dimensional flight trajectories from a combination of surveillance data, environment data (e.g., weather) and flight data (e.g., flight plans and clearances). In turn, these 4-dimensional trajectories are used as input to a variety of safety-related functions, e.g., conflict prediction. During its development, the highly integrated nature of this system presented a number of interesting challenges that required thinking “outside the box” of traditional system safety methodology. In this retrospective view of the safety analysis of CAATS, the presenters will reflect on lessons learned from their experience. Their insights about system safety are applicable to many kinds of safety-related systems that depend on complex software functionality, especially systems used by human operators to make critical real-time decisions.

Title:	Safety Culture: Is it all in the Eyes of the Beholder?
CEU:	0.6 CEU
Schedule:	Wednesday, 8:00 to 11:30 and 1:30 to 5:00
Room:	Charles
Presenter:	Heather Henderson (NAV CANADA; Ottawa, CANADA); Ann Lindeis, Ph.D. (NAV CANADA; Ottawa, CANADA); Nancy E. Durbin, Ph.D. (Nancy E. Durbin Consulting; CANADA); Maury W. Hill, MSc. Erg. , (Adaptive Safety Concepts; CANADA)
Description:	There is often a dichotomy across management and employee levels with regards to the perception of an organization’s safety culture. If you ask Senior Management, they truly believe that their organization has a very strong safety culture, while employees believe that this is just not the case. This dichotomy can directly impact how an organization defines, measures, assesses and improves its own safety culture. This tutorial is for anyone who is interested in exploring why this dichotomy exists, its impact on an organization’s safety culture and can we do anything about it.

Title:	Between a Rock and a Hard Place: Databases and System Safety Analyses
CEU:	0.2 CEU
Schedule:	Wednesday, 8:00 to 9:30
Room:	Calvert
Presenter:	Alex Richman MD, MPH (AlgoPlus™ Consulting Ltd; Halifax, CANADA) and Professor Leonard MacLean, Ph.D. (Dalhousie University; Halifax, CANADA)
Description:	This tutorial presents a bridging approach between the rock and the hard place dilemma- integrating database maintenance with concurrent analyses. Specifically this process is applied to Aviation Service Difficulty Reporting databases from 3 countries, USA, Canada and Australia. Analyses help detect opportunities for improving the database. Database enhancements provide opportunities for improving the analyses. All of these efforts are directed towards producing usable results. The lessons learned are applicable elsewhere- to automotive, biomedical device and pharmaceutical safety.
Title:	System Safety in NASA Programs – an Overview
CEU:	0.1 CEU

Schedule:	Wednesday, 10:00 to 11:30
Room:	Calvert
Presenter:	Chad W. Thrasher (NASA-MSFC, Huntsville, AL)
Description:	This tutorial will provide a general overview of the NASA processes and policies to ensure the safety of ground and flight personnel. The intent is to inform the public on the NASA safety processes, what changes have been made, and answer any general process questions to individuals interested in the NASA safety. The governing requirements for current, present, past programs will be discussed with an emphasis on Constellation related programs. Discussions shall also include the types of safety analysis, documentation, and reviews associated with program phases as well as an overview of mishap categories.

Title:	Integrating System Safety into Assurance Technologies
CEU:	0.3 CEU
Schedule:	Wednesday, 1:30 to 5:00
Room:	Calvert
Presenter:	Dev Reheja, P.E., CSP (Design for Competitiveness, Inc., Laurel, MD) and Michael Allocco, P.E., CSP (FAA, Washington, DC)
Description:	This tutorial covers the seamless integration of system safety into the assurance technologies such as reliability, maintainability, logistics, human factors, and quality. It addresses the highly profitable case histories, shows how to make safety a business case instead of a necessary cost, and provides tips on implementing. The examples from the Government as well as the industry are covered. The goal is to aim at zero fatalities for the life of the system.

