NEWSLETTER

Gold Circle Award
2002, 2004-08

Silver Circle Award
2003

2008 President's Award for Most Outstanding Chapter

INCOSE
International Council on Systems Engineering

A Message From Eric Belle, Chapter President, 2009 and a Message From Rosalind Lewis, Chapter President, 2010

INCOSE-LA 2009: A Year of Continuing Excellence

By Eric Belle

As we close out the year and transition to the 2010 Board of Directors, it is fitting that we pause to reflect upon the successes of 2009 and recognize that they can be attributed to a long line of dedicated leaders and volunteers. The awarding at the International Symposium (IS09) in Singapore of the 2008 President's Award for the Most Outstanding Chapter was the culmination of strong leadership and dedication over many years. In choosing us for this award, the Member Board cited our consistent high performance, which has resulted in Gold Circle Awards for almost every year since 2002. I consider myself fortunate to have been the President of record who accepted the award on behalf of the Chapter and wish to salute John David Boyd for his leadership during 2008 and his Board of Directors (BoD) for their strong support.

While IS09 may have been a defining moment of this past year, it is by far not the only shining moment of which we can be proud this past year. Thanks to the efforts of Shah Selbe and Dick Emerson and their Mini-conference committee members, we once again were able to offer an engaging and stimulating conference that served to expand our knowledge of the field of systems engineering. A full slate of speaker meetings, tutorials, and professional networking events also served to further the professional needs of our membership, and a dedicated BoD

The INCOSE-LA 2010 Challenge: Another Year of Continuing Excellence

By Rosalind Lewis

Greetings, INCOSE-LA. Let me begin by stating how honored I am to be selected as the 2010 President. I consider it a privilege to lead this great organization, which as a result of the dedicated leaders and volunteers before me, has achieved much. I am also humbled as your new leader. Working with the Board of Directors over the past year, I have seen how this Chapter, which I will call a system, has sought to understand the needs of its membership, has considered many events and activities to design learning and networking opportunities consistent with those needs, and has implemented these offerings with thoughtful attention to detail, born from a commitment to continuous improvement. Finally, I am hopeful that this year will continue the excellence and traditions that have garnered us recognition and many awards for our high performance. My hope is grounded in my belief that the work we do as systems engineers to address today's challenges — challenges made complex by the clashing of technological, organizational, societal, and economic factors — is more important now than ever. To that end, I invite you to seek out opportunities, existing and new, to participate actively in INCOSE-LA, and to contribute to making this one of our best years ever.

Inside This Issue

UPCOMING EVENTS

January Professional Networking Event
WHEN: January 13, 2010, 5:30 p.m. to 7:00 p.m.
WHERE: McCormick & Schmick's Seafood Restaurant
2101 Rosecrans Avenue, El Segundo
COST: Appetizers will be provided, no-host bar, validated parking
RSVP by Monday, January 11, 2010
See page 4 for more information

February Speaker Meeting
"MBSE (Model–based Systems Engineering) Telescope
Modeling" with a live demonstration of the model
SPEAKERS: Robert Karban and Chris Delp
WHEN: February 2, 2010
5:30 p.m.- 6:20 p.m. Registration, networking, refreshments
6:20 p.m. - 6:30p.m.   Welcome and announcements
6:30 p.m. - 7:45 p.m.   Presentation and demonstration
followed by questions and answers
WHERE: The Aerospace Corporation
2350 E. El Segundo Boulevard, El Segundo
COST: Members: FREE
Non-members: Suggested donation of $10.00 (covers cost
of food and beverages at host site)
RSVP dates vary by site,
See page 3 for more information

2010 International Workshop
February 6 — 9, 2010
Mesa, Arizona
Register by January 2, 2010
Go to the INCOSE website below for details:
http://www.incose.org/newsevents/workshop/index.aspx

