



# NEWSLETTER



2002, 2004-07



2003



**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](http://www.incose-la.org)

## UPCOMING EVENTS

### March Tutorial

Lean Enablers for Systems Engineering

Speaker: Bohdan "Bo" W. Oppenheim

March 21, 2009

at Loyola Marymount University  
See page 2 for more information

### April Speaker Meeting

Speaker: Douglas L. Loverro

Executive Director, SMC, Air Force Space Command  
Los Angeles Air Force Base  
April 13, 2009

### May Speaker Meeting

Details in work

May 12, 2009

Other speaker meetings and tutorials being developed

## NOT A MEMBER? JOIN INCOSE!

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## Honorees Selected for the President's Award and the Susan Ruth award

By Past-president David Boyd

Each year the Los Angeles Chapter of INCOSE honors two of our own for their contributions to the chapter and for their furtherance of the systems engineering profession. Our chapter is graced with many volunteers who attended to the many behind-the-scenes details that bring home the success of our speaker meetings, tutorials and special events.



**Malina Hills** received the President's Award this year for her commitment to the Los Angeles Chapter. From my point of view, it began with her fundraising work for CSER 2006. This work, which contributed to a surplus, has sustained our Chapter's ability to operate comfortably as we strive to deliver a quality product for the members of the Los Angeles Chapter and the systems engineering community at large. Malina then demonstrated her extreme commitment by the dedication that was needed to deliver a successful CSER 2008 this year. The attendance and attendee's feedback were excellent. Congratulations Malina, and thank you very much!



**Shirley Tseng** received the Susan Ruth Award this year for her long-term membership (1993) in the INCOSE-LA Chapter and her volunteering to support just about every INCOSE-LA event for as long as I have known her (since 2005). This year, as the Director of Tutorials/Education, Shirley has been extremely productive as she has given our Chapter more visibility to our members. This visibility sends the message that our Chapter does provide quality opportunities for practical systems engineering education. Congratulations Shirley, and thank you very much!

The Susan C. Ruth award is named for the service Susan provided during the first ten years of the Chapter's existence service in every way possible while never seeking anything other than the betterment of the Chapter. It is meant to recognize LA Chapter volunteers who have given a significant amount of volunteer service to the chapter for at least 5 years.

The President's Award was started in 2003 as away to distinguish a member that provided service to the chapter while the immediate past president was in office. This award is to honor those who step up and do outstanding work even when they are not elected or appointed to the task.

# March Tutorial: Lean Enablers for Systems Engineering

Presented by Bo Oppenheim

## Particulars

Saturday, March 21, 2009

9:00 a.m.—9:30 a.m. Registrations and Breakfast

9:30 a.m.— 3:30 p.m. Class (Lunch to be included)

Loyola Marymount University

Ahmanson Auditorium

1 LMU Drive, Los Angeles, CA 90045

**Cost:** INCOSE Members: \$120.00;

Non-members: \$150.00

**Abstract:** Systems engineering has become increasingly important as the complexity and interconnectedness of systems continue to grow, but there remains a great deal of uncertainty as to how systems engineering should most effectively and efficiently add value throughout a program's lifecycle.

Lean thinking is the dynamic, knowledge-driven, and customer-focused process through which an enterprise continuously eliminates waste and creates value, well proven in other disciplines. Systems engineering and lean have overlaps and differences, but both represent processes that evolved over time with the common goal of delivering best product or system lifecycle value to the customer. Lean Systems Engineering represents synergy of the two, hopefully leading to superior systems engineering process and programs.

Lean Enablers for Systems Engineering is a product designed by 14 experts from industry (BSDC, Honeywell, NGIS, Rockwell Collins, ELOP-Israel), government (USAF SMC and U.K. MoD) academia (LMU, MIT, Stanford, and USC), working under the INCOSE Lean Systems Engineering Working Group. The Enablers are formulated as 194 "do's" and "don'ts" of the systems engineering and program management practice, and are based on the elimination of waste and optimal creation of value.

