



# Midwest Gateway Newsletter

## International Council on Systems Engineering

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### In This Issue

#### 1- President's Corner

#### 1- New Members Join Chapter Board in 2009

#### 1- Changes to the DoD Acquisition System: Subtle but Substantial

#### 2- Got an Idea?

#### 3 - Calls for Abstracts and Papers

### President's Corner

Brian Beyer & Bob Scheurer

As the new president of the Midwest Gateway Chapter of the International Council on Systems Engineering (INCOSE), it is my pleasure to serve you in 2009. Bob Scheurer will be our VP (President elect) for this year. He has served INCOSE in numerous roles and leadership positions over the past 15+ years. We invite you to help us shape the future of Systems Engineering together. Please feel free to contact Bob or myself if you have any input to share, program ideas, or interest in joining a committee in 2009.

I want to re-focus our MGC Board of Directors (BOD) and our committees' efforts on the current membership's needs and interests. INCOSE, and the MGC chapter specifically, has a lot to offer our members in the form of quality SE programs, presentations, member's knowledge, networking, camaraderie, and more.

For chapter Outreach, we'll continue to be involved in the community. See our website; [www.incose.org/mdwest/outreach.htm](http://www.incose.org/mdwest/outreach.htm) for more info. I encourage you to share your experiences with the board so

(see **Presidents Corner** ... on page 3)

### New Members Join Chapter Board in 2009

by Steve Recker

Following another successful election, the Midwest Gateway Board welcomes its new office holders in 2009. President-Elect is Bob Scheurer, who is serving his third tour of duty on the MWG board, Director (09/10) is Dick Mayer, another returning board alum, and Mike Mobley (09/10) is the newest board and INCOSE member. Also returning to the board are Bill Bezdek as our new Secretary and Bill Schoening as our Treasurer.

Brian Beyer moves up to



the role of President in 2009, succeeding Marcos Chu. Marcos stays on the board in his third year and becomes immediate Past-President. Continuing their terms are Chris Johann (Secretary 08/09) and Steve Recker (Director 08/09).

Leaving the board are Tariq Ashraf, and Mason Myers, Jr. Thanks to those who have volunteered their time in the past year on behalf of all our members and INCOSE. Let's welcome and support the newest board members for a very prosperous year in advancing our interests in Systems Engineering.

### Changes to the DoD Acquisition System: Subtle but Substantial

By Bob Scheurer

On December 2, 2008, the DoD issued updated guidelines for acquisition of systems and services under DoD 5000.02. While on the surface they may look like subtle changes, the impact of the changes to the acquisition community will be substantial. As systems engineers or those interested in systems engineering for the DoD, it's imperative that we become intimately knowledgeable with these changes.

In the Defense Acquisition Management System diagram below, we see that most of the changes are in the Pre-Systems Acquisition phase (pre-Milestone B) and in the Systems Acquisition

phase (Milestone B – C). Most notable is the Materiel Solution Analysis, which replaces the phase formerly known as Concept Refinement, and Engineering & Manufacturing Development which replaces System Development and Demonstration. Each of these revised phases comes with its own set of revisions intended to better articulate what contractors are expected to provide as well as greater transparency into what is being provided or planned to be provided in the future. In a nutshell, the revisions are intended to lead to

(see **DoD Acquisition...** on page 2)

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DoD Acquisition ...  
from page 1

lower risk solutions for the acquisition community.

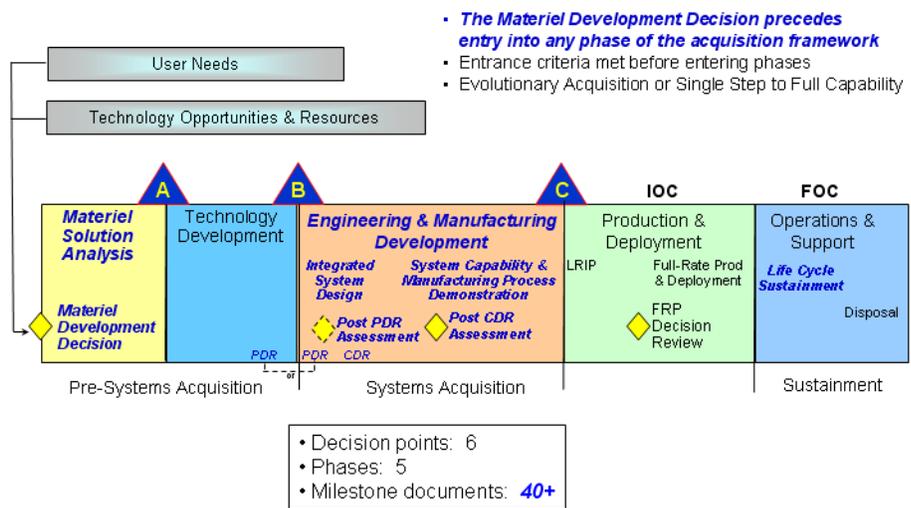
Of direct relevance to Systems Engineers (and others) is the statutory requirement for Analysis of Alternatives by the customer at Milestones A, B, & C, which will include a PDR prior to the Milestone B (rather than shortly after Milestone B). This subtle but substantial change will drive a much stronger emphasis on systems engineering technical activities that support technical maturity management of systems. Expect to see more mandates for competitive prototyping, risk reduction activities, trade studies, event-driven reviews, and verification of balanced designs (including strong emphasis on Developmental Test & Evaluation). These address the capability requirements originating from the customer as planned in their associated SE plan (SEP) and are expected to induce corresponding solution plans from the contractor's team in its associated Systems

Engineering Management Plan (SEMP).

