

INCOSE Chesapeake Chapter International Council on Systems Engineering

E-Newsletter

July 2012

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18 July 2012 (6:00 - 8:00 pm)

SE Contributions to the Next Generation Air Transportation System



Speaker: Dr. W. Clifton Baldwin, PMP, ESEP -FAA Senior Technical Advisor

Presentation: The Next Generation Air Transportation System (NextGen) is a comprehensive overhaul of our National Airspace System to make air travel more convenient and dependable, while ensuring flights are as safe, secure and hassle-free as possible. To accomplish this goal, the Federal Aviation Administration (FAA) is making strides in improving its necessary skills and expertise in systems engineering to manage and execute NextGen. Dr. Baldwin has been closely associated with several of the efforts in systems engineering, such as revising the FAA's System Engineering Manual (SEM),

developing a competency framework for FAA systems engineers, and contributing research on system of systems. These endeavors will be discussed and how they contribute to the NextGen effort.

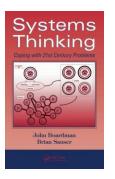
Location: Applied Physics Laboratory, Johns Hopkins University; 11100 Johns Hopkins Rd Laurel MD 20723 (Main Entrance – Lobby 1)

Join us for the tastes of the Summer: Burgers and Dogs, Potato salad Coleslaw, dessert, coffee and iced tea.

>>Download the Meeting Flyer Here<<

Reservations: Purchase a ticket to this event by Credit card via PayPal, go to our Registration Page

Presentation ONLY: FREE at 7pm in Parsons **Auditorium** But please register for Lecture Only Option: There could be a big turnout for this event, for planning purposes please RSVP via our registration webpage even if you don't plan on joining us for dinner.



July door prize: **Systems** Thinking: Coping with 21st Century Problems by John Boardman and Brian Sauser

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This is the monthly newsletter for INCOSE Chesapeake, a local chapter of INCOSE International. We are a not-for-profit organization dedicated to providing a forum for professionals practicing the art and science of Systems Engineering in the Northern & Central Maryland & Southern Pennsylvania area.



Mark your Calendars with these upcoming events:

Mon/Tues, 13-14 Aug 2012 <u>2</u> Day Workshop: **Understanding and Using** the new DODAF v. 2.02 Dr. Drew Hamilton

Wednesday, Aug 15, 2012 A SE Approach to Finding Amelia Gundars Osvalds

Presidents POV

CSEP, ESEP or RSEP?



Here we are, it is July already and the INCOSE 2012 International Symposium in Rome is fast approaching! I will be attending the symposium this year and am very much looking forward to the CAB meetings, participating in the Americas Sector meetings representing the Chesapeake Chapter as its President, and to the great paper sessions, tutorials, vendor displays and panel discussions. And what a setting to host this year's

conference – Rome, Italy! I've never been to Rome and thought it best that I learn something prior to my trip about the history, culture and language of the city and the country. As I got to thinking it came to me that my 15 year old daughter is taking Latin in high school and part of her Latin class involves learning about Roman culture and civilization. I could talk with her. She would be an excellent source of information. First, you need to understand my daughter's passion for Latin, Greek mythology, and Roman history and culture. How many 15 year olds do you know who study Greek grammar and are reading the Iliad? So, I began the conversation by explaining to my daughter what systems engineering was and then we had some discussion about infrastructure. She proceeded to inform me that the ancient Romans were not only builders but also outstanding systems engineers. The paved road system they built throughout their country was unparalleled. They were the inventers of the arch and even after two thousand years many of their bridges and roads are still functional. "Wow!" I exclaimed, "Tell me more!" She went on to tell me about indoor plumbing systems, the sanitation systems, and the aqueducts and how their water systems in Pompeii pumped water from the mountains. The Romans improved upon central heating systems and baths or thermae. Therefore, as I go to the 2012 IS in Rome this year as a Systems Engineer in a highly technological and complex world, my research tells me that there were those great Roman Systems Engineering Professionals (RSEPs) who preceded me. Regards, Dr. Don York, CC President, donald.york@incose.org

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Announcements

This August is turning into a hot month in Systems Engineering. Check out these cool events and mark your calendars NOW.

(1) <u>2 Day Seminar: Understanding and Using</u> the new DODAF v. <u>2.02</u>: <u>Aug. 13-14, 2012</u>

July 9 -12, 2012: <u>22nd Annual</u> <u>INCOSE International Symposium</u> in Rome

The Chesapeake Chapter is always looking for volunteers to speak at our upcoming meetings! Please contact our 2012 Programs Director, Mr. Erik DeVito, if you would like the opportunity to speak or can recommend someone.

The Chesapeake Chapter of INCOSE is proud to recognize the following organizations for sponsoring our endeavors to expanding the understanding and appreciation of Systems Engineering in the local area:

Booz | Allen | Hamilton







Our chapter is very fortunate to host a special session of Dr. Drew Hamilton's influential presentation on the new Department of Defense Architectural Framework, DODAF 2.02. The elements of his two-day lecture presentation provide timely and much needed overviews of the JCIDS and DODAF processes as well as an introduction to UML and SysML. This should be of primary interest to practicing systems engineers who are responsible for creating or reviewing architectural products as well as senior managers who must make financial decisions or defend business cases where DoDAF 2.02 is the required lingua franca of the DoD program approval process. Reduced budgets place a premium on the ability to create as well as interpret program architectures and many of our members will appreciate this opportunity to renew and upgrade their knowledge without having to travel outside the local area and pay a higher program fee. An additional inducement to attend this program is the opportunity to network with many top area architects and industry leaders who have many years of experience developing elements of DoDAF and the modeling languages. You all have a rare opportunity to empty the local architecture shops for two days and bring everyone on board the new framework as a team. Leaders as well need to stay ahead of this or be caught in a seismic shift of the already daunting terminology matrix. Please make your decision to attend early as the facilities limit us to a maximum of 45 attendees. As the Chesapeake Chapter coordinator for the program, please direct inquiries about support issues to me at George.Anderson@incose.org.