For up-to-the-minute event details:
♦ *Check future editions of the Newsletter*
♦ *Watch your email for the Reflector*
♦ *Visit the INCOSE-LA website at* www.incose-la.org

NOT A MEMBER? JOIN INCOSE!
Learn more about becoming a member by clicking on:
http://www.incose.org/membership/valueofmembership.aspx

An old aerospace adage: There comes a time in the history of every project when it becomes necessary to shoot the engineers and begin production.
Corollary: There comes a time in the history of every project when it becomes necessary to shoot the architects and begin designing.

continued to keep you informed via newsletters, postcards, and Reflector emails and to keep us operating by performing the many tasks necessary to retain our Gold Chapter status. The factory tour of SpaceX in particular was immensely fascinating and gave the capacity crowd in attendance an interesting contrast to the highly structured world in which most of us operate. The amount of work and dedication that is put into this Chapter by the many individuals who serve the Chapter and its members is not easily explained in mere words. I would urge all of you to take a good look at the next-to-last page of this newsletter to understand fully the magnitude of what it takes to operate and run a successful Chapter.

Going forward into 2010, the Chapter once again finds itself blessed with a strong, dedicated BoD to be led by Rosalind Lewis of the Aerospace Corporation. It is my hope to follow the example set by my predecessor in continuing to remain engaged in the Chapter in my role as the Immediate Past President. I also thank all of you for your support in electing me as the new INCOSE Region II Representative — a role I hope will allow me to build greater engagement amongst the INCOSE chapters in our region. We do not plan to rest on our laurels in the coming year, and to be successful will always require that new individuals continue to step up and volunteer their time and abilities in support of the Chapter. It is my belief that you will find it an immensely rewarding experience that will pay back dividends in ways that you cannot begin to imagine. Should any of you have ideas that you would like to see implemented, please do not hesitate to contact any of the BoD members; this is your Chapter, and its strength and effectiveness are dependent upon the active participation of its members.

Thank you for the honor of choosing me to serve as your President in 2009. Please join me in supporting our new 2010 INCOSE-LA President and BoD.

Two members of the Los Angles Chapter of INCOSE have been elected officers of the international organization!

Like our Chapter, INCOSE itself is governed by a volunteer Board of Directors. The Board of Directors includes the Treasurer, soon to be our own Marsha Weiskopf.

The INCOSE Treasurer is elected for a two-year term. The Treasurer serves as a member of the Executive Committee and as a voting member of the INCOSE Board of Directors. As Chief Financial Officer for the Corporation, the Treasurer keeps and maintains adequate and correct books and records of account of the corporation.

Our Past-president Eric Belle was elected to the Member Board as the representative from Region II. The mission of the Member Board is to provide regional representation of the membership on the INCOSE Board of Directors. This enables INCOSE to maintain a close contact with the membership and create a community of enfranchised individuals. The Member Board is the "voice of the member" within INCOSE. This board guides INCOSE to act according to the needs, interests, and priorities of the members and chapters.

Congratulations, Marsha and Eric!

February Speaker Meeting
"Model-based Systems Engineering in Telescope Modeling"
Robert Karban and Chris Delp

As an added attraction, Messrs. Karban and Delp will open the program with a presentation and live demonstration of the model.

ABSTRACT: The SE^2 Challenge team created comprehensive Systems Modeling Language (SysML) models and established modeling guidelines and conventions for all aspects, hierarchy levels, and views of the system by reverse-engineering existing documentation of the Active Phasing Experiment (APE). In the course of SE^2's work, several challenges to SysML were identified and analyzed, and the proposed solutions will be presented at the speaker meeting. For the European Extremely Large Telescope (E-ELT), SysML was chosen to model the Telescope Control System (TCS), which controls many different optomechanical parts and devices partially embedded in the telescope structure. The experiences gained by applying the established guidelines to a new project will be discussed.

