

Chesapeake Chapter INCOSE

International Council on Systems Engineering

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Vol. 1 Issue 12

December 2010 E-Newsletter

Dinner Meeting - Thursday 16 December 2010

Holiday Dinner/Awards Ceremony

It's been a wonderful year of meals, lectures and fellowship. Come celebrate with us as we recognize those who have helped us realize INCOSE's mission to push SE out into the front of the public debate. Join us for an enchanted evening of fine food, glitzy awards and stimulating conversation with friends and colleagues. All within the elegant setting of ...

The Engineers Club at the Garrett-Jacobs Mansion

11 West Mount Vernon Place • Baltimore, MD 21201

The Garrett-Jacobs Mansion is a jewel in the crown of Baltimore's most distinctive historic homes. This unique Mansion epitomizes nineteenth-century Golden Age elegance and grandeur.

Cost: \$45 for Sit-Down Dinner

Your Choice: Beef Tenderloin Forester or Maryland Crab
Cakes

Reservations:

- Bv website: Credit card via PayPal, go to our

>>Special Registration Page<<

for details on the cost details, cancellations, and directions.

Here is the flyer: to print out and pass out to friends.



We need YOU to stop and air your thoughts on next year's activities. Please take a very fast survey, and if you like, add comments that will help us address the most important needs of the membership. We will share the results with you, the membership, next month.

Click here to take our end of the year survey

December 2010

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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:

Our End-of-the-Year Holiday

A Word from our President



Looking Back on 2010

The holiday season's excitement, good cheer and festive spirit have again caught many of us by surprise. We are already into Black Friday and the time remaining before the end of the year seems to be passing quickly.

The Chesapeake INCOSE Chapter and especially the BOD are looking both to the events of the past year

and to the upcoming year with a sense of pride and a spirit of confidence. We had many wonderful events this year and exceeded even our own planning goals primarily because of external invitations to participate in forums and open houses. 2010 is also the year that the charter for the student chapter was created, signed and approved.

For 2011, all of us look forward to the new initiatives that the incoming BOD leadership team will introduce in the annual Chapter plan. Started this year, but certainly continuing next year will be an increased geographical outreach using video streaming and video teleconferencing technology. Closely associated is a possibility of videotaping selected speakers where no intellectual property concerns are involved. The overall plan will be carefully prioritized by the dedicated team of board members and volunteers who worked extremely hard this year to master a variety of tasks and have acquired a clear understanding of how to properly employ limited resources toward our primary INCOSE goals. I can also predict that we will have more volunteers serving next year, and correspondingly more services for the membership.

The culmination of our year is the Holiday Party. This is a festive occasion that marks the end of our work for the year. This is a unique event where the membership gets to turn out and embrace the holiday spirit. Unfortunately, the work of the BOD is ongoing and there will be only a short respite before we are again submitting forms, developing plans, paying bills and so on.

If you are a Chesapeake member and you decide that attending the party is not for you, please think again next year. The Chesapeake Chapter cannot thrive as an Engineering Society if our social events are routinely taken lightly. Attending this annual function is literally the very least a member can contribute. Please think about this and how much the chapter and the work it does means to you.

Thank you all for your contributions and please make it a point to personally greet and speak with our new President John Lewis and President-elect Gundars Osvalds. The future is full of promise.

Wishing all the very best of Holiday Cheer,

Mary W. Anderson

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Dinner/Awards Ceremony

Date: Thursday, 16 Dec 2010 6

- 10PM

Sit-Down Meal: Either Beef Tenderloin Forester or Maryland Crab Cakes.

Location: The Engineers Club at the Garrett-Jacobs Mansion;

Baltimore, MD

Join us for an enchanted evening of fine food, glitzy awards and stimulating conversation with friends and colleagues.

Special Registration Page

>>HERE<<

Date: 19 January 2011 Presentation: **Engineering Clean Energy Systems** Speaker: Dr. Alex Pavlak. PhD. PE, PMP; Thales Research, Inc.

>>download Jan 2011 flyer HERE<<

The Chesapeake Chapter is always looking for volunteers to speak at our upcoming meetings! Please contact our Programs Director, Mr. Donald York, 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:









Gundars Osvalds, The new President-Elect



Mr. Gundars Osvalds is a Senior Principal Enterprise Architect at Northrop Grumman where he is responsible for developing processes that support the design of systems that meet the needs of our customers. Mr. Osvalds supports large government transformation programs with systems engineering and architecture tasks, including planning, implementation and reviews of architectural products, and processes for architectural design and modeling. Mr. Osvalds has used and supported the DoDAF and OMB FEA architecture frameworks for

the Federal Government and DoD communities. Currently Mr. Osvalds is developing Model Driven Systems Engineering techniques and tools for use in large systems. Mr. Osvalds is a member of the INCOSE team supporting the ISO on enterprise architecture concepts for the next version of ISO 15704 and 42010 (an update of IEEE 1471). He supported the Network Centric Operations Industry Consortium (NCOIC) Interoperability Framework (NIF) Architectural Concepts Functional Team and Working Group in the development of the NIF Reference Manual.

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Did You Miss Last Month?

Panel: Cyber-Security

What do you believe are the essential elements of a Cyber Security strategy that are necessary to fight and win today's cyber war? Are we winning the cyber war?

