



### Meet The 2015 Chapter Board



**Rick Dove, President**—Rick has a BSEE from Carnegie-Mellon University, spent his early career as a software systems developer, and then gravitated to start-up and turn-around management. He is CEO of Paradigm Shift International, and adjunct professor at Stevens Institute of Technology. He was co-PI for the 1991 OSD/Navy funded project at Lehigh University that introduced the concept of agile enterprises and systems, and led the subsequent research funded by DARPA/NSF identifying design principles for agile systems in general. Rick is an INCOSE Fellow and chairs the Agile Systems & Systems Engineering working group and the Systems Security Engineering working group.



**Vision for the Chapter:** Synergy is a word that has lost its meaning. It is often used to promise benefit from the mere presence of ingredients, when there is neither recipe nor cooking staff. But real synergy is an emergent phenomenon, one that fuels itself, somewhat like a nuclear reaction. The recipe is a simple one: multiple ingredients that have an inherent affinity, add catalyst, mix well. A cook's job is to discover and recognize synergistic potentials among available ingredients, and bring the mix together with a catalyst. The chapter Board has been trying to identify activities that fit inherently with real member needs and interests. Surveys haven't got much response. The vision I would like to realize this year is catalyzed synergy that results in member-involved useful benefit. But I'm not going to do this for you, or for INCOSE. I'm going to do this for me. That's the real motivating reason any of us does anything. The trick is to find things that more than one of us wants to really see done, to bring together sufficient ingredients to get it done, and to facilitate the catalytic moment. Your chapter Board, with some help from you, will be looking for synergistic opportunities and exploring a variety of catalytic moments. ∞



**Ron Lyells, Vice President, President Elect**—Ron Lyells represents Honeywell International on the Board of Directors. He has over 34 years in the defense and space industry involved in the electrical and systems development of various avionics systems, including flight controls, digital mapping systems, ground and test systems. He has lead teams across product development stages from proposal to production support. Ron is currently working on an international team responsible for defining and deploying various methodologies to improve product development systems within the Honeywell Aerospace organization. He is specifically responsible for developing and integrating system engineering methodologies with various lean based product development strategies. ∞

### New Board Members—Bio Details at [www.incose.org/enchantment](http://www.incose.org/enchantment)



**Tom Humpton, ESEP**, is a Sr. Technical Manager at Honeywell with 32 years SE experience. He currently leads a team designing avionic system solutions for military customers and leading proposal engineering estimations. He is a charter member of the SE Competency Working Group and active in others.

**John Hunter, ASEP, PMP**, has worked at Sandia National Laboratories for over 25 years, and works with several teams introducing MBSE to increase awareness and value of Systems Engineering. For the last four years he is working in Nuclear Weapons as an SE on the B61-12 System Integration Design Team.



