



SE REVIEW



October 2009

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Next Board Meeting
5 November 2009
1630
Booz Allen Hamilton
Expedition Bldg

Next Chapter Meetings
To Be Scheduled

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President's Perspective

Colleagues,

We have just had the opportunity to host Mr. John A. Thomas with our luncheon speaker Program on **Technical Leadership & the Role of the Systems Engineer for Program Success** in October. He is one of three candidates running for President of INCOSE International and provided an informative and engaging discussion with ~30 members and guests participating. Note that elections for INCOSE International will take place via electronic ballot in November, or you can request a paper ballot if this is your preference. Recently, a webinar was posted on the INCOSE International web site giving the vision of each of the INCOSE International Presidential candidates; it is worthwhile to view before placing your vote. You can click [HERE](#) to access the webinar, and it requires logging into INCOSE Connect. Note, we are still looking for a November speaker and will keep you posted if and when we can get something formally scheduled.

Now is the time to give some consideration for stepping into a leadership role with our local INCOSE Southern MD Chapter. We are in the process of assessing new Board of Director needs for our Chapter, and elections will take place for installation in January 2010. We are definitively interested in fresh ideas, and this is a great way to influence positive change within our Chapter and start to shape the direction for this organization. There will be a number of committees in need of participants as well as a couple of Board vacancies that will need to be filled. If you are an INCOSE member in good standing and interested in pursuing a leadership role, we would like to hear from you now! Please reach out to Andrew Pollard, (301) 757-7646, or via e-mail: Andrew.Pollard@INCOSE-SoMD.org. We would like to provide a short biography of all seeking office and will be conducting our elections before the 2nd week in December.

I would like to leave you with a [LINK](#) to a significant article that speaks to the role of the systems engineer and references the INCOSE Certification process. Things bode well in our profession!

Respectfully,

Steve McKeown
President, Southern Maryland Chapter
president@INCOSE-SoMD.org

INCOSE News

300 Certified SE Professionals

In December of 2008, INCOSE's certification program reached the milestone of more than 300 active world-wide Certified Systems Engineering Professionals (CSEPs). As of 31 December 2008, there were 302 active CSEPs. According to David Walden the Certification Program Manager, "INCOSE is excited about reaching this milestone and we expect continued growth as the CSEP designation becomes recognized as a valuable investment for individuals and organizations and the world-wide standard for Systems Engineering professional recognition."

INCOSE Certification Program

Based on valuable feedback from members, chapters, and organizations, the Certification Advisory Group (CAG) recently updated the continuing professional development criteria and the Professional Development Unit (PDU) definitions used for certification renewal. Some highlights include:

- Credit for INCOSE leadership roles and service at the local, national, and international levels
- Credit for work assignments as a lead systems engineer
- Adjusted levels of PDUs for college course work
- Limits applied to accumulation of PDUs in single areas, to encourage broader or wider span of PDU accumulation

The revised criteria became effective 1 August 2009. As part of the transition process, people certified prior to that date may choose to use the original criteria for their next renewal. For more information on INCOSE's certification program and to see the new PDU definitions, please visit the INCOSE [website](#).

Communication from International

There has been a change in leadership for Communications. Headquarters has stated that news (such as E-Note) will start up again soon.

The location for the International Workshop for 2010 has not been determined yet, but it will be "someplace warm". The International Symposium for 2010 will be located in Chicago, Illinois. Details on these events are forthcoming.

Systems Engineering Journal

The Systems Engineering Journal will be available for viewing online on or around November 15th. If you don't already have your login, instructions for logging on to the Wiley website are available in Connect. Also please note that we are continuing to make upgrades and improvements to the website. When possible, we will notify in advance about downtime. Thank you for your understanding.

IS 2010

November 8th is the deadline for papers, panel, and tutorial submissions for the 2010 International Symposium. The quality of the technical program depends on these submissions. Please visit <http://www.incose.org/symp2010> to learn more about the upcoming symposium.

INCOSE Election Nominees

The following is the slate of nominees for the upcoming INCOSE election. For more information about the elections and the candidates, please see the INCOSE website <http://www.incose.org/about/elections.aspx>.

