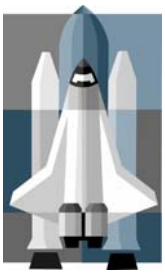
INCOSE Region V
Huntsville Regional Chapter
Newsletter FEBRUARY 2006



*The **International Council on Systems Engineering** is a not-for-profit membership organization founded in 1990. INCOSE is an international authoritative body promoting the application of an interdisciplinary approach and means to enable the realization of successful systems.*

CHAPTER MEETINGS (Usually on 3rd Thursdays @ 5:30 pm at Green Hills Grille on Wynn Drive)

THIS MONTH Feb. 16, 2006
Thomas Satterley, Robust Decisions,Inc.
Presentation Topic:
Decision Support Management Tools for Making Complex Team Decisions

Mr. Satterley discussed why it is so difficult to make good decisions. The business environment contains uncertainty, increasing complexity, incomplete and evolving data, dynamic business conditions, organizational barriers, poorly understood information, and often, widely dispersed teams. Bad decisions cost in terms of lost time, lost revenue, reduced productivity, low morale, lost market share, loss of the best employees, and so on. Mr. Satterley discussed why 50% of decisions fail.

He illustrated generic decision making processes, how methods fit into processes, and what makes a well-managed decision robust: looks good later, has customer and team buy-in, is as insensitive to uncertainties as possible, and was made with known anticipated satisfaction and risk. Many tasks require choosing a course of action and committing resources based on information that is: incomplete, uncertain, evolving; and from stakeholders who represent many different viewpoints, areas of expertise, and organizational functions; who know some of the information, and who may be distributed in time and location.

Mr. Satterley then discussed how better decisions can be made by using Bayesian Team Support (BTS) methodology and the *Accord*™ Decision Making software solution that uniquely supports BTS by leveraging powerful mathematical algorithms that cannot be handled manually. The *Accord*™ software:

- Factors in both Quantitative and Qualitative input
- Displays results from each person's point of view
- Calculates the Risks
- Identifies what steps might improve the decision process

Additional information is available at www.robustdecisions.com
You can also contact Tom Satterley at 215-396-7332.

Thomas Satterley is the Director for Business Development at Robust Decisions, Inc. (RDI). He brings to RDI more than 2 decades of experience in the areas of sales management and operations to his position as Vice President of Business Development. Hired in June of 2005, Mr. Satterley is responsible for leading and rapidly expanding RDI's sales organization and developing new sales channels for RDI's product offerings and consulting/training services. Prior to joining RDI, Mr. Satterley was the Vice President, Sales & Operations for iQvolution, Inc., a German company specializing in 3D Laser Scanning technology where he opened US operations and grew he the company to the point, iQvolution was purchased by FARO Technologies in April, 2005. Responsibilities included: all sales, marketing, operations, project management and administrative duties. Prior to iQvolution, Mr. Satterley held several sales and sales management positions in the manufacturing/engineering software arena with companies such as: IBM, ADP, Schlumberger, and Tecnomatix. Mr. Satterley is a graduate of the University of Rhode Island with a BS in Business Administration, Marketing Management.

ABOUT ROBUST DECISIONS, INC. Robust Decisions, Inc. develops and delivers proven solutions that give individuals, teams and entire organizations the ability to consistently make the best decision possible – every time. Based on the patented Bayesian Team Support™ (BTS) methodology, Robust Decisions provides a foundation to optimize your decision processes and empower your people to make better, more informed decisions. Robust Decisions provides focused consultation, software tools and training for decision management that can help increase your competitive advantage including the following: Resolution Basics™, Rapid Resolution™, Resolution Expert™ and Accord™.
Thomas is responsible for Systems Engineering & Integration (SE&I) for all programs and projects managed by the MSFC Space Transportation Programs & Projects Office (STPPO). Dale has also served as UAH Associate Adjunct Professor since 1991.

