



# 2009 INCOSE International Work Shop

January 31, 2009 to February 2, 2009

**The Westin San Francisco Airport**

# Technical WGs (32)

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- [Air Transportation](#)
- [Anti-Terrorism International](#)
- [Architecture](#)
- [Biomedical](#)
- [Complex Systems](#)
- [Cost Engineering](#)
- [Defense Systems](#)
- [Emerging Technologies](#)
- [Global Earth Observation System of Systems \(GEOSS\)](#)
- [Human Systems Integration](#)
- [Information Systems](#)
- [Infrastructure](#)
- [Intelligent Enterprises](#)
- [Intelligent Transportation and Transit Systems](#)
- [Lean Systems Engineering Measurement](#)
- [Model Driven System Design](#)
- [Motor Sports](#)
- [Net-Centric Operations](#)
- [Power and Energy](#)
- [Requirements](#)
- [Resilient Systems](#)
- [Risk Management](#)
- [SE Process Improvement](#)
- [Systems Engineering in the Commercial World](#)
- [Space Systems](#)
- [System Safety Integration](#)
- [Systems Science Enabler Group](#)
- [Systems Security Engineering](#)
- [Technology Life Cycle Management](#)
- [Tools Integration and Interoperability](#)
- [Tools Database](#)
- [Verification and Validation \(V&V\)](#)

# Chapter Award Program WG

- Total of 32 chapters submissions
- Gold, Silver, Bronze
  - President's Award for Outstanding Chapter
  - Director's Award for Most Improved Chapter
- *The goals of Chapter Awards program is to:*
  - Recognize achievements at the chapter level;
  - Clarify and incentivize desired activities and behavior at the chapter level;
  - Improve sharing of good and best practices between chapters; *and*
  - Encourage effort and innovation in serving INCOSE members at the local level

# Chapter Award Program WG

- Best Practice to incrementally save chapter progress in folders on INCOSE 'Connect' site in the near future.
- Each section needs the foundation, evidence, and proof of execution.
- Best Practices will be posted to INCOSE

INCOSE mission is to advance the state of the art and practice of systems engineering in industry, academia, and government by promoting interdisciplinary, scalable approaches to produce technologically appropriate solutions that meet societal needs.

# Complex System WG

- Need a better definition
  - Sample of Complex System
  - SOS
  - Multi-Roles and behaviors
  - Evolving nature of the system
  - Fractal System
- Working on INCOSE Wiki to define what Complex System is

# Systems Engineering in the Commercial World WG

- IS SE good for Commercial World
- When is a good time to adapt SE
- How to do Con-Ops in Commercial World
  - Is con-ops an evolution process?
    - From 737 to 787
  - Who is driving the requirements

# Leadership WG

- Membership renewal policy changes, 30 days after renewal date, member will be automatically terminated.
- Discussed insurance umbrella, alcohol at events is an issue.
- Dues are not tax deductible
- Student renewals will include proof of registration at a school.
- *Live Meeting is being set for chapter use to accommodate remote/satellite locations.*
- Leadership positions need to be forwarded to INCOSE for insurance and tax deductible status in Jan each year.

# CSEP Certification

- Found to be a discriminator for unemployed people in several areas.
- CAB Members were informed of the benefits of CSEP, but needs specific emphasis at each locality.
- Student discriminator on Resume
- May be itemized in future procurements.

# Region II

- Need to improve cross chapter communications
- Bi-Monthly telecons
- LA has weekly BOD telecons which are not connected to Monthly technical meetings – SFBAC ?
- Newsletters are \$3.00 each printed, moving to electronic only. Printed by individuals.

# Region II

- Increase Membership
  - Volunteer are self-satisfying roles
    - Match personality to desired positions
    - Payoff to individuals (WITFM)
    - Provide roles which are spring board to other positions and careers.
    - Guide books and mentors to pass learning to incoming officers.
    - Chapter Blog on website

# Membership

- Status of Presidents annual review
- CSER ( Conference of System engineering Research- Symposium)
- Discussed developing symposium
  - 1 year to develop
  - Shared risk across chapters
  - Establish a repetitive conference
  - Timing with out INCOSE and local organizations.

# Tools Structure

- Establish a standard to share information between software applications and platforms
- AP233 is about to be released
- AP= Application Protocols
- Looking for a trial organization
- Started from CAB request for integrated SE solution in 1995
- Began developing a qualitative business plan for the beta test organization.

# Tool database

- Products evaluation use a standard spread sheet
- Vendors complete and submit
- Database volunteer perform a cursory evaluation and install in database register.
- Comparisons are not performed
- WG did not assemble during the IW

# Human System Integration WG

- Discussions were very top level
- Does not seem to have a standard definition set
- Looking for interested parties to continue the work to develop standards
- I was added to the shared folder for evaluations. (no action items)

# Architecture WG

- Do not have a standard reference
- Seems to have several variations in how to define and standardize.
- Try to define a 'great' architect- A Frank Lloyd Wright.
- John Clark demonstrated a layer approach to understanding SE.
- (see demonstration)

# MBSE WG

- Model Based System Engineering
  - Catch all for several interacting working groups.
  - Large efforts in Process
  - Looking for interested parties.
  - Caught only a small part of this effort.

# Conclusion

- A lot of work goes into this event (personally)
  - Two weeks participation on evaluating chapter award – On average 4 chapter/reviewer
  - Two solid days of meeting
  - Better appreciation on the operation side of International Chapter
  - Valuable experience working with other chapters and networking with other INCOSE members from all points of industry
  - Rewarding experience
  - *Awareness of integrating the complexity of System Engineering across several industries, and areas of interest.*
- SFBAC has room for improvements
  - Activities
  - Communication
  - *Active membership and retention*
  - Technical Expertise
  - CAB
  - Student involvement (outreach)
  - INCOSE Support
  - *Operation, Plans and Executions*
- <http://q2sebok.incose.org/>