Entire Membership Votes for:

- President-Elect:
- 1.) William Mackey
 - 2.) Art Pyster
 - 3.) John Thomas



Treasurer:
1.) Bill Miller
2.) Marsha Weiskopf

Director for Communications:
1.) Cecilia Haskins
2.) Ray Jorgensen

Director for Strategy:
1.) Ralf Hartmann
2.) Rashmi Jain

Fellows Call for Nominations

The Fellows Selection Committee will be pleased to accept nominations submitted by INCOSE members for INCOSE Fellows. Nominations close 1 December.

Further details can be found at:

<http://www.incose.org/about/hall/fellows/nominations.aspx>.

In-Service Systems Working Group Set To Begin Work

If you would like to be in at the beginning of this exciting initiative or would just like more information, contact one of the co-chairs:

- Bruce Elliott, bruce.elliott@arbutus-tc.co.uk
- Paul Schreinemakers, schreinemakers@sepiadvies.nl

The Charter of the In-Service Systems Working Group is to provide improved advice on:

- The difficulties encountered in practice in applying authoritative guidance on SE, including the INCOSE SE Handbook to systems which are in service.
- Best current practice in adapting SE guidance to overcome these difficulties.

Dues Renewal Reminder

Please renew online or send a check to the INCOSE office. If you pay through your bank, make sure they have the new address. If you have not yet renewed, please do so today to participate in the full range of INCOSE benefits and activities. If you have not received an email reminder or have questions regarding the renewal process, call INCOSE Central - 1-800-366-1164 or email info@incose.org.

Schedule of *INSIGHT* Deadlines

The following is a list of upcoming INCOSE *INSIGHT* deadlines:

Issue	Submission Date for General Articles / Deadline for Theme Article Proposals*	Theme	Theme Editor
4th Qtr 2009	15 Oct 2009	Model-Based Systems Engineering: <i>The New Paradigm</i>	Rob Cloutier
1st Qtr 2010	15 Feb 2010	Technical Operations	Timothy Dilks
2nd Qtr 2010	15 May 2010	The Best of Loughborough: Highlights from the Conference on Systems Engineering Research and SEANET	Roy Kalawsky and Ricardo Valerdi
3rd Qtr 2010	8 Aug 2010** / 11 Nov 2009	2010 International Symposium Coverage: Chicago, Illinois, USA	Jack Stein

4th Qtr 2010	15 Oct 2010	Systems Development from Deep Sea to Deep Space: Lessons from the Johns Hopkins Applied Physics Lab	Mike O'Driscoll and Sam Seymour
1st Qtr 2011	15 Feb 2011 / 21 May 2010	Knowledge Management for Systems Engineering	Regina Griego

* Please contact the theme editor to propose a theme article by the dated listed. No date means no additional proposals are requested.

* * Submission deadline moves according to International Symposium date.

Renew Your Membership

Don't forget to renew your membership. Your annual membership now expires 12 months after your enrollment anniversary. If you want to know what your enrollment date is and when your current membership will expire, just view your member profile <https://www.incose.org/membersOnly/memberInfo/updateMemberInfo.cfm>. Should you have problems or questions, e-mail Central Office (<mailto:info@incose.org>).

Update your membership profile

Did you know that you have the ability to reset your own password, change your address, phone number and employer, and even change the e-mail addresses you want your incose.org e-mails to go to? Did you know that you can also update your biography and even your picture? To keep your membership information up to date, just go to www.incose.org. On the left side, select the option to View / Update Member Record.

Chapter Highlights

Outreach: Feature Story!

Chapter Member Receives 2009 INCOSE Foundation/Applied Physics Laboratory Alexander Kossiakoff Systems Engineering Scholarship

The recipient of this year's \$5,000 INCOSE Foundation/Applied Physics Laboratory Alexander Kossiakoff Systems Engineering Scholarship is Mr. Andrew Pollard, who is enrolled in the Master of Science in Systems Engineering Program at the Johns Hopkins University. His research interests include:

- **Conceptual or detailed design work for civil spacecraft missions** to further space exploration, understand the solar system and its resources, and enable future manned missions. Focused research would support the development of a detailed design of a mission system, including integration of the sensor package. A broader approach would support the conceptual design of more complex missions.
- **Ocean systems research and development (undersea warfare)** in support of the U.S. Navy's "Sea Power 21" goals. A vision for naval warfare in the 21st century, "Sea Power 21" was introduced in 2002 by Admiral Vern Clark, the Chief of Naval Operations at the time.

