



# NEWSLETTER



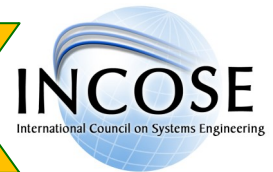
2004-14



2015



**2008, 2012  
President's Award  
for Most  
Outstanding  
Chapter**



## Third Quarter Strategic Planning Meeting

The Chapter hosted the third Strategic Planning Meeting of the year on August 20, 2016 in the Annenberg Center for Information Science and Technology on the California Institute of Technology campus in Pasadena. The meeting opened with a welcome by Chapter President Terry Rector followed by introductions. The team reviewed the action items by quarter, both past and future, with a note that the election of officers for 2017 is coming up.

Dr. Lin Yi, the Communication Director, reported on the communication team and future goals. Social media was recognized as a medium that can be used to keep the membership informed, which led to a discussion regarding how to keep the social media updated and consistent. One recommendation was to use one place or portal to maintain the information and to send people to this place. Currently the Chapter uses the website ([www.incose.org/los-angeles](http://www.incose.org/los-angeles)).

Dr. Yi is looking for volunteers to help with communication tasks. In another volunteer opportunity, Paul Cudney, the Ways and Means Director, could use assistance creating the registration pages for Chapter events.

Treasurer Harvey Soldan gave a financial report. At the fourth quarter meeting the Board will approve the budget for 2017. Harvey will send out the requests for budgeting needs in September and October.

(See "Third SPM," on page 8)

## CSER 2017: It's Coming! March 23 — 25, 2017

The Conference on Systems Engineering Research (CSER) leadership team is working on the preparations for the conference, with the call for papers, paper submittals, and the formation of sub-teams to attend to the many details. One team that needs to come together quickly is the team of paper reviewers. Chairmen and women for the panels are being contacted. INCOSE-LA representatives have been meeting with the Crowne Plaza Redondo Beach and Marina, the venue for CSER 2017. All in all, CSER 2017 is shaping up to be another excellent conference in keeping with past conferences hosted by the University of Southern California (USC) and the Los Angeles Chapter of INCOSE.

CSER 2017 is an excellent opportunity for career enhancement:

- Write a paper; join the discussion of the latest concepts; take the lead (note call for papers deadline is November 1, 2016).
- Facilitate the conference by participating in technical reviews, venue coordination, publicity, et al; the opportunities are innumerable.
- Attend the conference for networking and learning opportunities on the world stage.

(See "CSER 2017," on page 5)



## VOTE!



INCOSE-LA Elections Are Coming Up Next Month.  
Watch for a Special Edition of the Newsletter, coming out soon.

**Volunteer!**

You will learn something you never knew you needed to know

Column fillers edited by Joseph King.

### Inside This Edition

#### Features

Third Quarter Strategic Planning Meeting	1
Americas Sector	2
August Speaker Meeting	2
Meanwhile, Back at the Ranch	3
INCOSE Systems Engineering Job Bank	3
Mars Rover Update	3

#### Membership

New Members	11
-------------	----

#### Education and Conferences

CSER 2017	1, 7
October Speaker Meeting	4
PPI Systems Engineering Management Training	6
CTI CSEP Training	6

#### Whom to Contact

INCOSE-LA Board Members	11
-------------------------	----

#### Upcoming Events

Back page

## Americas Sector Activities

The Americas Sector held a meeting of chapter leaders on August 19, 2016. Dr. Steven H. Dam, Director for the Americas, hosted the meeting. Dr. Dam introduced Elizabeth Steiner, the new Assistant Director for Marketing and Communication (MARCOM). Elizabeth will facilitate strategies being developed at the International level and will help chapters to develop marketing and communications strategies as required.

The Sector is building its activities on INCOSE's five-year strategic objectives of Growth, Alliances, Education, Products, Forums, Competency, Transformations. The goal is to increase the chapters' ability to enhance the capabilities of the overall organization. Sector activities can include support for events, travel, and product development.

Dr. Dam discussed a plan from INCOSE to start a Professional Training Initiative and he is looking for a volunteer to be on this team from the Americas Sector.

The Sector is focusing on five topics that were identified during the International Symposium in Edinburgh:

- Budget
- Budget concerns about IS 2016 resolved
- Need to provide inputs to next year's budget (AOP)
- MARCOM
- New Vision and Mission Statements
- Roll-out being planned
- Member benefit differentiation
- Work on-going to better define benefits to members, including Corporate Advisory Board
- Training Task Team
- Professional Training Initiative (PTI)
- Training Library Program
- Need volunteer for PTI Board
- Events
- IW 2018 may be outside US
- IS 2018 scheduled for Washington, DC

Dr. Dam and the leadership of the Americas Sector are working to be the link for top-down support for the individual members.

"Reasonable people adapt themselves to the world.  
Unreasonable people attempt to adapt the world to themselves.  
All progress, therefore, depends on unreasonable people."  
George Bernard Shaw

If ants are such busy workers, how come they find time to go to all the picnics?  
Marie Dressler

Can you identify the systems thinker who said:  
"In a real sense all life is interrelated. All men are caught in an inescapable network of mutuality, tied in a single garment of destiny. Whatever affects one directly affects all indirectly. I can never be what I ought to be until you are what you ought to be, and you can never be what you ought to be until I am what I ought to be.  
This is the interrelated structure of reality."

