

MOVES Holds 8th Annual Open House

By MC2 (SW) Corey Truax

The Naval Postgraduate School Modeling, Virtual Environments and Simulation (MOVES) Institute hosted prominent keynote speakers, discussed research in Modeling and Simulation (MS) being done and held demonstrations during their 8th Annual Open House and Research Summit July 15-17.

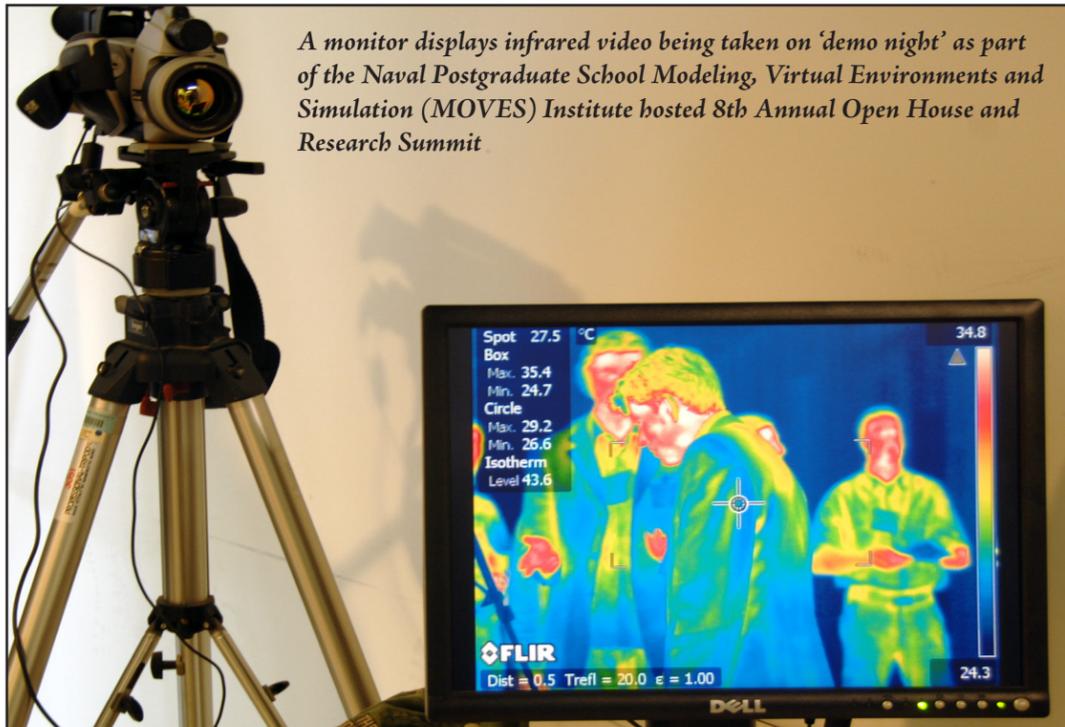
"The purpose of the open house was two fold," explained MOVES Director Cmdr. Joseph Sullivan. "One reason we held it was to showcase the research we are doing here, so people can see what MS is about and how it can help them. The other reason is outreach to our sponsors and end users."

For the first time it was students who ran the Open House. This made it a very unique experience for those attending, and changed the shape of the Open House in many ways.

While all the participating MOVES students and staff played a huge role in the Open House, Marine Maj. Johnny Powers and Eric Whittington, had a substantial role in the execution of the event, according to Sullivan. The two students set up panel sessions to solicit end-user feedback, something essential to the MOVES Institute's continuing success.

"This is what we need and rely on in the MOVES Institute – feedback," said Sullivan. "The more feedback we are getting from users and our key stakeholders, the better we can shape our work to fit what they need."

"The panel sessions were a change in venue," explained Powers. "Historically the sessions



A monitor displays infrared video being taken on 'demo night' as part of the Naval Postgraduate School Modeling, Virtual Environments and Simulation (MOVES) Institute hosted 8th Annual Open House and Research Summit

were presentations that didn't provide much room for participant feedback. By changing how the event was organized, this year's participants were able to be part of the discussion and exchange ideas."

