

INCOSE Chesapeake Chapter International Council on Systems Engineering

INCOSE Chesapeake Chapter P.O. Box 535 Laurel, MD 20725-0535

E-Newsletter

November 2017

President's Point of View



Mike Pafford President

I'm starting this month's comments with a continuing Alert about our upcoming Chapter Elections. As I've mentioned before, four of the eight Chapter Board of Directors positions are up for election; President-Elect, Secretary, Programs Director, and Membership Director. Thanks very much to the Chapter members who have already stepped forward to run for Secretary, Programs Director, and Membership Director. We're still looking for a good candidate for President-Elect. Please review the Elections section later in this Newsletter, then please

let any Board member know if you would like more information about the President-Elect position, or if you'd like to be a Candidate. Thanks a lot. We hope to hold our elections during November.

During this past month I had the opportunity to represent the Chapter and INCOSE, at the 34th Annual International Test and Evaluation Association (ITEA) Symposium in Reston, Virginia. A new Memorandum of Agreement (MOA) has been signed between INCOSE and the ITEA. The INCOSE President-Elect, Garry Roedler, has said he is looking at ITEA as a potential long-term strategic alliance. He thinks ITEA can help provide INCOSE with a necessary focus on verification and validation. I volunteered to maintain an INCOSE exhibit table for all three days of the symposium. It was a great chance to share general information about INCOSE with hundreds of test & evaluation analysts, engineers, managers, and other decision makers.

This past month also saw the kick-off and first two formal online meetings of a new INCOSE "Systems and Software Interface (SaSI)" Working Group. The SaSIWG Chairman is Dr. Sarah Sheard of the Software Engineering Institute (SEI) at Carnegie Mellon University (CMU). I've volunteered to be Co-Chair. The Administrator for the SaSIWG is Edmund Kienast, an INCOSE Australian Chapter member, who is also a member of the Systems Engineering Society of Australia (SESA). Get hold of me, or refer to the INCOSE Public and CONNECT websites for more information about the new SaSIWG.

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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.



Communications Corner



Myra Parsons Gross, ESEP Communications Director

The Communications Team

It's been almost a year in the Communications Director seat and I am amazed at the work that must be done to keep the channels of communication open to ensure our members receive information as quickly and as accurately as possible. The Communications Committee is dedicated to making things happen and my job is easier with the support of this committee. I want to take a moment to recognize the communications team.

Pat Williams, CSEP



The year started with the support of the previous Communications Director, Pat Williams, CSEP, providing superb guidance and much appreciated hand holding. For his dedication to INCOSE Chesapeake Chapter, Pat was recognized at the 2016 Chesapeake Chapter Holiday Party, Awards Ceremony held in December. At that

time, I had no idea of the hard work and the level of commitment Pat put into the Chapter.



Join INCOSE Today

www.incose.org/ about/Membership/Join

The Chesapeake Chapter is always looking for volunteers to speak at our upcoming meetings! Please contact our Programs Director at programs@incose-cc.org if you would like the opportunity to speak or can recommend someone.

Pat continues to be supportive of the Chapter and the Communications Committee, and finds time to pursue his other interests to include maintaining a healthy lifestyle, continuing his leadership role with the Boy Scouts of America, and as a Systems Engineering professional.

With Pat's ongoing encouragement in my professional career and his interest in seeing the Chesapeake Chapter continue to be successful, I am grateful for his ongoing support and guidance.

Lauren Baron, CSEP

The Committee benefits from the support of Lauren Baron, CSEP. Lauren is not visible to most but she is the person behind the eye-catching posters that most of us see in a number of locations. Lauren is efficient and has been performing this task for the Communications Committee for 3 years.

Bee Azan, CSEP



Bee Azan, CSEP, is another member of our committee who prefers to remain behind the scenes. She is the INCOSE Chapter Newsletter Publisher. Our ability to ensure our monthly Newsletters are published are a direct result of her efforts. Bee schedules the inputs to the newsletters, prepares the articles for review and publication, and ensures the content is accurately presented and aesthetically pleasing.