BIOGRAPHIES: Robert Karban is Software Engineer at the European Southern Observatory (ESO), developing highly distributed real-time control systems for telescopes since 1996. His current main interest is the modeling and development of interdisciplinary systems. Robert Karban received his Master of Science in Computer Science in 1990 from the Technical University of Vienna, Austria. Afterwards he worked in the medical engineering industry and developed embedded control software for accelerator control systems for the European Organization for Nuclear Research (CERN).

Chris Delp is a Software Test Engineer for the Tracking, Telemetry, and Command End-to-End Data Services and is a member of the Multi-mission Integration, Test and Deployment group at the Jet Propulsion Laboratory. Chris's tasks include developing Modeling and Simulation-based software verification and validation methods and performing software verification and validation for the Advanced Multi-Mission Operations System. He also leads the INCOSE Space Systems Working Group's entry in the Model-based Systems Engineering Grand Challenge. Additionally, he has performed research on software verification and tools for Service-oriented Architecture in support of the Deep-space Information Services Architecture. Prior to coming to JPL, he worked as a software engineer performing FAA flight-qualified software development and testing on the Joint Tactical Radio System and the Full Authority Digital Engine Controller. Chris earned a Master of Science in Systems Engineering from the University of Arizona, where he studied Model-based Systems Engineering, Simulation, and Software Engineering. Prior to his graduate studies, Chris performed his duties as a systems engineer on Missile Systems Verification and Validation.

Particulars for February Speaker Meeting
Remote sites will be available

WHEN:

Tuesday, February 2, 5:30 p.m. to 8:00 p.m.
Meeting Schedule:
- 5:30 p.m. - 6:20 p.m. Registration, networking
- 6:20 p.m. - 6:30 p.m. Welcome and announcements
- 6:30 p.m. - 7:45 p.m. Presentation and demonstration followed by questions and answers

COST: Members: FREE
Non-members: Suggested donation of $10.00 (covers cost of food and beverages at host site)
RSVP due dates vary by site — see below

WHERE:

The Aerospace Corporation, 2350 E. El Segundo Boulevard, El Segundo will be the host site.

DIRECTIONS TO THE HOST SITE:

Aerospace is on the south side of El Segundo Boulevard, just west of Aviation Boulevard and a railroad overpass. The closest freeway exit is the El Segundo Boulevard exit on the 405. From the 405 head west on El Segundo, turn left onto Douglas, and then turn left into the first gate (Gate C) on the left. Drive straight past the parking structure and park. Enter through the South Lobby (which is to the north and hard to see). Badge in through the South Lobby (east of the large building ahead on the left as you enter the gate). We meet in Dining Rooms A&B. Site contact: Susan Ruth, phone 310-336-6765, email susan.c.ruth@aero.org

HOW TO RSVP:

People desiring to attend can register online at www.incose-la.org or RSVP by sending an email to registration@incose-la.org (please include "INCOSE-LA Feb 2010 Mtg" in subject line). Please identify the site at which you will be attending — either the host site or one of the remote sites.

RSVP Dates for the Host and Remote Sites:

The Aerospace Corporation: Members wishing to attend at the Aerospace (host) site must RSVP. U.S. citizens, and resident aliens RSVP by Friday, January 26, 2010. Foreign Nationals RSVP by Tuesday, January 26, 2010. You MUST RSVP to attend at the Aerospace facility. NO EXCEPTIONS. If you are uncertain whether or not you'll be able to attend, DO make a reservation and indicate that you're uncertain. Please bring your picture identification (driver's license, passport and/or green card) to the meeting.

Antelope Valley/Palmdale: There is no deadline for attending at the Antelope Valley site. Contact Mike Wallace at 661-540-0290 (m.wallace@ngc.com) or Jorg Largent at 661-947-6811 (jorg.largent@incose.org) for additional information.

Boeing, Huntington Beach: Only Boeing employees may attend at this remote site. RSVP at least one day prior to the meeting. Refer to the Boeing Southern California LTS internal website or contact Beth O'Donnell at elizabeth.l.o'donnell@boeing.com.