MEMBER NEWS

Attributes of Successful Projects
Walter Hammond recently participated in a NASA Langley Research Center led study entitled: "Seven Key Principles of Program and Project Success – A Best Practices Survey," which is in final draft form and due to be released soon as a NASA Technical Memorandum (TM). This report was produced by a NASA-sponsored organizational discipline team (ODT) and concluded that the key principles for program success are as shown below.

SEVEN KEY PRINCIPLES OF PROGRAM SUCCESS

1. *Establish a clear vision and develop a mission statement.*
2. *Secure sustained support from "the top".*
3. *Exercise strong leadership and management skills.*

4. *Facilitate open communications.*
5. *Develop a strong organization architecture.*
6. *Manage risk.*
7. *Implement effective systems engineering and integration.*

In 1995, the Standish Group (http://www.standishgroup.com) completed a study of over 2000 Information Technology (IT) software projects from over 300 large, medium, and small companies across major industry segments, e.g., banking, securities, manufacturing, retail, wholesale, heath care, insurance, services, and local, state, and federal organizations. The total sample size was 365 respondents—IT Executive Managers-- and represented 8,380 software applications. In addition, The Standish Group conducted four focus groups and numerous personal interviews to provide qualitative context for the survey results.

The key findings from the Standish Group research surveys and several personal interviews were that project benefits were overstated by 60%, IT costs were understated by 180%, and software change costs were understated by 300%. The majority of projects (52.7%) were completed and operational, but over-budget by an average of 189%, over the time estimate, and with fewer features and functions than originally specified. 31.1% of software projects were outright cancelled at some point during the development cycle. Only 16.2% of the projects were completed on-time and on-budget, with all features and functions as initially specified.

The top 10 contributors to IT project success were tabulated as: 19% due to user involvement. Not surprisingly, the absence of user involvement is a major cause of project failure. Even when delivered on time and on budget, a project can fail if it does not meet users' needs. The only reason the project exists in the first place is because someone needs to use the particular software application (i.e., business) when it is finished.

16% due to executive management support. Effective project personnel will devote their time and attention to projects that will further their careers. Without management support, the best personnel will seek to further their careers on more worthwhile projects, and eventually the unsupported project will wither away.

15% attributed to developing a clear statement of require-ments. Good requirements are essential to project success. Without concurrence at all levels as to what the requirements are, project personnel will arrive at different solutions that do not converge. Subsystems will be mismatched to each other and it will be impossible to integrate subsystems into a unified whole.The fourth most important contributor (11%) to project success is proper planning. A project plan that is supported and agreed to at all levels is essential to project success. A project plan is necessary to orchestrate the efforts of different personnel and different organizational elements towards a unified goal. Lack of a coherent, well-supported plan will spell disaster for the project.

11% due to setting realistic expectations. Cost and schedule overruns will result from trying to achieve unrealistic expectations. Project personnel will become discouraged, or quit. The desired performance can only be met if it is realistic and achievable within time and resource constraints. It is better to underpromise and then over-deliver

9% due to establishing small project milestones. The project will be easier to control and manage with smaller, "bite-size" milestones. It will be easier to home in on the root cause of a problem, and sooner rather than later, because management will know sooner that something went wrong when a small project milestone is not met rather than waiting a longer time to find out that a major milestone cannot be achieved.

8% attributed to competent staff. This low a percentage was a surprise. Matching the right personnel to the right tasks is essential to ensure project success. Incompetent staff can demoralize project personnel that are competent, and slow down the whole project if they are mismatched into key positions.

6% due to clear ownership of roles and responsibilities. Efforts will be unnecessarily duplicated, or essential efforts will be left unattended and undone if roles and responsibilities are not clearly defined and agreed to by project personnel.

3% due to a clear understanding of the project vision and objectives. Project team personnel need to know which priority to assign to their work tasks, to ensure that all important tasks are accomplished on time and within budget. Not having a clear vision and objectives will hamper project success.

Finally, the tenth most important contributor (3%) to project success is hard working, focused staff. Project personnel, especially the more junior team members, will become discouraged and want to quit if they see others loafing or not giving their best and getting away with it. Senior personnel should mentor their juniors, and show by example that hard work, good teaming, and focusing on the most important tasks first are essential to project success.