Andrew is an Assistant Program Manager for Systems Engineering for the International H-60 "Seahawk" program at Naval Air Systems Command (NAVAIR). He received his B.S. in Aerospace Engineering from Virginia Polytechnic Institute and State University in 2001. He began working for NAVAIR in 2002 as an aerospace engineer. Since then, he has assessed readiness for the X-47B Naval Unmanned Combat Aerial System Demonstrator (NUCAS-D) system-level Critical Design Review. He is the Southern Maryland Chapter Treasurer. Congratulations, Andrew!!

Thought Piece:

Successful Implementation of WSARA Will Require Differentiating Roles for Program Execution and Expanding Human Capital Training for Systems Engineers

by John A. Thomas, INCOSE Contributing Author, Senior Vice President and Lead Systems Engineer at Booz Allen Hamilton

The Weapon Systems Acquisition Reform Act (WSARA) of 2009, which passed into law this spring, holds promise for improving the acquisition of large complex systems. However, the imperfections of the acquisition process that the law sets out to correct require careful review and consideration in its implementation.

In specific, there is a need for increased focus around those areas concerning the deployment of systems engineers – i.e., which teams within a program office are systems engineers deployed, and what’s required of those systems engineers when operating within those teams. Overall, this is an opportunity for the Department of Defense to empower systems engineers with greater responsibility and authority. If it is combined with an effective strategy for human capital development, this empowerment for DoD will result in improved delivery of programs, as previously demonstrated through lunar exploration, nuclear weapons development, and the application of stealth technology.

In general, there is consensus around the fact that building a system involves a program management office ensuring teams exist to execute three critical roles: 1) management; 2) definition, test and integration, (or systems engineering and integration); and, 3) implementation. However, I have found a distinct lack of agreement within government and industry concerning contracting strategies for how teams are aligned to execute these roles. I have also found a lack of clarity in many minds on how systems engineers are deployed into the teams executing these roles and the breadth of skills and experience required.

Acknowledging that these program management office roles exist; agreeing that these roles are accomplished by teams of contractors and government staff; and recognizing that systems engineers are critical contributors within each team inevitably leads to recognizing that systems engineers require both specialized technical skills *and* process knowledge — as well as critical leadership skills and experience gained across the development lifecycle of a system.

Increased Human Capital Training for Systems Engineers

A “post-WSARA world” will require a robust human capital development strategy for assessing qualified systems engineering candidates and determining which skills and levels of experience are needed for each of the roles and within the systems engineer positions of each team. The skills of these systems engineers go beyond formal science and engineering training, to include people skills in communications, decision-making, leadership development and regulatory knowledge of contracts and acquisition policy; and that’s for starters.

The time to act is now. In the next nine months, DoD and industry should dive deeper than the Act requires in order to begin formalizing these ideas into policy. A successful outcome will include a more uniform understanding and acceptance of the roles needed in the delivery of complex systems and the nuances surrounding the deployment of systems engineers into the teams that execute those roles. The policy should identify a method for getting agreement on the skills and experience required of systems engineers within those roles. Additionally, policy should identify the need for leadership and specialized training as part of a systems engineering human capital development strategy.

Blue Crabs Double-Header Chapter Event – Another Success!

On Saturday, September 12th at 4:00 PM, the Southern Maryland Chapter of INCOSE staged a “members and family” event at Regency Furniture Stadium in Waldorf, MD, home of the Blue Crabs Independent Baseball League Team. Eight INCOSE members

Chapter Highlights (cont.)

and their families signed-up for this all-you-can-eat picnic and baseball game event. Several attendees dressed in pink in honor of it being Breast Cancer Awareness Night. The Stadium's Red Hot & Blue Picnic Pavilion was the perfect place to enjoy the marvelous two-hour all-you-can-eat buffet, watch the game, and mingle with the other attendees. The Southern Maryland Blue Crabs took on last year's league champions the Somerset Patriots managed by Cy Young Award winner and former New York Yankee Sparky Lyle. The Blue Crabs prevailed in the first game (8-5) but lost the second (2-3). A wonderful fireworks display capped off the evening.

Thank you Karl for arranging another wonderful Chapter event!