The Chapter Newsletter is published monthly and consists of 10-15 pages of content. Preparing this document requires attention to detail and a commitment to publish in a timely manner.





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. Bee is steadfast in her efforts and finds time to support a number of Chapter functions and other interests of the Communications Committee when needed. She has been supporting the Communications Committee since 2012 in multiple ways. In the past Bee has had a hand in maintaining the chapter website, and designing the format for chapter presentations, invitations, flyers, posters and brochures.

In her free time Bee loves to travel the world and likes a little adventure. She's been to many places such as Costa Rica, Brazil, South Africa, Japan, Australia, Botswana, Spain, England, and China to name a few. On her next adventure she hopes to go to Peru or Singapore. She's also been hang gliding, parachuting and bungee jumping.

Noble R. Cates, CSEP



A newcomer to the Communications Committee, Noble Cates, CSEP, provides the audio-visual for the monthly lecture series. Noble has taken on the task of making sure Chapter Meetings and the Monthly Presentations audio/video is set up and functioning properly. He also ensures that the lectures are streamed live via YouTube. Noble also takes the raw recorded video and performs a scrub to ensure that the pertinent content is visible without extraneous data for follow-on viewing by our members.

Currently an employee of VENCORE, Noble's civilian career began at Lockheed Martin. Noble also spent 10 years as an ELINT analyst, acoustic analyst and radar operator, in the US Navy. He was an air-crewman on the P3 Orion, chasing (and catching) submarines,

and performing Maritime Surface Surveillance across the West Pacific. His active duty took him from the Indian Ocean and the Straits of Hormuz, throughout Southeast Asia, to the Arctic Circle, to the Mediterranean.

In the Navy, Noble learned the basic tools of Project Management and Systems Engineering, extending from

requirements management, to planning, to implementation and testing, to OEM Support.

Noble's career led him through successful positions as a Regional Field Service Manager, Director of Customer Support, Project Manager for multiple large customer projects, and as the Master Scheduler for two major Field Site buildouts in Texas and Denver. Noble has worked as a Quality Manager, a Certified ISO Auditor and a Lean / Six Sigma – Greenbelt for Lockheed Martin, The SI, and VENCORE during a career span of 18 years.

Noble brings a passion for Integrated Systems Engineering with him in every facet of his professional life, causing his Government Lead in Texas to accuse him of being a Systems Engineering Evangelist.

Noble has been an INCOSE-Certified Systems Engineering Professional (CSEP) for the past 4 years, and an ASQ - Certified Quality Manager, focused on Program Performance, for over 17 years.



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?

I am pleased to have the support of the Communications Committee. Without them, the INCOSE Chesapeake Chapter Communications tasks could be not successfully executed. I owe this team (Pat, Lauren, Bee and Noble) my sincere appreciation and gratitude for all that they do.



Let us know. We'd love to hear about it. It may end up in a future issue of our Newsletter.



Announcements and Events

Networking, Dinner, and Lectures

Chapter Meetings are held at the Johns Hopkins University Applied Physics Lab, Building 1, on the third Wednesday of each month unless otherwise noted. The meeting starts at 6pm (Dinner \$20 for Members, \$25 Non-Members, \$5 extra at the door, no charge for students) and the no-fee lecture starts at 7pm.

Board of Directors Meetings

Monthly Board of Directors (BOD) Meetings are held at the Johns Hopkins University Applied Physics Lab in Building 1, Barton Conference Room on the second Wednesday of every month beginning at 6pm and ending at 8pm.

Upcoming Events

Please register for the below events at <u>http://www.incose-cc.org/registration</u> unless otherwise noted.

