



# NEWSLETTER



2002, 2004-11



2003



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



## UPCOMING EVENTS

### WATCH THE MARS LANDING!

*Witness the adventure live!*

August 4 – 5, 2012 at the Pasadena Convention Center  
Curiosity landing on Mars (at approximately 10:30 pm Pacific time) is  
the pinnacle of day two.

For more information and to **purchase tickets**, go to  
[www.planetary.org/get-involved/events/planetfest-2012/](http://www.planetary.org/get-involved/events/planetfest-2012/)

### August Speaker Meeting

#### Space Mission Engineering IV: Updates to a Classic Standard

David Parsley, Director of Hardware Engineering, Northrop-  
Grumman Electronic Systems Azusa, California

When: Tuesday, August 14, 2012, 5:30 p.m. to 7:45 p.m.

Where: Booz Allen Hamilton, LAX Office  
*Details on page 2*

### Strategic Planning Meeting

August 25, 2012

*Details in an upcoming Reflector notice*

## Future Events Being Planned

### 2013 Mini-conference

WHEN: March, 2013

WHERE: Loyola Marymount University

*Details in work; see the article on page 3*

*See more “save the date” activities on page 3*

## In Passing David Wright INCOSE President-elect

David Wright, President-elect, passed away on Friday, July 20, 2012 while vacationing with his family in Spain. David died in a place of beauty. He was on a walk and, according to the autopsy report, suffered pulmonary edema. He must have found a spot to sit and rest and there he passed. His daughters walked to the spot Sunday morning and told Lorraine, his wife, that it was absolutely beautiful. David died with a smile on his face – a smile so many have seen.

David was the Business Development Director with Lockheed Martin United Kingdom (UK), and, since December 2010, had been working in the corporate offices in London.

He joined INCOSE in early 1995, became a regular attendee at UK Chapter events, and served on the Board of the UK Chapter as Events Technical Chair. In 2002, he stood for election as one of two representatives from Region III to the new INCOSE Member Board. He was then elected to become Co-Chair and then Chair of that new board with a seat on the Board of Directors representing all INCOSE members and chapters. For a time he then worked as Associate Director for Leadership Development, before taking on the role of INCOSE Treasurer.

*(see Obituary on page 7)*

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## A Report from the International Symposium

*By Padman Nagenthiram*

This year's International Symposium in Rome, Italy, drew over 700 participants from all three sectors of INCOSE. These included those from New Zealand to Chile and from Japan to the United Arab Emirates. The Symposium was held over four days, July 9-12, and was packed with events including keynote speeches, paper and panel sessions, poster papers, industry roundtables, and an academic program. In addition, there were tutorials and workshops plus business meetings which began on the Saturday before and an exhibition by industrial organizations and academics who are involved in system engineering. There was also a tool vendor challenge, a new-member orientation lunch, a certification reception, award presentations, social events and a banquet. The symposium ended with two technical tours on the following Friday.

*(Continued on page 5)*

# August Speaker Meeting

## Space Mission Engineering (SMAD) IV: Updates to a Classic Standard

**Presenter:** David Parsley, Director of Hardware Engineering, Northrop-Grumman Electronic Systems  
Azusa, California

### PARTICULARS

**When:** Tuesday, August 14, 2012, 5:30 — 7:45 p.m.

**Where:** Booz Allen Hamilton, LAX Office  
Building 5220 — 2nd. Floor, Suite 200  
5220 Pacific Concourse Drive

*Remote sites will be available for this speaker meeting*

**Cost:** Members-*FREE*; Non-members-*\$10.00*

### Meeting Agenda:

5:30 - 6:20 p.m. Registration, networking, refreshments

6:20 - 6:30 p.m. Welcome and announcements

6:30 - 7:45 p.m. Presentation followed by questions and answers

**ABSTRACT:** Certain textbooks and references are sufficiently useful and ubiquitous as to achieve the status of standard to an entire generation of practitioners. Such is the case for Space Mission Analysis and Design (SMAD) published by Microcosm Press, for engineers and managers in the American space industry and the world at large. The fourth edition, titled *Space Mission Engineering: The New SMAD*, published in 2011, presents updated and expanded material, including a revamping of the principal mission used as an example throughout the book. This lecture gives an overview of the principal changes from the previous edition, including:

- Effective trade-off decisions and methods for low and high production space programs
- A new section on Telemetry, Tracking, and Command subsystem design
- Description of error analysis and technical budgeting in the requirement allocation process
- Model driven engineering, including model development, validation, and life cycle
- A new section on Space Mission Verification and Validation (bottom to top)
- On-line tools and expanded text
- Annotated bibliography with links to references
- Fire detection mission example, updated from prior editions
- Major updates to all sections reflecting latest technology and science.

