

Los Angeles Chapter of INCOSE
www.incose-la.org

COMING EVENTS

Tuesday, January 14th
Dinner Meeting

**Application of Excel Spreadsheets
 for Systems Engineering**

Speaker

Dr. Joel Sercel

Location

The Aerospace Corporation

Installation of the 2003 Board

February 2-5
INCOSE
International Workshop

Tampa Airport Marriott
Tampa Florida

Tuesday, February 11th
Dinner Meeting

Panel Academia and Industry

Moderator

Scott Jackson

Location

The Aerospace Corporation

Saturday, March 29th
Tutorial

System Architecting

LECTURER

Dr. Mark Maier

Location

Radisson Hotel
 Los Angeles Airport

Tuesday, April 8th
Dinner Meeting

Speaker TBA
Location TBA

Tuesday May 13th
Dinner Meeting

Panel on SE tools
Location TBA

Issue No. 1

January, 2003



**From the Past President
 Year in Review
 Michael E. Krueger**

First, the Officers and Board of Directors want to wish its members the warmest holiday season and best wishes for the New Year.

December has many meanings including, holidays, and parties with family and friends. It signals the anticipation for a new year with renewed hopes, expectations. It also, marks the end of the year and the results of the 2002 hopes and expectations. For me personally it is a mixture of sadness and excitement. I feel sadness in that I will no longer be your President, but excited about the new officers and Board that will be taking the helm in 2003 (See page 4 for the list of the 2003 Officers and Board members).

As you may or may not know the current board has been in place for 17 months. The chapter had been dormant for 15 months before the current Board was put in place. The chapter is now up and running, exceeding nearly all of our expectations on revitalizing the chapter. The following is a summary of the Board's accomplishments over the past 17 months:

1. Updated and approved the Chapter Bylaws and Constitution
2. Held 8 dinner speaker meetings
3. Held 3 tutorials
4. Held a 1 day Mini-conference
5. Published 11 newsletters
6. Established an outstanding Website
7. Established the annual "Susan Ruth" award for an outstanding chapter member
8. Provided 2 awards that included Free INCOSE memberships and tutorials for outstanding chapter work by members - (recipients were Katy Kuey and Thomas Kudlick)
9. Held weekly Board telecons except of holidays over the 17 months (what a commitment this has shown on the part of our Board)
10. Supported outreach programs of other chapters including the 2 financial contributions to National Engineers Week
11. Led the very successful exhibitor task for the 2002 INCOSE's annual symposium – Providing a share of nearly \$5,000.00 to the Chapter.
12. Established liaisons with local Universities that provide Systems Engineering programs and posting their website links
13. Established liaisons with 2 new domains – APICS and Intelligent Transportation Systems.
14. The Chapter continues to be active in the INCOSE international organization with a number of our members taking leadership positions
15. Three new additions will be on the Board this coming year
16. In addition, our membership and our financial position has increased from the beginning of the tenure of this Board
17. Three social events – two holiday parties and a Magic Castle dinner.
18. Two Chapter Board Strategic planning sessions

This is not bad for a revitalization effort – most expected us to limp along – but not this Board – **IT WAS FULL SPEED AHEAD!**

most common and useful computer tool used in both engineering and management is the spreadsheet. The capability and power of the spreadsheet and its macro language Visual Basic for Applications has increased dramatically so that its capabilities are not fully appreciated or utilized through the systems engineering process. The purpose of this presentation is to point out the range of applications available to support the systems engineering process, ranging from mission analysis, conceptual design, system parameter communication between team members, test data analysis and visualization, system simulation, optimization and uncertainty analysis. The presentation will also point out the leadership role being taken in the application of spreadsheets to the field of engineering by SpreadsheetWorld with its broad spectrum of spreadsheet aided engineering toolboxes and workshops.

As the departing president and becoming the Past President, I would like to challenge the new Board and membership as follows:

Four challenges to the New Board and Officers:

1. Renew your commitment to the Chapter activities and members of 2003
2. Set the bar higher and stretch in the areas of Membership, Programs, Education and Ways and Means. - think "out of the box".
3. Look for ways to challenge the membership to become more active and start grooming the 2004 leaders now.
4. Take a Systems Engineering approach to our LA INCOSE organization and set aggressive goals and work toward them.

Challenge to the Membership:

Become involved with the chapter activities!

It cannot be stressed enough how important this is. The Board can only do so much and without your participation and your input we, as Board members, cannot service the Chapter well.