- 15 November, Monthly Dinner Meeting, "You Can't Manage Traffic if You Aren't Agile!, by Richard Dye, Maryland State Highway Administration, CHART Systems Administrator
- 6 December, INCOSE Chesapeake Chapter Holiday Party and Awards Ceremony, The Engineers Club, Baltimore, MD 5:30-9:30pm
- 29 January-2 February, CSEP Certification Training Course, JHU/APL, Building 200, Room 100, 8am to 5pm. Chesapeake Chapter Members receive a 20% discount. Certification Training International (CTI) offers a CSEP (Certified Systems Engineering Professional) and ASEP (Applied Systems Engineering Professional) 5-Day Course focused on preparing you to successfully take the CSEP/ASEP Certification Examination conducted by INCOSE. The INCOSE Systems Engineering Handbook and course materials are included.
- 5-9 February 2018, No Magic Training, "Applying UPDM 2 with MagicDraw", taught at JHU/APL Building 200, Laurel MD. Applying UPDM 2/DODAF/MODAF with MagicDraw is a 5-day course for Unified Profile for DoDAF and MODAF (UPDM 2). The course focuses on implementation of UPDM 2 using core MagicDraw functionality and the MagicDraw UPDM 2 plug-in.







What people are saying about Chesapeake Chapter:

"... What a wonderful, innovative, and impactful year for the Chesapeake Chapter. I hope you, your board, and the entire chapter is proud of what

Special Interest

Upcoming 2018 Elections

Elections for the INCOSE Chesapeake Chapter (CC) Board of Directors (BOD) will be held in November. Volunteers have stepped forward as Candidates for the following positions:

- Secretary: Term is 2 years.
- Programs Director: Term is 2 years
- Membership Director: Term is 2 years

Thanks very much to everyone who has volunteered to run for these offices.

Meet the Candidates

Candidate for Secretary: Tammy Kolarik, ASEP

Ms. Tammy Kolarik is currently employed by the Johns Hopkins University Applied Physics Laboratory in Laurel, Maryland where she has provided systems engineering, project management, and other technical support with a focus on test and evaluation. Ms. Kolarik bachelor's degree in electrical engineering from Virginia Tech, master's degrees in electrical engineering, applied mathematics, and technical management from the Johns Hopkins University, and a master's degree in psychology from Walden University. Her interests include engineering education and helping students explore and enter STEM fields. Ms. Kolarik has been a member of INCOSE for 14 years and obtained her INCOSE ASEP Certification in June 2017. She has also obtained PMI PMP certification.

Candidate for Programs Director: Dr. Chandru Mirchandani, ESEP

Dr. Mirchandani is a Senior Staff Systems Engineer (SE) with Leidos in the Aviation Programs Organization. He is a George Washington University Adjunct Professor in Engineering Management & Systems Engineering. He is a 2011 INCOSE Fellow Award Recipient and was selected for outstanding contributions to the theory and practice of systems engineering as a practitioner and educator. Dr. Mirchandani has a BS in Electrical Engineering (EE) a Masters in Engineering (EE), a Master of Science (MS) in Reliability Engineering, and a PhD in Systems Engineering. He is a Technical Project Manager & Lead Systems Engineer in the development, design, integration: Testing of Space Systems.

Candidate for Membership Director: Mark Kaczmarek, ASEP

Mr. Mark Kaczmarek has over 35 years of professional experience as a Software Systems and Systems Engineer. He has 21 years of experience at Link Flight Simulation building Aerodynamic and Engine Mathematical Models for Aircraft Flight Simulator Trainers. Mr. Mark Kaczmarek has an undergraduate degree from Parks College of St. Louis University in Aeronautical Engineering. He has a MS degree in Applied Engineering from the Watson School of Engineering at Binghamton State University of New York. Mr. Mark Kaczmarek has been in several Officer positions from 1986 to 1999 for the Southern Tier Section of the AIAA (American Institute of Aeronautics and Astronautics) in New York. Currently, Mr. Mark Kaczmarek is employed by Lockheed Martin Corp. in Hanover, Maryland. Mr. Mark Kaczmarek has been an active Committee member of the you have accomplished…" Past President, INCOSE













Chesapeake Chapter since May 2010 and is the current Membership Director for the 2015-2017 term.

