

Final Preparations Underway for *Destination NPS: Teaching from Space*

By Dale Kuska

For an institution that has been operating for now 100 years, you would think all educational firsts at the Naval Postgraduate School would have been exhausted by now. Not so – on Saturday, April 10, one of the most unique educational events NPS has ever been a part of will occur in the university's King Auditorium. *Destination NPS: Teaching from Space* will provide a one-of-a-kind educational experience for scores of 8th grade students from around the Peninsula in addition to lucky members of the NPS family who register in time.

Part of NASA's Teaching from Space program, the effort will provide a rare, live in-flight lesson from three of the astronauts on board the Space Shuttle Discovery during its 13-day mission to the International Space Station. One of the teachers, shuttle Commander Navy Capt. Alan Poindexter, is an NPS graduate.

"This will be a truly remarkable event, the stars definitely aligned for us," said NPS Director of Alumni Relations and Centennial Planning Kari Miglaw. "The magic of space exploration inspires so many people to do great things. As a leader in space education, NPS is the perfect place for this kind of event, and when better than during our Centennial year."

NPS currently has three astronauts, two former and one active, on its faculty roster, and all three will be participating in the educational downlink. National Reconnaissance Office Chair Dan Bursch, who once held the record for longest duration in space, put the event in great historical perspective.

"In 1903, just six years prior to the establishment of the Naval Postgraduate School, the Wright Brothers completed their infamous first powered flight at a speed of less than seven miles per hour. As NPS celebrates its Centennial, it seems fitting that we chat with one of our alumni as he travels 17,500 miles per hour," he said. "In another 100 years from now, I can only imagine where the NPS graduate will be located in a similar downlink. On a future Lunar Outpost? On Mars? Or

maybe travelling more than 25,000 miles per hour on a journey to visit a Near Earth Asteroid?"

Professor Rudy Panholzer, Chairman of the NPS Space Systems Academic Group, also gave the event its appropriate historical context.

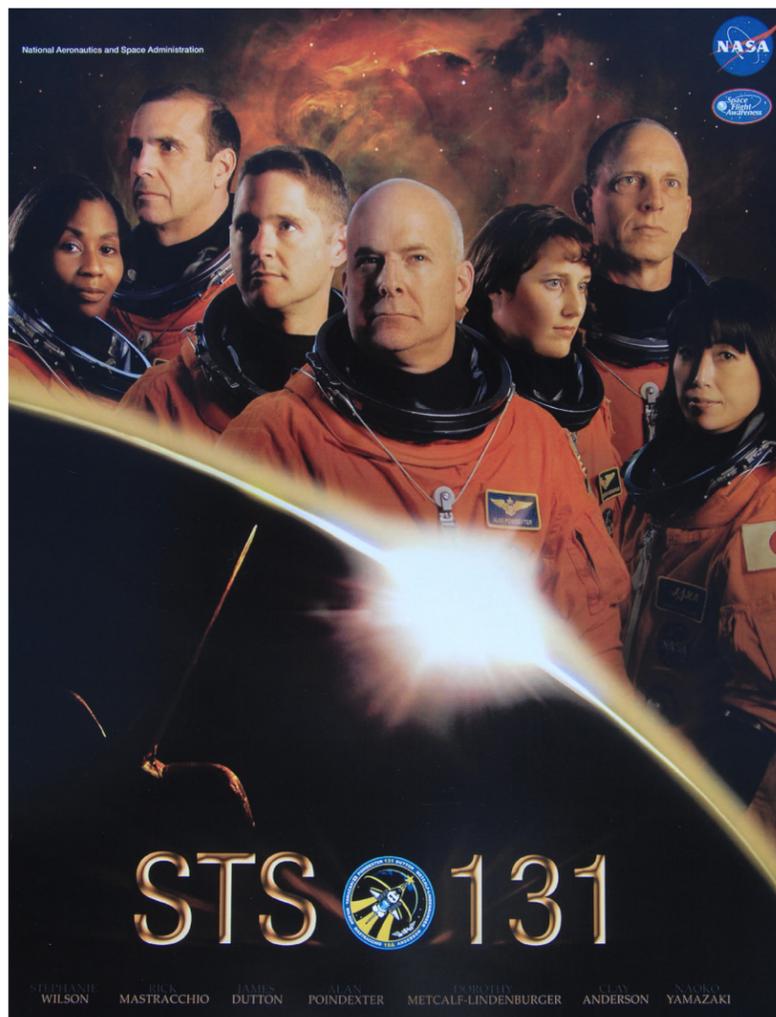
"NPS has a long, illustrious connection with America's efforts in space, our graduates have been a part of every NASA program — from Mercury to the Space Shuttle. I am honored that we are able to give young students in our area direct access to the magic of space exploration," he said. "And who knows, perhaps some of these same young men and women will one day again be on our campus as students, inspired by what they experienced during this great event."