For more information on the 1994 Standish Study, see http://www.standishgroup.com/sample_research/chaos_1994_1.php

The above two survey results should be considered by project or program participants, and the latter IT survey should also apply in the main to non-IT projects.

UPCOMING CHAPTER MEETINGS
March 16, 2006
Dr. James R. Snider, University of Alabama Huntsville
Presentation Topic:
The Changing role of the DOD Project Manager

Dr. Jim Snider, a retired Major General from the US Army, is currently employed by the University of Alabama in Huntsville where he is the Associate Vice President for Research, the Director of the Rotorcraft Systems Engineering and Simulation Center, a Research Professor in the department of Mechanical and Aerospace Engineering and an Adjunct Professor in the College of Administrative Sciences.

NATIONAL NEWS
INCOSE Announces Senior Member Category. To better recognize the value that our senior members bring to INCOSE and to encourage them to stay active, sharing their knowledge and experience, INCOSE is introducing a new Senior member category for the 2006/2007 member year. Senior members

take advantage of reduced annual dues of $55, receive a 50% discount on their registration and other program fees for the International Symposium, and have the registration fee for the International Workshop waived. Please note that, if you take advantage of this offer, you will have access to the Journal and INSIGHT via the INCOSE website only.

Individual members qualify for the Senior category if they are at least 64 years of age at the start of the membership year (June 1) and have maintained their individual membership for the five membership years prior to applying for the Senior category. Those seeking Senior member status to take advantage of the discounted fees at the International Symposium must renew their membership prior to registering for the symposium (senior member status must be confirmed by the Central Office before individuals can register at the discounted rate).

Additional information on the Senior member category can be found on the membership types page of the INCOSE website.

Make Plans to Join Us for the 2006 International Symposium.
Come to Florida and learn how the theme *Systems Engineering: Shining Light on the Tough Issues* applies to the broad scope of systems engineering. See how systems engineering activities in commercial, academic, and government environments are generating new best practices, novel technologies, and new methodologies. Attend outstanding papers, panels, and tutorials covering case studies, developmental work, and technical analysis. Enjoy entertaining and fascinating keynote speakers and special events. Bookmark the symposium website, and come back often to see the plans as they progress. Mark your new 2006 calendars and allocate your budgets, so you can be sure to join systems engineers from around the world at the Sixteenth Annual INCOSE International Symposium July 9-13, 2006. See you in Orlando!

Download the New Technical Measurement Guide. The result of a joint project conducted between the Practical Software and Systems Measurement (PSM), INCOSE, and various companies, the Technical Measurement Guide provides information on implementing technical measurement on a project. This guide describes how technical measurement can be applied, using the measurement process described in Practical Software and Systems Measurement, which is the basis for much of the INCOSE measurement guidance (INCOSE is part of the PSM project team). Lessons learned in the areas of establishing commitment, planning, and performing measurement are identified. All information is intended to reflect actual proven practice.

SysML Merge Team Announced with a Unified Submission. INCOSE and the Object Management Group (OMG) completed their evaluations of the two Systems Modeling Language (SysML) submissions. The results provided valuable input to both teams some of which have been incorporated into an update specification. In parallel with the evaluation, there has been an effort to merge both submission teams. At the OMG meeting the week of 13 February, Jan Popkin announced the formation of the new SysML Merge Team (SMT). The SMT was able to reach consensus on a single SysML specification v0.99. The SMT plans to submit their final revised submission v1.0 to the OMG for adoption at the next meeting the week of 24 April in St Louis. Additional information on the evaluation and the SysML v0.99 submission, along with the SMT presentation to the OMG, is available from the SE Domain Special Interest Group website.

Member Pin Unveiled. During the 2006 International Workshop, INCOSE introduced a new member pin. This 14K gold filled lapel pin is a special mark of membership and was distributed to all workshop attendees as well as all leaders across the organization in appreciation of their dedication and service to INCOSE. Those interested can purchase the new member pin from the online INCOSE store.