### Continuing Board Members—Bios at [www.incose.org/enchantment](http://www.incose.org/enchantment)

**Ann Hodges**, Sandia Nat'l Labs, Past President & Secretary.

**Mary Compton**, Sandia Nat'l Labs, Treasurer.

**Heidi Hahn**, Los Alamos Nat'l Lab.

**Regina Griego**, Sandia Nat'l Labs.

**Mike Gruer**, Honeywell.

**Bob Pierson**, ATA.

**Eric Smith**, University of Texas, El Paso.

**Tom Tenorio**, White Sands.

**Jeni Turgeon**, Sandia Nat'l Labs.





## IW15 INCOSE International Workshop Los Angeles — 24-27 Jan

Workshops (Editor's picks in blue)	Sat 24Jan	Sunday	Monday	Tuesday
<b>Agile Life Cycle Project - Town Hall Meeting</b>				0800-0900
<b>Agile Systems &amp; Systems Engineering</b>			0800-1700	
Anti-terrorism International				0900-1100
Architecture			0900-1200	
<b>Americas Chapter Leaders Meeting</b>	1030-1200			1300-1430
Competency			0800-1700	0900-1430
Complex Systems	1300-1700	1300-1700	0800-1200	
Enterprises Systems		1400-1700	1400-1700	
Healthcare			0900-1700	0900-1430
MBSE Workshop (Break Outs Follow)	1030-1730	1600-1700		
MBSE Breakout 1 - Functional Mockup Interface (FMI)	0900-1200	1300-1600		
MBSE Breakout 2 - Open Services for Lifecycle Collaboration	1300-1600	0900-1200		
MBSE Breakout 3 - Hybrid Manufacturing and 3D Printing		0900-1600		
MBSE Breakout 4 - Model Lifecycle Management	1300-1600	1300-1600		
MBSE Breakout 5 - MBSE for System of Systems Engineering		0900-1600		
<b>MBSE Breakout 6 - Agile Modeling and Modeling Agile</b>	1300-1600			
MBSE Breakout 7 - MBSE for Automotive	1300-1600	1300-1600		
MBSE Breakout 8 - MBSE for Biomedical and Healthcare	1300-1600	0900-1600		
MBSE Breakout 9 - MBSE for Transportation & Rail		0900-1600		
MBSE Breakout 10 - MBSE for Space	1300-1600	1300-1600		
MBSE Patterns Challenge Team			1300-1500	0900-1200
Model-Based Conceptual Design			1330-1700	
Measurement		1300-1500		
Natural Systems	1030-1700	0900-1700		
Product Lines				0900-1200
Requirements	1100-1700	0900-1700	0800-1700	0900-1430
SE Professional Development		1300-1700		
Space Systems			1000-1100	
Systems Engineering/Program Management Integration				1000-1100
Systems Engineering Transformation Caucus		0900-1700		
Systems of Systems			0800-1700	0900-1200
Systems Science	1030-1800	0900-1800	0800-1800	0900-1430
<b>Systems Security Engineering</b>		0900-1700		
Tools Integration & Interoperability			0830-1700	0900-1430
Working Group Bazaar				1600-1830

For updates to this 20 December schedule go to the INCOSE IW15 site.

If you haven't decided about going yet, here are some things to think about ...

Unlike INCOSE's annual International Symposium and other conferences, there are no paper, panel or tutorial presentations. Instead, attendees spend 4 days working alongside fellow systems engineers. Systems Engineers at all levels and from all backgrounds are encouraged to engage in working sessions, and contribute their knowledge and experience to improve the discipline.

Working group meetings at IW represent about half of the meetings that occur. The other half, called "core", are associated with INCOSE committee, administration, forward planning, and networking activities. These include plenary sessions, technical operations planning, International Symposium planning with paper/panel/tutorial selections, regional meetings offering collaborating with neighboring chapters, and of course social networking.

If you haven't attended any working group (WG) meetings at one of the INCOSE International Workshops, you

should feel comfortable in doing so. They are generally informal gatherings of people interested in talking and hearing about the WG area of interest, and everyone is welcome to come and participate or simply lurk, whether officially a member of the working group or not. Working group activity varies, with mixtures of round-the-room discussion, presentations, break-out workshop sessions, project planning, project work, project updates, symposia on scheduled topics, and more.

**All Working Group info at:**  
[www.incose.org/about/organization/ti.aspx](http://www.incose.org/about/organization/ti.aspx)



### Recent Meetings

Jennifer Turgeon, Sandia National Labs

**October 2014**—Throughout the Systems Engineering Lifecycle events require personnel, systems, equipment, facilities and information to converge on time and at the right place in order to achieve a program objective. Unpredictability in any predecessor event can mean unpredictability for the overall project. Barry Papke shared information about the Last Planner, a production and planning method initially deployed in 1992 in the building construction industry as part of an effort to reduce work flow variability and improve production efficiency in the construction industry. The two key elements of the Last Planner are (1) a change in project management from a task-oriented to a work-flow oriented model and (2) processes to improve reliability of the workflow within the team or group performing the work. Barry discussed the systems engineering lifecycle as a production lifecycle and explored the application of key elements of the Last Planner as a tool for system engineers to

address uncertainty and unpredictability in the execution of a project. Barry's slide presentation is posted on the [Enchantment Chapter](#) website.