Come and hear how to use the new SMAD to upgrade your space systems engineering skills and increase your systems engineering toolkit. This practical handbook for Space Mission Engineering draws on leading aerospace experts to carry readers through mission design, from orbit selection to ground ops. "*Space Mission Engineering*" updates the technology, provides greater emphasis on small spacecraft design and the cost-reduction process, and includes more detail on multi-satellite manufacturing, space computers, payload design and autonomous systems.



**BIOGRAPHY:** David Parsley is currently Director of Hardware Engineering, Northrop-Grumman Electronic Systems in Azusa, California. Prior to this he has held a number of positions in functional and program leadership for space and launch systems, including Lead Space Segment Systems Engineer for Space Tracking and Surveillance System (STSS) and Deputy Program Manager for Space Based Infrared Systems

Highly Elliptical Orbit Payloads. David received a bachelor's and master's degree in electrical engineering from the University of Utah. In addition, he received an engineering certificate in Astronautics from the University of California, Los Angeles and now teaches a course in the same program. He is a contributing author to the "*Space Mission Engineering*".

### R.S.V.P.:

**ALL PARTICIPANTS:** Please register online at <http://www.incose-la.org> (this is important so as to help facilitate implementing the meeting). You will be asked to provide your full name, title, company, phone number, and email address. State whether you are a US Citizen, resident alien, or foreign national. Attendees must **R.S.V.P. by Friday, August 10, 2012**. Please bring your picture identification (driver's license, passport or green card) to the meeting.

### Directions to Booz Allen Hamilton:

From the San Diego (405) Freeway traveling south:

1. Take exit 46 toward Century Blvd. West/LAX.
2. Turn left (south) on south La Cienega Boulevard.
3. Turn right onto Pacific Concourse Drive.
4. Follow the road until you reach the second stop sign (immediately past court house parking garage on the right) and turn right. At gate on the far right, press the green button to receive a parking ticket (admin staff will validate parking).
5. After passing the gate, turn left and park in the visitor parking lot. Walk past the water fountain, across the rotunda to building 5220. Meeting will be on the second floor, Suite 200.

From the San Diego (405) Freeway traveling north:

1. Take the El Segundo Boulevard exit, exit 44, toward Hawthorne Blvd.
2. Turn left onto west El Segundo Boulevard.
3. Turn right (north) on south La Cienega Boulevard.
4. Proceed on La Cienega until the third stoplight.
5. Turn left onto Pacific Concourse Drive.
6. Follow the road until you reach the second stop sign (immediately past court house parking garage on the right) and turn right. At gate on the far right, press the green button to receive a parking ticket (admin staff will validate parking).

After passing the gate, turn left and park in the visitor parking lot. Walk past the water fountain, across the rotunda to Building 5220. Meeting will be on the second floor, Suite 200.

# Mini-Conference 2013

## Another INCOSE-LA Tradition, Another Opportunity to Learn, Network, and Share (Without the Travel)

INCOSE-LA is planning an economical single-day systems engineering conference during the month of March 2013 at Loyola Marymount University (LMU). The beautiful Loyola Marymount campus, located in west Los Angeles, will again be the venue for the conference, promising the same quality accommodations that have contributed so much to our past conferences. With the generous sponsorship of LMU and the INCOSE-LA Chapter, we hope to offer this conference, including materials and meals, at a general member rate of \$50 or less (the exact amount is yet to be determined).

As in the past, the conference will address current important issues in systems engineering. The theme — *Education, Development and Collaborative Exploration* — will combine traditional conferences methods with the “un-conference” structure. New this time will be a job faire segment to the program.

