



INCOSE Region V
Huntsville Regional Chapter
Newsletter FEBRUARY 2007

The International Council on Systems Engineering is a not-for-profit membership organization founded in 1990. INCOSE is an international authoritative body promoting the application of an interdisciplinary approach and means to enable the realization of successful systems.

Congratulations to the new Officers: Bill Sowder, Vice-President, John Jellicorse, Secretary; and George Matty, Government Representative. Let's give these new Officers a hand and our support throughout the year.

NEXT CHAPTER MEETING

February 22, 2007 Note week delay from usual

Location: 6725 Odyssey Dr., (SAIC Bldg.), Patriot Room, 5:30 – 7:30 p.m.

Presentation Topic: The Application of Complexity Theory to System of Systems Design

Agenda:

1715-1720: Guest Speaker (Eric Honour) arrival
1730 - 1750: Social time and dinner
1750 – 1800 Announcements
1800 – 1900 Speaker's presentation
1900 – 1920 Questions and Answers
1920 – 1930 Adjourn

Speaker: Eric Honour, President of Honourcode, Inc. Honourcode is a consulting firm offering effective methods for the development of system products. Mr. Honour has over 37 years experience in the development and operation of complex systems. He provides successful leadership of Honourcode consulting, course delivery, and research work.

UPCOMING CHAPTER EVENTS

February 20, 2007 (5:30-7:30 p.m.)

Call for INCOSE volunteers for Digital Combat Exercise (DCE) planning meeting with DCE leads Joe Popinski and S.A. Hale. Historically, the DCE has been one of the biggest crowd pleasers at past conferences, and we anticipate that all the participants will demonstrate even greater honed skills this year, both professionals and student competitors. See March 13 agenda for the Southeastern Systems & Software Engineering (SE)³ Conference. We are enlisting teams of cyber specialists for DCE to launch a digital attack on networks with varying levels of security. Teams of students and professionals have an opportunity to learn first hand about cyber warfare by participating in a simulated cyber battle.

Location: Teledyne Brown Engineering, 4900 Bradford Drive (corner of Wynn Drive & Bradford, across from Redstone Credit Union). Call 713-5322 for entry at front door.

DCE Planning Meeting Agenda (start 5:30 p.m.):

- 1) Review technical plans for DCE
- 2) Determine what servers, etc each committee member can supply
- 3) Define the DCE network configuration

- 4) Assign tasks to ensure that the equipment is configured appropriately, logistics are handled, etc.
- 5) Review Rules of Engagement, Set Up/Take Down logistics issues, etc
- 6) Agree on a date for equipment dry run and set up, week before (S³E).

We will order pizza (Volunteers chip in to pay for it), and supply soft drinks. We ask volunteer attendees to commit their logistics help, expertise, and other skills at this meeting.

Contact: For additional Digital Combat Exercise information and so that we can estimate attendance for the pizza order, INCOSE NRC volunteers please respond directly to Joe Popinski, at 713-5322 or (205) 602-5362 (mobile); or via email at joe.popinski@tbe.com or Matt Osborne, 726-2186, matt.osborne@tbe.com.

February 24, 2006 (Saturday)

System Architecting, Using Heuristics and Patterns Tutorial

Location: Teledyne Brown Engineering, 4900 Bradford Drive (corner of Wynn Drive & Bradford, across from Redstone Credit Union). Call 713-5322 for entry at front door.

Tutorial Agenda:

0730-0830: Registration, with continental breakfast
0830-1200: Architecting concepts, patterns, and DODAF.
12:00-12:30: Lunch, included in tutorial fee
12:30-1630: Architecting exercise, optimization, issues, and discussion.

Presenter: Eric Honour, President of Honourcode, Inc. Honourcode is a consulting firm offering effective methods for the development of system products.



System architecting is a creative art that develops the arrangement of components and relationships to build a system. Only partially understood, it is clear that system architecting involves heuristic rules and patterns that are recognizable by architects but difficult to codify. This tutorial shows the basic thought patterns behind system architecting, with some practice in identifying and using patterns effectively

to develop an architecture.