**November 2014**—Three years ago INCOSE created a Systems of Systems (SoS) Working Group (WG) to address the growing interest in the challenges and opportunities of applying systems engineering to SoS “a set or arrangement of systems that results when independent and useful systems are integrated into a larger system that delivers unique capabilities.” Judith provided an overview of the objectives of the SoS WG and the set of activities the group has undertaken over the past three years to address these. She discussed the development of a set of SoS Pain Points which characterize the challenges systems engineers face applying SE to systems of systems, monthly webinars on SoS related topics, updates to the INCOSE SE handbook to reflect current thinking in SoS SE, and an organizational survey on current SoS approaches and tools. Judith also provided information on current efforts and opportunities including support to develop-

ment of a Getting Started in SoS SE Primer and updates to the SE Body of Knowledge (SEBoK) SoS knowledge area and the SoS Bibliography on the INCOSE SoS Connect Site. Judith's closing discussion outlined SoS WG plans for including plans for an SoS Research Roundtable at IW15, an SoS session at the IW15 MBSE workshop and an INCOSE INSIGHT Special Edition On SoS slated for October 2016 issue. Judith's slide presentation is posted on the [Enchantment Chapter](#) website.

### **December 2014**—

The Enchantment Chapter held its annual Holiday Social at El Pinto Restaurant in Albuquerque, NM on Friday, December 12, 2014. Networking started during cocktail hour and was followed by a traditional Mexican buffet. The event of the evening was an Enchantment Chapter adaptation of the party game, Apples to Apples. Participants had cards that named familiar New Mexico entities and topic cards that played off systems engineering themes. ∞



### Next Meetings

Jennifer Turgeon, Sandia National Labs

#### **January 14: Modeling Conceptual Design.**

Jack Ring, INCOSE Fellow, Managing Member of OntoPilot LLC and Educe LLC.

**Abstract:** The session will focus on the Model-based Conceptual Design Working Group, particularly their 14 essays in the December 2014 INCOSE INSIGHT. Jack will present his essay regarding the fuzzy front end of conceptual design --- identifying and clarifying the real problem --- then facilitate a discussion and scoring of all 14 essays.

#### **February 11: Evolutionary Systems Engineering for Unmanned Systems at SPAWAR.**

Chris Scrapper, SPAWAR System Center Pacific Unmanned Systems Group, Integration Lead Autonomy Investment Area

**Abstract:** At the Navy's SPAWAR SSC-PAC Unmanned System Group, an evolutionary system engineering wave model is employed to support the S&T management, development, maturation, integration, test, and experimentation of autonomous capabilities. The SE wave model establishes a continuous improvement process for assessing capabilities and limitations of autonomy, maturing technologies based on key performance parameters, and reducing risk by understanding performance tradeoffs and associated cost as the system evolves. To ensure capability objectives are met, this approach provides a systematic process and overarching strategies for insertion of new technology, accumulation of evidentiary information, and management of risk. This presentation will provide an overview of the Evolutionary System Engineering Model, and its instantiation as the Integration Strategy for ONR Code 30 Autonomy Technology Investment Area.

#### **March 11: When “Yes” is the Wrong Answer (best paper award at IS14).**

Andy Pickard, Rolls-Royce Associate Fellow in System Engineering, and Chartered Engineer.