We need you! We, the Board of Directors and the nucleus team, need people to plan and organize the conference. Positions include: conference leadership, program, publicity, finance, venue, volunteer coordination, sponsorship and vendors, website and registration. Even if you don't feel comfortable taking on the lead, we encourage you to volunteer to assist. This gives you a great way to learn the ropes and contribute your expertise while fitting into your available time.

Want to be a part of the next Mini-conference? Join the team now and help guide and shape this Mini-conference!  
Contact:

Terry Rector at 949.910.1128 or  
terry.rector@scientist.com

OR

Richard Emerson at 818.926.0013 or  
remerson9@gmail.com

Look for updates on the details, the presentations, and the opportunities to participate on the INCOSE-LA website and in future editions of the *Newsletter*.

### A Change on the INCOSE-LA Board of Directors

Michael Kim has resigned from the INCOSE-LA Board of Directors. Michael has expressed a desire to return to serving on the board when circumstances allow. Michael has served the board and the Los Angeles Chapter in a great many official and unofficial capacities, and his contributions will be missed. Shirley Tseng will be filling in for Michael.

Thank you, Michael. The board and the membership look forward to your return.

## Some Job Search Experiences

*A major concern for many people is obtaining employment. This is a particular concern to the Board of Directors of the Los Angeles Chapter. The following are the observations and experiences of Scott Kinsey as he sought employment. Scott wrote the following in response to a note of congratulations and inquiry from Paul Cudney, the Chapter's Director of Membership. Editor*

My job search was frustrating at times. I setup job search agents at every company and job board that I could find. Some of the job boards included Monster, Career Builder, Dice, ClearanceJobs, LinkedIn, HospitalDreamjobs, SimplyHired, Indeed, and TechCareers. Then I would review the results that were emailed to me. Plus, I would check some of the companies and job board's websites because there were always some jobs that did not fit into my job search agent criteria.

Lastly, it was a matter of applying to every job that I thought might fit with my skills.

I should add that the biggest help to me in my job search was a tracking spreadsheet. I used several tabs:

1. A chronological log of sites visited, companies applied to, websites, usernames/passwords, etc. – which is needed in case the Calif Employment people want proof of your job search
2. A table of past work experience that includes things not on my resume like supervisor's name/phone/email, company address, starting/ending salary in order to answer questions commonly asked for by company career websites and job applications
3. A tab for personal references with their name, address, phone, email, etc.; and,
4. A tab with info on the job boards.

Hopefully this information will be of value to other members of the Chapter who are seeking employment.

## ***SAVE THE DATE***

### **September Speaker Meeting**

*Logic Model Checking of Unintended Acceleration Claims  
in Toyota Vehicles*

*September 18, 2012*

*Presented by Dr. Ed Gamble, Principal Engineer at JPL*

### **Tutorial: LEAN Enablers**

*Two one-day sessions in October, 2012*

*Details in work*

### **Solar Decathlon**

*Hosted by the U. S. Department of Energy,*

*October 3 – 13, 2012*

*at the Orange County Great Park in Irvine*

### **October Speaker Meeting**

### **LEAN Program Management**

*October 9, 2012*

*Details in work*

## A Report from the June Speaker Meeting: Can a “Science” of Systems Contribute to Systems Engineer?

*Inputs provided by Josh Sparber and Donald Latterman*

Dr. Len Troncale, Director of the Institute for Advanced Systems Studies at California State Polytechnic University (Pomona) and past chairman of their Biology Department, presented a thought provoking presentation on system science and how systems engineering might profit from a deeper understanding of a science of systems and how systems work. Dr. Troncale observed that since systems engineering has arisen as a discipline, it has been seeking a core science — one that would attract adherents — and a body of knowledge that could provide a firm foundation akin to that of traditional science. He also noted that progress in system science, like systems engineering, is hampered by a lack of general understanding by the public and the educational establishment.

Dr. Troncale illustrated how natural systems (physical, astronomical, chemical, geological, and biological) have been the test bed for the deep knowledge and understanding of how complex systems work and could provide a systems science foundation for system engineering. Natural systems are the products of recursive testing of what worked best for designing lasting complex systems through billions of years of countless trials and events, enumerable configurations and scales, all allowing only the workable solutions to continue. Discovering these system design secrets would give rise to a true science of systems and could become a source of useful “systems mimicry” for systems engineers, just as biomimicry has become useful to bioengineering.