## August Speaker Meeting

The August Speaker Meeting featured reports on the International Symposium held in Edinburgh, Scotland. The reports were given by the Los Angeles Chapter members who were able to attend:

- Marilee Wheaton, INCOSE Fellow and Corporate Advisory Board representative from the Aerospace Corporation
- Jorg Largent, INCOSE-LA Board Member
- Phyllis Marbach, INCOSE-LA Vice president
- Alan Kirschbaum, INCOSE-LA Member and past Chapter Secretary
- Stephen Guine, INCOSE-LA Past-president and CSEP

The meeting was held at The Aerospace Facility in El Segundo.

The meeting opened with the usual networking and fellowship while enjoying a light meal.

The first speaker was Marilee Wheaton, who is currently a Systems Engineering Fellow in the Systems Engineering Division of The Aerospace Corporation. In this role, she leads multiple collaborative cross organizational teams aimed at developing innovative resilient architectures, assessing new model based system engineering processes, and assists in establishing knowledge management systems. Ms. Wheaton has a B.A. degree in mathematics, magna cum laude, from California Lutheran University, and an M.S. degree in systems engineering from the University of Southern California. In addition, she is a graduate of the UCLA Executive Program in Management. She is a fellow of INCOSE and AIAA, and a fellow and life member of the Society of Women Engineers. Ms. Wheaton has served as adjunct faculty in the Systems Architecting and Engineering Program at USC Viterbi.

Marilee updated the members on the Corporate Advisory Board (CAB). The CAB is the "voice of the corporate customer." CAB members provide:

- Guidance on overall INCOSE direction, focus, and priorities;
- A conduit between INCOSE and the sponsoring corporations for information exchange, key corporate systems engineering-related issues, and access to corporate executive management; and
- A bi-annual priority needs list and assessment of how well INCOSE is meeting those needs based on status inputs from the BoD and the Technical Board.

The CAB met during the International Symposium. After introducing new members, the group discussed a wide range of topics:

- Training Task Force Report
- Competency Working Group Report
- NASA Training and Education in Systems Engineering Competencies
- Integrating MBSE Practices into SE Education Programs
- Systems Engineering for the Internet of Things: A Possible Project.

(See "August Speaker Meeting," on page 9)

## Not a member? Join INCOSE!

Learn more about becoming a member by clicking on <http://www.incose.org/membership/valueofmembership.aspx>

## INCOSE-LA Chapter NEWSLETTER

Vol. 14: Issue 5, October -- November 2016

## Meanwhile, Back at the Ranch

Life and real world projects provide illustrations that can serve as lessons learned, some with a touch of humor. One such example can be found in the 1948 filming of the movie, "Colorado Territory." Actor Joel McCrea starred in the movie, and provided a pithy quip in the face of frustrations.

The movie was film in a region of southwestern Colorado, an area well suited for the genre with its dramatic mountains and narrow gauge railroad, serving an economy of cattle, sheep, and mines. The mines produced several minerals, most notably silver, but also vanadium and a what was considered a waste product: yellow cake. The Manhattan Project, and its use for "yellow cake," contributed to the survival of this anachronism from the turn of the century.

While the setting was rustic, the technology to shoot the movie was not, and included a shortwave radio to coordinate the operation of the train and the McCrea, who was to ride a horse alongside the train and jump from his horse onto the train. As is so often the case, modern technology brings modern problems. In this case, as reported in the September 23, 1948 edition of the Durango, Colorado *Herald-Democrat*, the radio frequency used by the film crew was the same as that of the police department in Miami, Florida. Due to unusual weather conditions, the film crew regularly picked up police static from Florida.

For an hour McCrea rehearsed an action scene where he boards a speeding\* train from his galloping horse.

Raoul Walsh, the movie director, stood with his camera crew and kept working to obtain just the shot he wanted. Each time, McCrea and the train engineers were told by Walsh to "Go Ahead". Finally Walsh was satisfied. He went back to his director location, McCrea went off into the woods and the train backed up the track. The radio crackled, "Go ahead."

As reported in the newspaper:

Down the track snorted the engine, smoke pouring from its old fashioned stack, while McCrea, riding hell for leather, came streaking out of the woods, racing abreast of the puffing engine and leaped aboard -- looking like a very tough and determined hombre indeed.

Camera men stared in amazement — empty film magazines in their hands — at one of the finest action scenes they'd ever witnessed. The director of the movie, Raoul Walsh, beat his head and wailed. Fifteen minutes later they had to do it all over again.

Tired, grimy, and bruised, McCrea commented, "I guess I can take it if the horse can."

The horse made no comment.

*\* "Speeding" is a relative term. Quarter horses, the cow pony of choice, could run in bursts of perhaps 40 miles per hour on even ground in the editor's modest experience. One barrel rider guessed 40 as well, but she was busy at time, making her ill-inclined to think analytically about how fast her horse was going. A retired chief engineer and one time cowboy on the Wyoming high plains added a story: The name "Quarter Horse" was coined for it's ability to sprint up to 55 miles per hour in a "Quarter of a mile or less". At one time Ford was going to show an advertisement of a Quarter horse racing their new Mustang car. When they saw that the Quarter horse out ran the "Mustang" car in a quarter mile race, they scrapped the project.*

*Regardless, 40 miles per hour was a bit much for the roadbed and the locomotive, which might have shaken itself apart even if it could hold enough steam to go that fast. Editor*

## INCOSE Systems Engineering Job Bank

### Job Opportunities for Systems Engineers

Interested in learning about job opportunities for systems engineers?

Looking for a talented systems engineer for your project?