John Phillips, NASA Chair Professor and the active astronaut of the three NPS faculty, stated the benefits of programs like the downlink are realized not only by the public, but by the astronauts themselves as well.

"Astronauts have a keen awareness that they are members of a very large team. They are just the lucky ones who get the glamorous job – who get to ride the rocket – but they represent a team of dedicated and talented people," Phillips noted. "They are proud of their team's accomplishments, and they like to be able to show the results to the general public, to say, 'This is the space shuttle and space station that you paid for, this is what we're doing on board, and we want you to be as proud of it as we are.'"

Miglaw was quick to credit two key NPS personnel that made the downlink a reality. "NPS being selected for this unique opportunity is truly due to the dedication of Kerri McCann, Assistant Director for Alumni Relations and Dan Bursch, former astronaut and NRO Chair," she said.

The downlink is open to all NPS students, faculty and staff and their families, but you must register to attend. Go to www.nps.edu/100 for information and to register for the event.



Three members of the crew of Space Shuttle Mission STS-131, including NPS alumnus Navy Capt. Alan Poindexter, center, will host a live educational downlink on Saturday, April 10 in King Auditorium. The event is open to all NPS students, faculty and staff and their families. Image courtesy of NASA.

Cobra Gold Presents 'Golden' Opportunity

By MC3 John R. Fischer

A professor, two current students and one alumnus from the Physics Department of the Naval Postgraduate School were recently afforded a great opportunity – to perform field experiments with a device they have developed that could mean the difference between life and death for troops during combat situations. The experiments were part of the international Cobra Gold exercises held in Thailand in early February.

Professor Nancy Haegel of the Physics Department, part of NPS' Graduate School of Engineering and Applied Sciences (GSEAS), along with students Lt. Karl Burnett and Lt. Aaron Woolsey, and former student Maj. Eric Rose, traveled to

Thailand at the invitation of the U.S. Marine Corps Forces Pacific Experimentation Center to take part in this 29th installation of the annual combined, joint exercise.

"Our team led a demonstration and assessment effort for a Vehicle-Mounted Identification Friend or Foe (VMIFF) device," Haegel explained. "It's a prototype device designed to mitigate fratricide – a triggered warning signal for pilots and forward air controllers to prevent from engaging friendly vehicles."

The research team and device caught the personal attention of even the Thai Permanent Secretary of Defense, NPS graduate ('75) Gen. Apichart Penkitti, who is also slated to be the next inductee into the NPS

Hall of Fame.

"We had the benefit of briefing a lot of the top Thai people," said Burnett. "The briefings kept going up and up until we received a surprise visit from Gen. Penkitti. He appeared to be very happy seeing the U.S. and Thailand keeping such an open, healthy relationship." Penkitti is the equivalent of the America's Secretary of Defense.

Cobra Gold offers a chance for more than 20 nations to focus on multilateral peacekeeping operations, humanitarian assistance and disaster relief responses, as well as technology demonstrations. The exercises and technology demonstration provided a golden opportunity for Haegel and her team to put one of their newest devices to work in the field.

The VMIFF produces a mid-wave infrared signal that can be observed during both day and night operations. NPS' VMIFF work is sponsored by the Rapid Reaction Technology Office within the Office of the Secretary of Defense.

Physics student Lt. Karl Burnett gives Thai Gen. Apichart Penkitti, Thailand's Permanent Secretary of Defense and an NPS graduate, a hands-on briefing of a prototype Vehicle-Mounted Identification Friend or Foe (VMIFF) device. (Photo courtesy of Lt. Karl Burnett.)



IN BRIEF

- ✦ The first draft of the *Educational Effectiveness Review Report* will be distributed to reviewers this month. The NPS Accreditation Steering Committee and the Strategic Planning Council will initially review the draft; in May, the document will be available for campus review.
- ✦ NPS will host the *68th Anniversary of the Battle of Midway* on Saturday, June 5, 2010. The Honorable John McCain, Senator from Arizona, has been invited to be the guest speaker. Reservations are now open and can be made at the MWR ITT Office or at www.nps.edu/midway. For additional information, contact Lt. Brad Thompson at bgthompson@nps.edu.
- ✦ The DoD Transportation Incentive Program (TIP), which provides free bus passes to eligible staff, faculty and students for commuting to NPS, is now being administered in the NPS Travel Office, Room 038 in the basement of Herrmann Hall. Bus passes for April, May and June are now ready for pick-up. Enrollment is always open, for more details contact Ext. 1831/Travel Office.
- ✦ The new half-hour television production "*Inside NPS*" premiered on the Pentagon Channel in March, and will air every Friday at 2:30 p.m. and Sunday evenings at 10 p.m. to an audience of over 18 million viewers in over 177 countries; on PBS stations multiple times throughout the month; locally on Access Monterey Peninsula Television, cable channel 28; and will be posted on both the Pentagon Channel and NPS Web sites.
- ✦ U.S. NPS students or faculty (SECRET and up) are invited to join Trident Warrior, an annual sea trial experiment, in data collection efforts. June 7-14 transit is from San Diego to Vancouver, BC; June 14-24 transit leaves Vancouver for Pearl Harbor; both return June 24. Travel and per diem is by DISE. Training will be provided. POC: Dr. Shelley Gallup at spgallup@nps.edu. For additional information, contact Sharon Prichard at smpricha@nps.edu.