The Board is still looking for a chapter member to volunteer to run for the position of **President-Elect.** The commitment to the Board would be 3 years (President-Elect, President, and then Past President). Anyone interested in the position of President-Elect should immediately contact any Board Member for more information.

Candidate for President-Elect:

- Coordinate with the CC BOD to remain informed, and help with Chapter business when necessary.
- Lead CC BOD and Chapter Meetings when the President is not present.
- Assist the Membership Director on membership drives and corporate and organizational outreach.
- With the CC Communications Director, support the success of the CC Newsletter.
- Work with the President and Past President throughout the year to compile and prepare evidence for the CC submission for the INCOSE Circle Awards.
- Chair the CC Constitution and Bylaws Update Committee, and with BOD approval select its members.

Book Report

Don't Panic! The Absolute Beginner's Guide to Model-Based Systems Engineering By Jon Holt and Simon Perry, 2017, 53 pages



A gem of a book; written by two members of the INCOSE UK Chapter. By gem I mean current, short (53 pages), easy to read, and spot-on (as the authors might say) as a ready reference for anyone wanting to quickly get up to speed on the general concepts behind MBSE. Or, quickly and easily explain MBSE to anyone. According to the authors, the book is intended for systems engineers, managers, decision makers, students, and anyone else serious about using models to enhance and improve their existing engineering activities. The book is divided into very understandable Chapters on History, Modeling,

Common Language, Art of Modeling, Implementing MBSE, and Best Practices.

Here's where you can get more information about this very relevant and useful book: <u>http://www.scarecrowconsultants.co.uk/Publications/dont_panic.htm</u>.

You can purchase the book here: <u>https://incoseonline.org.uk/Program_Files/Store/Default.aspx?CatID=Store</u>.

Chapter Business Cards

Please contact

Mark Kaczmarek at <u>membership@incose-cc.org</u> to obtain your own Chesapeake Chapter business cards.

Free to Chesapeake Chapter members.











reStart Job Fair Report

Many may have noticed the recent announcement for the **reStart** job fair this past October. The Chesapeake Chapter had a presence at the fair and those staffing the booth spoke with many of the participants. If you are interested in a change in your current job situation, please contact one of the board members. Two places for great networking are the monthly dinner meetings and job fair events like this one.



L-R: Dave Alldredge, ESEP, Student Chapter Ambassador, George Anderson, ESEP, 2017 INCOSE Founder's Award Recipient, Mark Kaczmarek, ASEP, Membership Director. Not Pictured: Charles Lapinski Photo courtesy of Mike Pafford, President Chesapeake Chapter

EnergyTech 2017

Chesapeake Chapter members Mark Walker and Mike Pafford were invited to participate in and help lead EnergyTech 2017 (ET17), held October 31 to November 2, 2017 jointly with the Information Security Summit (ISS) at the International Exposition (I-X) Center in Cleveland, Ohio. The annual EnergyTech conference is a major systems engineering forum for advancements in Energy, Power Technologies, Security, and Critical Infrastructure Protection and Recovery (CIPR). This year the conference was cosponsored by Infragard, NASA, and INCOSE. Mike Pafford was asked to lead Track 1 of the conference, "Systems Engineering/MBSE in Complex Systems". Mark Walker gave a Track 1 briefing on, "Critical Importance of System Use Cases for Micro-Grid Models". Mike Pafford presented on, "Lean Startup Methods (LSM) for Collaborative Initial Planning of a Micro-Grid Reference Model MBSE Project".