Member Profiles

Please welcome our new members:

CDR Joseph Hornbuckle joined on 27 April. He is a Director of Engineering (PMA-259) with NAVAIR. His e-mail is joseph.hornbuckle@navy.mil, and phone number is (301) 757-7488.

Gregory Hein joined on 15 May. He is an Associate with Booz Allen Hamilton. His e-mail is gregory.hein.ctr@navy.mil, and phone number is (301) 757-1508.

Chris Evans joined on 22 September. He is a Field Office Site Leader with Johns Hopkins University Applied Physics Laboratory. His e-mail is christopher.evans@jhuapl.edu, and phone number is (240) 228-7429.

Member Contributions & Support Needed

We are in desperate need of more help, more involvement, more members, and more leadership from our current members to maintain our ambitious schedule of events. Also please send news on your projects at work, on your personal or professional achievements, any notable upcoming events the membership should know about, etc. Send electronic pictures, too! We continue to request that each of the Chapter members provide us with a brief bio, so everyone will get to know you a little better. This will also make it easier to network with other Chapter members. Please include items such as where you went to school and any degrees, current and past positions, INCOSE activities, and any other information you would like to share. Our newsletter can use your articles and your support. Please send all contributions to Karl Geist at kgeist@md.metrocast.net, Dawn Jaeger at Dawn.Jaeger@navy.mil, or Steve McKeown at mckeown_steve@bah.com. If you have any questions, please send an e-mail or call Dawn at 301-757-0907, or Steve at 301-862-7033. So, please consider volunteering and being part of the exciting opportunities in Systems Engineering. As current members, the Chapter Board of Directors (BOD) welcomes your feedback to the chapter's plans. Address these comments to any of the Chapter's BOD members found at the end of this newsletter. Thank you!

Upcoming Events

Southern Maryland SPIN Chapter Meeting

Hosted by SoMD SPIN Chapter

When: 4 November 2009, 1700-1900

Where: Frank Knox Building, Room 120

Theme: Leading Strategies for Risk Management

Speaker: Bruce Schwickrath, Booz Allen Hamilton

Info: <http://www.somdspin.org/>

POC: Michael Beanland at (301) 862-7387, michael.beanland@rtr-tech.com

Venue: Food and Refreshments

Cost: Free

Description: Risk management has become recognized as a critical success factor in project management. This presentation provides an overview of risk

Upcoming Events (cont.)

management. Risk management is the process of identifying, addressing, and controlling potential problems before they threaten the success of a project. The benefits of managing risks formally are described, along with ways that organizations may choose to respond to their risks. We will also discuss the new SEI methodology (Mosaic Approach) for risk models that you can apply for risk identification, quantification, qualification, response development and risk response control. You will learn how to improve your risk identification and management skills. Project managers often are expected to peer into the future and anticipate their organization's risks and problems. The challenge is not to explore risk for a single project, but to predict it consistently and ensure that every project has the same level and depth of risk analysis.

Architecting with DODAF

Presented by Honourcode, Inc.

When: 10-11 November 2009
Where: Laurel, Maryland
Info: <http://www.hcode.com/crsinfo-archdodaf.htm>
Cost: \$990
POC: BetterSE@hcode.com, (850) 479-1985

Description: Today's systems do not stand alone; each system fits within an increasingly complex system-of-systems, a network of interconnection that virtually guarantees surprise behavior. Systems science recognizes this type of interconnectivity as one essence of complexity. It requires new tools, new methods, and new paradigms for effective system design. The DOD Architecture Framework (DODAF) provides an underlying structure to work with complexity.

This course provides knowledge and exercises at a practical level in the use of the DODAF. You will learn about architecting processes, methods and thought patterns. You will practice architecting by creating DODAF representations of a familiar, complex system-of-systems. By the end of this course, you will be able to use DODAF effectively in your work.

