

Los Angeles Chapter of INCOSE
www.incose-la.org

Issue No. 4

May, 2003

COMING EVENTS

Tuesday May 13th
Dinner Meeting

Panel on SE tools
JPL

June 7, 2003
8:00 am to 5:00 pm
Mini-Conference
Achieving Quantum Improvements

Location

The Boeing Company
 Long Beach, CA

General Chair
 Mr. Dennis Schwarz

Send Presentation Abstracts
 to:

Mr. John Thompson
 Northrop Grumman
thompjo8@northropgrumman.com

or
 Mr. Tony Freeman
 Jet Propulsion Laboratory
tony.freeman@jpl.nasa.gov

Wednesday June 25th
Joint INCOSE and LA SPIN
Meeting

INCOSE 2003
13th International Symposium
June 29 to July 3, 2003

Location
 Hyatt Crystal City
 Washington D.C

Engineering Tomorrow's World Today!
WWW.INCOSE.org

Check
INCOSE 2003 Symposium Website
For information
on
Systems Engineering
Certification Beta Testing

<http://www.incose.org/symp2003/>



Scott Jackson
Systems Engineering in
South Africa

As I was visiting South Africa on a personal business, Philip Rust, president of the South African chapter invited me to speak to the South African chapter in Pretoria on April 22. This visit was an education for me both from a cultural point of view and from an INCOSE point of view. The title of my talk was "Whither Systems Engineering? Trends in Systems Engineering." But that is a subject for my mini-conference presentation on June 7. I want to discuss now my impressions of South Africa and the INCOSE chapter there.

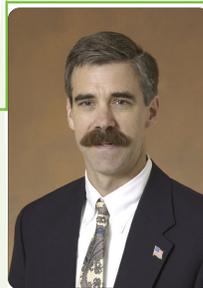
First of all, my impression of South Africa is one of optimism. I see signs of optimism all around. There is optimism among all the people – there are eleven official languages – who have forged a new nation, a new nation which seems to be working in all aspects. As a systems engineer, I see other signs as well. For example, I see a boom in infrastructure expansion. There are new highways, new airports, new shopping centers, and new buildings. South Africa faces many challenges, but by all measures, they seem to be tackling them with confidence.

As for the INCOSE chapter, I see a chapter with boundless energy. Under the leadership of president Philip Rust the chapter is in the vanguard of chapter development. Like most INCOSE chapters, the South African chapter has its roots in government programs. However, many other industries are represented, for example, mining and minerals, diamond processing and banking are just a few. The South African chapter has a stated objective of making SE relevant to all these industries.

During the question and answer period it became obvious that the members were up to speed on the latest aspects of systems engineering and that they were tackling issues that we all struggle with. There was general familiarity with ISO 15288 and its provisions (EIA 632 is less well known). Many of the organizations represented were attempting to create SE processes based on ISO 15288. One member, Michael Kruger made me aware of a draft standard ISO WD15704, Requirements for Enterprise-Reference Architectures and Methodologies. I had a good discussion with another member Alwyn Smit regarding how SE might be done during prototype development. I suggested that the key was to have a highly knowledgeable systems engineer reporting directly to the program manager.

Following the meeting we had dinner in the suburbs of Pretoria. This was a cultural lesson. While the language of my friends in Johannesburg was English, most of the INCOSE members in Pretoria spoke Afrikaans, a language related to Dutch. When they spoke to me, it was in English. They did not seem to have any trouble with my American accent. If you are unfamiliar with the South African accent, I suggest you listen to an interview with Ernie Els, Dr. Christiaan Bernard, or Zola Budd.

In short, I came away with the strong feeling that INCOSE has a firm footing on the continent of Africa and that it is good hands.



directly to the Director of JPL and has responsibility for planning, implementing, and leading JPL's technology strategy. He serves as a member of JPL's Executive Council and as the senior representative to NASA Headquarters, other NASA centers, and other government agencies for JPL basic technology research. Dr. Antonsson is responsible for top-level coordination and assessment of technology work and infusion in flight activity. He serves as co-chair of JPL's Science and Technology Management Council and coordinates the allocation of internal funds related to science and technology resources. Dr. Antonsson is a Professor of Mechanical Engineering at the California Institute of Technology, where he organized the Engineering Design Research Laboratory and has conducted research and taught since 1984.

Four technical tracks comprised of up to eight presentations will be offered. Presentations will address the systems engineering areas of: education and research, systems architecture, measurement, modeling and tools, processes, applications, initiatives, management, and standards.

Invited panelists from industry and government will provide their views on the integration of software and systems engineering disciplines. Remarks will focus on processes, tools, and assessment models for improving the integration of software development to support system level requirements. The panel discussion will be moderated by Michael Bernabe, CMMI Implementation Leader, Boeing Integrated Defense Systems.