Maryland State Senator (and Senior Staff Member for INCOSE CAB member JHU/APL) Steve Waugh, briefed on, "New Methods for Good Requirements". Other Track 1 briefings included (not a full list), "Quantitative Resiliency Analysis of Micro-Grid Interested in Jobs & Networking Contact Mark Kaczmarek membership@incose-cc.org





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Models", "MBSE Patterns", "Model-Based Systems Development (simulation integrated into MBSE)", and "Micro-Grid Reference Model Using SysML". Other ET17 Tracks included "Energy System Security & Critical Infrastructure", and, "Energy Policy, DER [Distributed Energy Resources] & Grid Evolution". The 2018 EnergyTech conference will again be a joint effort with the ISS at the Cleveland I-X Center on October 22-26, 2018. More information about past, current, and future EnergyTech conferences is at: <u>https://www.energytech.org</u>.





Mark Kaczmarek Membership Director

Membership Arena

INCOSE membership is over 13,000 world-wide. Over 100 corporate members, 70+ Global chapters in over 30 countries. The Chesapeake Chapter of INCOSE serves the systems engineering community in Baltimore and its surrounding areas. Our Chapter is very active and prides itself in the many endeavors it has undertaken. An organization such as ours relies on the willingness of its membership to put as much effort into it as they receive in return.

Chesapeake Chapter's membership Includes:

- Current membership = 320
- Certification = 153
 - ASEPs = 35
 - CSEPs = 86
 - ESEPs = 32

Learn more about the <u>benefits of joining INCOSE</u> and consider being part of this thriving organization and fill out an <u>INCOSE Membership Application</u> today!

The Chesapeake Chapter proudly welcomes our new members

October 2017

- Barclay, Melanie, WGS Systems
- Beach, Ryan, WGS Systems
- Dillon, Martin, WGS Systems
- Dodson, Carl, WGS Systems
- Forster, Daniel, NAVAIR
- Kane, Ronald
- Oliver, Everett, JHU/APL
- Thomas, Jeremy, WGS Systems
- Underwood, Kelli, Space Telescope Science Institute

September 2017

- Ellis, John, Leidos
- Ha, Bao, Northrop Grumman
- Gentry, Bradley, Odyssey Consulting









August 2017

- Abernathy, Mark, Space Telescope Science Institute
- Dorsman, Theo, Northrop Grumman
- Luke, Robert, WGS Systems
- Parsons, Christopher, Northrop Grumman
- Phan, Nam, Booz Allen Hamilton
- Rowe, Roger, Northrop Grumman

July 2017

- Alston, Felix, Dynane
- Hiteshew, Brian, Northrop Grumman

June 2017

- Adams, Mark, SAIC
- James, Corrie, JHU/APL
- Martin, Robin
- Stephenson, Tenee, ASEP, JHU/APL

May 2017

- Hanni, Robert, University of Maryland
- Kight, Steven
- Land, Peter, DOD, Systems Security Concepts

April 2017

- Abbott, Steve, DOD
- Dougan, Thomas, Northrop Grumman
- Evans, Paul, Student
- Glennan, Andrew, Northrop Grumman
- Marshall, James, Northrop Grumman
- Paulov, Michael, AASKI Technology
- Pierce, Cliff, Johns Hopkins University
- Shields, Rebecca, Student at University of Maryland, Baltimore County

Congratulations to Newly Certified SEPs since August 2017

- Cheresnowsky, Harry, CSEP Cyber Pack Ventures
- Fox, Joel, ASEP DE ISO
- Glennan, Andrew, ASEP Northrop Grumman
- Handy, Kristen, CSEP Booz Allen Hamilton
- Marshall, James, ASEP Northrop Grumman
- Miller, Kim, ASEP Northrop Grumman
- Partenheimer, Janice, ESEP Engility
- Randall, Rick, CSEP The Mitre Corp
- Stephenson, Tenee, ASEP, JHU/APL



SAIC.