The workshop will consist of four parts:

1. History of Lean Systems Engineering
2. Introduction to Lean, Value, and Waste in product development programs
3. Description of the development process of Lean Enablers for SE
4. Presentation of 194 Lean Enablers organized into six Lean Principles: Value, Value Stream Mapping, Flow, Pull, Perfection, and People
5. Validation of the Lean Enablers by survey, and by comparisons with recent studies by NASA and U.S. Government Accounting Office

**Biography:** Bohdan "Bo" W. Oppenheim is the founder and Co-Chair of the Lean Systems Engineering Working Group of INCOSE, and leader of the development effort of Lean Enablers for Systems Engineering. He is a Professor of Mechanical and Systems Engineering and Graduate Director of Mechanical Engineering at LMU in Los Angeles, California. He serves as the local Coordinator of the Educational Network of Lean



Advancement Initiative consortium at MIT. He is on the Steering Committee of the Lean Education Academic Network. For seven years he served as a Director of the U.S. Department of Energy Industrial Assessment Center assessing 125 U.S. industrial plants for productivity. He consulted Boeing, Northrop Grumman, Raytheon, Airbus, Telekomunikacja Polska, and 50 other firms on Lean, Systems Engineering, and Quality. He has \$2.5 million in externally funded grants on his credit. He teaches graduate courses on Lean Systems Engineering, Lean Manufacturing, Lean Product Development, Lean Final Engineering, Lean Office, Lean Supply Chain, and Quality. He was born in Warsaw, Poland. His engineering degrees include a Ph.D. from Southampton, U.K. in Systems Dynamics; Engineer's Degree from MIT in Ocean System Dynamics; Master's from Stevens Institute of Technology in Ocean Engineering; and B.S. (equiv.) from Warsaw Technical University in Aeronautics. His professional experience spans space, naval, mechanical, software, and manufacturing industries, including four years at Northrop and five at The Aerospace Corporation.

**Reservations:** Please RSVP to register by March 17, 2009. RSVP online at [www.incose-la.org](http://www.incose-la.org) or send an email to [registration@incose-la.org](mailto:registration@incose-la.org) (please include "INCOSE-LA March Tutorial" in subject line).

**Directions to LMU:** <http://www.lmu.edu/page69.aspx>

## SOME HEURISTICS

Compiled by Jorg Largent

Systems engineering is not a separate department. Systems engineering is a way of doing business.

The question is not if we should let procedure stand in the way of customer satisfaction. The question is if the procedures we have established to ensure customer satisfaction are less important than the panic of the moment. In making this decision one must remember if the procedures in question were established in response to customer dissatisfaction in the past.

All science is either physics or stamp collecting. Lord Kelvin

One value of the disciplined systems engineering process as opposed to "native" or "intuitive" systems engineering is minimizing the sins of omission, a.k.a. the too-late utterance: "Oh No!"

Requirements are independent of:

- Difficulty
- Schedule
- Parts availability
- The way it was built
- What they did (or didn't do) in the lab

A lesson learned is not a lesson learned until it is a lesson and until it is learned.

## The 2009 Mini-Conference By Jorg Largent

Over one hundred systems engineering professionals, program managers, and engineers participated in the 2009 Mini-conference, "Enhancing Systems Engineering: Expanding Our Process to Meet Future Needs." The Los Angeles Chapter of the International Council on Systems Engineering conducted the mini-conference at Loyola Marymount University on February 7, 2009 — the fourth consecutive such event. Twenty-five systems engineering professionals made twenty-four excellent presentations on a wide variety of topics. The presenters came from space programs, the aerospace industry and academia.

The participants started the day with registration and breakfast, plus the renewal of old acquaintances and ad hoc discussions of systems engineering in the Loyola Marymount University atrium.

The mini-conference itself opened with a keynote address by Dr. Joel C. Sercel of ICS Associates Inc. in the Ahmanson auditorium. Dr. Sercel set the tone for the day with a keynote address entitled, "Applying and Evolving Systems Engineering." Dr. Sercel's address touched on many challenges facing the profession, including a comparison of the changes in the time required to develop a new product in the commercial arena versus in the aerospace industry: in the commercial arena is improving in its ability to execute a new program while the aerospace industry is not. Dr. Sercel also proffered some insight into the problem, citing cultural evolution, "should'ing," confusing correlation with cause, viewing systems engineering as an end (as opposed to a means to an end), failing to understand enablers, and an ethos of sales over execution.

The rest of the morning and most of the afternoon were devoted to the twenty-four presentations by the twenty-five systems engineering professionals. The presentations were grouped into three tracks: applying systems engineering, right-sizing systems engineering and evolving systems engineering. A wide range of topics was discussing including the utilization of use cases, the proper selection of documents that are necessary and sufficient to meet the needs of a project, systems of systems, adaptive systems, definitions of the term classical systems engineering and the application of systems engineering to transportation systems.