Mr. Eric Honour has been in international leadership of the engineering of systems for over a decade, part of a 36-year career of complex systems development and operation. His energetic and informative presentation style actively involves class participants. He was the founding Chair of the INCOSE

(International Council on Systems Engineering) Technical Board in 1994, was elected to INCOSE President for 1997, and continued as Director of the Systems Engineering Center of Excellence (SECOE). He was selected in 2000 for Who's Who in Science and Technology and in 2004 as an INCOSE Founder. He is on the editorial board for Systems Engineering. He has been a systems engineer, engineering manager, and program manager at Harris Information Systems, E-Systems Melpar, and Singer Link, preceded by nine years as a US Naval Officer flying P-3 aircraft. He has led or contributed to the development of 17 major systems, including the Air Combat Maneuvering Instrumentation systems, the Battle Group Passive Horizon Extension System, the National Crime Information Center 2000, and the DDC1200 Digital Zone Control system for heating and air conditioning. Mr. Honour now heads Honourcode, Inc., a consulting firm offering effective methods in the development of system products. Mr. Honour has a BSSE (Systems Engineering) from the US Naval Academy and MSEE from the Naval Postgraduate School. Mr. Eric Honour is an internationally recognized practitioner, researcher, consultant and trainer in complex systems development, process improvement, systems engineering, and software techniques and tools.

MARCH CHAPTER MEETING

March 15, 2007

Location: 6725 Odyssey Dr., (SAIC Bldg.), Patriot Room, 5:30 – 7:30 p.m.

Presentation Topic: Managing Complex Programs

Speaker: Major General John W. Holly, USA (Ret.), President and Managing Director, Analytical Services, Inc. (ASI)

General Holly will overview his expectations of program managers and discuss risk-based management as an approach to managing complex programs



MG Holly joined ASI in March 2006 and is responsible for the company's day to day operations and actively guiding ASI's long-term strategic vision and growth plans in both the space and defense marketplace. Prior to joining ASI, he was the senior Vice President and General Manager of the Federal Solutions business unit at Intergraph Corporation, a

leading global provider of spatial information management software, security and life-cycle management solutions.

During a distinguished military career that spanned over three decades, General Holly became a national authority on missiles and missile defense systems, having served at every level of program management in the Department of Defense. His last assignment was the Deputy Director of the Missile Defense Agency. His most significant achievement while on active duty was leading the construction, testing, and deployment of a missile defense system to defend the United States against attacks by long-range ballistic missiles. Additionally, he managed the Army's \$3B portfolio of tactical missiles. His operational assignments include experience as both a commander and staff officer in a variety of operational units from platoon through Corps levels. During an assignment at the U.S. Military Academy, he was both an Instructor and Assistant Professor of Engineering.

In addition to his professional and military accomplishments, Holly holds a bachelor of science degree from the U.S. Military Academy and a master's in mechanical engineering from the

Georgia Institute of Technology. Holly is a licensed professional engineer in the Commonwealth of Virginia and served as a trustee-at-large for the Association of Graduates of the U.S. Military Academy. He is the recipient of the Society of Automotive Engineers' Teetor award and the National Defense Industrial Association's Gold medal.

UPCOMING TECHNICAL SOCIETY/OTHER MEETINGS

February 22, 2007

Huntsville Engineering Societies' Awards Banquet.

Location: Marriott Hotel—Alabama Space Center, 6:30 p.m. registration in lobby, 7:00 p.m. dinner

This banquet affords an excellent opportunity to network with cross-disciplinary community technical societies, as well as witness their awards to outstanding representatives of their career discipline. Working with cross-disciplinary team members to architect optimal systems – in a management adjunct fashion - is sometimes viewed a core systems engineering activity.

March 5-8, 2007 (Mon-Thurs)

Second Annual Joint Integrated Air and Missile Defense (JIAMD) Summit Please note that this event requires an active Secret security clearance, is by invitation-only. Please contact Wanda Carswell at 864-8369 Chester Williams at 971-6703 for further information.

Summit Agenda:

Monday March 5 at Huntsville Marriott

- Registration and Orientations
- JSO Leadership Briefs
- Keynote Speaker Gen. Cartwright-confirmed
- Lunch, working buffet at Marriott
- SIA Brief
- Team Collaborative Contracting Brief
- Tribe Leader Briefings
- Evening—Reception at Space & Rocket Center

Tuesday March 6 in Redstone Arsenal (various locations)

- Threat Briefs by MSIC
- IAMD Roadmap Issues
- IAMD EoA Issues
- Lunch, working buffet at FACT locations
- FACT Breakouts
- Evening—Working buffet dinner at Marriott

Wednesday March 7

- FACT Breakouts (continued)
- Luncheon at Von Braun Center, Lt Gen Obering, MDA Commander and Lt Gen Campbell, JFCC-IMD (invited)
- FACT Breakouts (continued)
- Prepare HOTWASH Debriefs,.
- Evening—BBQ Cookout

Thursday March 8

- HOTWASH debrief to 2007 JIAMD Summit Leadership, Adm Giambastiani (invited)

March 12-15, 2007 (Mon-Thurs)

Fifth Annual Southeastern Systems & Software Engineering (SE)³ Conference and Exhibition

Please plan to attend and take advantage of an opportunity to learn and interact with world class and nationally recognized subject matter experts from Government, Industry, and Academia participating as speakers, panelists, and workshop leaders. This year's conference will focus on the current issues

and real-world applications of Net-Centric Systems and Software in DoD, NASA, Industry, and Academia.