**Abstract:** Systems Engineering's value comes from doing effective pre-work to avoid later, expensive rework. There are many barriers to uptake of Systems Engineering, including the difficulty of abstract and holistic thinking and project time pressures. This paper focuses on the time pressures, and the usual desire to show positive progress in any form of review of a project. This leads to a behavior where there is a tendency to say “yes” in answer to a question because we know it is the desired answer. Inappropriate “yes” statements to questions like “Are the requirements complete?” result in a tendency to stop the pre-work, and start the solution stage pre-maturely or with false confidence. The paper proposes as a heuristic that the Systems Engineer recognizes that there are implicit dangers in answering “yes” to many review type questions.



## Recapping November's Tradeoff Studies Tutorial

*Ann Hodges, Sandia National Labs*

I attended the trade study tutorial on November 7, and found it extremely informative and useful - I used the information the very next work day!

A trade study is a tool that helps systems engineers systematically consider multiple alternatives using relevant criteria. Dr. Eric Smith, an associate professor at UTEP, and the Chapter's student division faculty sponsor, taught the tutorial. There were 22 attendees from Honeywell, Los Alamos National Laboratory, Sandia National Laboratories, and academia (UTEP students). One of the Sandia National Laboratories participants was so impressed with the tutorial material that he asked if it could be shared with the Sandia decision-making process community of practice members.



Some of the key "take away" gems that I received included:

- Understanding the 10 components of a trade study: 1) problem statement, 2) evaluation criteria, 3) weights of importance, 4) alternative solutions, 5) evaluation data, 6) scoring functions, 7) scores, 8) combining functions, 9) preferred alternatives and 10) sensitivity analysis.
- Dr. Smith presented biases that could affect tradeoff studies, and how to deal with these biases.
- Evaluation criteria should be objective and independent, not relying on "perceived authority" (e.g., legacy trade study that may not be correct or relevant to the study at hand). Dependent criteria should be grouped as sub-criteria.
- Compare all alternatives simultaneously. Conflicting criteria lead decision makers to seek additional, dominant alternatives.
- Scoring functions - We tend to weight losses more heavily than gains, subconsciously. Express only gains in trade studies. Also, think about the whole range of expected values for the scoring functions' parameters.
- When combining the values of the evaluation criteria, a simple effective approach is to evaluate the sum of each alternative's weight x score.
- The decision-making model based on the trade study approach is more transparent because the criteria, weights, alternatives and ranking are known. A difference in stakeholders' preferred alternatives highlights differences in weights of importance and scoring functions, and should be used as an opportunity to review, negotiate and refine this model among key stakeholders. This dialogue should also be an opportunity to hone the set of requirements.

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## UTEP Chapter Attends Tradeoff Studies Tutorial in Albuquerque

*Aditya Akundi, UTEP Student Division President*

Student members of the University of Texas at El Paso (UTEP) Student Division of the Enchantment Chapter of traveled to Albuquerque to attend the Tradeoff Studies, Techniques and Biases tutorial delivered by the division faculty advisor Eric Smith on November 7, at the Workforce Training Center.

The student members enjoyed conversations with the professionals attending the tutorial. It was interesting for the student division members to gain awareness of the research environment in northern New Mexico, and to become aware of systems engineering professional career paths.

On the right, pictured from left to right: Diego Cruz-Cano, David Reyes, Aditya Akundi, Eric Smith, Jagadish Thimiri, Pablo Rangel.

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**Project Management Professional (PMP) Prep Course** – Heidi Hahn, Los Alamos National Lab

The PMI Otowi Bridge Chapter has announced their 2015 Winter PMP Prep Course, which will run from January 14 through May 6, 2015. Registration is \$660 (includes course materials)., PMI Otowi Bridge members receive a \$175 discount.

For more information or to register for the course go to [www.otowibridgepmi.org](http://www.otowibridgepmi.org).

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## A Chapter-Project Kickoff—Starting the Dialog

*Rick Dove, Paradigm Shift International*

Many organizations share a common problem when trying to institute or improve Systems Engineering—finding a qualified SE to lead the effort. What does it mean to be qualified to lead such an effort?

Is being a systems engineering professional required, and is that enough? And how will management, perhaps unschooled and inexperienced in systems engineering, make this critical selection?