Career Opportunities - Systems Engineer Positions

Enterprise Systems Engineering and Architecture is looking for candidates with a bachelor's degree in an engineering or IT field and 10 years of systems engineering experience or 14 years of SE experience without a degree to analyze requirements and provide systems engineering and architecture support. Location: Fort Meade. *Need Date: ASAP. Requires: Top Secret/SCI with Poly.*

US Cyber Command is looking for candidates with a bachelor's degree in an engineering or IT field and 10 years of systems engineering experience or 14 years of SE experience without a degree. Background in one or more of the following areas is preferred: developing or assessing specifications, interface requirements, system design, analysis and tradeoff, thread engineering test planning, malware, and cyberspace analysis. An INCOSE certification, CISSP, or CASP is required for some of these positions. Location: Fort Meade. *Need Date: ASAP. Requires: Top Secret/SCI with Poly.*

Enterprise systems engineer with experience integrating NOAA existing and new control, data management and data distribution systems. Satellite control systems is a plus. At least five years of experience is necessary along with a technical degree. DODAF and or TOGAF is a plus. Locations: Silver Spring (NOAA Headquarters), NASA Greenbelt, or the NOAA Satellite Operations Facility in Suitland, MD. *Need Date: ASAP. Requires: Public Trust Tier-1, which is similar to a DoD Secret clearance.*

Contact Allan Bowers, Vencore Staffing Manager - <u>allan.b.bowers@vencore.com</u> or 301.543.5397.











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INCOSE-CC.ORG/REGISTRATION

Training



INCOSE Chesapeake Chapter International Council on Systems Engineering





Description: Applying UPDM 2/DODAF/MODAF with MagicDraw is a 5 day course for Unified Profile for DoDAF and MODAF (UPDM 2). The course focuses on implementation of UPDM 2 using core MagicDraw functionality and the MagicDraw UPDM 2 plug-in.

Course: This comprehensive course will help students to quickly improve planning and implementation of complex systems using UPDM 2 standards and the MagicDraw UPDM 2 plug-in. The training approach used assumes that many students have a basic understanding of DoDAF or MODAF and an understanding of how to describe an architecture. This course covers UPDM 2 in terms of the following architectural frameworks: DoDAF 1.0, DoDAF 1.5, DoDAF 2.0 (DM2) and MODAF 1.2 (M3).

- Contains lectures and hands-on practice on using UPDM2 for architecture development
- Includes information on how to build complete and integrated architectures; Presents UPDM 2 and related standards
- UML 2, SoaML, and SysML where they apply to UPDM 2
- Shows how to implement and customize the DoD Architecture Framework; Covers complete UPDM 2 Models and Views.
- Presents a concise case study.

Course Materials: Students will receive printed course materials and a Magic Draw 30 day license key. Students must bring a laptop computer to use during the course.

Continental Breakfast, lunch, and snacks are included.

Cost: \$1800. Register by January 22. Maximum number of participants is 15, so be sure to register early! To pay by credit card or PayPal, visit our registration webpage for details: <u>incose-cc.org/registration/</u>.

Location:

Johns Hopkins University Applied Physics Laboratory Building 200 11101 John Hopkins Road Laurel, MD 20723



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A review of a new book related to engineering?

Let us know. We'd love to hear about it. It may end up in a future issue of our Newsletter.

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 Chapter Website

www.incose-cc.org

For any comments or suggestions about this newsletter please e-mail our communications team <u>communications@incose-cc.org</u>. We value your feedback.

2017 Board of Director Officers

- President: Michael Pafford
- Past President: EleanoraAnn "Ellie" Gianni, ESEP
- President-Elect: Dr. Grace Crowder, ASEP
- Treasurer: Tony Gigioli, CSEP

- Secretary: Craig Tyler, ESEP
- Programs: Gundars Osvalds, ESEP
- Communications: Myra Parsons Gross, ESEP
- Membership: Mark Kaczmarek, ASEP

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