INCOSE members can learn about career opportunities and employers can learn about talented systems engineers at the INCOSE Systems Engineering Job Bank:

[http://incose.careerwebsite.com/home/index.cfm?site\\_id=582](http://incose.careerwebsite.com/home/index.cfm?site_id=582)

## Mars Rover Show

The fifth Mars Rover (& Juno) Results & LA/OC Society Expo was held on September 10, 2016 at Northrop Grumman S' Café in Redondo Beach, CA, from 1 to 5 p.m. Approximately 150 middle school, high school, and college students attended along with their family and friends. "Curiosity" is the Latest & Largest Mars Rover (a "Mini-Cooper" on Six Wheels!) carrying Advanced Science Experiments lately exploring a Young Martian Crater! The talk covered the amazing Curiosity engineering & science results & data to-date. Stephen Guine, INCOSE-LA Past-president, introduced INCOSE-LA to those gathered as part of the introduction to the various societies present, AIAA, IEEE, IET and many others. INCOSE-LA President, Terry Rector, and Vice-president, Phyllis Marbach, were available at the INCOSE table where they spoke with many regarding the value of Systems Engineering and the interesting projects that systems engineers work on in aerospace, transportation, communication, health care and other areas. Besides the presentation, Stephen Guine supported the event by providing the location and running the audio-video equipment (Thanks Stephen!). INCOSE-LA and The Institute of Engineering and Technology (IET) covered the lunches for the society volunteers supporting the event. Other members present during the day included Eric Belle, Karen Grothe, and DeAnna Regalbuto. If you were present and not mentioned here please let Phyllis know at [prmarbach@gmail.com](mailto:prmarbach@gmail.com). This was a terrific Science, Technology, Engineering and Mathematics (STEM) outreach event with many future STEM innovators present.

See pictures on pages 4 and 8.



## October Speaker Meeting Improve Your Listening Skills

The October Speaker meeting will be held on Tuesday, October 11, 2016 at The Aerospace Corporation, Building D8/1010, 200 N. Aviation Boulevard, in El Segundo.

**ABSTRACT:** While listening is only one side of a conversation, it is usually the neglected side. The first step to overcome this is to recognize that effective listening is an active process. An accurate assessment will usually reveal that people often pretend to listen, or listen just long enough to identify how they are going to respond. People also fail to recognize the filters that impact ability to fully comprehend other perspectives and points of view. Overcoming these filters will help you create open and constructive communication. During this highly interactive workshop, participants will be able to assess their listening skills and work to overcome listening filters, apply effective approaches to deal with different types of listeners, and engage others by asking factual, causative, and value based questions.

## HEAR ME! HEAR ME!

Listening Well Can be Good for You

**BIOGRAPHY:** George Cassar has a real passion for developing people across all ages to achieve their life's dreams and goals. George has just come out of an extensive career at Raytheon for twenty-eight years, working as a systems engineer in developing tactical radio systems for the United States Army and Marine Corps. George was also responsible for Training and Development in the Systems Engineering and Engineering organizations at the Space Airborne Systems Division.

In 2014, George transitioned from Raytheon to Dale Carnegie of Southern Los Angeles. He provides business performance consulting and training to organizations in the art of "Winning Friends and Influencing People" to ensure a highly engaged workforce. George is also the president of a non-profit educational resource center for young men near UCLA. He is also directing leadership programs in Southern California for high-school and college students, as well for as young professionals, and their families. He has his Bachelor's of Science and a Master of Science in Electrical Engineering from Loyola Marymount University.

**Registration:** Please register by Monday, October 4, 2016 (host site) to facilitate event registration and planning:

<http://tinyurl.com/incosela1016>

Read about on-going systems engineering discussions at the INCOSE LinkedIn webpage: <https://www.linkedin.com/groups/7499834>

You've got to be very careful if you don't know where you're going, because you might not get there.

I'm not going to buy my kids an encyclopedia.  
Let them walk to school like I did.

Yogi Berra, New York bon vivianite



Vice-president Phyllis Marback representing INCOSE and INCOSE-LA at the Mars Rover event at Northrop Grumman in Manhattan Beach

Photo by Terry Rector

## INCOSE-LA Needs You!

By Lin Yi, Communications Director

The Communications committee is looking for volunteers in both short-term projects and long-term positions:

- Website team member (1)
- Social media evaluation team member (2)
- *Newsletter* production team member (1)

Please contact [communications@incose-la.org](mailto:communications@incose-la.org).



INCOSE-LA Past-president and Systems Engineering Manager for Northrop Grumman Aerospace, Stephen Guine, speaking to the Mars Rover attendees.

Photo by Terry Rector



(CSER 2017, continued from page 1)

CSER 2017 will be more than excellent papers, knowledgeable and erudite speakers, and a top-notch venue. The success of conferences and symposia such as this is tied to the sponsors who support the conference, and Dick Emerson and his team are well on their way to signing up a stellar group of sponsors such as sponsored the CSER 2014 and the 2016 Regional Mini-Conference.

The team met with representatives of the Crowne Plaza Redondo Beach and Marina, the venue for CSER 2017. The Crowne Plaza was the venue for CSER in 2014, and the Crowne Plaza and INCOSE-LA are hard at work on the arrangements, including:

- Audio/visual
- Menu selections for Thursday, Friday, and Saturday
- Facilities layout for key note presentations, tutorials, paper sessions, banquet, support functions, registration, and sponsors and exhibitors
- Ancillary activities such as parking, rooms, and socials

CSER 2017 offers researchers in academia, industry, and government a common forum to present, discuss, and influence systems engineering research. It provides access to forward-looking research from across the globe, by renowned academicians as well as perspectives from senior industry and government representatives. Co-founded by the University of Southern California and the Stevens Institute of Technology in 2003, CSER has become the preeminent event for researchers in systems engineering across the globe.