Summary:

We have come a long way but there is much to do. It is not the time to sit back and relax. This is a new beginning and we have a chance to do so much to further the discipline of Systems Engineering both to the traditional domain areas such as Aerospace and Defense but in new areas of need such as finance, law, and Information Technology.

The new Board is up to the challenge; most of its members are returning and the new board members are committed and have a proven track record. Give them your full support and they will rise to the challenge as they have done for the past 17 months and I cannot wait to see the list of accomplishments for 2003.

It's been a pleasure!

Michael E. Krueger

**Dinner Meeting
January 14, 2003**

**Location
Aerospace Corp**

Time
Networking 5:30 pm
Speaker 6:30 pm
Cost
Members Free
Guest \$10.00

Spreadsheet Aided Systems Engineering

Guest Speaker:

Joel C. Sercel, Ph.D., Principal Engineer, Jet Propulsion Laboratory (JPL); Visiting Associate and Lecturer, California Institute of Technology (Caltech); and Consultant in integrated concurrent engineering.

Topic:

The most important ingredient of successful systems engineering program is the process, which usually needs to be tailored to suit the type of project. All systems engineering processes can benefit from the use of various computer tools. There have been many specialized systems engineering tools developed, however but the

Directions to Aerospace: (See Website for Map)

From Southbound on the 405 Fwy:

Exit El Segundo Boulevard.
Turn left (south) at the bottom of the off-ramp onto La Cienega.
Turn right (west) at the signal onto El Segundo.
Continue past Aviation to Douglas.

• If arriving BEFORE 6:00pm (Main gate closes at 6pm):

-Make a "U" turn at Douglas and proceed east on El Segundo a half block (the direct left turn in to Aerospace is not allowed from 3pm to 6pm).
-Turn right into the Aerospace main gate. The guard will ask the purpose of your visit. Parking is to the right in any parking spot.

• If arriving AFTER 6:00pm:

-Turn left onto Douglas and continue a half block to Gate C.
-Turn left into the Aerospace Gate C. The guard will ask the purpose of your visit.
-After permission to proceed, continue straight to the stop sign.
-Turn left at the stop sign and continue to end of the row.
-Turn right to the guard office, then parking is to the right in any spot.

From Northbound on the 405 Fwy:

• Exit El Segundo Boulevard.
• Turn left (west) at the bottom of the off-ramp onto El Segundo.
• Continue past Aviation to Douglas.

• If arriving BEFORE 6:00pm (Main gate closes at 6pm):

-Make a "U" turn at Douglas and proceed east on El Segundo a half block (the direct left turn in to Aerospace is not allowed from 3pm to 6pm).
-Turn right into the Aerospace main gate. The guard will ask the purpose of your visit.
- Parking is to the right in any parking spot.

• If arriving AFTER 6:00pm:

- Turn left onto Douglas and continue a half block to Gate C.
- Turn left into the Aerospace Gate C. The guard will ask the purpose of your visit.
- After permission to proceed, continue straight to the stop sign.
- Turn left at the stop sign and continue to end of the row.
- Turn right to the guard office, then parking is to the right in any spot.

From Westbound on the I-105 Fwy:

• Exit at Nash.
• Go south on Nash (one way south) to El Segundo Boulevard.
• Turn left onto El Segundo and proceed east one block to Douglas.

• If arriving BEFORE 6:00pm (Main gate closes at 6pm):

-Continue east on El Segundo one half block to the main gate.
-Turn right into the Aerospace main gate. The guard will ask the purpose of your visit.
- Parking is to the right in any parking spot.

• If arriving AFTER 6:00pm:

- Turn right (south) onto Douglas.
- Continue south on Douglas a half block to Gate C.
- Turn left into the Aerospace Gate C. The guard will ask the purpose of your visit.
- After permission to proceed, continue straight to the stop sign.
- Turn left at the stop sign and continue to end of the row.
- Turn right to the guard office, then parking is to the right in any spot.

Aerospace Security Requirements:

Please bring 2 forms of picture identification (Drivers license, Company identification or Passport).

TUTORIAL: Systems Architecting

DATE: Saturday, March 29, 2003
(Reservations by March 8)

TIME: 8:00 AM to 5:00 PM; Registration begins at 7:30 AM

LOCATION: Radisson Hotel at Los Angeles Airport
6225 West Century Boulevard
Los Angeles, CA 90045
(310) 670-9000

TOPIC: Systems Architecting

Systems architecting is the art and science of developing system solutions, with a strong focus on the "up-front," ill structured phase of system development. System architects concentrate on initial system definition and design-making use of the systems engineering specialties to develop satisfactory and feasible system concepts and certification for client use. The architectural approach is needed most as systems become more complex and multi-disciplinary, and for systems customized to individual clients.