Dr. Troncale outlined a method of uniting systems engineering and system science through processes he called a “System of Systems Process Theory” (SOSPT), to arrive at a science of “Unified Systems Science”. He suggested initiating the journey with the anecdote that “half of science is asking the key question,” by asking a better question one can arrive at a better answer. But what are the questions to be asked? Does ontology, which defines system behavior, supply sufficient information? Would a taxonomy within aggregations of system processes themselves reveal the necessary answers?

The SOSPT uses some discipline-unique terminology, such as:

- discinym: different words used to name the same process but discovered and named by different disciplines
- reductionism: a return to the focus on the nuts and bolts details of things under study, and
- isomorphisms: similarities that emerge across dissimilar events and objects of regard.

By comparing numerous phenomena across diverse natural systems, as studied by their respective sciences and looking for isomorphisms, Dr Troncale narrowed the field of overarching systems processes into fundamental and isomorphic “systems-level processes” that have remained constant across the diversity of natural entities and their size scales and unique origin times and mechanisms.

Some of these common processes are:

- feedback,
- hierarchy,
- borders and limits,
- stability and equilibrium,
- cycles, and
- flow patterns.

Feedback is isomorphic, since feedback can be seen across many diverse mechanisms that exist in nature. Dr. Troncale shows how parallels can be drawn between various feedback types that have nothing in common in terms of scale or objects considered, but exert a similar mechanism.

He used the concept of natural cycles and oscillations to not just illustrate but to “prove” the isomorphy of processes in natural systems by citing 52 case studies of cycles and oscillation across several natural and human sciences – each proved by the scientific method and tools of the corresponding discipline. These showed the presence of the cycles systems process. In “proving” the isomorphy of processes, he noted that systems engineers could use data and results from rigorous published experiments to discover and describe how these systems processes directly influence each other (linkage propositions) to produce systems functions.

Dr. Troncale also commented that current science can reaffirm and test system science hypotheses and models by expanding abstractions and revealing new relationships. Different linkage types can be tested through computer applications such as LISP, PROLOG and Graph Theory. Among the various system models he showed system pathology as an emerging discipline that could answer many of the questions currently being asked of system scientists.

He briefly discussed three official projects of the Space Systems Working Group of INCOSE:

- unifying systems theories,
- developing systems pathology at a systems architecture level, and
- improving understanding and communication through recognition of systems ontologies.

He closed in summarizing how the resulting system of systems processes theory might provide:

- a more reliable definition of systems complexity and how complex systems work
- a wealth of ideas for systems design alternatives
- an evolution of new tools for dealing with crisis societal problems
- a unified ontology/taxonomy of systems
- a post-graduate curriculum for training systems engineers, and
- a new conception of the types of systems systems engineers should be engineering.

The meeting was concluded with questions and answers from the membership, addressing a variety of topics, including: economic systems as natural systems, half a dozen types of non-linear causality, non-determinism, the importance of a systems ontology, and sources of more information on systems science.

*(A Report from the International Symposium, continued from page 1)*

The Opening Plenary Keynote Speaker was the Honorable Michael Chertoff, Chairman and Managing Principal, The Chertoff Group and the former Secretary of the U.S. Department of Homeland Security. The presentation was entitled “The Dilemma of the Digital Age, Positive Creation – Negative Consequences”. His topic covered internet data security. He stated that before the internet, data was secure and had to be deliberately given out. But with the advent of the internet, data was more freely available and a conscious effort was required to protect them. He claimed that the cyber security problem needed an end-to-end system solution that involved the human at the center, not just a technical solution. It was not sufficient to protect the network; the data have to be protected as well. The scale of fraud has escalated that it now can be executed fast and across borders. The objective was to manage the risk, not to completely stop the data loss or corruption. Even though there was no “radar” against a cyber-attack, he claimed that the “radar” of the 21st. Century is to share data against cyber-attacks. But classified information and export restrictions hampered sharing of these data easily.