The theme for CSER 2017 is, “Disciplinary Convergence: Implications for Systems Engineering Research,” and serves as a spring board for papers and discussions across the spectrum of challenges facing the discipline in both the world of academia and the world of the practitioner.

Help us help you — update your INCOSE profile Log into the INCOSE home page and click on “profile home” to update or correct your information

With this theme as a backdrop, papers are being accepted on the following topics:

Formal Methods in Systems Engineering  
Resilience and Affordability  
Model-Based Systems Engineering  
Systems and SoS Integration  
System Architecture and Complexity  
Trade-space Visualization and Analysis  
Cognitive Systems Engineering  
Cyber secure resilient systems  
Lean and Agile Systems Engineering  
Cyber-Physical Systems and Internet of Things  
Systems Thinking and Complexity Management  
Infusion of System Science into Systems Engineering  
Uncertainty Quantification  
Smart Manufacturing  
Advancing Systems Engineering Education  
Systems Engineering and Decision Science

In addition to this wide selection of topics looking to the future of systems engineering, CSER 2017 features a full slate of luminaries from academia, government, and industry as keynote speakers and panelist.

CSER 2017 is looking forward to a stellar cadre of keynote speakers.

Dr. Yannis C. Yortsos has served as Dean of the USC Viterbi School of Engineering since June 2005. He is the Chester F. Dolley Professor of Chemical and Petroleum Engineering, and holds the Zohrab A. Kaprielian Dean’s Chair in Engineering. Dr. Yortsos is well known for his work on fluid flow, transport and reaction processes in porous and fractured media with applications to the recovery of subsurface fluids and soil remediation. He has been actively involved in the peer review of the Yucca Mountain Project for the disposal of high-level radioactive waste.

(See “Conference Sponsors and Exhibitors,” on page 10)



The Crowne Plaza Redondo Beach and Marina, venue for CSER 2017



**LAS VEGAS, NV**

**5 - 9 DEC, 2016**



# SYSTEMS ENGINEERING MANAGEMENT

## FIVE DAY COURSE

After requirements problems, management shortcomings are the next greatest source of project problems. This Systems Engineering Management course provides in-depth coverage of how to manage engineering projects to maximize project success within the project's given constraints. The course establishes principles and provides methods for achieving the best outcomes available from people, both individually and in teams. The course has no particular technology bias.

**VISIT OUR WEBSITE FOR MORE INFORMATION**

**[www.ppi-int.com](http://www.ppi-int.com)**

## CSEP PREPARATION TRAINING 5-DAY COURSE

At 2 hours in length and based on over 280 pages of literature, the INCOSE CSEP examination tests even the most experienced engineers.

CTI's CSEP Exam Preparation Course provides the perfect grounding to take the INCOSE Knowledge Examination with confidence.

Our CSEP pass rate is 99% for delegates who have taken the exam within 4 weeks of attending CTI's CSEP training.



Chicago, IL Mar 13 - 17

Denver, CO May 8 - 12

Las Vegas, NV Feb 27 - Mar 3

Las Vegas, NV Oct 30 - Nov 3

Detroit, MI Sep 25 - 29

Los Angeles, CA Jun 26 - 30

Albuquerque, NM Apr 24 - 28

Laurel, MD Feb 6 - 10

Baltimore, MD Jun 12 - 16

Chantilly, VA Nov 13 - 17

Austin North, TX Aug 14 - 18

Orlando, FL May 22 - 26

**2017 PROGRAM NOW LIVE!**



**[www.certificationtraining-int.com](http://www.certificationtraining-int.com)**



# 15<sup>th</sup> Annual Conference on Systems Engineering Research (CSER)

March 23 - 25, 2017, Crowne Plaza Hotel, Redondo Beach, CA

## Disciplinary Convergence: Implications for Systems Engineering Research

### Conference General Co-Chairs, USC



**Prof. Azad M. Madni**  
Systems Architecting  
and Engineering



**Prof. Barry Boehm**  
Systems and Software  
Engineering

### Technical Program Co-Chairs, USC



**Prof. Roger Ghanem**  
Mechanical  
Engineering



**Prof. Daniel Erwin**  
Astronautical  
Engineering

### Research Paper Topics

- Formal Methods in Systems Engineering
- Resilience and Affordability
- Model Based Systems Engineering
- Systems and SoS Integration
- System Architecture and Complexity
- Trade-space Visualization and Analysis
- Cognitive Systems Engineering
- Cyber Secure Resilient Systems
- Lean and Agile Systems Engineering
- Cyber-Physical Systems and Internet of Things
- Systems Thinking and Complexity Management
- Infusion of System Science in SE
- Uncertainty Quantification
- Smart Manufacturing
- Advancing Systems Engineering Education
- Systems Engineering and Decision Science
- Wireless Health

### Application Areas

- Autonomous Vehicle Networks
- Defense Systems and System-of-Systems
- Space and Aerospace Systems
- Financial Systems
- Global Supply Chains
- Healthcare Delivery
- Homeland Security
- Smart Manufacturing
- Medical Devices
- Sustainable Energy
- Transportation Systems
- Urban Systems and Infrastructure

### Venue

- Crowne Plaza Hotel  
300 N Harbor Dr, Redondo Beach, CA 90277

New Deadline for Call for Papers!