NEW RELEASES
The INCOSE SE classification project has been completed, SE Handbook v3 and INCOSE Product Asset Library (IPAL) are nearing release, the SE Vision is at version 1.5, and SE Certification is in operation

Seeking a Paid Chief Editor for INCOSE INSIGHT. The demands of publishing INCOSE INSIGHT, the quarterly INCOSE newsletter, now exceed what we can expect from a volunteer position. In order to take INSIGHT to the next level, INCOSE is seeking qualified candidates for a contract position as Chief Editor of INSIGHT. This request for services is open to INCOSE members and non-members who satisfy the criteria. This is a paid contract position with a two year period of performance. Compensation could be as high as $5,000 per issue ($20,000 per year) based upon qualifications.
All applicants must submit a resume and brief description of their qualifications to be considered for this position. Applications should be submitted to INCOSE Central Office, attention: Shirley Bishop and must be received by 15 March 2006. For more information, see the formal Call for Services on the INCOSE website.

Announcing the Fifth Annual INCOSE / Stevens Doctoral Award. Graduate students performing research in systems engineering and integration are encouraged to apply for the INCOSE Doctoral Award. This award provides a $5,000 cash grant to the candidate, a plaque, and recognition at the 2006 International Symposium.
To be eligible for this prestigious award, the applicant must have been admitted to candidacy for the Ph.D. and have a research proposal approved by his or her doctoral committee. Additional details and application forms can be found on the INCOSE website. Applications from interested doctoral candidates must be received by 15 April for consideration.

Make a Difference through Technical Reviews Review of INCOSE's various technical products – handbooks, guidebooks, papers, panels, and more - is essential as we deliver first-class materials to our members and are seen by the rest of the engineering profession as a worthy professional society. Join the INCOSE review team and help ensure our products meet professional standards. To date, approximately 120 members have registered as reviewers. We hope to double this number so, if you feel you are qualified to be a reviewer for some or all of the Technical Matrix elements and could possibly find some time for this activity when required, please contact the review team today.

Receive Special Savings on the 2006 Project Risk Symposium The Project Management Institute Risk SIG and & Institute for International Research present the 2006 Project Risk Symposium May 22 – 25 in Houston, Texas, USA. INCOSE has partnered with this event to provide our members

special savings. Mention priority code XM1812INCOSEEM to save 15% off the standard conference price!

This symposium provides an in-depth, customizable and comprehensive opportunity for those involved in risk management to examine, advance and improve project risk management practices. Learn from leaders in Oil & Gas, Aerospace & Defense, Service, Finance & Construction, among many others. This event is comprised of cross industry cutting edge content, and you will also learn key methodologies, techniques, case studies & current trends that will improve your risk management practices across your entire enterprise. For more information or to register, please visit the conference website.

Important Dates

15 April	Application deadline for INCOSE / Stevens Doctoral Award for Promising Research in Systems Engineering and Integration
26 May	Early registration deadline for INCOSE 2006 International Symposium
01 June	Start of 2006-2007 membership year
09 - 13 July	2006 INCOSE International Symposium in Orlando, Florida, USA

JOB OPPORTUNITIES

SAIC is looking for systems engineers for several job openings at http://www.saic.com/career/advantage.html.

CONTACT INFORMATION

Find us on the web at **www.incose.org/huntsville**. Please contact Walter Hammond at **whammond@comcast.net** , 256-426-4242 with any Newsletter inputs at any time, and questions or comments about this newsletter.

For questions or comments regarding the INCOSE Huntsville Regional Chapter (HRC), please contact Rick Leonard at **Rick.Leonard@amrdec.army.mil** , 256-876-4714.

Postal address
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Your INCOSE HRC officers need your inputs to make this newsletter better speak to your needs. We solicit YOU, the INCOSE membership, for items of interest from your company, local conferences, published tech papers or books, news regarding job transfers, new jobs, etc.

Your Local Chapter Contact Points (detailed bios at http://www.incose.org/huntsville)

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