Title:	Spacecraft Safety Systems Engineering
CEU:	0.3 CEU
Schedule:	Wednesday, 1:30 to 5:00
Room:	Pratt
Presenter:	George Andrew (Booz Allen Hamilton; Annapolis Junction, MD)
Description:	This tutorial will teach: spacecraft mission systems/subsystem systems engineering and what the safety requirements are for each of those subsystems; how to incorporate both electrical and mechanical designs at the subsystem level to accommodate the safety requirements, i.e. single/dual fault tolerance with independent hardware/software controls. Provide an outline of the Missile System Pre-Launch Safety Package (MSPSP) with how each section pertains to the safety requirements of each spacecraft subsystem and payload.

Title:	Flight System Safety: A Program Life Cycle Challenge
CEU:	0.25 CEU
Schedule:	Wednesday, 1:30 to 5:00
Room:	Chesapeake B
Presenter:	John M. Livingston (HEI – MSFC, Huntsville, AL)
Description:	The Tutorial addresses the importance of system safety analysis support of configuration selections, system development and test, manufacturing and maintenance, operational phases, and end of program issues. Because the safety issues and analyses tasks will vary in the different stages of a program, assessing system safety is a constant challenge for a program's complete life cycle. Several major space program events are used to illustrate the need for a total life cycle safety assessment. Four major human space flight accidents (Apollo I Fire, Apollo XIII Service Module failure, The Space Shuttle Challenge and Columbia accidents) are assessed in terms of the different sources of the contributing factors. The factors in program end-of-life conditions are drawn from issues faced by the Skylab and Hubble Space Telescope programs.

Tutorials and Panels—Thursday

Title:	A Hands-on Introduction to System Safety Engineering
CEU:	0.6 CEU
Schedule:	Thursday, 8:00 to 11:30 and 1:30 to 5:00
Room:	Room C
Presenter:	Jeffrey Joyce, Ph.D., P.E. and Laurent Fabre (Critical Systems Labs, Inc.; Vancouver, BC, CANADA)
Description:	The tutorial will begin with a brief “engineering overview” of a system that includes mechanical, electrical, electronic and software components. This presentation will be supplemented by approximately 50 pages of printed documentation, e.g., high-level design, block diagrams, sample software requirements and accident reports. The participants will then engage in a series of exercises, working in small groups with other participants. One such exercise will focus on the identification of system hazards for the example system. Another exercise will involve the derivation of safety requirements for this example. In the final exercise, participants will be asked to outline an “ideal” system safety process using lessons learned from the previous two exercises.
Title:	Systems Engineering – A U.S. DoD Acquisition Perspective
CEU:	0.3 CEU
Schedule:	Thursday, 8:00 to 11:30
Room:	Frederick
Presenter:	Bob Skalamera (U.S. Department of Defense; Washington, DC) and Paige Ripani (Booz Allen Hamilton; Washington, DC)
Description:	This tutorial will provide an overview of systems engineering within DoD to include: describing systems engineering in DoD acquisition, systems engineering processes (technical processes and technical management processes), systems engineering in the system life cycle, important design considerations for systems engineering decisions and key systems engineering tools and techniques for systems engineering execution. During this tutorial, system safety tasks and activities will be highlighted to provide a clear understanding of how system safety supports and influences the systems engineering process.
Title:	Austria and System Safety
CEU:	0.3 CEU
Schedule:	Thursday, 1:30 to 5:00
Room:	Columbia
Presenter:	Gabriele Schedl and Werner Winkelbauer (Frequentis GmbH, Vienna, AUSTRIA)
Description:	Attendees will gain a basic understanding of the Austrian safety culture, of a safety process, and of the practical implementation of a Functional Failure Modes and Effects Analysis. Special emphasis is put on the Functional Hazard Assessment, where a practical guidance for a Functional Failure Modes and Effects Analysis is presented. The content of this tutorial is based on experience from an Austrian based, international working company.