**Conference on Systems Engineering Research (CSER)** offers researchers in academia, industry, and government a common forum to present, discuss, and influence systems engineering research. It provides access to forward-looking research from across the globe, by renowned academicians as well as perspectives from senior industry and government representatives. Co-founded by University of Southern California and Stevens Institute of Technology in 2003, CSER has become the preeminent event for researchers in systems engineering across the globe

### Important Deadlines

- **November 1, 2016:** Full papers due
- **December 15, 2016:** Notification to authors
- **February 1, 2017:** Final Conference Papers due
- Paper Length: Maximum 10 pages
- To Submit a paper and download the paper template visit: [viterbi.usc.edu/sae/cser2017.htm](http://viterbi.usc.edu/sae/cser2017.htm)

### Conference Website

<http://viterbi.usc.edu/sae/cser2017.htm>

### Conference Co-Managers



**Mr. Terry Rector**  
The Aerospace Corp.



**Ms. Marilee Wheaton**  
The Aerospace Corp.



(Third SPM, continued from page 1)

Mark TenEyck, the Membership Director was unable to attend, but provided charts that served as a basis for a review of strategic goals. Director of Systems Engineering Education Tony Magorno recommended conducting a survey of the student members about their value of the student membership. Scott Birtalan, who is responsible for the Student Division Ambassadors, was asked to survey the student members regarding what we can do to increase the value of their membership. Also noted in Dr. Yi's charts were ways to incorporate Work Group activities into the community; "working group" activities being a trickle-down of the INCOSE Working Groups to interested businesses and individuals in the area.

Membership involvement in the International Symposium was reviewed. Members of INCOSE-LA authored three papers and presented one poster, along with five members serving as chairmen for some of the session. It was also noted that 90 members of the Los Angeles Chapter are active in 28 of the 44 working groups.

In a move to bolster the individual members of the Chapter, the Board elected to submit a request for up to \$2000 from INCOSE Americas Sector to cover the fees of a Systems Engineering Professional exam for members from the INCOSE-LA chapter to take the exam and cover the fee for registration.

The Board of Directors continued the efforts to better serve the members with a discussion of the Membership Plan. One challenge is to understand the massive membership expirations in June and July. Another area of consideration is diversity. 40% of the members work for six companies and academia is represented, primarily by three campuses. One part of the plan (and an opportunity to volunteer) is to conduct membership drives at local system-driven businesses. Potential enterprises are Honda, Faraday Motors, Western Digital, Amgen, Direct TV, Edison and Walt Disney.

Terry shared reasons why people join an organization: money, advancement, training, travel, education, satisfaction, and security. When members of INCOSE-LA approach others about INCOSE membership they need to determine what is important to someone (what is his or her need?) and then encourage that individual to join INCOSE based on meeting that need. As a part of this outreach, one should keep in mind: Attention, Interest, Desire, Action. That is to say, get a person's attention, then get their interest by appealing to their need, and then get their desire so they take action. When the Chapter has conducted surveys in the past, asking why people let their membership lapse, the a frequent answer was that they are not doing systems engineering anymore.

Phyllis Marbach, Vice-president, presented a report from the IEEE Game Special Interest Group (SIG) working group with INCOSE-LA. A Memorandum of Understanding (MOU) was created by the working group. Terry will review and sign the MOU for INCOSE-LA.

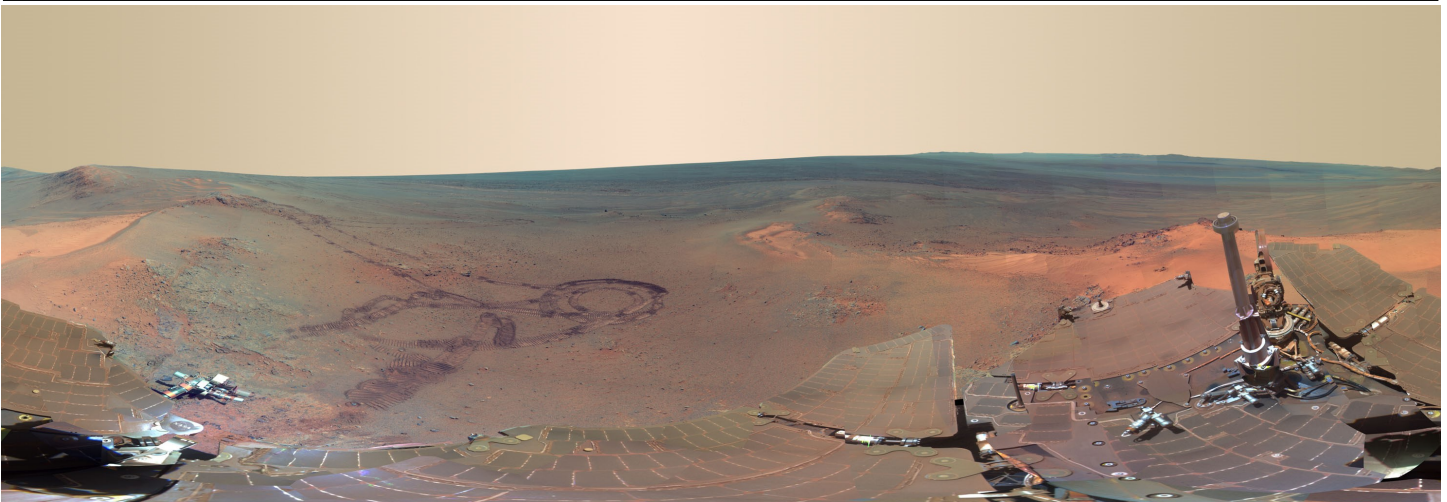
For more information about GameSIG see the June-July 2016 edition of the *Newsletter*.