Southern Maryland Chapter Meeting

Hosted by INCOSE SoMD Chapter in Patuxent River, Maryland

When: TBD November 2009, 1130-1300
Where: Cedar Point Officer's Club
Theme: TBD
Info: www.incose-somd.org
Speaker: TBD
POCs: Andrew Pollard at 301-995-2880, Andrew.pollard@incose-somd.org or Steve McKeown at 301-862-7033, Steve.McKeown@INCOSE-SoMD.org
Venue: Buffet Lunch
Cost: \$8.00 for SoMD INCOSE Chapter members, \$10.00 for Non-members
Description: TBD

Hampton Roads Area Conference

Hosted by Hampton Roads Area (HRA) INCOSE chapter and the Hampton Roads Society of Cost Estimating and Analysis (SCEA) chapter

When: 17-18 November 2009
Where: Omni Hotel in Newport News, Virginia
Theme: Decision Analysis and Its Application to Systems Engineering
Info: http://www.incose.org/hra/decision_analysis_conf2009/da2009_index.htm
POC: Kelly Moses, moses_kelly@bah.com
Description: The target audience is anyone who wants to learn more about decision analysis - engineers, analysts, managers, professors, and students are welcome.

There will be a best paper competition as well as a student poster presentation competition. Conference topics include:

Decision Analysis	Decision Management
Decision Tools	Decisions & Systems Engineering

2010 INCOSE International Workshop

When: 7-10 February 2010

Where: Phoenix Marriott Mesa, Phoenix, Arizona

Theme: Various Committees, Working Groups, and Certification Beta Test

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

POC: PCMI, (858) 565-9921

Description: The workshop features many committee and working group meetings such as the Certification Working Group, Handbook Working Group, INCOSE Fellows, the Corporate Advisory Board, Certification Advisory Group, Certification Beta Test, etc.

8th Annual Conference on SE Research

Hosted by Stevens Institute of Technology and Delft University of Technology in collaboration with University of Southern California (USC)

When: 17-19 March 2010

Where: Stevens Institute of Technology Campus, Hoboken, New Jersey

Info: <http://sse.stevens.edu/research/sponsored-conferences/cser/2010/home/>

POC: Dr. Brian Sauser, Brian.Sauser@stevens.edu

Description: The objective of this conference is to provide practitioners and researchers in academia, industry, and government with a common platform to present, discuss and influence Systems Engineering research, and to enhance the practice of Systems Engineering and Systems Engineering education.

7th European Systems Engineering Conference (EuSEC 2010)

Hosted by Swedish Chapter of INCOSE and INCOSE Region III Chapters

When: 23-26 May 2010

Where: [Royal Institute of Technology](http://www.kth.se) (KTH), Stockholm, Sweden

Theme: Systems Engineering and Innovation

Info: <http://www.incose.se/eusec2010/>

POC: Jonas Andersson

Description: The 7th bi-annual EuSEC aims to bring practitioners and researchers together to discuss systems engineering and innovation. It is designed to inspire its attendees by providing practitioners with insights from systems engineering research and practice, and researchers with an exposure to real-world challenges and examples. Following the successful tradition of EuSEC, we will provide its participants 2010 with a plethora of enlightening technical papers and tutorials, panel discussions, and exciting speeches, but also with an infrastructure for successful business and working group meetings, all in the inspiring environment of Stockholm, the "Capital of Scandinavia". Participants should leave the conference with a unique understanding of the challenges of handling innovation in Systems Engineering, the research and solutions currently available, as well as future solutions and pointers to research directions in the area.

We warmly welcome you, your colleagues and everyone you bring along, to a thrilling event in the beautiful Nordic spring in Stockholm!

2010 INCOSE International Symposium

The 20th International Symposium -- Hosted by Region IV Chapters

When: 12-15 July 2010

Where: Hyatt Regency O'Hare, Chicago, Illinois

Theme: 20th Anniversary

Info: <http://www.incose.org/symp2010>

POC: INCOSE Central Office, info@incose.org, 800-366-1164

Description: The 2010 technical program is shaping up to be one of the most, if not the most, exciting and progressive ever. INCOSE and systems engineering stand at the gateway of the new millennium, ready to bring the world into the Systems Age that is upon us.

Our wonderful civilization is at a turning point that will require ever more systems thinking and well-guided application of systems engineering principles. Smart grids, alternative energy, medical systems interoperability, integrated military systems of systems, intelligent transportation systems, integrated mass transit, aerotropolis cities, colonization of space! These are just a few of the undertakings that are just around the corner. They are complex; and they must be engineered for success. We are here, and we are ready!

SoMD *BOARD OF DIRECTORS*

President	Steve McKeown (301) 862-7033 mckeown_steve@bah.com
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Directors!*