A Message From NPS President Daniel Oliver



As most of you are well aware, we have spent the last several months celebrating one of our university's most significant historical milestones – our Centennial Anniversary. But like all great things, as the familiar cliché states, the revelry must come to an end.

With that noted, however, we are ending our Centennial Celebration in worthy and grand style. This month, NPS will be one of just two institutions to receive an educational downlink from Space Shuttle Mission, STS-131. *Destination NPS: Teaching from Space* will present 8th grade students from across the Peninsula with an inspiring opportunity to learn from and actively engage members of the shuttle crew with their questions.

Also, later this year, the park and rec-

reational spaces surrounding Lake Del Monte on campus will be renamed Centennial Park. The location already serves as a frequent spot for student, faculty and staff recreation, and will now also be a constant and cherished reminder of our 100th Anniversary, and how much this institution has changed over the course of its first century.

Speaking of change, I wonder what kinds of equipment, books and experiences students were sharing way back in 1909 when the School of Marine Engineering, NPS' predecessor, opened for business on the Naval Academy campus. Historical records are slim, but when future generations of the NPS family celebrate the university's 200th anniversary, they'll have no doubt what campus life was like thanks to the NPS Centennial Time Capsule. The NPS Alumni Relations Office and Centennial Planning Headquarters has arranged for an air- and water-tight, gas-filled capsule that will be buried in Spruance Plaza in the Academic Quad.

In 2109, this time capsule will be unearthed, and a diverse collection of artifacts and messages will be shared with our future colleagues. Items like personal letters, photos, keys, coins, newspapers, books, programs, brochures, CDs, thumb drives, iPhones and more will all be included. When NPS' next generations want to know how much the university has changed in its last 100 years,

they'll have the answers in hand. All current students, faculty, staff, alumni and friends can write individual messages to be included in the time capsule through the centennial Web site by visiting www.nps.edu/100.

It's all part of the grand finale coming up in May when our second annual Reunion Weekend will take place. It will be with both reserved sadness and insatiable pride that we celebrate this Centennial Finale. Like our first reunion last year, some extraordinary cannot-miss events will take place over the course of the Memorial Day weekend. For example, NPS graduate Navy Captain Alan Poindexter will be on campus to offer a special lecture on his latest Space Shuttle mission, the aforementioned STS-131.

In addition to several other educational events, fun will also be part of the program. Former guests of the infamous Hotel Del Monte will look down with fond remembrance given the splendor of our Centennial Finale Gala to be held in the hotel's old ballroom. We will also be hosting a golf tournament, a wine and beer tasting, some extraordinary surprises, and much more.

There will be no better time to celebrate all we have accomplished together – I hope you will make plans to join me on campus for a truly memorable weekend as we honor the Naval Postgraduate School.

Announcements

In the wake of the Naval Postgraduate School's Command Inspection last fall, the Navy Inspector General's Office recognized the many unique complexities of the NPS mission and the different funding sources associated with our mission execution. With this in mind, they have recommended revisions to SECNAV and OPNAV guidance to designate NPS as an Echelon II command that

warrants a fully-formed Inspector General Office. As a result, President Daniel Oliver has selected Navy Cmdr. Al Shaffer as the command Inspector General (IG). Per SECNAV guidance, Cmdr. Shaffer will report directly to President Oliver as command IG, and will oversee the IG and Command Evaluation (CE) programs. Welcome Cmdr. Shaffer!

Faculty Notes

Dr. Dorothy Denning was named a 2010 Security Superstar - Visionary by the Everything Channel. View the full slate of awardees at <http://www.crn.com/security/223100880>.

Professor Tarek K. Abdel-Hamid's book, *Thinking in Circles about Obesity*, and its novel systems dynamics approach to addressing the nation's obesity epidemic, was reviewed in MIT's *Technology Review* magazine (March 2010). Read the full review at <http://www.technologyreview.com/computing/24597/?a=f>.