The Board of Directors approved supporting the Systems Engineering Best Practices Workshop being developed for GameSIG with a budget of up to \$500 for supplies and an award for Best Engineered Game. The Board also approved submitting a request for \$1000 from INCOSE Americas Sector for the GameSIG Best Engineered Game Award. This is an important part of the outreach from the profession to the systems engineers of the future.

The BoD continues to look for topics for tutorials and speaker meetings that would be of interest, plus ways to strengthen the networking between the members. Please let us know if you have a topic of interest or know of a potential speaker. The BoD members are working their action items from the SPM.

Thanks to all who attended this informative and productive planning meeting!

### Martian Donuts, done by Curiosity



### Not a member? Join INCOSE!

Learn more about becoming a member by clicking on <http://www.incose.org/membership/valueofmembership.aspx>

## INCOSE-LA Chapter NEWSLETTER

Vol. 14: Issue 5, October -- November 2016

This is just a sampler of the issues being worked by the CAB for the betterment of the organization, the profession, and the members.

The second speaker was Jorg Largent. Jorg’s career spans over fifty years, starting with technical training as a radar technician for the United States Air Force. After leaving the Air Force, Jorg attended the Georgia Institute of Technology and graduated as an Aerospace Engineer. His career as an engineer began in orbital mechanics for The Boeing Company on the Apollo program. After the Apollo program, Jorg became a Flight Test Engineer on the CH-47C, CH-46E, and B-1A program. At the end of the B-1A program, Jorg became a Flight Test Engineer for the Northrop Corporation, working on developmental projects. When the flying dried up, Jorg transitioned to liaison engineering in support of production, becoming the lead systems engineer on the B-2 and worked on other developmental programs. In 2007, finding that he had enough and had had enough, Jorg retired and chose to be more attentive to his wife of forty years, and to pursue interests of his own choosing including working on a railroad, working with aspiring young engineers, and contributing to the systems engineering profession. In more recent years, Jorg’s activities have shifted a bit, with less railroading but more time tending a church and doting on his five grandchildren.

Jorg’s presentation was a little extemporaneous, discussing the Platinum Chapter award as planned, followed by a potpourri of observations and experiences. One take-away was that the Chapter was complimented on several occasions for the highly successful Regional Mini-conference held in April 2016. The sentiment of all those who went was an emphatic “THANK YOU” to the volunteers who truly earned the praise and award – we just picked up the plaque.

Phyllis Marach recently retired from Boeing Defense Space and Security. Phyllis has over 30 years of experience in aerospace programs such as satellites, chemical lasers, the International Space Station, and various propulsion systems. In addition to being the Vice-president of the Chapter, Phyllis and an active member of the INCOSE Agile Systems and Systems Engineering Working Group and of the INCOSE MBSE Patterns Working Group. Currently, she is a Scaled Agile Framework™ Version 4.0 Program Consultant. During the past eight years Phyllis was an agile coach for the Boeing Enterprise for unmanned air systems, radio, avionics and research programs. Phyllis was a Boeing Designated Expert in agile software development, software engineering and systems engineering. She is also a Certified ScrumMaster and a Certified Scrum Product Owner. Phyllis is a co-author of “The Role of Systems Engineering in Large-Scale Agile Projects” and “Principles of Agile Development,” both published in INCOSE INSIGHT magazine.

Phyllis reported on the working group and business meetings, which began on Saturday; two days before the symposium formally opened. Phyllis’ report noted that there are 44 working groups, although not all of them met during the symposium. Many working groups meet during the International Workshop, which is held every January. The 2017 International Workshop will be held in Torrance.

INCOSE is the world’s authority on systems engineering.  
INCOSE President Alan Harding

During the symposium many of the working groups not only conducted meetings, but also hosted tracks during which papers were presented. All WGs have charters and more information is available in INCOSE Connect and at incose.org.

Phyllis reported that the organization of the Working Groups is being updated. This change is being made to better address the interests of the members and to give the members more opportunities to hone their skills as systems engineers.

Alan Kirschbaum is an Independent consultant based in Oxnard, CA, advising clients on systems engineering plans and proven implementation strategies for successful space systems development. He gives clients a leg-up on innovations now being adopted as best practices in national commercial standards. On a pro-bono basis, he evaluates and votes on new ISO space system standards as a member of Aerospace Technical Advisory Group. Previously, he served as Program Manager, Systems and Technology, for AT&T Gov’t Solutions, Santa Barbara, CA, where he provided client engineering analysis and managed a wide range of simulation, command and control, remote sensing, and space operations engineering efforts. He produced surveillance technology plans based on evolving counter-space requirement analysis, consistently exceeding annual revenue goals and pleasing customers with high quality deliverables at budgeted cost and schedule. He has served on the INCOSE-LA board of directors.

