NEWSLETTER

Los Angeles Chapter of INCOSE
www.incose-la.org
Vol 2: Issue No. 1 Feb, 2004

COMING EVENTS

Dinner Meeting
Tuesday, February 10th

Location
Aerospace Corporation

National Security Space Acquisition Policy Status
Andy Guillen
The Aerospace Corporation

INSTALLATION OF THE 2004 OFFICERS AND BOARD OF DIRECTORS WILL BE CONDUCTED

Tutorial
March 6th

INTELLIGENT SYSTEMS ENGINEERING
Guest Lecture - Jack Ring
INCOSE Fellow

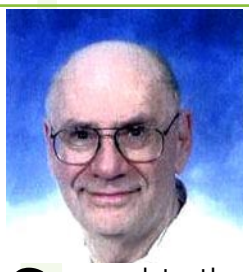
Location
Radisson LAX Hotel
Los Angeles Ca.

2nd Annual Collaboration
University of Southern California
Stevens Institute of Technology

CONFERENCE ON
SYSTEMS ENGINEERING RESEARCH
(Formerly Conference on Systems Integration)
April 15-16, 2004
Los Angeles, California
USC Campus

www.usc.edu/dept/engineering/cser

The conference theme is the definition of the frontiers of systems engineering research and applications in new directions to provide the robust development and management of future complex systems.



Conference on Systems Engineering Research

Dr. George Friedman
Former President of INCOSE international and
General Conference Chair

Compared to the traditional and mature branches of engineering, Systems Engineering is undergoing evolutionary development in its practice and theory, as well as the identification of its research frontiers.

Responding to this need, in 2002 the University of Southern California and Stevens Institute of Technology entered into a multi-year collaboration on a series of conferences devoted to the research frontiers of systems engineering. The first of these conferences was held in the spring of 2003 on the New Jersey campus of Stevens Tech, and was assessed to have been extremely successful by all participants.

Shortly afterwards, at the INCOSE International Symposium in Crystal City, Mike Dickerson, Mike Krueger and Scott Jackson met with George Friedman, the general chairman of the Conference on Systems Engineering Research (CSER), and agreed that the second conference in the collaboration, scheduled to be held on the USC Campus on April 15,16, INCOSE would be co-sponsored by the LA Chapter of INCOSE. A key part of this agreement is that the traditional conference which LA-INCOSE normally holds in the spring of each year will be merged with CSER.

Additional CSER support has been committed by NDIA (National Defense Industrial Association) and IEEE's AESS (Aerospace and Electronic Systems Society.)

The conference team is on schedule. Eric Honour, INCOSE's director of Systems Engineering Center of Excellence (SECOE), was appointed the technical chair and he and his technical committee are in the process of the final review of the accepted papers. LA-INCOSE's Scott Jackson and Rick Hefner were appointed as deputies to George and Eric respectively.

Several notable speakers have agreed to address plenary sessions of CSER. These include the deputy director of NSF, the chief scientist of the Air Force, and senior faculty from MIT, GMU, USC, Stevens and other institutions. Additionally, Elliot Axelband will chair a panel of distinguished representatives from government and industry.

The Following is the Conference announcement and agenda. We have world class speakers and leading authorities in the field of Systems Engineering committed for the conference.

As Co-sponsors of this event the LA Chapter invites you to attend and make your reservations early.

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CONFERENCE ON SYSTEMS ENGINEERING RESEARCH (CSER)
Second Annual USC/Stevens-Tech Collaboration
Co-Sponsored by Los Angeles Chapter of INCOSE
Supported by NDIA, IEEE Aerospace and Electronic Systems Society

April 15,16, 2004
USC Campus, Los Angeles, CA

Overall Format
Plenary Speakers in AMs - Paper Presentations in PMs
Cocktail hour and Banquet April 15th.