Location: Von Braun Center North Hall

Conference Theme: Net-centric Systems and Software for the Real World.

Agenda:

Monday March 12

1300-1700 CMMI – Moving Ahead: Presenters: Mike Phillips, SEI; Sandra Cepada, CSSA

This CMMI seminar/workshop will include discussions of the changes involved in the upgrade from CMMI 1.1 to the CMMI 1.2 Product Suite, the current status of CMMI and SCAMPI, and future plans that the Software Engineering Institute has for the CMMI Product Suite, including some discussion of planned constellations for Services and Acquisition. Lessons learned by both small and large organizations from adopting CMMI and going through SCAMPI Appraisals will also be shared. This seminar will provide engineers, managers, and process improvement professionals with practical information related to applying the CMMI model in their organizations, and preparing for SCAMPI appraisals.

Evolutions and Revolutions: A look at Telecommunications in the Past, Present, and Future: Presenters: Kevin Schneider, Adtran; Mark Spencer, Digium

This seminar will include a brief look at the history of telecommunications, noting disruptive technologies and regulatory events. Emphasis will be on speculative future trends in telecommunications. You will also be exposed to the role that open source can play in building your telecommunications infrastructure. Learn how open source and public domain technology can be implemented to create your telecommunications solution in an economical way.

Tuesday March 13

0800-1400 Digital Combat Exercise (DCE)--Networks Under Attack. Controlled experiment on a local network involving defensive and offensive teams.

There is a war going on, one without bullets and explosives; it is a digital attack on the information systems of our government, military and individuals around the world. Teams of students and professionals have an opportunity to learn first hand about cyber warfare by participating in a simulated cyber battle. Does your team have the skills to defeat top security experts from around the country and infiltrate their systems? Offensive teams are registered participants. Defensive teams are comprised of security experts. Up to four individuals may compete as a team

1300-1700 Challenges In Architecting Net-Centric Systems & Software

Wednesday March 14

0800-1200 Net-Centricity: Securing Systems & Information

1300-1700 System & Software Assurance

Thursday March 15

8:00 – 12:00 Software & Systems Challenges for Space Exploration: Presenters: Bob Savley, NASA – JSC; Mike Hinchey, NASA – GSFC; Mike Lowry, NASA - JPL

The exploration of space is now a world wide effort, possessing many dimensions such as; returning humans to the moon, sending robotic vehicles to very inhospitable places such as Venus or Europa, and pushing commercial, defense, and even academic self-build space systems to new limits. What are the major software engineering barriers or challenges that lie ahead in each area? Are there any shared

problems and common solutions? How do we make mission software more reusable, cheaper, and most of all, more reliable?

Securing Your Systems from the Ground Up – Software, Hardware, Networks: Presenter: SA Hale, Teledyne Solutions. In this seminar, you will learn the benefits of incorporating security into the Software lifecycle. The risk of software compromise during the development process is inversely proportional to the level of security embedded in the software development process. Secure software is the output when adequate security protection is planned and implemented during the software lifecycle. In addition, you will learn how to use TSI's Security Audit and Penetration Testing Application (SA/PTA), to conduct various NetCentric system security activities. SA/PTA puts 4GB of accessible materials at the Security Engineer's finger tips; over 24,000 files in 1,700 folders organized around checklists, databases, references, and tools.

1300-1700 Meeting New Challenges in Acquisition

Chair: Ceci Albert, Acquisition Support Program, SEI.

Co-Chair: Scott Reed, SEI. Presenters: Suzanne Garcia, Jim Smith, Bob Ferguson, Jack Van Kirk, SEI

This Workshop will explore the challenges of Systems of Systems Acquisition with regard to what the Request For Proposal should consider, developing the necessary measurement indicators for project management, and the consideration for those processes that will improve the Project Manager's capability for interoperable acquisition.

Website: <http://se3conference.com>, for more information

(SE)³ is sponsored by the National Defense Industrial Association - Tennessee Valley Chapter (NDIA-TVC), the INCOSE HRC, and the IEEE Huntsville Section and Computer Society Chapter.