Alan titled his portion of the presentation, “~~Random~~ Delighted Thoughts on INCOSE’s 2016 International Symposium, Edinburgh, Scotland.” He opened with a picture of Stephen Guine accepting the Platinum Award for the Chapter, a “WOW Moment for the Chapter.” Alan summarized the 40 technical tracks and over 90 presentations. Alan also shared highlights that caught his attention. One was Professor’s Larry Leiter’s Perspective on Integrating Design Thinking with Systems Engineering and an emphasis on human teams in designing. Another was Hillary Sillitto’s Perspective on Systems Architecture. “Painting Systems: From Art to Systems Architecting” and “System Science Parallels Drawn Between Biology and Defense” were two other topics that caught Alan’s attention. Alan also shared that, in addition to the wide range of professional activities, the 2016 symposium branched out to a local tradition: the Edinburgh Fringe Festival. The Edinburgh Festival Fringe is the largest arts festival in the world and takes place every August for three weeks in Scotland’s capital city. INCOSE’s excursion on the fringe was, “The Magic of Systems Engineering.”

Stephen Guine is a Systems Engineering Manager for Northrop Grumman Aerospace in Redondo Beach and the Immediate-Past-president of the Los Angeles Chapter of INCOSE. He has over 25 years of experience implementing and managing systems engineering activities on multiple Northrop Grumman programs and projects as well as for other organizations including the Metropolitan Water District of Southern California, Kaiser Permanente, PacificCare, and Los Angeles County Dept. of Public Health.

(See “Stephen” on page 10)

When humor goes, there goes civilization  
You show me a boy who brings a snake home to his mother,  
and I’ll show you an orphan.  
Erma Bombeck

(Conference Sponsors and Exhibitors, continued from page 5)

Dr. Greg Hyslop is the chief technology officer of The Boeing Company and senior vice-president of Boeing Engineering, Test & Technology. Dr. Hyslop oversees the development and implementation of the enterprise technology investment strategy, and his portfolio of responsibilities includes the companywide Boeing Engineering function; Boeing Research & Technology, the company's advanced central research and development organization; and Boeing Test & Evaluation, the team that verifies and validates Boeing's commercial and defense products.

Interested in participating in this world class event?  
Get in touch with [terry.rector@aero.org](mailto:terry.rector@aero.org).  
Please have in mind what you would like to do.  
All positions are open at this early stage.

Ms. Kristen J. Baldwin is the Principal Deputy to the Deputy Assistant Secretary of Defense for Systems Engineering (DASD(SE)). Ms. Baldwin acts on behalf of the DASD and is responsible for engineering and technical workforce, policy, and systems engineering planning for major defense acquisition programs. Her oversight includes concept engineering and analysis, design, development and manufacturing, and independent program review and assessment. She supports the DASD role of functional leader for more than 40,000 defense acquisition professionals in the Department of Defense (DoD) Engineering and Production, Quality, and Manufacturing workforce. She oversees the DoD strategy for Trusted Systems Design.

Dr. Paul D. Nielsen is Director and Chief Executive Officer of the SEI, a global leader in advancing software and cybersecurity to solve the nation's toughest problems through focused research, development, and transition to the broad software engineering community.



The neighborhood around the Crowne Plaza

The SEI is a key innovator in areas central to the U.S. Department of Defense and civilian government operation in the cyberspace domain, including software architecture, software product lines, interoperability, the integration of software-intensive systems, network and system resilience, and the increasing overlap of software and systems engineering. The SEI also provides direct support to more than 50 U.S. government entities in their efforts to efficiently and effectively acquire and sustain new software and systems.

Integrated with the USC team of faculty, staff, and students is the Los Angeles Chapter of INCOSE. Continuing a long-standing role of facilitation with USC and fresh off the highly successful Regional Mini-Conference, INCOSE-LA is working on coordinating the venue, support logistics, sponsors, and exhibitors.

The team has started contacting potential sponsors and exhibitors, and our overtures are being well received. Attendees can expect another superb selection of industry and academic leaders as sponsors and exhibitors.

For sponsorship and exhibitor information contact Dick Emerson at [remerson9@gmail.com](mailto:remerson9@gmail.com)

Sacred cows make the best hamburgers.

Abby Hoffman

The systems thinker quoted on page 2:  
Dr. Martin Luther King Jr.

(Stephen, continued from page 9)

Stephen concluded the presentations with "BLUF" – bottom line up front. He had several insights.

The keynotes are generally good, but not always in the manner intended.

A lot of good academic and industry presentations that make you think:

- I need to consider that, or
- I'm not sure that is really implementable
- Excellent opportunity to find like-minded professionals by seeing who attends what you are attending.

Stephen also had several insights in the keynote presentations:

Dancing with Ambiguity: Embracing the Tension between Divergent and Convergent thinking in Systems Engineering

- How culture and organization structure matter
- Future Challenges for the Whole Energy System
- How understanding the CONOPS and subsystem value propositions matters
- The Future Belongs to Innovators
- If we are not thoughtful in our SoS approaches, the winners win big and the losers lose bigger.

Stephen concluded the evening with an upbeat summary of the value of networking and the overall excellence of the symposium.

C'est toujours la même chanson.

Le vieux proverbe français.

The opposite of complexity is clarity, not simplicity.

Peter Tuddenham

## INCOSE-LA Chapter NEWSLETTER

Vol. 14: Issue 5, October -- November 2016



**The Board of Directors wishes to welcome the following new members to the Los Angeles Chapter of INCOSE.**

Note: The information listed below is from the member directory and is based upon your initial membership application. If the information is not correct or complete, then please access your INCOSE profile (at [www.incose.org](http://www.incose.org)) to update your information.