>>Click here for more info on cost and registration<<

(2) <u>Joint AIAA Meeting: A SE Approach to</u> <u>Finding Amelia: Aug. 15, 2012</u>

Our August Dinner/Lecture Meeting will be a follow-up on the successful Nov. 20, 2010 Joint INCOSE-CC/AIAA Seminar. This time Gundars Osvalds will present a summary of comprehensive 107 page report he coauthored with George W. Anderson, entitled; "A Systems Engineering Approach to Creating a Search Strategy for Locating the Lockheed Electra Model 10E Aircraft, Registration NR16020."

>>Click here for more info<<

(3) Are you a SEP? Then Save the Date: Aug. 29, 2012

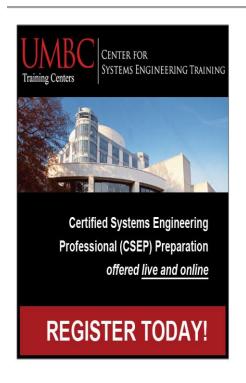
In our last Newsletter we highlighted <u>Erik DeVito's blog post</u> on an important milestone in the <u>INCOSE Certification Program</u> which surpassed 1,000 certifications late last year. For the past two years our chapter has been celebrating those who have an INCOSE certification at the beautiful Engineers Club of Baltimore. This year will be no different. So mark your calendars now and **SAVE THE DATE: Aug. 29, 2012**. Plan to be there. Read about and see pictures from the last two galas:

• 2nd Annual Systems Engineering Professional Gala (September 7, 2011)





The Johns Hopkins University





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• Celebrating the CSEPs in our midst (August 26, 2010)

Two new Working Groups have been started

Now is the time to get involved!

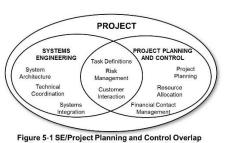
1) <u>Future of Energy working group</u> Dr. Alex Pavlak is setting up a Future of Energy (FoE) working group. A paper to he will be presenting at IS2012 in Rome this July describes the task, a classic concept



definition phase. The proposed effort is unique in two respects. First it will focus on whole systems, the delivery of energy that is cheap safe sustainable and secure. Second it will focus on the destination, the long term goal. Given what is known today, what would post fossil fuel energy systems look like. The product will be technically feasible alternatives. Through

publications and lectures, the FoE working group will raise public awareness of these factual constraints on social value choices. If you are interested in participating, please email Dr. Pavalak at alex@pavlak.net.

2) <u>Systems Engineering – Project Management</u> (<u>SE – PM</u>) <u>Working Group</u>



From Kossiakoff and Sweet (2003). <u>Systems Engineering, Principles and Practice</u> Page 91

Dave Fadeley, ESEP, is forming a Systems Engineering - Project Management (SE - PM) Working Group with the intent of working with PMI Baltimore chapter members in order to enhance overall program success through the improved integration of practices between the two communities. At the international level, INCOSE and PMI have jointly

released a statement "PMI and INCOSE Align to Help Organizations

Improve Program Success" in September 2011 outlining the partnership and have also produced a white paper, "Toward a New Mindset: Bridging the Gap between Program Management and Systems Engineering". If you are interested in participating, please send Mr. Fadeley an email at dbfadeley@verizon.net.

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SE Journal can be found in INCOSE
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With Connect you can also download INSIGHT April 2012, Vol 15 - Issue 1 Special Feature: Meet the INCOSE Authors

Click on image above and Log-In today.

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Newest Chapter Members

- Ben Ballard JHU/APL
- James Curbo *MITRE Corporation*
- Tom Saitz US Army ARDEC, Firing Tables and Ballistics Division

We welcome our latest new members. We look forward to seeing you at our meetings and tutorials.

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Did You Miss Last Month?

The Role of Distributed Power Systems in the U.S.



Dr. Schoener speaks to INCOSE Chesapeake Chapter and the IEEE PES about the Role of Distributed Power Systems in the U.S. Electricity Sector

On 20 July 2012 INCOSE Chesapeake Chapter had a Joint meeting with IEEE Power & Energy Society – Baltimore Chapter as over 40 guests got to listen to Dr. Bradley Schoener, the Energy Program Director for The MITRE Corporation, discuss the US power sector undergoing the largest overhaul in its history. This effort to strengthen America's grid has increased attention to Distributed Power Systems (DPS), a combination of distributed generation sources and grid storage. DPS technologies include rooftop solar installations, "microwind" turbines, electrochemical fuel-cell systems, and combined heat and power applications.

>> Check out the complete write-up on the event as well as Dr. Schoener's presentation..>>

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This Newsletter is to serve our members and is open to all for contributions. Do you have an interesting idea for an article? A review of a new book related to engineering? Let us know. We'd love to hear about. It may wind up in a future issue of our Newsletter.

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Keep up with the latest news and events. Find out about our new Board of Directors. Explore our extensive library of previous lectures from our Monthly Dinner Meetings. Learn of the Benefits of Joining INCOSE. Check out Systems Engineering education in the local area. All this and more awaits you at our INCOSE Chesapeake Chapter Website.

For any comments or suggestions about this newsletter please e-mail our <u>President, Don York</u> or our <u>Communications Officer, Paul Martin</u>. We value your feedback.

Board of Director Officers, 2012

- President: Dr. Don York
- Past President:Dr. John Lewis
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