January Professional Networking Event

The Los Angeles Chapter will be hosting another Professional Networking Event on Wednesday, January 13, 2010 from 5:30 p.m. to 7:00 p.m. in the lounge or patio area of the McCormick & Schmick's Seafood Restaurant in El Segundo. The purpose of this gathering is to welcome new members and to provide an opportunity for Chapter members to gather and network in an informal setting. This is a great way to meet other systems engineering professionals and members of the INCOSE-LA Chapter, and your participation is welcomed. *(Note: No space has been reserved - this will be an informal gathering in the lounge or patio area of the restaurant, pending space available.)*

Appetizers will be provided, compliments of the INCOSE-LA Chapter, and there will be a no-host bar.

How to get there:
McCormick & Schmick's Restaurant is located at 2101 Rosecrans Avenue in El Segundo, about halfway between Pacific Coast Highway (which doubles as Sepulveda Boulevard in this area, according to Google maps) and Aviation Boulavard on the north side of the street. The closest freeway exit is the Rosecrans Avenue exit on the 405. The restaurant is about a mile west of the 405. The restaurant provides validated parking.

RSVP by Monday, January 11, 2010 by using the website at www.incose-la.org or by sending an email to Nehal_P1_Patel@Raytheon.com.

AIAA Orange County Section Dinner Meeting

On Monday, January 25, 2010, the Orange County Section of the American Institute of Aeronautics and Astronautics will be hosting a dinner meeting. The meeting will feature David W. Thompson, CEO, Orbital Sciences Corporation, and President, AIAA, as the speaker. The meeting begins at 5:30 p.m. for check-in and networking followed by dinner at 6:30 p.m. and Mr. Thompson's presentation at 7:30 p.m. The meeting will be held at the Doubletree Club Hotel, 7 Hutton Centre Drive, in Santa Ana.

Individuals interested in attending should make a reservation by sending an email to westcoast@aiaa.org or by calling 1-800-683-AIAA with their name and their membership status. Reservations are strongly recommended so as to facilitate the dinner and to provide adequate seating space.

The cost of attending the meeting varies with circumstance:
$26   AIAA members with pre-payment by January 18
$31   Non-members and members at door
$12   Students
$5   Presentation only

> The Grasshopper Principle: I jump to a conclusion and then ask, "Where am I?"
>
> Edward Teller, *The Pursuit of Simplicity*

A Call for "Systems-savvy" Reviewers
by Alice Squires, Stevens Institute of Technology

Dr. Arthur Pyster from the Steven Institute of Technology spoke on creating the systems engineering body of knowledge and curriculum guidelines for graduate degree programs in systems engineering at our speaker meeting on October 29, 2009. The following information provides more insight into Dr. Pyster's presentation.

A three-year global effort to create an internationally accepted body of knowledge for systems engineering is underway. To be successful, the effort will need hundreds of reviewers that each represent one or more of the many domains and disciplines that deal with complex systems. These domains and disciplines include, but are not limited to, health/medical, entertainment, energy, telecommunications, transportation, commercial, security, and safety. If you would like to be a part of a concerted effort to build a foundational and widely accepted body of knowledge and/or a graduate level curriculum

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Insurgents in Iraq Hack Unmanned U.S. Planes
By Jorg Largent

