

## Tuesday Evening Monthly Program – May 12, 2009

5:30 pm Board of Directors Meeting, Social Half-Hour and Snack.  
6 - 7:00 pm Presentation followed by questions.



Place: Santa Clara University,  
Bannan Engineering  
Building 404, Second Floor Conference Room 230.

Santa Clara University Campus Map  
<http://www.scu.edu/map/index.cfm?i=5>

Directions, including Transit information is at  
<http://www.incose.org/sfbac/Directions-to-SCU.html>

From the main campus entrance on El Camino Real in Santa Clara, CA, stop at the visitors entrance booth and ask for a "Visitors" parking permit. Say you are here for a meeting and that you are an invited guest of the Dean of Engineering. Park in the parking garage in the visitor's parking spaces or in any other available "Visitors" parking space.

If you have any questions about SCU, you may contact Campus Security at 408-554-4441.

Web Conference Attendance is not available.

Food Donation: FREE for members; \$4 for non-members.

For more information, contact:

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For information about this mailing list please visit <http://www.incose.org/sfbac/mail.html>

The mission of the International Council on Systems Engineering (INCOSE), a non-profit professional society, is to "foster the definition, and practice of World Class Systems Engineering in industry, academia, and government."

The SF Bay Area Chapter presents thought-provoking monthly programs for its members and their guests. Learn about INCOSE at <http://www.incose.org>.



## **Speakers: LT Bobby Rowden**

### **Topic: Counter Maritime Improvised Explosive Devices (IEDs)**

Insight gained from terrorist attacks, training exercises, and intelligence intercepts over the past few years have shown a renewed interest in the use of mining as an effective means of disrupting commerce and damaging critical infrastructure. In an attempt to develop a system of systems architecture to defeat mines and Maritime IEDs (MIED), Systems Engineering Analysis Cohort 14 (SEA 14) developed several system alternatives, or Adaptive force Packages, that incorporate both existing systems and emerging technologies. Overall performance was assessed using a US Joint Forces Command sponsored wargame simulating an MIED attack on ports based on the geography of Seattle and Tacoma. A critical analysis of the alternatives based on performance, suitability, cost, and risk were carried out. The study results showed that increases in performance are attainable with mixed results in cost and risk, and highlighted necessary actions and considerations that must be taken by military and civilian leaders in order to adequately prepare for and counter MIEDs in US ports.

### **Biography:**

LT Rowden earned his degree in Political Science and received his commission from UCLA NROTC in June of 2003. His first ship was the USS PORTER (DDG 78) homeported in Norfolk, Virginia, where he served as Machineries Officer and Strike Officer. After earning his Surface Warfare Officer designation and successfully completing his first tour, LT Rowden reported to USS PONCE (LPD 15) as Training Officer.

In 2007, LT Rowden reported to the Naval Postgraduate School, in Monterey, California for studies in systems engineering and analysis. LT Rowden was the project lead for the Systems Engineering Analysis Cohort 14 integrated capstone project titled, "A Systems Approach to Countering Maritime Improvised Explosive Devices in US Ports". He earned his Masters Degree in Systems Engineering Analysis in December, 2008.

LT Rowden is currently a Scholar In-Residence at Northrop Grumman Electronic Systems in Sunnyvale, California. Additionally, LT Rowden is NPS team lead on projects sponsored by the Office of Naval Research and the Joint Improvised Explosive Device Defeat Organization. Future assignments include a basic Russian language residency course at the Defense Language Institute, Surface Warfare Officer School Department Head Course, and assignments as Department Head at Sea.