All mandates of the new DoD-5000.02 are beginning to roll out to the acquisition community now. In fact, some programs have already been experiencing the essence of these new acquisition requirements over the past year. Going forward, expect to see all new major and minor programs to contain them in RFI's, RFP's, and resultant

contractual language. Hence, now is the time to understand these far-reaching changes from the DoD and prepare to apply good systems engineering practices for addressing them.

For additional information on the full number and scope of the changes, see the Defense Acquisition University presentation at the DAU's web site: [DAU Instruction 5000.02](http://www.dau.mil/5000.02)



- *The Materiel Development Decision precedes entry into any phase of the acquisition framework*
- Entrance criteria met before entering phases
- Evolutionary Acquisition or Single Step to Full Capability

Dec 2008 ver. 5.1

New in bold blue italics

42

[https://akss.dau.mil/Documents/Policy/DoDI%205000%2002%20RDT%20\(%20Dec%2008%20ver.%205.1\).ppt](https://akss.dau.mil/Documents/Policy/DoDI%205000%2002%20RDT%20(%20Dec%2008%20ver.%205.1).ppt)

**Got an Idea?**

Got an Idea? How to Contribute to this Newsletter. This Newsletter is published three to four times a year, with the goals of

- keeping chapter members informed
- providing technical articles of interest to chapter members
- stimulating discussion on systems engineering issues

The Newsletter staff is always looking for good articles, information on the technical issues Systems Engineers face on a daily basis, questions you'd like

answered about the chapter or the International organization, and topics on which you'd like more information.

You can reach the newsletter editor Steve Recker at 314-545-6338. Contributions of articles or announcements, and letters to the editor can be sent to Steve at [steven.recker@incose.org](mailto:steven.recker@incose.org).

Articles in Microsoft formats are preferred, but we can use text originating from most word processing formats. For graphics, we can work with, jpg, gif, png, and

most other standard graphical file formats. If you have any questions about format, please call. Also, please include your name, e-mail and phone number in all correspondence.





Presidents Corner ...  
from page 1

we know about all of the great things that our members do in support of the community. In March is the annual FIRST Robotics competition... the St. Louis Regional event will be held at Chaifetz Arena over the weekend of March 19-21st. I know several of our MGC members are mentors to Robotics Design teams. I encourage other MGC members to get out and support the event as a volunteer or a spectator and see what the excitement is all about.  
<http://www.usfirst.org/>

As far as chapter programs are concerned, my goal is to improve our program offerings this year and get our current members back into center stage. At INCOSE, and the Midwest Gateway Chapter in particular, new ideas are shared on a regular basis in a variety of ways for becoming better, more proficient, systems engineers using systems engineering methods and tools. If you're interested in sharing your expertise or insight on a particular SE topic at an upcoming member meeting of the Midwest Gateway Chapter, please contact Bob Scheurer or me. We'll be glad to accommodate you.

You can become more involved through active participation in one of our committees, joining us for exciting programs at an MGC chapter meeting, or supporting our Outreach efforts. Don't forget to visit our website often, participate in an upcoming INCOSE lunch meeting, or contact us. You'll see why systems engineering is a growing, highly-valued, competency throughout the world... and INCOSE is the organization leading the way.

Sincerely,  
Brian Beyer - President for 2009,  
Robert Scheurer - Vice President,  
MW Chapter of INCOSE

## CALL FOR ABSTRACTS

### 21st Annual Systems & Software Technology Conference (SSTC 2009) 20-23 April 2009

Theme: "**Technology: Advancing Precision**" This year, INCOSE and SSTC have established an INCOSE Track on Monday and Tuesday 20-21 April 2009. There are three 45-minute open presentation slots remaining. This notice is a call for abstracts & bios for evaluation to fill those three remaining slots.

Submit your 150 word abstract, 100 word bio, and topic today to the INCOSE Track Coordinator, [john.clark@incose.org](mailto:john.clark@incose.org), for evaluation! The last day to submit them is Friday, 14 November. Speakers will be notified of acceptance beginning 18 November.

More info... <http://www.incose.org/mdwest/Fliers/INCOSE-Track-SSTC09.doc>

## CALL FOR PAPERS

### The International Council on Systems Engineering Spring 09 Conference, April 2 – 4, 2009

The conference theme for the INCOSE Spring 09 Conference is **Systems Engineering – Affordable Success**. It focuses on the means and tools to lead and create organizations that develop affordable systems.

It is known that systems complexity has dramatically increased over the last two decades. It is therefore even more important to develop leaders and processes to more cost effectively track development costs,

calculate complexity, and leverage known solution and techniques.

Papers in all areas of systems engineering leadership, green solutions, and complexity, cost, schedule, and performance are encouraged. All types of papers will be considered. Papers must be submitted in English, the official language of the INCOSE Spring 09 Conference. Students are especially encouraged to submit papers.

More info... <http://www.incose.org/mdwest/Fliers/Spring09Callforpapers.doc>

### INCOSE MWG 2009 Board of Directors

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