The students focused on getting the users of simulation, the simulation technologists and the simulation sponsors all in the same room. "By bringing these three types of people together, real progress and vision for modeling and simulation could occur," said Whittington. "Once here, the participants needed to network and exchange ideas. As part of growing the body of knowledge in modeling and simula-

tion, the event provided many opportunities to receive feedback from the participants, as well as inform them."

The MOVES Institute, in addition to holding keynote addresses and conducting multiple training and research presentations, held a demonstration night. One particular demonstration was the Augmented Reality Virtual At Sea Trainer or AR-VAST. Its goal is to provide the Navy and Marine Corps with training capabilities to defend against small boat attacks and for operations in littoral environments.

"Training on crew-served weapons on coalition ships has not advanced to meet this new

threat," according to Lt. Nate Conger's thesis abstract regarding AR-VAST. "The creation of a prototype Augmented Reality Virtual At Sea Train shows that emerging technologies in augmented reality systems can be used to create a low cost effective answer to this training need."

Children and adults alike tested their mettle against small boat attackers, firing round after round from a virtual full-size .50 cal machine gun, at the AR-VAST demonstration booth.

In addition to AR-VAST, people flew helicopters and strolled down the virtual streets of desert cities and urban environments, clutching a virtual M16 assault rifle and engaging assailants. The demonstration night boasted 20 such interactive displays for people to try out.

While many of these MS displays seem similar to displays that private industry creates, the MOVES Institute approaches their projects with a different perspective.

"Our focus is much different than private industry," Sullivan explained. "A lot of private industry creates solutions to problems that maybe don't relate to your organization. Then they tell you why you need their product. This creates solutions that are looking for problems. At MOVES, we focus on training value and we find problems that are hard and sometime frustrating to solve. We look at the science it takes to represent these problems and we figure out how to use them to our advantage with MS tools. We always make sure the science is there first."

WASC Capacity and Preparatory Review Coming Soon!

Efforts in preparing for the next reaffirmation of accreditation with the regional agency, the Western Association of Schools and Colleges (WASC) are moving ahead briskly. The Capacity and Preparatory Review Task Force (CPR), which was formed to support the next stage of the accreditation process is focusing efforts on a self-study based on the proposal submitted by NPS to WASC in October 2006, which can be found at: http://intranet.nps.edu/WASC/docs/WASC_Final_Proposal.pdf.

In preparation for the WASC Capacity and Preparatory Review visit to NPS in March 2009, the NPS CPR task force has met regularly throughout the past year to discuss and outline the responses required in the CPR self-study report, which will be sent to WASC in December 2008. For the CPR report, campuses are required to address the administrative, fiscal, physical, technical, research and other resources and systems that support the academic enterprise. To accomplish this task, the CPR task force

has been gathering data on policies and regulations as well as business processes. In June, a short survey of student assessment and faculty development processes was sent to each department. The resulting data has been analyzed and will soon be posted on the Intranet. A draft of the self-study has been created, is in the final phase of review by the committee, and is expected to be distributed to campus leadership for their comments later this month. There will also be an opportunity for the entire campus to read and to comment on the document, as well as presentations to the major governance committees and councils.

In addition to outlining the history, changes in context, programs and resources of NPS, the report titled Capacity and Preparatory Review - 100 Years of Relevance and Excellence: Education and Research Serving National Security, addresses the general results of the self-study as it relates to four standards: 1) Defining Institutional Objectives, 2) Achieving Education

Objectives Through Core Functions, 3) Developing and Applying Resources and Organizational Structures to Ensure Sustainability, and 4) Creating an Organization Dedicated to Learning and Improvement. In addition, the document addresses three themes: Strategic Planning for the Next Centennial, Integrating a Campus-Wide Program of Improvement, and Supporting an Evolving Academic Enterprise. More information on the WASC process can be found at <http://www.wascsenior.org/>.

The CPR committee is chaired by Ms. Eleanor Uhlinger, Head Librarian of the Dudley Knox Library, and its members are Dr. Christine Cermak, Vice President of Information Resources and CIO, Mr. Kevin Little, Executive Director for Business Affairs and Comptroller, Ms. Danielle Kuska, Director of Research and Sponsored Programs Office, Dr. Doug Moses, Vice Provost for Academic Affairs, Ms. Debbie Baity, Deputy EEO Officer/CMEO Officer, and Dr. Fran Horvath, Director of Institutional Planning and Communications.