On another topic, INCOSE has been trying to increase the influence of systems engineering by forming strategic alliances with other organizations and working together with them. One such organization is Project Management International. In this spirit, the plenary speaker on the third day, Terrence Cooke-Davies, Chair, Human Systems International Ltd., presented “Systems Engineering and Project Management: Complementary Disciplines, or Competing Paradigms?” He stated that although both systems engineering and project management had their roots in the systems movement of the last century, each had subsequently followed different paths of development. The tribal instinct is still prevalent in humans and they formed groups like systems engineers and project management! However, as organizations tackle ever more ambitious projects in increasingly complex environments, “joined-up thinking” has become imperative for success. He also argued that one must develop the irrational side of the brain and that gut feelings were important, even though emotions of key personnel was one of the key challenges in project management. He believed the way forward was common competing development and coherent standards.

After the closing plenary keynote speaker, Lorenzo Fiori, Chief Technology Officer, Finmeccanica Corporate (Italy) spoke on “Leveraging Systems Engineering to Exploit Opportunities in Adjacent Markets and Foster Cross-sector Innovation in a Multi-domain Industrial Group.”

John Thomas, the President of INCOSE, provided feedback from the annual Executive Summit which was held during the Symposium. He said that two key questions were addressed at this summit:

1. Ten to fifteen years from now, what essential skills and training will be required by systems engineers to operate effectively in their increasingly complex role?
2. To effectively advocate for the profession, what key policies should INCOSE focus on and what key alliances need to be built?

A theme that emerged as a result of discussions around these questions was that in the future, the ability to influence will become the most critical skill for systems engineers. In order to do this, a systems engineer would require holistic thinking rather than the reductionism that is deeply embedded in Western culture and education. To promote this systems thinking, INCOSE plans to expand beyond the traditional industries and technical environments into new industries and domains, drawing prospective systems engineers from a variety of backgrounds and interests. Furthermore, pathways need to be created that allowed systems engineers to move back and forth between technical and management roles over the course of their careers. Also, in order to increase INCOSE’s influence in these new domains at the enterprise and national levels, strategic alliances with a variety of partners were required.

One of the most heavily attended paper sessions was the one on Systems Thinking. One of the papers addressed barriers to systems thinking. Another presenter claimed that systems engineering needed to draw both from systems thinking and from systems science, thereby understanding the differences and exploiting the synergies. Systems thinking requires tolerance for ambiguity and needs to take into account human behavior. Systems thinking is not limited to engineering and it could be enhanced by drawing from other disciplines. A panel addressed the question of whether we can train for systems thinking. It was stated that our educational system does not foster systems thinking and it should be introduced early into the curricula. By a vote from the audience at the end of the panel session it was decided that systems thinking was neither entirely an innate trait nor entirely acquired, and it could be enhanced by training. However there are those who were “natural” systems thinkers.

The Academic Program addressed BKCASE, which is a three-year project to produce the Systems Engineering Body of Knowledge (SEBOK) and an associated Graduate Reference Curriculum (GRCSE). In addition there were papers and panels on SE education and research. One of the key sessions was an invited panel on INCOSE University Student Divisions. The panel addressed the question of how to increase the number of student divisions, which currently stands at eight. It was noted that there has been a huge growth in the number of INCOSE student members since inception of this type of membership in 2008. The discussions centered on facilitating both student membership and the formation of student divisions.

There were three industry roundtables: one on Transportation, the second on Biomedical and the third on Power and Energy. There were also several papers and panels on non-traditional systems engineering, including rail, healthcare, energy, human factors, security and information services. The plenary keynote speech on the second day was on “Systems Engineering High Speed Rail” by Andrew McNaughton, Chief Engineer, High Speed Two Ltd.

Seventeen tutorials in all were held: the topics ranged from a two-day tutorial on Certification Preparation to those more traditional topics such as Requirements Engineering, Model-Based Systems Engineering, Trade Studies and System Design.

*(Continued on page 6)*

# The Systems Engineering Approach to Lawmaking

By Shirley Tseng

On May 16, 2012 the San Diego Chapter hosted a meeting on the Systems Engineering Approach to Lawmaking. David Schrunk gave an overview of the current process of generating law. The law making process has not change much in centuries. Laws are the government mechanism for solving societal problems. The traditional lawmaking process is to generate ideas, write proposed new laws, debate and modify the proposals, and then to enact the bill. There is virtually no use of the scientific method, of a feedback assessment process, or of the continuous quality improvement process to arrive at effective, cost efficient, and user friendly laws. Lawmaking is currently perceived as chaotic, irrational, and counterproductive. The current law making process is lacking in knowledge, expertise, integrity, and responsibility, or accountability.