Title:	Root Cause Analysis
CEU:	0.3 CEU
Schedule:	Thursday, 8:00 to 11:30
Room:	Calvert
Presenter:	Walter Hanson (ABS Consulting; Knoxville, TN)
Description:	This tutorial introduces the student to the fundamentals of enterprise risk management and risk-informed decision-making and how root cause analysis is a critical component in an effective risk management program. Much of the tutorial will be spent on the basics of root cause analysis, including data gathering, data modeling, and determining the management system deficiencies responsible for causing problems. An instructor-led workshop will be conducted to give the students a feel for some of the methods used in classifying and investigating problems. By the end of the tutorial, the students will have been exposed to several data-modeling methods and will have an understanding of how root cause analysis can be integrated into an enterprise risk management program.

Title:	Russia – basic overview, technical and military history, safety culture, nuclear weapons information safety
CEU:	0.2 CEU
Schedule:	Thursday, 3:30 to 5:00
Room:	Annapolis
Presenter:	Sergey Eltsov, Mr. Sci. (Federal Agency of Atomic Energy (Rosatom); Moscow, Russia); Aleksey V. Sokovishin, Candidate of technical sciences (All-Russian Research Institute of Automatics; Moscow, Russia); German A. Smirnov, Doctor of technical sciences (All-Russian Research Institute of Automatics; Moscow, Russia); Vladimir N. Filchenko, Mr.Sci. (All-Russian Research Institute of Automatics; Moscow, Russia); Ivan Blinov, Mr. Sci. (All Russian Institute of Technical Physics; Snezhinsk, Chelyabinsk Region, Russia)
Description:	Presentations cover Russia's culture, safety culture, regulatory bodies and regulatory documents, as well as some ways a system safety analysis is performed in Russia. List of presentations is as follows: Tatyana Kozhina –on Russia in general, Dr. German Smirnov – on military safety of Russia – history and the present, Dr. Alexey Sokovishin – on technical history and regulatory bodies, responsible for safety related issues, Vladimir Filchenko – on safety culture and regulatory documents related to safety, Ivan Blinov will demonstrate short movie on NW accident response team operation at field exercises, and Mr. Eltsov will conclude with presentation on nuclear weapons information safety.

Title:	Human and Cultural Factors Impeding the Flow of Risk Assessment Information: Possible Solutions
CEU:	0.2 CEU
Schedule:	Thursday, 1:30 to 3:00
Room:	Annapolis
Presenter:	Alex Richman, MD, MPH (AlgoPlus™ Consulting, Ltd; Halifax, Canada) and Leonard C. MacLean Ph.D. (Dalhousie University; Halifax, CANADA)
Description:	Epidemiology and system safety share common difficulties in overcoming the application of risk assessments. In addition to modern concepts of organizational cultures (Reason, 1997; Westrum, 1999), there are difficulties identified three centuries earlier in Francis Bacon's "Idols of the Mind" (1620), ways in which: <ul style="list-style-type: none"> • We are prone to see things in a set of data which simply aren't there; • Our social and linguistic interactions lead to prejudices in the mind; • Our mind is inclined to defend traditions and what has been taught to us by our elders; • Our mind is misled in defending our own personal hobby-horses. This tutorial uses examples from aviation databases - Aircraft, Airport and Air Traffic System - to discuss ways to overcome these difficulties by interdisciplinary training of managers, analysts and subject matter specialists.

Title:	Introduction to Structured Qualitative and Quantitative Fault Tree Analysis
CEU:	0.3 CEU
Schedule:	Thursday, 1:30 to 5:00
Room:	Calvert
Presenter:	Dr. Joseph G. D'Ambrosio and Dr. Barbara J. Czerny (Delphi Corporation, Saginaw, MI)
Description:	The tutorial will provide a basic overview of fault tree analysis. The following topics will be covered: introduction, history of FTA, FTA vs. DFMEA, potential applications of FTA and comparison with other problem solving methods, fault tree symbols, cut sets, analysis methodology using structural and functional relationship diagrams to provide a structured approach to fault tree development, rules, common questions, quantitative analysis (including incorporation of warranty analysis and reliability prediction methods).