Registration Fees

Early Registration (before May 23)

INCOSE Member	\$60
Nonmember	\$70
Nonmember w/ 2003-2004 INCOSE Membership Fee	\$150
Groups, 6 or more INCOSE Members, per each	\$50
Retired INCOSE Member	\$50
Full-time Student (with ID)	\$10

Registration (after May 23)

INCOSE Member	\$70
Nonmember	\$80
Nonmember w/ 2003-2004 INCOSE Membership Fee	\$160
Groups, 6 or more INCOSE Members, per each	\$60
Retired INCOSE Member	\$60
Full-time Student (with ID)	\$15

Directions to the Boeing Conference Center

From the 405 Freeway:

Take the 405 Freeway to Long Beach. Exit at Lakewood Blvd. and drive north on Lakewood Blvd. for approximately 1.5 miles. Turn right onto Douglas Center (the first signal past Conant St.). Douglas Center will take you directly into the parking structure.

From the 605 Freeway:

From the 605 Freeway exit at Carson St. Drive west on Carson St. for approximately 3.2 miles. After crossing Clark St. turn left onto Douglas Center (the second signal west of Clark St. and just east of Lakewood Blvd.). Douglas Center will take you directly into the parking structure.

Additional Information

Please contact the General Chair, Dennis Schwarz at (562) 593-9745 or dennis.c.schwarz@boeing.com with any questions you may have.

Registration forms can be downloaded

INCOSE LA Chapter website: <http://www.incose-la.org/>

2003 Mini-Conference Systems Engineering Achieving Quantum Improvements

June 7, 2003

8:30 a.m. to 5:00 p.m.

Registration and continental breakfast begin at 8:00 a.m.

Boeing Conference Center
Building 800
4000 North Lakewood Boulevard
Long Beach, California 90808
(562) 496-9633 (Boeing Security Front Desk)

The Los Angeles Chapter of the International Council on Systems Engineering (INCOSE) is sponsoring a one-day technical mini-conference. The conference will include a keynote speaker, a guest speaker, numerous technical presentations, and a panel discussion.

Ronald E. Johnson Vice President of Engineering and Operations The Boeing Company Mini-Conference Host



Mr. Johnson, VP of Engineering and Operations, Air Force Systems, Boeing Integrated Defense Systems, will launch the mini-conference with perspectives on achieving quantum improvements.

The keynote presentation, focusing on USAF Systems Engineering Revitalization, will be delivered

by Lieutenant General Brian A. Arnold, Commander, Space and Missile Systems Center (SMC), Air Force Space Command, Los Angeles, California.

Lieutenant General Brian A. Arnold U.S. Air Force Keynote Speaker



General Arnold is responsible for managing the research, design, development, acquisition and sustainment of space launch, command and control, missile systems and satellite systems. With more than 6,500 employees nationwide and an annual budget in excess of \$6.5 billion, SMC is the nation's center of excellence for military space acquisition. General Arnold is the

Program Executive Officer for Air Force space and is responsible for Air Force Satellite Control Network, space lift ranges, launch programs, the Evolved Expendable Launch Vehicle Program, the Space-Based Infrared System Program, military satellite communication programs, Navstar Global Positioning System programs, intercontinental ballistic missile programs, Defense Meteorological Satellite Program, as well as space-based radar. He manages a portfolio of space superiority system programs. Previously, he served as the Director of Space and Nuclear Deterrence for the Assistant Secretary of the Air Force for Acquisition and was a pilot in FB-111 and B-52 aircraft.

Dr. Erik K. Antonsson Chief Technologist Jet Propulsion Laboratory Guest Speaker

Dr. Erik K. Antonsson, Chief Technologist, NASA's Jet Propulsion Laboratory (JPL), will be the guest speaker. He will focus on advanced systems engineering techniques for achieving the next level of space exploration. He reports

Systems Engineering Tools Panel

Dinner Meeting

Tuesday, May 13, 2003

Location

JPL
von Karman Auditorium

Time

Networking – 5:30 pm
Panel Discussion – 6:30 pm

Cost

Members – Free
Guests – \$10.00

Systems Engineering Tools Panel

Moderator

*James van Gaasbeek
Northrop Grumman*

Numerous systems engineering (SE) tools have been developed to aid systems engineers in the performance of their jobs. Oftentimes, the choice of tool for a given task is not necessarily based on the requirements of the specific application but rather on the user's or their management's familiarity with specific tools. In an attempt to provide our members with a better understanding of the various tools available to them, we have invited representatives from several tool vendors to participate in an SE Tools Panel Discussion. Each of the representatives will provide an overview of their company's tool including a description of what type of SE activities the tool supports, key features of the tool, and information regarding what feature(s) differentiate their tool from their competitor's tool(s). Information regarding the required input and the decision support provided by the tool will be provided. Each of the panelists will also discuss their company's strategic plan for evolving their tool to meet the future needs of systems engineering professionals. The formal presentations will be followed by a question and answer session. Panelists who will be participating in this discussion are as follows (listed alphabetically by tool):

Jody Fluhr – CORE – ViTech Corporation

The CORE product family provides a flexible combination of modeling and simulation tools supporting product and process engineering. CORE's object-oriented environment delivers the same functionality from a single user workstation to large, distributed, client-server teams. CORE runs under the Microsoft Windows® environment.