GSBPP Assoc. Prof. Susan Hovevar presented "Inter-Organizational Collaboration: A Conceptual Model and Measurement Tool" at the Homeland Defense and Security Education Summit at Georgetown University.

A provisional patent application entitled "Superpositional Control of Integrated Circuit Processing" was filed with the USPTO on February 11, 2010. The lead inventor is Timothy E. Levin, Research Associate Professor, Computer Science (CS). Additional inventors from the multi-institutional

3Dsec project, funded by the National Science Foundation are CS Prof. Cynthia Irvine, Assoc. Prof. Ted Huffmire and Research Assoc. Thuy Nguyen; UC Santa Barbara CS Assoc. Prof. Tim Sherwood and student Jonathan Valmehr; and UC San Diego CS Assoc. Prof. Ryan Kastner. The 3Dsec project is developing enhanced system security through "3D integration," a novel way to augment commodity hardware after fabrication, in which a separate silicon layer is bonded onto an existing integrated circuit.

Moltz Honored With Hamming Award



Associate Professor James Clay Moltz has been selected as the recipient of the 2010 Richard W. Hamming Annual Faculty Award for Interdisciplinary Achievement. Moltz holds a dual appointment as a professor in both the Department of National Security Affairs (NSA) and the Space Systems Academic Group (SSAG). As an active contributor to both the

NSA and SSAG departments, Moltz adds a unique point of view to the discussions and deliberations of each group.

"In strengthening NPS' and SSAG's impact on the space community, Associate Professor Moltz exemplifies Professor Hamming's commitment to interdisciplinary scholarship and is thus well-deserving of this prestigious award," noted Executive Vice President and Provost Leonard Ferrari in his announcement of the award.

Moltz expressed true surprise when he learned of his recognition, but was quick to credit his departmental colleagues for allowing him to explore his diverse interests.

"I see my award as a tribute to the NSA Department's willingness to let me develop a course on space policy and also to the Space Systems Academic Group, and especially Chairman Rudy Panholzer, for welcoming a social scientist into their midst," Moltz said. "NPS has given me wonderful opportunities to work across disciplines and to interact with talented students from both curricula."

And ultimately, as with any institution of higher learning, it's the students that should benefit the most. "I find that students in technical fields benefit from having a greater appreciation of the role of politics in shaping outcomes," Moltz said. "Similarly, students of international relations are on stronger ground when they understand technology and how it can create problems but also stimulate new solutions."

"It's also very humbling to receive this recognition from persons as highly accomplished as my NPS colleagues," Moltz added.

CALENDAR

April 6

Congressman Sam Farr
Groundbreaking Ceremony – P197 (Ingersoll Hall)
POC: Vickie Hoy Ext. 7748

April 7-9

4th Annual Foreign Area Officer Conference
POC: Michele Merenbloom Ext. 3275

April 8

Capt. (ret.) Mike Hewitt
Vice President, Sonalysts, Inc.
Menneken Lecture
POC: Rear Adm (ret.) Jerry Ellis Ext. 2488

April 16

NorCal Chapter, Naval Submarine League Golf Tournament
110th Anniversary of the U.S. Navy Submarine Force Monterey Pines Golf Course
POC: Lt. Alan Agor Ext. 2895

April 16-19

Adm. Jonathan Greenert
Vice Chief of Naval Operations
U.S. Navy Submarine Force Birthday Ball
POC: Vickie Hoy Ext. 7748

April 19

Korean Delegation
MAE: Unmanned Vehicle Related Technologies
POC: Doug Horner Ext. 3821

April 22

Capt. (ret.) Jim Patton
Former Director, CNO Executive Panel
Menneken Lecture
POC: Rear Adm. (ret.) Jerry Ellis Ext. 2488

April 27-28

NPS Board of Advisors Meeting
POC: Jaye Panza Ext. 2514

HISTORICAL HIGHLIGHTS

In April 1944, then Capt. Herman Spanagel turned over command of the USS Nashville (CL43), a light cruiser that had been engaged in several key Pacific battles from Midway to the Solomon Islands. Despite a shortage of officers in combat and his protests to remain at sea, his next command would be the Naval Postgraduate School at Annapolis.



There, under the guidance of two CNOs – Fleet Admirals Ernest King and Chester Nimitz – Spanagel pushed several major legislative acts through Congress between 1945 and 1948, including authorization for NPS to confer degrees and the appropriations bill to purchase the Hotel Del Monte for today's campus in Monterey. Adm. and Mrs. Spanagel are shown here during the dedication of Spanagel Hall in 1956 named in his honor – today it is home to the Graduate School of Engineering and Applied Sciences.

Historical Highlights are provided by the Dudley Knox Library.