IN BRIEF

- ♦ President Dan Oliver delivered a keynote address discussing the quality of education and research and the story of high-performance computing (HPC) at NPS during the Department of Defense High-Performance Computing Annual Conference in Seattle. Also in attendance from NPS were HPC Technical Manager Jeff Haferman, Gabrielle Jost, an HPC specialist, and Operations Research Prof. Susan Sanchez.
- ♦ The Staff Development Advisory Committee is offering two training seminars with limited seating on a first come, first served basis in the SIGS Conference Room (HE-033). Aug. 13 is for administrative professionals. POC Toni Dickenson at Ext. 3165. The Sept. 10 seminar is on "Essential Time Management & Organization Skills." POC Chris Ewing at Ext. 7648.
- ♦ The America's Heroes Charity Golf Tournament will be held at the Monterey Peninsula Country Club on Aug. 12, 2008. For more information, contact retired Rear Adm. Ruck at Ext. 2427. On Aug. 13, the NPS Foundation will be supporting Motorworks at the Monterey Jet Center. Contact Katie Van Dolah at kavandol@nps.edu to volunteer.
- ♦ The award formerly known as the Assistant Secretary of the Navy (Research, Development and Acquisition) for Excellence in Acquisition is now the Commander Philip A. Murphy-Sweet Memorial Award for Excellence in Acquisition. The award was renamed to honor the memory of CDR Murphy-Sweet, a 2002 NPS graduate who was a Contracting Officer for the Joint Contracting Command-Iraq/Afghanistan in Baghdad, Iraq, where he was killed on April 7, 2007 by an IED attack.
- ♦ The MAE Department is sponsoring the Boeing Technology Exposition on Aug. 7, in which the company will share its technologies, processes and advanced systems in the interest of identifying collaboration opportunities of mutual benefits, and discussing future areas of interest that align with the NPS - Boeing CRADA. For further information: http://intranet.nps.edu/Announcements/Postings/itacs_BoeingExpo_Aug2008.htm

In March 2008, NPS became the recipient of the first commercial high-resolution, field-emission Scanning Electron Microscope (SEM) based on new silicon micro-machined column technology. The "mySEM" is shown here along with an inset image of a sample electron image, operated by Lt. Cmdr. Mike Touse, a Ph.D. student in the Physics Department. NPS is participating with NovelX, the manufacturer of the mySEM, in beta testing of the initial system. The goal is sub 10 nm resolution for SEM imaging in a high-performance, compact system.



Message From Interim Dean of SIGS James Wirtz



I've often thought that if our university did not exist, it would have to be created. Nowhere else can one find such outstanding faculty, motivated research sponsors, and dedicated and experienced students addressing issues of national and international security. This synergy fosters a truly applied research program, highly relevant curricula, and a quick work pace. Our academic calendar is eleven months long to best exploit our most valuable asset – student time. Faculty

undertake field work, consult directly with sponsors, interact with military units in the field, direct student research, develop new programs, while building their reimbursable and scholarly record. This is a portfolio that is not found in civilian institutions.

Constant churning fosters innovation. The School of International Graduate Studies (SIGS) is a recognized national asset because its faculty and students often develop programs in anticipation of sponsor needs. The move to enroll international officers in the Department of National Security Affairs and the Mobile Education Teams launched around the world by the Defense Resource Management Institute and the Center for Civil Military Relations, for instance, provided the Defense Department with instruments to foster the wave of democratization that followed the end of the Cold War.

The Leadership Development and Education for Sustained Peace initiative, the Regional Security Education Program, the Center for Stabilization and Reconstruction Studies, and our

new program in Interdiction Studies work directly with the warfighter, helping them to prepare for ongoing operations. The Center for Homeland Defense and Security has developed a path-breaking, distance-learning program that is creating a national cadre of local, state, tribal and federal officials to tackle shortcomings in domestic security made all too painfully obvious by the 9/11 attacks. Today, our area studies programs are being rediscovered as key to the national effort to build Foreign Area Officer and cultural awareness programs. The Center for Contemporary Conflict draws on the broader academic community to study issues of policy importance, making SIGS a leader in research on the nexus between globalization and security.