The headline above, which is from multiple news sources, provides a hypothetical situation upon which one can raise questions about the application of the systems engineering process, or lack thereof.
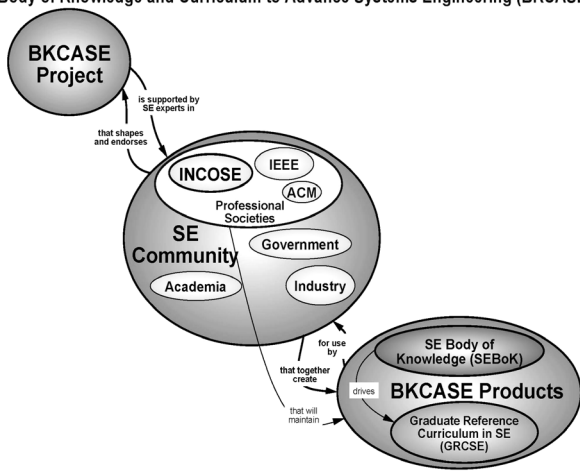
An important part of the process is to identify and consider all of the stakeholders. Did the developers of the system consider the targets? The insurgents who are the targets are stakeholders. They may not have been available for the concept-development stage of the project, but they are stakeholders nonetheless, and, assuming the headline to be true, have been very busy writing their own chapter in the Concept of Operations document.

Being on the outside and relying upon the media for data is tenuous at best. In counterpoint, perhaps the concept development phase included a comprehensive threat analysis, recognized the risk of interception of in-the-clear transmissions, and determined that the probability of a mission being compromised was acceptable versus the cost comparison between encrypted and commercial off-the-shelf equipment.

A third potential point of curiosity is whether the process of requirements decomposition and product development might have wandered away from the original defining requirements and ConOps. The novelty of modern software and computers brings with it the risk of the fascination with what they can do overshadowing what they need to do, resulting in "shelfware" or "staleware." As an aside, it should be noted that while software and computers are currently the focus of most novelty, they have no monopoly on improper requirements decomposition and requirements creep.
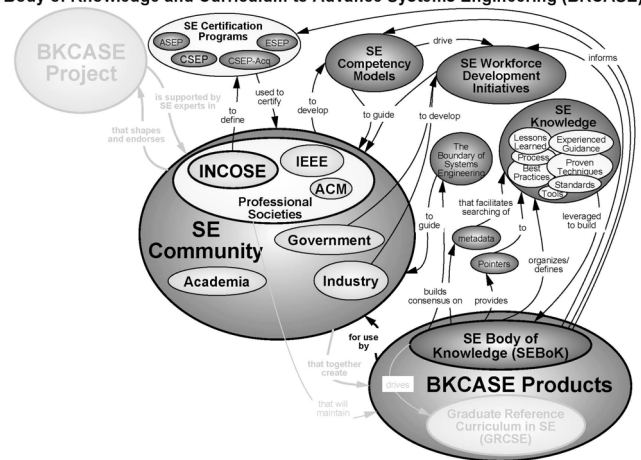
In conclusion, the headline provides very little insight into a supposed technical problem, but it does provide a basis for illustrating potential points regarding the proper application of the systems engineering process.

Body of Knowledge and Curriculum to Advance Systems Engineering (BKCASE)

Alice Squires 11/2/2009

Body of Knowledge and Curriculum to Advance Systems Engineering (BKCASE)
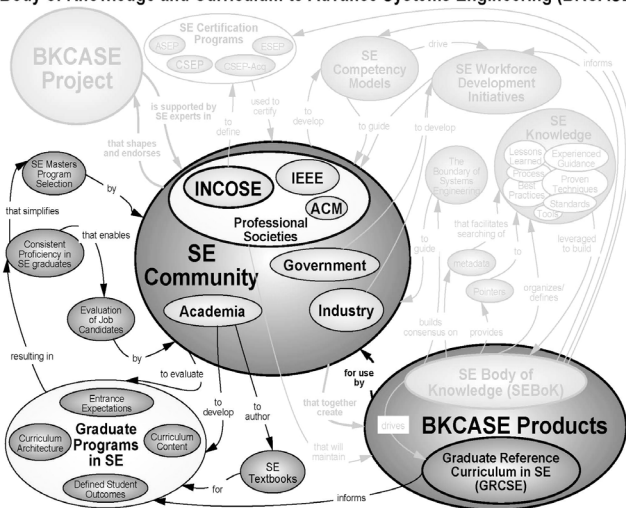
Alice Squires 11/2/2009

framework for systems engineering, please volunteer to become a reviewer on the Body of Knowledge and Curriculum to Advance Systems Engineering (BKCASE – pronounced "bookcase") project. Reviewers will be asked to provide comments on authored documents to the extent they are willing and able. A few dozen authors will also be invited to participate on the project, to attend quarterly workshops held around the world, and to organize and document systems engineering content.