<b>Name</b>	<b>Primary Organization</b>	<b>Division/Department</b>
Nanyan Zheng	Student LMU	
Randolph Abaya	Student LMU	
Michael Buonarati	Student LMU	
Joseph Carreon	Student LMU	
Jeffrey Mueller	Air Force Space Command	
Rubi Mora	Student CSULA	
Olivia Schimmels	Student LMU	
Lucious Wilson	Student LMU	
John Lopatto	Student LMU	
Jamie Nakawatase	Thirty Meter Telescope	
Abdullah Alrashdan	Student LMU	
Luis Mendez	Student LMU	
Nkatha Mwiti	Student LMU	
Chad Wes Villaflores	Student LMU	
Daniel Robbins	Northrop Grumman Corp	
Sarah Morgan	Northrop Grumman Corp	
Sarah Dimonte	Northrop Grumman Corp	
Jack Parlevliet	Northrop Grumman Corp	
Faisal Aldhabib	Student LMU	
Emily Cuzner	Student LMU	
Sara Gibson	Student LMU	
Ahmed Alarfaj	Student LMU	
Zachary Bates	Student LMU	
Jack Kramer	Student LMU	
Chanel Johnson	Lockheed Martin Corp	

**2016 Board of Directors**

<b>Elected Officers</b>			<b>Elected At-large Directors</b>		
President	Terry Rector	Terry.E.Rector@aero.org	Membership	Mark TenEyck	mteneyck11@gmail.com
Vice President	Phyllis Marbach	prmarbach@gmail.com	Programs	Dr. Rick Hefner	rhefner@caltech.edu
Immediate Past President	Stephen Guine	Stephen.Guine@ngc.com	Systems Engineering Education	Tony Magorno	amagorno@mitre.org
Secretary	Jeffrey Willis	Jeffrey.Willis@ngc.com	Ways and Means	Paul Cudney	paulcudney@dslextrême.com
Treasurer	Harvey Soldan	harvey.soldan@jpl.nasa.gov	Communications	Lin Yi	Lin.yi.dr@ieee.org
<b>Appointed Positions</b>					
Newsletter Editor	Jorg Largent	jorg.largent@incose.org	Student Division Ambassadors	Scott Birtalan	scott.birtalan@ngc.com
Technical Society Liaison	Shirley Tseng	shirleytseng@earthlink.net	Reflector Manager	Deborah Cannon	deborah.a.cannon@aero.org
Chapter Awards Manager	Phyllis Marbach	prmarbach@gmail.com	Industrial Relations Manager	Open	
Professional Networking Chair	Scott Birtalan	scott.birtalan@ngc.com	New Member Ambassador	Collette Kurtz	kurtz905@aol.com
Representative to the SF Valley Engineer's Council	Stephen Guine	Stephen.Guine@ngc.com	Volunteer Coordinator	Karen Miller	karmill888@aol.com

**INCOSE-LA Chapter NEWSLETTER**

**Vol. 14: Issue 5, October -- November 2016**

# INCOSE-LA Chapter      NEWSLETTER

Vol. 14: Issue 5, October -- November 2016

Return Address:

**PO Box 10969  
Westminster, CA 92685-0969**

## Forwarding Service Requested

The International Council on Systems Engineering (INCOSE) is a not-for-profit membership organization founded to develop and disseminate the interdisciplinary principles and practices that enable the realization of successful systems. INCOSE's mission is to share, promote, and advance the best of systems engineering from across the globe for the benefit of humanity and the planet.  
The Los Angeles Chapter meets several times per year for speaker meetings and, in addition, sponsors tutorials, mini-conferences and other activities of interest to those in systems engineering or related fields.

## UPCOMING EVENTS

For more details on Chapter-sponsored events and registration, go to [incose.org/los-angeles](http://incose.org/los-angeles)

### **INCOSE LA Speaker Meeting**

#### **Listening Skills**

Date: October 11, 2016 - 5:30 p.m. to 8:00 p.m.

Host Site: The Aerospace Corporation

200 N. Aviation Boulevard,

Building D8, El Segundo, California

Cost: FREE

### **INCOSE LA Speaker Meeting**

#### **Complex Adaptive Systems**

Date: November 8, 2016 - 5:30 p.m. to 8:00 p.m.

Host Site: The Aerospace Corporation

200 N. Aviation Boulevard,

Building D8, El Segundo, California

Cost: FREE

### **Fourth Quarter Strategic Planning Meeting**

Date: November 5, 2016, 9:00 a.m. to 3:00 p.m.

Location: Caltech campus, Pasadena

Venue: Annenberg Center for Information Science and  
Technology, Room 105

Cost: FREE

### **Chapter Holiday Party!**

Date: December 11, 2016 - 6:00 p.m. - 9:00 p.m.

Venue: Marina del Rey Yacht Club

Location: 13900 Palawan Way

Marina del Rey, California

### **Future INCOSE Events Tentative Dates, and Locations:**

November 16, 2016 – Ventura County

January 17, 2017 Town Hall Meeting, location TBD

January 28 — 31, 2017 International Workshop

Chapter Soiree

Torrance, California

### **Conference on Systems Engineering Research (CSER 2017)**

Date: March 23 — 25, 2017

Location: The Crowne Plaza Hotel on Redondo Beach

See article on page 1 for more details

*For more information on these and other events of interest in the  
Los Angeles area, look for a Reflector Notice in your email, and  
check the Chapter website: [incose-la.org](http://incose-la.org)*

*Also like us on facebook!*