Virtually none of these programs were here when I joined the Naval Postgraduate School eighteen years ago. What innovations lie over the horizon? That is difficult to predict. But it is clear that SIGS will continue to help the nation respond to tomorrow's strategic issues.

Announcements

Dr. Knox T. Millsaps assumed the duties of Chairman of the Mechanical and Astronautical Engineering Department (MAE) Department on July 1, 2008. Millsaps has a distinguished record of performance as an expert in power and propulsion for submarines, surface ships, aircraft and rockets, and has been an active participant in the NPS community. His current research interests are gas turbine and rocket engine turbo-machinery leading edge and tip/end-wall flows, high-efficiency mixing, rotor-dynamics and condition-based maintenance.

Dr. Carlos F. Borges assumed the duties of Chairman of the Department of Applied Mathematics on July 1, 2008. Borges has a distinguished academic record in numerical analysis, approximation theory and applied

probability. His current research interests are in the area of separable non-linear least squares and related applications, particularly rational approximation and computer aided geometric design. He is a Schieffelin award winner and a dedicated contributor to the NPS community.

Dr. Rudy Panholzer was reappointed as Chairman of the Space Systems Academic Group on July 1, 2008.

Dr. Jeffrey B. Knorr has been reappointed as Chairman of the Department of Electrical and Computer Engineering through June 30, 2011.

Dr. Peter Purdue has been reappointed as Dean of the Graduate School of Operational & Information Sciences through Dec. 31, 2011.

Faculty Notes

Prof. Nick Dew from GSBPP convened a research working group on entrepreneurship and innovation at Stanford University for a day-long series of presentations, debate and review of working papers. The event was jointly hosted by the GSBPP and the Scandinavian Center for Organizations Research at Stanford. Prof. Marc Ventresca of GSBPP also presented his research at the mini-conference, along with colleagues from IMD in Switzerland, Willamette University, the University of California at Davis, the Darden School at the University of Virginia and Chalmers University of Technology in Sweden.

Profs. Doron Drusinsky, James Bret Michael, Thomas W. Otani and Man-Tak Shing, who authored the paper titled "UML Statechart-Based Assertions Library for Improved Reliability and Assurance" received the Best Paper Award from the 2008 IEEE International Conference on Secure System Integration and Reliability Improvement, held in Yokohama, Japan, on July 14-17, 2008.

Prof. Marc Ventresca of GSBPP presented a research paper on "Intermediaries and the Making of Carbon Markets in Europe" at the recent meetings of the Academy of International Business, in Milan, Italy. The paper explores basic issues in the institutional

and cultural construction of markets, with a focus on the role of public and private intermediaries that redefine the value chain of the emerging carbon economy. The research is a collaborative project with colleagues at the James Martin Institute for Science & Civilization at the University of Oxford and at the E.M. Lyon School of Management in Lyon, France.

Prof. Uday Apte of Operations Management, GSBPP, was elected as Vice President for Colleges, Production and Operations Management Society (POMS). His three year term started at the POMS annual conference held in San Diego in May 2008.

Assoc. Prof. Ron Fricker's article "Looking for a Few Good...Statisticians — Being a Government Statistician at the Naval Postgraduate School" was published in the August 2008 edition of the *American Statistical Society's AMSTAT News*. The link to the article is: <http://spica.nps.edu/Fricker8-08-AMSTAT-News.pdf>

Books:

Donald Stoker of the U.S. Naval War College Monterey Program recently published his third book: *Military Advising and Assistance, 1815-2007: From Mercenaries to Privatization* (Routledge, 2008). This edited volume, the only overview of the history of military advising, includes articles by Douglas

Porch of the NSA Department, as well as contributions from former NPS students Christopher Mueller, John Byrom and William Grube.

Apte, Uday. *Managing in the Information Economy: Current Research Issues* (with U. S. Karmarkar), Springer Science + Business + Media, New York, NY (2007).