INCOSE NATIONAL NEWS

Please visit the INCOSE website for a full schedule of important dates: <http://www.incose.org/newsevents/schedule.aspx> and upcoming events: <http://www.incose.org/newsevents/events/>

2007 International Workshop (IW2007)

INCOSE will hold an International Workshop on Saturday, 27 January – Tuesday, 30 January at the Embassy Suites in Albuquerque, NM. INCOSE's International Workshop is the event of the year for systems engineers to contribute to the state of the art. Unlike INCOSE's annual International Symposium and other conferences, there are no paper or panel presentations. Instead, attendees spend four days immersed in a vibrant community of fellow systems engineers who are there to make a difference. Systems engineers at all levels and from all backgrounds are encouraged to engage in working sessions and contribute their knowledge and experience to take the discipline forward.

IW2007 will incorporate working meetings for groups engaged in INCOSE's major projects and in international standards development, opportunities for chapter leaders to meet and share best practice, support sessions to help you get the most out of INCOSE's shared working environment, and a broad range of other technical meetings. Planned sessions and points of contact will be published on the website as these become available, and attendees are encouraged to contact the relevant session leaders before the event for further information.

Time Is Running Out to Register for the 2007 International Workshop. You have until 13 January 2007 to register for the

INCOSE International Workshop 2007 (27 to 30 January). Unlike INCOSE's annual International Symposium, there are no paper or panel presentations. Instead, IW2007 will incorporate working meetings for groups engaged in INCOSE's major projects and in international standards development, opportunities for chapter leaders to meet and share best practices, support sessions to help you get the most out of INCOSE's shared working environment, and a broad range of other technical meetings.

IW2007 is only open to INCOSE members. Non-members can join prior to the IW for \$55, giving 6 months membership up to the annual renewal date of 1 June 2007. For more information and to register, visit the International Workshop website: <http://www.incose.org/iw2007/>

MEMBER NEWS

Member Walter Hammond coordinated the 2007 Mathcounts competition for Huntsville Chapter which was held on Saturday, February 10 at Challenger Middle School. MATHCOUNTS® is a national math enrichment, coaching and competition program that promotes middle school mathematics achievement in grades 6, 7, and 8. With over 23 years experience, MATHCOUNTS is held in every U.S. state and territory and is one of the most successful education partnerships involving volunteers, educators, industry sponsors and students.

Schools select students to compete individually or as part of a team in one of the more than 500 written & oral competitions held nationwide. Top students advance to the state, & ultimately, national level. MATHCOUNTS challenges students' math skills, develops their self-confidence & rewards them for their achievements. This year seven Huntsville area middle schools competed: Randolph School, Covenant Christian Academy, Challenger Middle School, Academy for Academics and Arts, Monrovia Middle School, Williams Technology Middle School, and Edward White Middle School. Congratulations to Randolph, Covenant Christian, and Challenger who will go on to compete in the Alabama State Mathcounts competition, to be held right here in Huntsville at Grissom High School cafeteria on March 10. For more information please contact James Drake, the State coordinator, at 755-1950 or james.drake@tbe.com.

COMPANY NEWS

Please send your Company News to our new Secretary, John Jellicorse, at jellicorse_john@bah.com, or call him at 922-2783.

JOB OPPORTUNITIES

Systems Engineering Job Bank. INCOSE has partnered with JobTarget to deliver a full-featured job site developed explicitly for the systems community. Individuals can post their resume to the anonymous resume bank free of charge and create personal job alerts so that they are notified when opportunities of interest are available. Employers can search the focused resume database and post job openings.

The new job bank allows job seekers to: search targeted opportunities; post your resume for free (and anonymously); choose what to divulge in your resume; stay connected to the employment market; and receive alerts for opportunities of interest. Visit the job bank today, and take advantage of this new resource:

http://jobsconnection.incose.org/home/index.cfm?site_id=582

CONTACT INFORMATION

Find us on the web at www.incose.org/huntsville. Please contact John Jellicorse at 256-922-2783 with any Newsletter inputs at any time, and questions or comments about this newsletter.

For questions or comments regarding the INCOSE Huntsville Regional Chapter (HRC), please contact Chester Williams at chester.williams.jr@saic.com, 256-971-6703.

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Your INCOSE HRC officers need your inputs to make this newsletter better speak to your needs. We solicit YOU, the INCOSE membership, for items of interest from your company, local conferences, published tech papers or books, news regarding job transfers, new jobs, etc.

Your Local Chapter Contact Points (detailed bios at <http://www.incose.org/huntsville>)

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