



# INCOSE Chesapeake Chapter

International Council on Systems Engineering

April 2012

## E-Newsletter

- [Back Issues](#)
- [Forward to Friend](#)

**18 April 2012 (6:00 – 8:00 pm)**

### Life after the Northeast Blackout of 2003



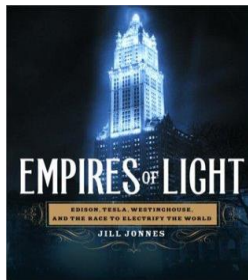
Speaker: Michael J. Kormos, Senior Vice President – Operations of PJM Interconnection

**Presentation:** PJM Interconnection, founded in 1927, is the oldest continuing power pool in the world and the largest electric power grid in North America. Its grid management operations integrate into one coordinated system, multiple transmission systems and independently operated generating stations and other supply resources. The blackout of 2003, one of the greatest challenges to face PJM operators, was weathered through advance system planning. Recently, PJM implemented the world's most advanced energy management system. It not only replaces legacy systems but provides real-time operational redundancy and better facilitates the integration of new resources such as demand response, energy efficiency and distributed resources. Today, PJM is addressing the challenges of intermittent renewable resources, impending retirements of large amounts of coal-fired generating capacity because of the cost of complying with environmental regulations,

the approaching transformation of the generation fuel-mix as a result of low-priced shale gas, and the challenges of accommodating public policy while maintaining reliability.

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

**Meal:** Sesame-ginger stir fried chicken; Jasmine rice and Stir fried Asian vegetables with garden salad dressing, rolls and butter, dessert, coffee and iced



Come out for a chance to win the door prize "[Empires of Light: Edison, Tesla, Westinghouse, and the Race to Electrify the World](#)" By Jill Jonnes

[>>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**

[Return to top](#)

#### In Vol.3 Issue 04

- [April Dinner Meeting](#)
- [Presidents POV](#)
- [Announcements](#)
- [Feature: When Models and Metaphors are Dangerous](#)
- [Last Month's Meetings](#)

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:**

**Wednesday, May 16, 2012**  
[Engineering Challenges and Scientific Capabilities of the James Webb Space Telescope](#)  
 Dr. John C. Mather Senior Astrophysicist NASA's Goddard Space Flight Center

May 14-16, 2012: [1st Annual Systems](#)



Joint meeting with IEEE Power & Energy Society – Baltimore Chapter

tea.

## Presidents POV



# Engineering Past, Present and Future

This past week we celebrated with one of our friends his 80th birthday. We played a little game of questions trying to guess specific things about his life during those 80 years. One of the questions was what technologies and inventions occurred in his lifetime since 1932? People answered such things like the internet, cell phones, the Concorde jet, and polio vaccine. Even frozen foods were invented during his lifetime. It got me to thinking. When I graduated engineering college, my school had basically four choices of engineering fields – mechanical, electrical, civil, and chemical engineering. What are our choices today? There are information technology, security engineering, biotechnology, network engineering, telecommunications, cyber technology, cyber security, cyber ethics and a host of others. And of course you can study and get a degree in systems engineering. The world in which we live is no longer stove-piped into a few specialized disciplines. The boundaries are grayed. Systems prevail. Interconnection and dependencies are the norm. Integration and sustainment are becoming more and more critical. Systems are no longer just airplanes or automobile engines, a computer on your desk, or the classic textbook elevator control system. Systems Engineers now deal with the cloud, the internet, cellular communication networks, massive server farms, or an array of satellites. There's no doubt that the world and technology have changed over the last 80 years and will continue to change and become more complex over the next 80 years. The names of the disciplines and the names of the systems may change but we can rest assured that the principles of systems engineering will continue to be important and employed as systems are designed, built, deployed and sustained.

Regards,  
Dr. Don York, CC President,  
[don.york@incose.org](mailto:don.york@incose.org)

[Return to top.](#)

## Announcements

### [Update to “Finding Amelia: A Challenge in Systems Engineering”](#)



On November 20, 2010 there was a Joint AIAA/INCOSE forum entitled [Finding Amelia: A Challenge in Systems Engineering](#) with Ric Gillespie, the historian, expedition leader, and author, speaking. Here is an update to that event. The State Department plans to join a new effort to find the plane of pioneering aviator Amelia Earhart, 75 years after she mysteriously disappeared over the South Pacific. Secretary of State Hillary Clinton and Transportation

Secretary Ray LaHood will take part in a ceremony Tuesday morning announcing the joint public-private search at the State Department, [The Wall Street Journal \(WSJ\)](#) and [Time Magazines NewsFeed](#) reports.