Title:	Explosives Hazard Classification
CEU:	0.3 CEU
Schedule:	Thursday, 1:30 to 5:00
Room:	Frederick
Presenter:	Patricia Vittitow (US Army Aviation and Missiles Command, Redstone Arsenal, AL)
Description:	<p>Hazard Classification is essentially an assessment of the reaction of ordnance and ammunition, specifically in the condition and form in which the material is stored and/or transported. In the US, hazard classification per TB 700-2 has the weight of federal law behind it, and is compatible with the international requirements for hazard classification as levied by North Atlantic Treaty Organization (NATO). Generally divided into two types, Interim Hazard Classification (IHC) and Final Hazard Classification (FHC), programs must navigate a complex series of requirements, tests and reviews in order to successfully comply with US and international regulations. Without an IHC or FHC, ordnance will not be granted a Department of Transportation (DOT) EX number, which is required for shipment. This Hazard Classification Tutorial details the hazard classification process, and provides information crucial to achieving an Interim, and ultimately a Final Hazard Classification in an efficient and expedient manner.</p> <p>During this session, you will be guided through the requirements process from the 49 CFR 173.56 (b) (2)(i) levy of TB 700-2 through the UN series of tests: which tests are mandatory, where testing options are available and what are the associated pass/fail criteria. This session will explain who has the authority to grant IHC's, the information needed on the IHC application and the DOT hazard classes and divisions. The uses and limitations of the IHC will also be discussed. The required elements of the final test report, which is submitted to the Department of Defense Explosive Safety Board (DDESB) for FHC, are presented with examples to position the program for success in obtaining an FHC.</p>

Title:	Air Force Operational Test and Evaluation Center (AFOTEC), Environmental Safety and Occupational Health Certification Process
CEU:	0.3 CEU
Schedule:	Thursday, 1:30 to 5:00
Room:	Charles
Presenter:	Roderick Earl (AFOTEC; Kirtland AFB, NM)
Description:	This tutorial describes the Air Force Operational Test and Evaluation Center's role and responsibilities within the Department of Defense and Air Force acquisition process, and the Environmental, Safety, and Occupational Health (ESOH) certification process used to determine system ESOH level-of-risk to proceed into operational test activities, ultimately providing the AFOTEC Commander an ESOH Ready To Test assessment.

Title:	Software Safety analyses and reporting in Systems of Systems Networks
CEU:	0.3 CEU
Schedule:	Friday, 8:00 to 11:30
Room:	Room F
Presenter:	Archibald McKinlay (NOSSA, Indian Head, MD)
Description:	The presentation will consist of: an overview of Systems of Systems (SoS), Systems Engineering and Systems Safety Engineering processes in an SoS program; use of the framework for engineering; Managing risk in SoS; overview of architecture depictions and their use in Systems Safety; overview of the SoS Requirements Hazard Analysis (RHA); overview of the SoS Systems Hazard Analysis (SoSSHA); overview of UML sequence diagrams to assess architecture safety integrity levels; safety assessment of middleware; safety assessment of network messaging; safety assessment of publish/subscribe tables; and Conclusion of the SoS Safety overviews.
Title:	End of the Conference Summary/Chapter Management
CEU:	0.2 CEU
Schedule:	Friday, 1:30 to 5:00
Room:	Baltimore
Presenter:	Jerry Banister (Director of Chapter Services), Bob Fletcher (Eastern Canada Chapter President), Warren Naylor (Washington DC Chapter President), Don Swallow (Tennessee Valley Chapter President), Darrell Stokes (New Mexico Chapter President), and Roger Lockwood (Society Founder)
Description:	One of the key functions of a Society chapter is to provide an atmosphere to encourage and nurture the professional growth of its members. Leadership skills can help to set the goals necessary to effectively manage a chapter. This Panel on Chapter Management will outline how the constitution, Operations Manual and the chapter management guide help set the requirements and goals for chapter officers. This panel also provides an opportunity for participate interaction and discussion on current Society's goals and objectives.