This tutorial will cover the concepts of systems architecting; the evidence for a distinct architectural approach; the architect's organizational and life cycle roles; using integrated modeling and heuristics to form and define architectures; and recent developments in making system architecture a recognized profession. It will explore issues of current concern, such as the relation between system and software architectures, and the architecting of collaborative systems (systems-of-systems).

LECTURER: Dr. Mark Maier

Dr. Mark W. Maier received the BS and MS degrees from the California Institute of Technology, and PhD degree in Electrical Engineering from the University of Southern California. While at USC, he held a Hughes Aircraft Company Doctoral Fellowship, where he was also employed as a section head.

Currently he is a Distinguished Engineer at The Aerospace Corporation where he founded the systems architecting training program and consults on the application of architecting methods to government and commercial clients. Prior to joining The Aerospace Corporation, he was an Associate Professor of Electrical and Computer Engineering at the University of Alabama at Huntsville. Dr. Maier's research interests are in systems architecting, engineering computer based systems, satellites, and radar systems. He is co-author, with Dr. Eberhardt Rechtin, of *The Art of Systems Architecting, Second Edition*, published by CRC Press. Dr. Maier is chair of the INCOSE Systems Architecture Working Group.

REGISTRATION: **By March 8, 2003**, a reservation can be made at the INCOSE LA Chapter Web site, www.incose-la.org. Mail your registration to Alan Mc Innes (mailing address and form are below). Checks must accompany the registration. Accommodations can be made for company checks.

QUESTIONS: Allan Mc Innes at 310-336-1871 or at Allan.I.McInnes@aero.org

FEES: The book, *The Art of Systems Architecting, Second Edition*, will be used as the tutorial textbook. The fees for participants who own the book are \$90 for members, and \$120 for non-members. The fees for participants who do not own the book are \$150 for members, and \$180 for non-members. Make checks payable to "INCOSE-LA". Acceptable forms of payment are personal checks, bank drafts, and money orders. Credit cards and purchase orders are not accepted.

LUNCH: Continental Breakfast, and Lunch will be provided. If you have special dietary needs, please inform us of your preference.

REFUND POLICY: Substitutions are permitted until the day of the tutorial. Full refunds will be made prior to March 8. No refunds will be made after March 8. INCOSE-LA chapter reserves the right to cancel the tutorial with full refunds.

PARKING: A discounted rate of \$5.00 for self-park and \$7.00 for valet parking is available at the hotel.

Driving Instructions.**From the South:**

Take the 405 Freeway North to the 105 Freeway West. Exit the 105 Freeway at Sepulveda Blvd North/LAX Airport. Take Sepulveda Blvd North through the tunnel. After passing the LAX Airport off ramp, get into the right turn lane and turn right onto 98th Street. Turn right on Vicksburg Street and turn right into the hotel parking lot.

From the North:

Take the 405 Freeway South to the 105 Freeway West. Follow the above directions after exiting Sepulveda Blvd. North/LAX Airport.

From the East:

Take the 105 Freeway West. Follow the above directions after exiting Sepulveda Blvd. North/LAX Airport.

On-Line Registration for this event will be posted soon at www.incose-la.org.

INCOSE News

Return Address:

**2118 Colony Plaza
Newport Beach, CA
92660**

#1

Issue

4

2003

Jan'

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:

2003 Officers and Board

President:	Michael L. Dickerson – simimike@iname.com
Vice-President:	John Hsu - john.c.hsu@boeing.com
Past President:	Michael E. Krueger - michael.krueger@ase-consult.com
Treasurer:	Marsha Weiskopf – marsha.weiskopf@aero.org
Secretary:	Paul Cudney - PFCudney@lainet.com
Membership:	Susan Ruth – susan.c.ruth@aero.org
Programs/Speakers:	Gina Kostecky-Shankle - Gina.M.Kostecky@aero.org
Ways and Means:	Thomas Kudlick – synchrocubed@aol.com
Tutorials/Education:	Saul D. Miller – saul.miller@aero.org
Communications:	Ronald Williamson - ronald.w.williamson@aero.org

Those interested in INCOSE membership please contact contact Susan Ruth.

Those interested in working on a committee please contact the appropriate Director.