David advocates the practice of scientific lawmaking to shift from a First Century B.C. to a Twenty-first Century A.D. process with the application of systems engineering to the design of laws of government. Dave wrote the Book "End of Chaos, Quality Laws and the ascendancy of democracy" in 2005 and created the Quality of Law Institute. David gave a paper at the 2012 Conference on Systems Engineering Research, "The Systems Engineering Approach to the Design of Laws."

The systems engineering approach will bring the knowledge and expertise of investigative science and engineering to bear upon the design, operation, follow-up evaluation, and optimization of laws that effectively solve societal problems. Of significance, the creation and simulation of engineering models of laws will be a multidisciplinary effort that includes experts from all relevant fields such as software engineering, law, economics, political science, sociology, and statistics. The systems engineering approach to the creation of laws promises to advance the science of laws, establish quality standards for laws and lawmaking, transform lawmaking into a knowledge industry, and improve the ability of governments to satisfy their public benefit purpose.

The ideal law was discussed and defined as:

- Simply stated, clear
- Completely effective
- Minimally costly or burdensome
- Non-intrusive
- Synergistic with other laws
- Devoid of adverse side effects

Elements of applying science to law making are the establishment of:

- a new science, the "Science of Laws"
- an "Investigative Science" branch for quality management
- a creative science branch of the science to apply the principles of systems engineering for the quality design and

improvement and assurance of laws.

- schools of law-design to the Ph.D. level
- In addition, as a part of the "Science of Laws," policy making (performed by legislatures) would be separated from lawmaking, which would be performed by competent engineering design corporations.

Further information on this topic can be found at:

[www.scienceoflaws.com](http://www.scienceoflaws.com) May Meeting abstract <http://www.sdincoase.org/events/36/incose-san-diego-chapter-may-monthly-meeting/>

## QUIZ: What is the correct definition of NEETRAC?

Georgia Tech is famous for its multitudinous acronyms, but not all are so well known as "THWG." Can you pick the correct definition from the list below?

- Northeastern Extensional Tectonics Ruptures Amid Crust
  - National Electric Energy Research and Applications Center
  - No English, Esperanto to Rule All Countries
  - Nuclear Energy Emerging Threat Response and Coordination
- Georgia Tech Alumni Magazine, vol. 88, no. 2

*(Report from the International Symposium, continued from page 5)*

More esoteric tutorials addressed topics such as "Thinking Outside the Box - in Systems Engineering and Integration" and "The System Concept: Bringing Order to Chaos". There were also a few workshops including those on SEBOK and GRCSE.

Chapter leaders had the opportunity to share information and concerns with their Sector Directors during meetings which were held specifically for this purpose. As part of the on-going transition from the Member Board to Sectors, the Chapter and Member Shared Services Committee was initiated at the Symposium. This committee will be chaired by one of the Sector Directors on a rotating basis and all the Chapter Presidents would be ex officio members. Five permanent functions of the committee were identified and others may be added as the need arises. The five functions identified are:

- Chapter Awards,
- Keys to Effective Chapters,
- Membership Retention,
- Student Divisions, and
- New Chapter Coordination.

The new policy describing the charter of this committee will be discussed with the Chapter Leaders by their respective Sector Directors before it is approved by the INCOSE Board of Directors. Volunteers are being sought to fill the various supporting positions in this committee.

The 2013 INCOSE International Symposium will be hosted in Philadelphia. Submission date for papers, tutorials and panels is November 9, 2012. Hope to see you all there!

## Volunteers!

Would you like to be a part of the hard-working team that provides these benefits to the members of INCOSE-LA? If you are interesting in volunteering, speak to a member of the Board of Directors or send an email to [President@incose-la.org](mailto:President@incose-la.org)

INCOSE-LA Chapter NEWSLETTER

Vol. 10: Issue No. 7 August 2012

(Obituary for David Wright., continued from page 1)

David was interested in a range of INCOSE activities. He joined the Intelligent Enterprises Working Group at its formation, and was active in exploring soft systems ideas and concepts. He was also involved looking at logistics and support engineering as systems challenges. Most recently, he joined the Architecture Working Group. He presented papers at both UK and international symposia, and had been invited to take part in a number of panels.