On 17 November 2010 over 60 attendees got to hear four panel members, each respected in the field of cyber-security, discuss questions dealing with cyber-warfare.

- Maureen Baginski, VP, Serco-NA, discussed the need to recognize what 'cyber' means -- information needed to obtain an operational effect; the importance in educating the public; the criticality of expanding the art, trade-craft, and science of cyber analytics; and the call for for Pursue Public/Private Partnerships.
- Dr. Forno, UMBC Cybersecurity Graduate Program
 Director, explained that need to bridge the
 communications gap between the Engineer and the
 Executive when it comes to explaining cyber-threats.
- Dr. Mehan, Vice President of Cybersecurity, Lunarline Inc., went through the details and cost of several cyber-incidents in order to highlight the actual threat.
 More can be found in her slides >>HERE<<<.

More can be found in her slides >>HERE<<.
• Larry Strang, VP, TASC, Inc. showed the elements of actual warfare and applied them to cyber-space.

AIAA Mid-Atlantic and Chesapeake INCOSE joint event

Finding Amelia: A Challenge in Systems

SE Education

UMBC

Graduate
Cybersecurity Program

>>Find Out More Here<<

Classes Start January 26, 2011

Click here for a copy of the UMBC cyber brochure. Click here for a copy of UMBC program factsheet.

Also check out other Systems Engineering training opportunities at our Education page

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Discover Systems Engineering



Read the current issue free on-line for a limited time:

Click Here

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Check out these articles:

- An extended enterprise architecture for a networkenabled, effects-based approach for national park protection (pages 209-216)
- Lunar architecture and technology analysis driven by lunar science scenarios (pages 217-231)
- Integrating humans with software and systems: Technical challenges and a research agenda (pages 232 245)



Engineering

On Saturday, 20 November 2010, a joint AIAA Mid-Atlantic and Chesapeake INCOSE event occured as 28 people (including systems and aeronautical engineers, pilots, a schoolteacher, data analysts, mapping experts and engineering students and faculty from Morgan State University) went to the Baltimore Engineer's Club to hear Ric Gillespie of The International Group for Historic Aircraft Recovery (TIGHAR) began a presentation that lasted almost all day. The topic: The riddle of Amelia Earhart's disappearance on July 2, 1937, over 73 years ago. Mr. Gillespie discussed archival research, data analysis, digital information management, traditional archaeological techniques, and remote-sensing technologies in order to put forth the hypothesis that Earhart and her navigator, Fred Noonan, ended their days as castaways on a remote, uninhabited, waterless atoll.

To learn about previous searches tune into Ric and the TIGHAR team on an upcoming two-hour TV special program on the Discovery Channel. Currently it is scheduled to run on December 11, 2010.



Visit our <u>Library section of our Website</u> to also find other copies of presentation materials from previous meetings or other gatherings of interest. Poke around and see if anything looks interesting.

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Feature Article

E6B

As a member of INCOSE you have online Access to the current and past issues of The Journal of Systems Engineering via the Wiley InterScience site. Search the archives and download papers of interest. Registration on the Wiley site is required. Instructions for accessing the SE Journal can be found in INCOSE Connect

With Connect you can also download the Vol 13 Issue 3: October 2010. INCOSE's Twentieth Anniversary International Symposium



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Members List with Ten Years Standing (Joined in 2000)

- Robert L. Tucker
- Paul B. Martin Serco
- Michael J Kardas Northrop Grumman
- Gundars Osvalds Northrop Grumman
- William R. McWhirter Retired
- Richard M. Day JHU/APL

Please note that these members will receive a 10 year award at the December 16th Dinner/Awards

Ceremony. Join us at our end-of-the-year Holiday party as we recognize those who have helped us realize INCOSE's mission to push SE out into the front of the public debate.

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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

by George Anderson

The E6b aircraft navigational computer was introduced in its earliest form in the early 1930's and evolved into its present form just prior to WWII. During the war thousands of aviators learned to operate and depend on this simple device for their routine flight planning and in-flight calculations. As aviation technology improved in the post WWII period, the E6B



Spock uses E6B in Who Mourns for Adonis

soldiered on as a full-fledged part of every pilot's initial and annual refresher training. Even today with hand held electronic calculators performing exactly the same tasks, many pilots still carry the E6B and use it frequently.

By any standard of longevity, this is an admirable record and one that has implications for the Systems Engineer (SE) in approaching the design of new Information Technology applications and products. As systems engineers, can we identify some lessons learned from the E6B experience?

To establish a foundation for the lessons learned, we must describe the requirements that are met by the E6B. This is actually a reverse engineering task given that the E6B has been in use for over 73 years.

Interested? Read More.

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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 President, George Anderson or our Communications Officer, Paul Martin. We value your feedback.

Board of Director Officers, 2010

- President: Mr. George Anderson
- Past President: Mr. Glenn Townson
- President Elect: Mr. John Lewis
- Treasurer: Mr. Glenn Gillaspy - Secretary: Mr. Bob Berkovits

- Directors at Large
 - Communications: Mr. Paul Martin
 - Programs: Mr. Donald York
- Membership Committee: Ms. Bhanumati Sunkara

Please use the Forward email link below so we can invite your friends to join our mailing list. Thanks in advance.

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future issue of our Newsletter.

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