The mini-conference ended the day with a comprehensive panel discussion. The panelists, INCOSE Fellows Elliot Axelband, Scott Jackson, Barry Boehm, Azad Madni, and Stan Settles, completed the discussions of the conference theme. The panel members shared their experiences and argued several concepts. The excellence of the discussion was illustrated by the questions from the audience. The panelists and a large portion of the audience stay on for continued discussions after the "official" end of the conference at 5:00 p.m.

## 2008 Chapter Awards — Again! By Past-president David Boyd

It brings me great joy to announce that Michael Maar has completed this year's 2008 Award's submittal - we needed 10,000 points for Gold! The package was successfully uploaded to the Awards Submittal Workspace within the INCOSE Connect site. Michael will upload the package, for our own archives, to our Los Angeles workspace. Great job Michael!

Also, special thanks to George Friedman, who made it easy for us to take credit for CSER 2008. George put together a package very soon after the conference that contained all of the required artifacts. Kudos to all of the reviewers who provided initial input and feedback.

Thank you all for your support, dedication, patience, assertiveness and diligence throughout the year. I, myself, feel that I have learned something good from each and everyone of you that will stay with me forever, both professionally and personally.

Eric and the 2009 team are going to do a fine job!

<b>Summary</b>	
Section 1 - Activities	3,000
Section 2 - Communications	2,300
Section 3 - Membership	1,225
Section 4 - Technical	2,500
Section 5 - Outreach	450
Section 6 - INCOSE Support	1,100
Section 7 - Operations	1,400
Section 8 - Subjective	1,500
<b>Total</b>	<b>13,475</b>

Photographs of the  
mini-conference on  
the next pages:



**The volunteers at the registration table were the first to greet the attendees.**



**Participants at the conferences enjoyed the camaraderie of fellow professionals, networking, and technical discussions over breakfast and lunch and during the breaks.**



**Keynote speaker Dr. Joel Sercel and his audience in the Ahmanson auditorium**





President Eric Belle with past Presidents David Boyd, Jim Manson, Gina Kostelecky-Shankle, Dennis Schwartz and John Hsu



Current President Eric Belle doubling as the chapter photographer



## Presenters and the panel of Fellows

## February Speaker Meeting: Software & Systems Chapters Congress

*Summarized by Paul Cudney*

Chapter leaders and interested members attended the 2009 Software and Systems Chapters Congress (SSCC) of Los Angeles and Orange Counties. From 6:00 p.m. to 8:30 p.m. on February 17 representatives of local chapters of professional and technical societies involved with software and systems development in Los Angeles and Orange Counties gathered at the Northrop Grumman "S-Cafe" in Redondo Beach.

This gathering included general members, event coordinators, and officers of local chapters of professional or technical societies in the greater Los Angeles and Orange County area. The congress featured various local chapters of professional and technical societies presenting their groups, events, and opportunities for involvement. The event consisted of refreshments,

social and networking time, short presentations by various local chapters about their events, and tables for the chapters to distribute information about their group and events.

A complete list of represented chapters will be linked on the chapter website (<http://www.incose-la.org/>). Some of the organizations listed are the Southern California Software Process Improvement Network, the Institute for Electrical and Electronics Engineers (IEEE) Coastal Los Angeles Section, the IEEE Computer Society's Coastal Los Angeles Section, the Los Angeles Chapters of the International Council on Systems Engineering (INCOSE), Association for Computing Machinery (ACM), the Society for Women Engineers (SWE), the Data Management Association (DAMA), several sections of the American Institute for Aeronautics and Astronautics (AIAA), and the Southern California Quality Assurance Association of San Fernando Valley. These groups and others presented their calendar of upcoming events, seeking to combine and host larger events in the local area.

### 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
Peter Sedvec	Associate	Booz Allen Hamilton
Michael Louie	Senior Manager	Hitachi Consulting
Peter Badzey	Senior Systems Engineer	Northrop Grumman Aerospace Systems
Craig Sather	Senior Engineering Specialist	The Aerospace Corporation
Fon Duke	Business Analyst	Wyle laboratories
Vale Sather	Senior Project Engineer	The Aerospace Corporation
Christopher Rose	Electronics Engineer, Senior	Walt Disney Imagineering
Ebonika Williams	Systems Engineer	Northrop Grumman
Nehal Patel	Senior System Engineer	Raytheon
Georg Siebes	Deputy Division Manager	Jet Propulsion Laboratory
Matthew Trinca	Sr. Consultant/Grad Student	Booz Allen Hamilton
Roldan Arias	Senior Scientist/Engineer	Boeing
Martin Minthorn	Propulsion System Engineer	Naval Air Warfare Center Weapons Division
Chi Lin	Engineering Development Manager	Jet Propulsion Laboratory