Committed Plenary Speakers
Deans of Engineering, Max Nikias (USC), George Korfiatis (Stevens)
Joseph Bordogna (Deputy Director NSF): SE directions at NSF
Alex Levis, (AF Chief Scientist): SE research at the AF Research Labs
Earll Murman, MIT: report on the March 2004 SE meeting at MIT
Andrew Sage,(GMU): Viewpoints from the Systems Engineering EIC
Barry Boehm (USC): the crucial SE/ Software intersection
Eric Honor (INCOSE): on SECOE, the research arm of INCOSE
Donna Rhodes (MIT): on the strategic INCOSE vision
Eberhardt Rechtin (USC), on systems architecting perspectives
George Friedman (USC): Towards a Grand Unified Theory of SE
Elliot Axelband (Rand): Distinguished Government and Industry Roundtable
"The need for better SE and how to get there."
Thaddeus Sandford, (VP Engineering, The Boeing Company Integrated Defense Systems)
Richard Croxall, (VP, Mission Assurance & Chief Engineer, Northrop Grumman Space Systems)
Mark Wilson, (Director of the AF Center for Systems Engineering)
Robert Rassa, (Raytheon and NDIA)
more...

Paper Presentations
45 peer-reviewed papers presented in 4 parallel tracks

Countries Represented
USA, UK, Austria, Finland, Sweden, Israel, China, Brazil, Australia

Companies Represented
The Boeing Company, Raytheon, Northrop Grumman, The Aerospace Corporation, Rand, Jet Propulsion Laboratory

FOR MORE INFORMATION AND REGISTRATION, VISIT:
http://usc.edu/dept/engineering/cser

BIOGRAPHY: Dr. Friedman is presently Adjunct Professor of Engineering, Industrial and Systems Engineering Department, School of Engineering, University of Southern California, Los Angeles, and is Director of Research of the Space Studies Institute in Princeton. Previously, he retired as the Corporate Vice President of Engineering and Technology for the Northrop Corporation, was the Vice President, Publications for the Aerospace and Electronics Systems Society of IEEE, the Chairman of the Planetary Defense Committee of AIAA and served as a consultant to the Air Force Scientific Advisory Board and the NATO Industrial Advisory Board.

He is a founder of INCOSE, was its third president, is a member of the fellows selection committee and serves on the editorial board of Systems Engineering. He is an elected fellow of IEEE, INCOSE and IAE. His paper on Constraint Theory was awarded the Baker prize for the most outstanding paper published from all its societies in 1969. His MS Thesis on Selective Feedback Computers was the first identified paper published in the field of Evolutionary Computation. He received the BS in Mechanical Engineering from UC Berkeley, and the MS and PhD in Engineering from UCLA.

DINNER SPEAKER MEETING
Tuesday, February 10, 2004

LOCATION
Aerospace Corporation

TIME
Networking 5:30 pm
Induction of the new Board 6:15 pm
Speaker 6:30 pm

COST
Members Free
Guests $10.00

National Security Space Acquisition Policy Status
Andy Guillen
The Aerospace Corporation

BIOGRAPHY: Mr. Andy T. Guillen is System Director of the Center for System Acquisition Development within the Chief Architect/Engineer's Office of The Aerospace Corporation. He has over 20 years total space system development experience in the areas of Systems Engineering, System Acquisition, Program Management, and Structural Mechanics in support of government multi-agency and multi-national programs. He participated in developing and applying an acquisition methodology that integrates technical, program management, risk management, schedule management, and contracting for the Space and Missile Systems Center (SMC) Acquisition Center of Excellence (ACE). He has applied systems engineering and concurrent engineering to system and system-of-systems programs involving requirements, synthesis and design, analysis and control, modeling and simulation, and verification/test. He has conducted detailed analyses involving extensive modeling, simulation, and test for space mission planning, space vehicle dynamics and trajectory design, as well as participated in mission failure investigations. He conducts tutorials in specialty areas of Systems Engineering, Risk Management, Requirements Analysis, Acquisition Development, Integrated Product Development, and Vehicle Mechanics. He holds an M.S. in Systems Management from the University of Southern California and a B.S. in Mechanical Engineering from the Massachusetts Institute of Technology.