INCOSE has no guidelines for help in

this area. Honeywell's Tom Humpton thinks this Chapter's members might be able to attack this void, starting with thoughtful reflection and capture of the issues in different types of organizations. Let the dialog begin! ∞

## Guidelines for Selecting SE Leadership?

*Tom Humpton, Honeywell*

In many organizations, management has a problem. A problem that can sidetrack their Systems Engineering efforts for years and cost millions of dollars. Yet these terrible effects might all be avoided with a simple choice ... an easy decision. So what keeps management from making the easy decision? What is their problem? One simple fact – they don't know how to select whom to trust.

I have been at a number of companies in my 32 years and have seen this theme recur on a regular basis. Management comes to an understanding that they need to "improve" their Systems Engineering capability. They may have a specific result in mind or they may leave it to others in the organization to define an outcome that they will then pursue. Once a decision is made to pursue that SE improvement – the problem materializes instantly. Management begins looking for someone, a person or team, to define and implement the vision. It is this decision that will set the direction and consequences for, potentially, years to come. So how do they make the right one?

Envision this: the American television panel game show that aired in the late 1950s, *To Tell The Truth* (TTTT). A celebrity panel (our management) interviews three contestants (the employees) regarding their occupation. One of the contestants is the real deal (the Systems Engineer) while the other two are imposters (well-meaning other engineers) trying to convince the panel that they are also the real deal. The real deal is sworn to answer panelist questions truthfully, the imposters are allowed to lie. At the end, the panelists have to choose whom to believe. Truth is revealed when the contestants are asked, "Will the real Systems Engineer please

stand up?"

I'm sure you can see the parallels between the management problem and TTTT. When management begins looking for that person to define and implement the Systems Engineering improvement vision, they look to their employees and ask questions to find out who is most qualified. Unfortunately, most employees will say they can do it and promise great effort and great results. They're not likely lying, but they may not be aware of their limitations to bring about the desired results. It may be years later before realizing that they did not understand even the basics of Systems Engineering – and have consequently sent the company down a long and expensive trail. Unfortunately for management, once the choice is made, the real Systems Engineer is not revealed. The true answer only becomes apparent with results, or lack thereof.

How many times have we all seen someone put into a position for which they are simply not qualified? I once saw a mid-level manager tasked by upper management to "improve Systems Engineering" in his organization. Two candidates, whom I also knew, presented themselves. One was everything the manager advertised for and indicated he needed: formal SE training, INCOSE involvement, INCOSE certification, experience doing and leading SE, training SE, mentoring SE, supervisory experience, etc. The other had none of the qualifications or experience, was an engineer from a different discipline, but was personally known to the manager as a hard worker. The first would have brought about significant improvement in short order. The second, however, was hired, given a promotion, and is highly unlikely to produce any meaningful change. How do we explain this choice? More impor-

tantly, how do we give the manager the tools/information so that a better choice could have been made?

That is the problem that I would like to bring to the INCOSE community for discussion, debate and, ultimately, identifications of ways to approach or solve. Is there a way management can know who can really do a good job of Systems Engineering or improving their organizational Systems Engineering capabilities prior to making the decision? I believe there is. In my example above I could easily identify that person – but the manager could not, or chose not to. Could they just not tell due to their own background? Did they not recognize the differences as significant? Do other factors and priorities override optimal decisions? Surrounded by too many "Yes" men? And what could we, as a Systems Engineering community, provide a manager or company to help them make that decision ... and why would/should they trust it? Is this as common a problem as I perceive? Where it doesn't exist – why not? Are credentials (degrees, INCOSE certification, certain level of competency, etc.) of any value/or use in this? Many of my colleagues and I have discussed well-intentioned efforts that were "doomed to failure" from the start – for lack of qualified SE leadership. What can be done to prevent this ... to help management put the "right" person/skills into those leadership positions?