**International Council on  
Systems Engineering (INCOSE)  
Los Angeles Chapter  
offers a Tutorial on**

**Lean Enablers for Systems  
Engineering**

*Presented by*

**Bohdan "Bo" W. Oppenheim**

**March 21, 2009 at LMU,  
Loyola Marymount University  
1 LMU Drive, LA, Ca 90045  
9AM to 3:30 PM**

**Fee :  
\$120 – INCOSE Member  
\$150 – Non-members**

**Includes continental breakfast,  
lunch, presentation materials.**

**Registration at <http://www.incose-la.org>  
more information contact Shirley Tseng, 714-832-5373  
[shirleytseng@earthlink.net](mailto:shirleytseng@earthlink.net)**



# INCOSE-LA Chapter NEWSLETTER

Vol. 7: Issue No. 2 March 2009

Return Address:

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

## Forwarding Address Requested

The International Council on Systems Engineering (INCOSE) is an organization formed for the purpose of advancing the art and science of systems engineering in various areas of the public and private sectors. The Los Angeles Chapter meets several times per year for dinner meetings, and additionally sponsors tutorials and other activities of interest to those in the systems engineering field or related fields. L. A. Chapter officers are as follows:

### 2009 Board of Directors and Appointed Positions

#### Elected Officers

<b>President:</b>	Eric Belle	eric_c_belle@raytheon.com	or	president@incose-la.org
<b>Vice-President:</b>	Rosalind Lewis	rosalind.lewis@aero.org	or	vicepresident@incose-la.org
<b>Past President:</b>	John David Boyd	john.boyd@incose.org	or	pastpresident@incose-la.org
<b>Secretary:</b>	Beth O'Donnell	elizabeth.l.o'donnell@boeing.com	or	secretary@incose-la.org
<b>Treasurer:</b>	Marsha Weiskopf	Marsha.V.Weiskopf@aero.org	or	treasurer@incose-la.org

#### Elected At-Large Directors

<b>Membership:</b>	Paul Cudney	paul.cudney@incose.org	or	membership@incose-la.org
<b>Programs/Speakers:</b>	John Silvas	Silvas_john@bah.com	or	programs@incose-la.org
<b>Tutorials/Education:</b>	Shirley Tseng	shirleytseng@earthlink.net	or	setraining@incose-la.org
<b>Ways and Means:</b>	Dana Pugh	dana.pugh@incose.org	or	waysandmeans@incose-la.org
<b>Communications:</b>	Edi Ung	edie@raytheon.com	or	communications@incose-la.org

#### Appointed Positions

<b>Newsletter co-editors:</b>	Edie Ung, Jorg Largent	edie@raytheon.com	or	Palmdalejorg@aol.com
<b>Newsletter Production Manager:</b>	Lee-Ann Seeling	LSSeeling@aol.com		
<b>Reflector Manager:</b>	Susan Ruth	susan.c.ruth@aero.org		
<b>Industrial Relations Manager:</b>	Jose Garcia, Jr.	jose.s.garcia-jr@boeing.com		
<b>Technical Society Liaison:</b>	Edmund Conrow	info@risk-services.com		
<b>Chapter Recognition Manager:</b>	Michael Maar	michael.c.maar@boeing.com		
<b>Lead Site Coordinator:</b>	Anna Warner	anna.warner@boeing.com		
<b>Webcast Event Manager:</b>	Chris Delp	cdelp@jpl.nasa.gov		
<b>Website Content Manager:</b>	Lee-Ann Seeling	LSSeeling@aol.com		
<b>Website Technical Manager:</b>	Benjamin Luong	Benjamin.Q.Luong@boeing.com		
<b>2009 Mini-Conference Chair:</b>	Shah Selbe	shah.selbe@boeing.com		
<b>2009 Mini-Conference Technical Program Chair:</b>	Dick Emerson	remerson9@gmail.com		
<b>Venue Chair:</b>	Denise Nelson	Denise.J.Nelson@boeing.com		
<b>Representative to San Fernando Valley Engineers' Council:</b>	Stephen Guine	Stephen.Guine@ngc.com		

Those interested in INCOSE membership please contact Paul Cudney - [paul.cudney@incose.org](mailto:paul.cudney@incose.org). If you wish to be placed on our E-mail distribution, please contact Susan Ruth - [susan.c.ruth@aero.org](mailto:susan.c.ruth@aero.org).