ABSTRACT: Military space development is in a state of sweeping transformation including redefined acquisition and requirements processes. Many of these changes trace to or are consistent with findings of several independent investigations such as the Young Panel sponsored by the Science Advisory Board. This presentation concentrates on the acquisition process that is being turned on its side with the implementation of the new National Security Space Acquisition Policy 03-01. NSS 03-01 derived from the NRO Directive 7 policy and is streamlined with a different focus over the former DoD 5000.2. The new policy promotes a concentration on up-front systems engineering; but with no guidance for its implementation, it provides latitude but assumes expertise. NSS 03-01 will be described to promote discussion on the impact to/from systems engineering.

RESERVATIONS: You must RSVP to attend, NO EXCEPTIONS. RSVP via the INCOSE-LA website (www.incose-la.org) or to Paul Su (paul.k.su@aero.org, 310-336-2602) by February 6 if you are a US citizen, or by February 3 if you are NOT a US citizen.

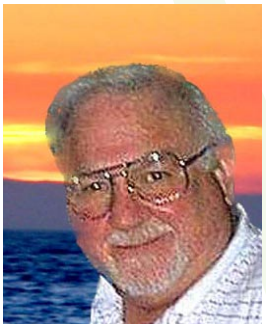
ADDITIONAL INFORMATION: Directions and additional details can be found at the INCOSE-LA website (www.incose-la.org).

TUTORIAL
Saturday, March 6, 2004
(Reservations by February 20, 2004)

LOCATION
Radisson Hotel at Los Angeles Airport
6225 West Century Boulevard
Los Angeles, CA 90045

TIME
9:00 AM to 5:00 PM
Registration begins at 8:30 AM

Guest Lecturer - Mr. Jack Ring
Topic: Intelligent Systems Engineering



BIOGRAPHY: Jack Ring encountered systems engineering in 1957 with GE and has been practicing for forty six years in a variety of application domains. He led several successful new systems and business initiatives during twenty years with GE Aerospace, ten years with Honeywell's Computer Divisions and the more recent sixteen years with a variety of high tech turnarounds and startups. He has mastered technologies spanning from missile guidance to high performance automobiles to the object paradigm and has pioneered the application of SE to human-based systems. Currently he leads a community of practice in exploring the application of systems engineering to the design, construction, operation and evolution of intelligent enterprises. Jack was named INCOSE Fellow in 2003 where he is also founding co-chair of the Intelligent Enterprises Working Group. He is an owning member and trustee of the Chaordic Commons. He associates with the Systems Dynamics Society, the American Association for Artificial Intelligence and several knowledge management initiatives. He has produced numerous papers and tutorials regarding the practice of diagnosing complex situations and creating people-based, agile solution systems. He earned a BA, Physics, Emporia State College, Kansas, and continues formal education in innovation, systems, and management.

TUTORIAL ABSTRACT: Most systems engineering projects and organizations do not know that they are performing at less than 50% efficiency with respect to cycle time, cost, quality and rate of innovation and learning. Although we cannot measure efficiency directly we can measure attributes of system engineers, individually and in workgroups within infrastructures estimate actual efficiency by projecting these measurements via a model and simulation. This note describes the start of a simulation development project.

The INCOSE Intelligent Enterprise Working Group (IEWG) investigates the application of systems engineering principles and practices to the initiation and evolution of intelligent enterprises whether the enterprises be commercial, government, or not-for-profit. Bilaterally, the IEWG investigates ways of applying intelligent enterprise principles and practices to illuminate the practice of systems engineering. In addition to familiar terms such as system, effectiveness, systems engineering, enterprise and intelligent, our lexicon includes:

Tripartite Maximization: An intelligent enterprise takes the form of a tripartite, goal seeking system. The Operate part seeks stakeholder Rewards through precise and rapid execution. The Adapt part copes with real time constraints in order to maximize both Return on Resources and future opportunities for rewards. The Align part assures that enterprise content, structure and goals are coherent with those of mutually interdependent enterprises and, importantly, applicable principles of systems and society.