So this is the thrust of my concern, and the kickoff of a conversation. Please write with examples of your own, related concerns, issues to consider, even possible solutions. We will continue this conversation in the newsletter, toward the discovery of useful and publishable management guidelines in the end.

[tom.humpton@honeywell.com](mailto:tom.humpton@honeywell.com) ∞



## Reviewing the 2014 Chapter Year



*Ann Hodges, Sandia National Labs and Chapter Past President*

The highlights of the Enchantment Chapter's 2014 accomplishments include:

- Sponsored 3 tutorials, attended by a total of over 80 participants.
- Hosted 2 social events – summer and winter – enjoyed by over 80 attendees.
- Offered 10 Chapter talks, with over 100 total attendees.
- Migrated the Chapter web site to the new INCOSE infrastructure, with a go-live date of ???, but see below for the up-and-coming.
- Published 4 Chapter Newsletters.

The Chapter's Board of Directors is very interested in your perception of how well we've been serving our SE community of practice, and your ideas for future activities and direction. Within the next month, a survey will be distributed where you'll get the opportunity to share your insights and feedback to help our Chapter better serve our SE community. Please take the few minutes to give us your input.

It's been my honor to serve as the 2014 Enchantment Chapter President. I look forward to seeing you at future Chapter events!

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Beta-site preview, if it's not already live: <http://beta.incose.org/ChaptersGroups/Chapters/ChapterSites/enchantment/chapter-home>.

### Enchantment Chapter New Mexico

Monthly Chapter meetings are the 2nd Wednesday, 4:45-6:00 pm (see Events), in Albuquerque at ATA ([map](#)), and at: <https://incose.pgimeet.com/GlobalmeetSix>  
Tel Access: 1-719-234-7872  
Passcode: 979 060 4132



### Call for ABET Program Evaluation—Heide Hahn, Los Alamos National Lab

**ABET (Accreditation Board for Engineering and Technology)** is a federation of 34 technical and professional societies, including groups such as INCOSE, IEEE, ASME, the American Society of Civil Engineers, the American Institute of Aeronautics and Astronautics and similar organizations. Established in 1932, ABET currently accredits nearly 3,500 academic programs in engineering, computing, applied science and engineering technology at 698 universities and colleges in 28 nations. More than 2,000 volunteers from academia, industry and the profession serve as program evaluators, accreditation team chairs and other ABET leadership roles. ABET is governed by representatives selected by the member societies and has an annual budget of just under \$10M. Much more information about the organization is available at [www.abet.org](http://www.abet.org).

Because the demand for ABET accreditation is growing very steadily (especially from institutions overseas), ABET is very eager at present to refresh and expand the accreditation evaluator pool. These professionals are the literal face of ABET to the academic community, and are responsible for applying the accreditation criteria in a wide range of institutional and geographic settings. In brief, the PEVs need to belong to one of the ABET member societies <http://www.abet.org/member-society-list/>, meet certain competency requirements <http://www.abet.org/program-evaluator-competency-model/> and be able to commit roughly five days a year to the activity (reviewing accreditation documents, participating in a campus visit and assisting in the preparation of the resulting report). New PEVs also participate in a rigorous training process <http://www.abet.org/program-evaluator-training/> to prepare for their roles.

The PEVs are selected each year by their respective technical/professional societies. If you are interested in becoming a PEV, please contact Heidi Hahn at [Hahn@lanl.gov](mailto:Hahn@lanl.gov) or 505-665-4606 to enter your name into nomination by INCOSE. Expressions of interest will be accepted until January 16, 2015.