[>>Read more>>](#)

## [Engineering in Washington DC \(SEDC 2012\)](#)

**July 9 -12, 2012:** [22nd Annual INCOSE International Symposium](#) 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:



# Systems Engineering Body of Knowledge 0.75



The release of Version 0.75 of the Systems Engineering Body of Knowledge (SEBoK) at <http://www.sebokwiki.org/> just happened. This is the third release of the SEBoK, a product of dozens of systems engineering experts from around the world.

Version 0.75 primarily (1) adds important new material missing entirely from version 0.5, for example, articles on the relationship between systems engineering and software engineering; (2) improves some of the most immature 0.5 articles, and (3) responds to many comments provided by reviewers of version 0.5. The fundamental structure of the wiki remains unchanged with updates to around half of the articles. The entire wiki will undergo significant update between now and September when version 1.0 will be released.

We encourage all interested parties everywhere to provide review comments through April 15, 2012. Please look at the [Note to Reviewer](#) article in the wiki for more information. In addition to review, we encourage you to consider early adoption; i.e., we hope you find the articles a valuable resource. Please contribute!

[Return to top.](#)

## Feature Article from our Blog [When Models and Metaphors are Dangerous](#)

By Paul Martin



I just finished watching the documentary "[All Watched Over by Machines of Loving Grace](#)" by Adam Curtis. The entire series of three 1 hour shows is a real challenge. I say this because of the way Mr. Curtis makes such seemingly tenuous connections between people and the flow of their ideas across modern history. His assertion is that these ideas together have forged our present day perception of reality. False perception is more like it. This documentary discusses the modern financial meltdown, the environmental crisis and the selfish

gene, all through the prism of faulty assumptions, incongruent metaphors and flawed models.

[>>Read more at our blog>>](#)

[Return to top.](#)

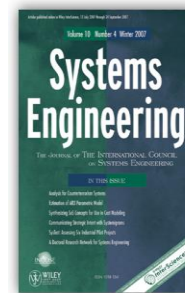
## Did You Miss Last Month?

### [Satellite Observations and Climate Modeling](#)



Dr. Albert Arking, JHU, talks to the INCOSE Chesapeake Chapter

Dr. Albert Arking, JHU, and formerly an atmospheric scientist at NASA Goddard, talked about the science behind climate change. His talk was mainly about the basic physics. Time did not allow to do more than touch the climate simulation models. Instrument temperature measurements of land air and sea have established that the earth's temperature has increased by about 0.8 degrees C over the past 100 years. Information prior to instrumentation depends on proxies, isotopes, tree rings, ice cores etc. Correlations between apparently independently proxies leads to confidence in the data. A particularly



**Discover Systems Engineering**  
Read the current issue free on-line for a limited time:  
[Click Here](#)

Copyright (c) 2011 Wiley Periodicals, Inc., A Wiley Company

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 INSIGHT Dec 2011, Vol 14 – Issue 4 *Special Feature: Systems Engineering Research Challenges in French Universities*



Click on image above and Log-In today.

impressive data set was sea level showing a 20 cm increase over the past 100 years due mainly to bulk expansion and to a lesser extent, ice melting. This was a steady increase exhibiting none of the decadal variations apparent in the temperature data. Extending this data back in time to the last ice age, 20,000 years ago showed a 130 meter rise, mainly due to ice melting.

[Return to top.](#)

[>>Check out the complete write-up on the event as well as Dr Arking's presentation..>>](#)

[Return to top.](#)

---

**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.**

[Return to top.](#)



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, Don York](#) or our [Communications Officer, Paul Martin.](#) We value your feedback.

#### **Board of Director Officers, 2012**

- President: Dr. Don York
- Past President: Dr. John Lewis
- President Elect: Dr. William Ewald
- Treasurer: Mr. David Alldredge
- Secretary: Mr. Mark Kaczmarek

#### **Directors at Large**

- Communications: Mr. Paul Martin
- Programs: Mr. Erik DeVito
- Membership Committee: Ms. Janet Deery

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

INCOSE Chesapeake Chapter © 2012