The BKCASE team, led by Stevens Institute of Technology and the Naval Postgraduate School, kicked off in September 2009. BKCASE will produce a robust Systems Engineering Body of Knowledge (SE BoK) and a Graduate Reference Curriculum in Systems Engineering (GRCSE – pronounced "Gracie") in annual increments starting next year. BKCASE is endorsed by the INCOSE Board of Directors, with significant funding from the U.S. Department of Defense and support from the IEEE Systems Council. BKCASE is being generated in response to a call from government and industry for a globally recognized, community-created foundation for the SE discipline.

Figure 1 (above, left) describes the main purpose of BKCASE, showing the project in the upper left-hand corner, and the products—comprised of SE BoK and GRCSE—in the lower right-hand corner. As shown, the BKCASE project is supported by systems engineering experts in the community who together will create the BKCASE products. Likewise, the community that shapes and endorses the project will also be the primary users of the products. Once the 1.0 versions of the products are approved and published, professional societies will maintain the products. The development and relationships for the SE BoK and GRCSE are summarized in Figures 2 (above, right) and 3 (below, left), respectively. The complete BKCASE systems diagram is shown in Figure 4 (below, right). The BKCASE vision is that SE competency models, certification programs, textbooks, graduate programs, and related workforce development initiatives around the world will align themselves with BKCASE.
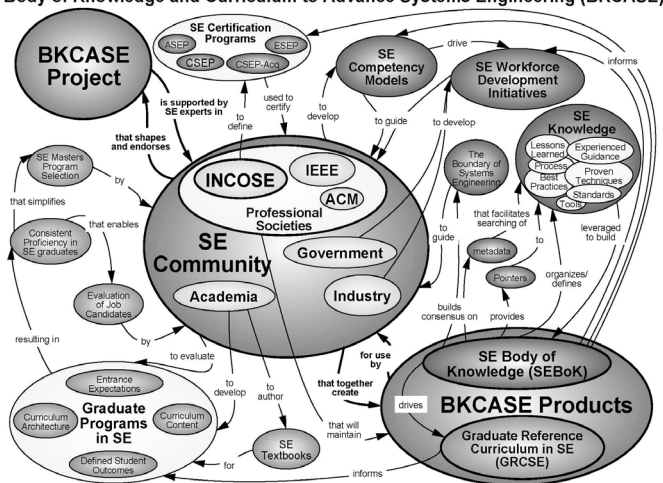
If you are interested in supporting BKCASE in any capacity, or if you have source material to offer, please contact the project leader, Dr. Art Pyster, by email at: art.pyster@stevens.edu. For additional information on BKCASE, please see www.bkcase.org.

Body of Knowledge and Curriculum to Advance Systems Engineering (BKCASE)

Alice Squires 11/2/2009

Body of Knowledge and Curriculum to Advance Systems Engineering (BKCASE)

Alice Squires 11/2/2009

Speaker Meetings: Looking Back at 2009

By Jorg Largent

The speaker meetings have become a forum for the members of the Los Angeles Chapter in which they can learn from leaders in the industry — learning the challenges faced by various projects and learning about the successes and failures of other projects in the application of the systems engineering process. The learning and sharing process involves a presentation, followed by questions and answers and the presentation of a gift from the Chapter as an expression of the Chapter's appreciation. The Los Angeles Chapter hosted nine speaker meetings (plus a modified speaker meeting co-hosted with the Southern California Software Process Improvement Network) during 2009.