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### Enchantment Chapter SEPs

Aguilar, Virginia	Honeywell,	CSEP 5/29/2014
Bearden, Bill	Los Alamos National Laboratory	CSEP 3/22/2009
Gruer, Mike	Honeywell	CSEP 9/28/2013
Hahn, Heidi	Los Alamos National Laboratory	CSEP 9/8/2008
Hodges, Ann	Sandia National Laboratories	CSEP 8/15/2009
Humpton, Tom	Honeywell	ESEP 3/1/2007
Hunter, John	Sandia National Laboratories	ASEP 8/15/2009
Lavin, Jim	Sandia National Labs	ASEP 9/26/2014
McGoey, Paul	Boeing Commercial Airplane Group	CSEP 3/29/2014
Means, Jeff	SAIC	CSEP 6/19/2007
Moreno Pineda, George	Marine Corps Systems Command	ASEP 5/5/2014
Phillips, Tim	L-3 Communications	CSEP 1/5/2011
Selina, Bob	National Radio Astronomy Observatory	ASEP 7/15/2014
Smith, Eric	University of Texas at El Paso	ASEP 5/21/2010
Young, Sharissa	Retired Sandia National Laboratories	CSEP 12/19/2007

### Resources

**From TED:** How do you remember where you parked your car? Neil Burgess researches questions such as: How are locations represented, stored, and used in the brain? What processes and which parts of the brain are involved in remembering the spatial and temporal context of everyday events, and in finding one's way about? [www.ted.com/talks/neil\\_burgess\\_how\\_your\\_brain\\_tells\\_you\\_where\\_you\\_are](http://www.ted.com/talks/neil_burgess_how_your_brain_tells_you_where_you_are)

**From TED:** Every morning we wake up and regain consciousness — that is a marvelous fact — but what exactly is it that we regain? Neuroscientist Antonio Damasio uses this simple question to give us a glimpse into how our brains create our sense of self. [www.ted.com/talks/antonio\\_damasio\\_the\\_quest\\_to\\_understand\\_consciousness](http://www.ted.com/talks/antonio_damasio_the_quest_to_understand_consciousness)

**From TED:** Nancy Kanwisher shows it to you live — The brain is made up of both highly specialized components and general-purpose “machinery.” [www.ted.com/talks/nancy\\_kanwisher\\_the\\_brain\\_is\\_a\\_swiss\\_army\\_knife](http://www.ted.com/talks/nancy_kanwisher_the_brain_is_a_swiss_army_knife)

### New Chapter Members

*Ann Hodges, Sandia National Labs*

Enchantment Chapter now has 102 active members and student members. We would like to welcome the following new INCOSE members to Enchantment Chapter:

Demian Arancibia	National Radio Astronomy Observatory
Joe Depa	National Radio Astronomy Observatory
Dr. Carla Forrest	Sandia National Laboratories
Patrick O'Malley	Sandia National Laboratories
Henry Torres	American Systems

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## Connect to Your Community of Practice

Chapter meetings with a focus on systems engineering are held monthly on the second Wednesday, except when social events occur, with mingling, dinner, and often a speaker chosen for enjoyment by systems engineers and guests alike.

Monthly meetings feature speakers from out-of-town as well as local subject matter experts on topics of relevance.

On occasion special facility tours are arranged, sometimes as the monthly meeting, and other times on a separate schedule.

Chapter meetings begin at 4:45 pm.

After chapter news, announcements and introductions, the presentation and discussion generally lasts until 6:00 pm, carried on GlobalMeet for anybody to access who can't attend in person.

Tutorials with coverage on topics of interest are arranged approximately twice a year. Delivered by experts in the field, tutorials range from 1/2 day to day+ durations, and generally involve a tuition.

Mix with people who have the same professional interests as you do, but with a diversity of perspective beyond daily

workmates. It comes in handy when you need help or answers to questions outside your accumulated experience, need a connection at another organization, or simply want some mind stretching thought.

Meeting announcements, event notices, and GlobalMeet links routinely go to all INCOSE members within the Chapter's geographic territory; as well as to names on a special *information* list open to one and all. Sign up for the *information* list with a request to the Chapter secretary listed below.

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### Chapter Board

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Ann Hodges	Secretary/Past President	505-844-6284	alhodge@sandia.gov
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