Jody Fluhr joined Vitech Corporation in 2001 and has supported numerous customers through his consulting and training activities. Upon graduation from the University of Louisville, Jody joined NASA at the Kennedy Space Center in Florida and worked on the Space Shuttle and International Space Station programs in various engineering capacities. He left NASA to join Space Hardware Optimization Technologies (SHOT), Inc. as a systems engineer and later served as a project manager. Under his direction, SHOT, Inc. selected CORE as the systems engineering tool of choice to perform their systems engineering efforts.

Barry Rothstein – DOORS® – Telelogic Susan Sweet – DOORS® – Telelogic

Telelogic DOORS® (Dynamic Object Oriented Requirements System) is a multi-platform, enterprise-wide system designed to capture, link, trace, analyze and manage changes to information to ensure a project's compliance to specified requirements and standards.

Barry Rothstein joined Telelogic in 2000 and has been active in systems development (including modeling, validation and development) for 12 years. As a Regional Manager for Telelogic, Barry works to assist MIL/Aero companies and government agencies to optimize their system development process and to reach higher levels of CMMI (Capability Maturity Model Integration). Prior to joining Telelogic, Barry worked

as a controls engineer for Naval Air Warfare Center (NAWC), Point Mugu. At NAWC, Point Mugu, Barry was responsible for the modernization of the Navy's ground based tracking systems including system requirements definition, modeling, development and test. Barry has a bachelor's degree in Control Systems from the University of California, San Diego and has taken graduate level courses in Control Systems at the University of California, Santa Barbara. Barry received a US Patent in 1998, US5729100: Method and apparatus for controlling backlash in motor drive systems (see: http://www.delphion.com/details?pn=US05729100__).

Susan Sweet joined Telelogic in 1997 and has more than 15 years experience in systems and software engineering. As a regional manager, Susan is responsible for working with companies in the Los Angeles area to assist them in the evaluation and adoption of new technologies to streamline their overall development processes. Prior to joining Telelogic, Susan served as a Systems and Software Engineer at Boeing. She was responsible for the research, development and adoption of system design automation technology in a real-time systems development environment. During her tenure at Boeing, she had the opportunity to work on all aspects of the systems development process from requirements definition and development to test and customer sign-off. Susan has a bachelor's degree in Applied Mathematics from California State University, Fullerton and is a member of IEEE (Institute of Electrical & Electronics Engineers).

Charlie Snyder – RequisitePro® – Rational Software

Rational® RequisitePro®, an easy to use requirements management tool, lets you maintain the way you document requirements, using Microsoft Word, while leveraging analytical capabilities such as requirements analysis, coverage and change impact.

Charlie Snyder has been with Rational Software, IBM Software Group for 9 years and has over 30 years experience in software and systems development with a specialization in software process and design using an object-oriented development approach, including re-engineering, software and systems architecture, requirements analysis, design, development, and management. As a Senior Staff Systems Engineer at Rational Software, he has assisted numerous companies with implementing Rational tools and processes. Charlie has bachelor's and master's degrees in Mathematics from Temple University.

Coretta Harris – SLATE™ – EDS

SLATE™ (System Level Automation Tool for Engineers) is a groupware solution that provides a systems engineering approach to product development. It provides a systems engineering environment that not only captures information about products but also manages customer requirements and links these requirements to design alternatives.

Coretta Harris is the Mil-Aero Services Manager for the SLATE Services Deployment of EDS PLM Solutions. As such she is responsible for the consulting services and implementation of SLATE for all EDS Military Aerospace customers (Boeing, Northrop Grumman, Raytheon, Lockheed Martin, etc.) throughout the United States and has a team of four SLATE consultants working for her. Coretta earned a Bachelor of Science degree in Engineering from University of California at Los Angeles (UCLA) in 1983 and has taken graduate courses in Aerospace Engineering at California State University Northridge. She has worked in the Aerospace industry for a total of 20 years – 5 years with the Navy, 12 years with TRW, and 3 years with EDS – and has worked in the systems engineering arena for the past 15 years. Coretta has also worked with requirements management

Directions

http://incose-la.org/Directions_to_JPL.htm

INCOSE News

Return Address:

**2118 Colony Plaza
Newport Beach, CA
92660**

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May 2003

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:

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Vice-President:

John Hsu

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Michael E. Krueger

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Marsha Weiskopf

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Gina Kostelecky-Shankle

Ways and Means:

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Communications:

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2003 Officers and Board

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Those interested in INCOSE membership please contact Susan Ruth.

Those interested in working on a committee please contact the appropriate Director.

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