Our first speaker meeting of the year, on January 14, featured **Daniel Winton**, a senior engineering specialist with the Aerospace Corporation. Daniel's presentation was titled "Mission Assurance Through Improving Software Technical Readiness Assessments for National Security Space Systems." This presentation outlined an approach for better addressing systems software in Technology Readiness Reviews by providing an alternative definition of software Critical Technology Elements and by providing a new systems-software-focused Technology Readiness Level scale. It provided recommendations on how systems-software development risk could be reduced and how the state of systems software readiness could be assessed.

For a speaker meeting in February, Chapter leaders and interested members attended the second annual gathering of the "2009 Software and Systems Chapters Congress of Los Angeles and Orange Counties." The meeting was held on February 17. Representatives from chapters of professional and technical societies located in Los Angeles and Orange Counties and involved with software and systems development met at Northrop Grumman in Redondo Beach. The meeting was co-hosted by INCOSE and the Southern California Software Process Improvement Network. Other participating professional organizations included the Association for Computing Machinery, three groups from the Institute for Electrical and Electronic Engineers, the Southern California Quality Assurance Association' and the Institute for Software Research University of California.

Douglas L. Loverro, a member of the Defense Intelligence Senior Executive Service and the Executive Director, Space and Missile Systems Center, Air Force Space Command, at the Los Angeles Air Force Base was the featured speaker at the speaker meeting on April 13. Dr. Loverro spoke on threats to our space capabilities and the clear national imperative to protect these systems. He discussed the Space Protection mission, focused on the threats to our space systems and the implications to future space architecture, and highlighted the importance of Space Situational Awareness, increased protection capabilities, and necessary changes to the way our nation views space.

The May 12 speaker meeting featured **Elaine Thorpe**, a Boeing Technical Fellow in the area of Human Systems Integration (HSI). Speaking from her role as leader of the HSI Functional Skill Team, which seeks to define common processes, products, tools, and training for HSI engineers across the Boeing Enterprise, Elaine discussed systems engineering issues and challenges facing the development of advanced systems from the HSI perspective.

On June 9 **Jimmy Thai**, Assistant Vice-president for Science and Technology and Program Manager for the Tsunami-Warning Systems program office with SAIC, spoke on the applications of systems engineering for a Tsunami warning system for the Indian Ocean and the people living on the shores of the ocean. The need for the system was brought into stark focus by the tragic tsunami of December 26, 2004, which took the lives of over 225,000 people, severely affected over 150 million more in the region, and triggered an economic impact of nearly $8 billion.

The August 18 speaker meeting featured **P. A. "Trisha" Jansma** from the Jet Propulsion Laboratory (JPL). Trish is the Lead for the NASA Systems Engineering Framework (SEF) for the NASA Office of the Chief Engineer. She is also the Deployment Lead for the Systems Engineering Advancement Project at the Jet Propulsion Laboratory (JPL), California Institute of Technology in Pasadena, California. Trish discussed the determination on the part of NASA management that the SEF not become "shelfware," and the commitment of resources to ensure that it was actively deployed into the NASA systems engineering community. The presentation described the three elements of the NASA SEF and all the activities being done in each element. It also described the approach, methods, and mechanisms being used to deploy it across the Agency.

The Chapter hosted two speaker meetings in October. The first speaker meeting (October 13) featured **John Thomas**, Vice-president, Booz Allen Hamilton. He spoke on technical leadership and the role of the systems engineer in program success.

The second speaker meeting (October 29) featured **Dr. Arthur Pyster** from the Stevens Institute of Technology. Dr. Pyster spoke on creating the systems engineering body of knowledge and curriculum guidelines for graduate degree programs in systems engineering.

The November speaker meeting involved a change in format, as the meeting was hosted by SpaceX. SpaceX also included a tour of its Hawthorne facility as a part of the evening's activities. **Chris Bauer**, Sales Director for SpaceX, was the featured speaker.