David earned a first degree in Physics. He spent 30 years as a member of the British Army's Royal Electrical and Mechanical Engineers, retiring as a colonel in 2004. He held a variety of regimental appointments in England, Cyprus, Germany and the Outer Hebrides, and commanded units at all levels in the field force. He spent a number of years at the Royal Military College of Science, Shrivenham, gaining an MSc in Guided Weapon Systems and later both teaching there and creating a new MSc Course in Defence Technology. He held a wide variety of staff appointments in UK Ministry of Defence. In the latter part of his military career, he was involved in the management and delivery of large-scale information systems for the UK Ministry of Defence. He was a Chartered Engineer, and a Fellow of the Institution of Engineering and Technology.

Family members went to Spain to attend to final arrangements and planned to return to England July 30. Plans are being formed for a memorial after that.

David's wife Lorraine, and his daughter, Joanna, were in Rome with David for IS 2012 and both were able to see the regard in which people held David. David drew a response of respect, high regard, affection and downright adulation from everyone and perhaps we can find some comfort knowing that his family saw that.

Members wishing to leave a message of condolence or personal reflections about David are invited to do so on the INCOSE Forum: <http://www.incose.org/forum/index.cfm?page=topic&topicID=409>

## Benefits of INCOSE Membership

By Karen Miller

A word that sums it up best is "contacts!" Valuable face-to-face contacts with systems engineers brings knowledge, plus career and social benefits. INCOSE offers so many contact opportunities that there is truly "something for everyone".

Ten plus years of membership has brought the opportunity to learn the latest information from knowledgeable speakers, excellent publications and references, and numerous social contacts. The Systems Engineering Handbook alone is worth the price of membership.

Sharing ideas with others increases your value to your company as you adopt the latest techniques and systems engineering methods. Sharing ideas also leads to opportunities to attend and present at meetings and conferences. INCOSE points you in the right direction to obtain the resources and to meet the people you need to be successful.

Contacts also mean working with others to promote knowledge in your chosen field. Serve as an officer or a board member, and you will broaden your knowledge extensively. Join a working group locally or nationally which will allow you to do original research or publish.

INCOSE has so many ways for you to be a leader and for you to get recognition for your skills and abilities, while at the same time really enjoying the social events, networking opportunities, and just being a part of a large international group that is growing in importance.

### **\*Stay Connected\***

**Get the latest on INCOSE-LA happenings in the Reflector e-mails**

If you wish to be placed on our e-mail distribution, contact Susan Ruth  
[susan.c.ruth@aero.org](mailto:susan.c.ruth@aero.org)

#### The Board of Directors wishes to welcome the following new members in 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 the member directory (at [www.incose.org](http://www.incose.org)) to update your information.

Name	Title	Company
Michael Bruchanski	Business Development	AGI
Andrew Chan	Project Coordinator	Risk Technologies
Winston Lee	Director	LinQuest Corporation
Kenneth Seater	Corporate Engineer II	LinQuest Corporation
Charles Austin		
Robert Combs	Associate	Booz Allen Hamilton
James Holden	Senior Systems Engineer	Jet Propulsion Laboratory
Matthew Covington	Lead Systems Engineer	Renewable Energy/Power Plant Design
Robert Foster	Systems Engineer	Northrop Grumman

### INCOSE-LA Chapter NEWSLETTER

Vol. 10: Issue No. 7 August 2012

# INCOSE-LA Chapter NEWSLETTER

Vol. 10: Issue No. 7 August 2012

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**Return Address:**

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

## Forwarding Address 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 the systems engineering field or related fields.

## 2012 Board of Directors

Elected Officers			Elected At-large Directors		
President	John Silvas	silvas_john@bah.com	Membership	Paul Cudney	paul.cudney@incose.org
Vice-President	Terry Rector	terry.rector@incose.org	Programs (acting)	Shirley Tseng	michael.kim@jhuapl.edu
Past President	Beth O'Donnell	elizabeth.odonnell@incose.org	Systems Engineering Education	Larry Earnest	Larry.earnest@incose.org
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