In Peace and War – Interpretations of American Naval History, published by Greenwood Publishing Group, was co-edited by **Kenneth J. Hagan** and **Michael T. McMaster** and included essays by the editors and **Jan S. Breemer** and **Jonathan E. Czarnecki** of the Naval War College, Monterey.

Research Articles

Apte, Uday. "Focusing on Customer Time in Field Service Delivery: A Normative Approach," (with A. Apte and N. Venugopal), *Production and Operations Management*, Vol. 16 (2) (2007), pp. 375-386.

Apte, Uday. "Operations Management in the Information Economy: Information Products, Processes and Chains," (with U. S. Karmarkar). *Journal of Operations Management*, Vol. 25 (2007), pp. 438-453.

Apte, Uday. "History of Research in Service Operations: What is the Big Idea?" (with R. B. Chase). *Journal of Operations Management*, Vol. 25 (2007), pp. 375-386.

CALENDAR

August 5

Frank Bub, Naval Oceanographic Office
Ocean Modeling Division
OC Dept. Seminar
POC Lt. Cmdr. Taber Ext. 7712

August 6-7

Rear Adm. David A. Gove, Navigator of the Navy
Rear Adm. David W. Titley
Commander, Naval METOC Command
METOC Program Review
POC Lt. Cmdr. Vicki Taber Ext. 7712

August 7

Boeing Technology Exposition
Gym/Fitness Center Building 210
POC Knox Millsaps Ext. 3382

August 7-8

Rear Adm. Janis M. Hamby
Vice Director, DISA
NPS Site Visit - IPCOE
POC Mary Bronzan Ext. 3527

August 9-16

Dr. Miriam Celia Alves, Software Engineer
Research Institute of Aeronautics and Space
POC Dr. Man-Tak Shing Ext. 2634

August 11-13

Adm. Robert F. Willard, USPACFLT
NPS Site Visit
POC Protocol Ext. 2466

August 12

America's Heroes Golf Tournament
NPS Foundation
POC Katie VanDolah Ext. 7781

August 13

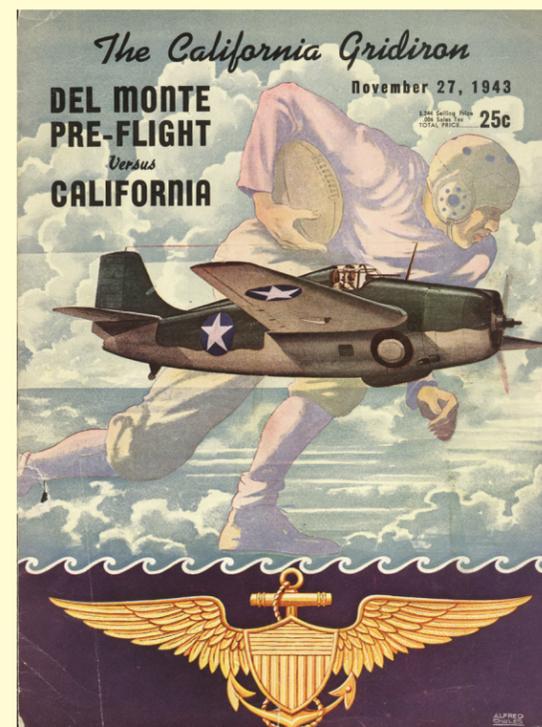
Staff Development Advisory Committee
Training for Administrative Professionals
SIGS Conference room HE-033
POC Toni Dickerson Ext. 3165

August 25-29

Retired Lt. Gen. Thomas Burnette
Development and Education for Sustained Peace
POC Protocol Ext. 2466

HISTORICAL HIGHLIGHTS

Lt. Bill Kern, head football coach of the Del Monte Pre-Flight School team in August 1943, guided them to a remarkable 7-1 season and a No. 8 ranking in the nation's college football polls. The Del Monte team toppled traditional California powerhouses such as Cal and USC and several of the team's stars -- Len Eshmont, Paul Christman, Parker Hall, Jim McDonald, Ed Cifers and Ray Bray -- became standouts in professional football after the war.



Historical Highlights are provided by the Dudley Knox Library.