The last speaker meeting of the year was held on December 8. The featured speaker was **Andre (AJ) Lee**, who discussed a wide spectrum of applications of the systems engineering process and discussed the application of several systems engineering tools as a part of dealing with large disasters such as Hurricane Katrina and, most recently, the "Station Fire" firestorm in the San Gabriel Mountains between Los Angeles and Palmdale.

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) to update your information.		
Name	**Title**	**Company**
Steven Csabai	Principal System Engineer	LinQuest Corporation
Randall Grossman	Associate	Booz Allen Hamilton
Christian Meko	Student	Loyola Marymount University
Laurent Sidor	Engineer	The Aerospace Corp
Clark Robinson	Senior Engineer	Scitor Corporation

The International Council on Systems Engineering (INCOSE) is a not-for-profit membership organization founded in 1990. Our mission is to advance the state of the art and practice of systems engineering in industry, academia, and government by promoting interdisciplinary, scalable approaches to produce technologically appropriate solutions that meet societal needs.

The Los Angeles Chapter (INCOSE-LA) meets several times per year for dinner meetings and speaker meetings, affording systems engineering professionals an opportunity to network and to strengthen their skills. In addition, the Chapter sponsors tutorials, conferences, and other activities of interest to those in the systems engineering field or related fields. Chapter officers are as follows:

2010 Board of Directors and Appointed Positions

Elected Officers

President:	Rosalind Lewis	rosalind.lewis@aero.org	or	president@incose-la.org
Vice-President	Beth O'Donnell	elizabeth.l.o'donnell@boeing.com	or	vicepresident@incose-la.org
Past President	Eric Belle	eric_c_belle@raytheon.com	or	pastpresident@incose-la.org
Secretary	Josh Sparber	joshua.sparber@dcma.mil	or	secretary@incose-la.org
Treasurer	Marsha Weiskopf	Marsha.V.Weiskopf@aero.com	or	treasurer@incose-la.org
Membership:	Paul Cudney	paul.cudney@incose.org	or	membership@incose-la.org
Programs/Speakers:	John Silvas	Silvas_john@bah.com	or	programs@incose-la.org
Tutorials/Education:	Shirley Tseng	shirleytseng@earthlink.net	or	setraining@incose-la.org
Ways and Means:	Shah Shelbe	shah.selbe@boeing.com	or	waysandmeans@incose-la.org
Communications:	Edie Ung	ma1teez@yahoo.com	or	communications@incose-la.org

Appointed Positions

Newsletter Co-editors:	Edie Ung, Jorg Largent	ma1teez@yahoo.com	or	jorg.largent@incose.org
Newsletter Production Manager:	Lee-Ann Seeling	Lee-Ann.S.Seeling@raytheon.com		
Reflector Manager:	Susan Ruth	susan.c.ruth@aero.org		
Industrial Relations Manager:	Jose Garcia, Jr.	jose.s.garcia-jr@boeing.com		
Technical Society Liaison:	Edmund Conrow	info@risk-services.com		
Chapter Recognition Manager:	Michael Maar	michael.c.maar@boeing.com		
Lead Site Coordinator	Anna Warner	anna.warner@boeing.com		
Webcast Event Manager	Chris Delp	cldelp@jpl.nasa.gov		
Website Technical Manager	Benjamin Luong	Benjamin.Q.Luong@boeing.com		
Venue Chair	Shah Shelbe	shah.selbe@boeing.com		
Representative to San Fernando Valley Engineers' Council	Stephen Guine	Stephen.Guine@ngc.com		
Professional Networking Manager	Nehal Patel	Nehal_P1_Patel@raytheon.com		

Those interested in INCOSE membership please contact Paul Cudney - paul.cudney@incose.org. If you wish to be placed on our email distribution, please contact Susan Ruth - susan.c.ruth@aero.org.

Return Address:

800 S. Pacific Coast Hwy. #8-205
Redondo Beach, CA   90277

Forwarding Address Requested