Value: The value of SE is indicated by its contribution to the overall project in two aspects. First is the three measures of value to the downstream system realization associates on the project. Second is another three measures of value to sponsors. Value is maximized not only by the operate, adapt and align aspects of SE but also by the purposeful selection of the scope of SE in terms of its reach and span. Reach refers to the extent of a system value cycle to which SE attends. Span refers to whether only the mission system is SE'd or whether the whole system (mission, operational availability, test, operator preparation and production) is SE'd by a unified team.

The Intelligent type of Systems Engineering will be explored in more depth regarding its economic and socio-technical benefits at the LA Chapter tutorial, March 6, 2004.

RESERVATIONS: Reservation are by February 20th. For Cost and registration information please go to:

http://www.incose-la.org/reg/2004_03_06_Tutorial.html

The Board and Officers wish to welcome the following new Chapter members:

Andy	Abranches	Northrop Grumman
Mike	Anderson	The Boeing Company
Villy	Angelico	The Boeing Company
Richard	Chang	The Boeing Company
John	Chu	Northrop Grumman
Tom	Cowles	Raytheon
Malcolm	Currie	SEC Services
Chih-Hao	Dai	The Boeing Company
Bob	Davis	Davis & Molina Consulting Group
Leo	Deegan	Raytheon Company
Joe	DeWitt	Raytheon Company
Jack	Freeman	ATK Missile Systems Corp
Jody	Gunn	Jet Propulsion Laboratory
David	Hooper	EMAGENIT
Daniel	Johansen	Northrop Grumman Space Technology
CI	Johnson	Thales-Raytheon
Jim	Keenan	Brentwood International
Mike	Kim	Northrop Grumman
Mia	Kim	Northrop Grumman
Larry	Mallach	Abacus Programming Corp
Karen	Mourikas	The Boeing Company
Rick	Pharney	The Boeing Company
Brian	Pokrzywa	Naval Surface Warfare Center - U.S. Navy
James	Ribbe	Thales Raytheon
Douglas	Savard	The Boeing Company
Peter	Shames	Jet Propulsion Laboratory
Jan	Sticht	Honeywell
Paul	Su	The Aerospace Corporation
Stephen	Swanson	St. Jude Medical
Diane	Tran	The Boeing Company

INCOSE News

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Return Address:

2118 Colony Plaza
Newport Beach, CA
92660

The International Council on Systems Engineering (INCOSE) is an organization formed for the purpose of advancing the art and science of systems engineering in various areas of the public and private sectors. The Los Angeles Chapter meets several times per year for dinner meetings, and additionally sponsors tutorials and other activities of interest to those in the systems engineering field or related fields. L. A. Chapter Officers are as follows:

2004 Officers and Board

President:	John Hsu	john.c.hsu@boeing.com or	president@incose-la.org
Vice-President:	Dennis Schwarz	dennis.c.schwarz@boeing.com or	vicepresident@incose-la.org
Past President:	Michael L. Dickerson	simimike@iname.com or	pastpresident@incose-la.org
Treasurer:	Marsha Weiskopf	marsha.weiskopf@aero.org or	treasurer@incose-la.org
Secretary:	Karen Miller	karen.miller@ngc.com	secretary@incose-la.org
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Tutorials/Education:	Anna Warner	anna.warner@boeing.com	setraining@incose-la.org
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Those interested in INCOSE membership wanting to be placed on our E-mail distribution please contact Susan Ruth - susan.c.ruth@aero.org
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