

U.S. Navy Photo by Javier Chagoya

CNO Roughead Keynotes Winter Graduation

By Barbara Honegger

Chief of Naval Operations Adm. Gary Roughead motivated graduates from all the military services and nine allied and coalition partner nations during his keynote address at NPS' Winter 2011 commencement ceremonies, Mar. 25.

NPS President Dan Oliver, who introduced the 29th CNO as "my boss," thanked Roughead for his leadership "that has had an extraordinary impact on the Naval service.

"For those of us who believe in the mission of NPS, Admiral Roughead has been especially supportive," Oliver said. "He is the first CNO in decades to commit resources to the Naval Postgraduate School at a level befitting a flagship institution."

"I see great opportunity in your future careers to shape and lead ... to bear the benefits of an NPS education for the complexities of our time."

The CNO was quick to return the compliment, and seemed equally proud to address the nearly 200 officer students along with their friends and family members in King Auditorium.

"The Naval Postgraduate School is a unique institution among our elite schools whose twin objectives of cutting-edge, actionable research and pertinent instruction by a renowned faculty stand as a challenge to other great institutions," Roughead said.

"Today is a very special day of great achievement for each one of you nearly 200 accomplished students and future leaders who will play a major role in institutions of great importance to your nations," the CNO continued. "You have benefitted from the rigorous and comprehensive education you have received here at the Naval Postgraduate School, where you have had time to reflect, to think analytically, to question assumptions, and benefit from exposure to one another's ideas as much as from your challenging and relevant degree programs.

"I see great opportunity in your future careers to shape and lead, opportunity to bring to bear the benefits of an NPS education for the complexities of our time. Be confident that you are well equipped for what lies ahead of you as military leaders and defense and security experts, and don't forget that few, if any, are better equipped than you," Roughead added.

"Congratulations on your accomplishments today," he concluded, "and thank you for everything you will do in the interests of our common security and prosperity in the years ahead."



NAVAL POSTGRADUATE SCHOOL

UPDATE

NPS

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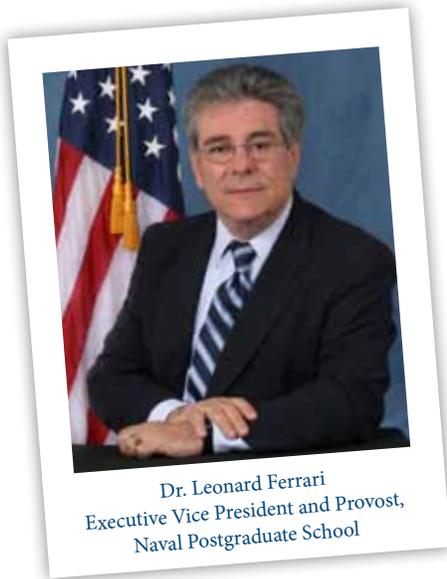
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APRIL 2011

A Message From ...

Dr. Leonard Ferrari, Executive Vice President and Provost, Naval Postgraduate School



With great pride and honor, I share with you the results of our Western Association of Schools and Colleges (WASC) reaccreditation. Perhaps you have already heard the wonderful news, but for those who have not, the Naval Postgraduate School has received the maximum 10-year reaccreditation, an achievement that is a veritable acclaim to the quality of our institution and educational programs. It is an honor that I hope we all take ownership in, for it has been bestowed upon every member of this community, and definitive proof that we are indeed achieving the mission the Navy has asked us to perform.

WASC accreditation is, in the simplest of terms, the substance and certification of the degrees we grant. While NPS is mandated to be a degree-granting institution, that same mandate requires we are accredited by the appropriate governing bodies. And if you ask anyone who was involved in the extensive, laborious process of achieving reaccreditation, they will tell you it is not granted lightly. In fact, to our knowledge, only a few universities were given the maximum 10-years accreditation during this year's cycle.

The reaccreditation effort began nearly five years ago when NPS prepared and submitted its proposal to WASC outlining precisely why the university should be allowed to grant accredited degrees. This proposal justly leaves no stone unturned – it examines in sometimes excruciating detail every aspect of the educational enterprise. Do NPS curricula meet the demanding standards of graduate level

education? Is our teaching effective, and how do we prove it? Have we planned strategically for the future? Are we constantly requiring more from ourselves, and improving every aspect of the university, every day?

Over the course of these past five years, those questions and many more were asked of us. Through the tireless efforts of so many people across campus; through hundreds of pages of extremely detailed reports; through surveys, interviews and data analysis, we not only answered those questions, we proved that our answers were indeed correct without a shadow of doubt.

As Provost of this institution, I must express how proud I am of our educational infrastructure – our faculty, our programs and curricula, our academic leaders, students, staff and every support element across every inch of this campus – for all of you have played key roles in achieving this goal. When we set upon this course, we set a high mark for success – a mark that few universities are able to achieve, and I can proudly state that we achieved that milestone and earned every accolade that comes along with it.

“Through the tireless efforts of so many people across campus; through hundreds of pages of extremely detailed reports; through surveys, interviews and data analysis, we not only answered those questions, we proved that our answers were indeed correct without a shadow of doubt.”

While we can all take ownership and revel in this success, I would be remiss not to formally thank the team that led this reaccreditation effort, the WASC Planning Committee. Comprised of Dr. Rob Dell, Operations Research Chair; Dr. Doug Moses, Vice Provost for Academic Affairs; Dr. Christine Haska, Vice President, Information Resources and Chief Information Officer; Dr. Fran Horvath, Executive Director of Institutional Planning and Communications; Ms. Colleen Nickles, Vice President for Finance and Administration; Dr. Dave Olwell, Professor of Systems Engineering; and Ms. Eleanor Uhlinger, University Librarian – this team excelled far beyond the call of duty and worked tirelessly over an extended period of time.

As day-to-day business continues across campus, classes resume for the Spring quarter, research projects ensue, and the rigor of academia breathes life into quad, I hope each of you stop for just a brief moment to absorb the accomplishment we have just made, for we truly have something to celebrate. Thanks to all of you again for your efforts in support of our students, the USN and the nation.

Field Project Maps Tidal Inlet Flows

By Barbara Honegger

As future Navy SEALs swim silently toward shore, they will be armed with validated 3D maps of the tides, waves and currents between their location and the target thanks to cutting-edge research by a Naval Postgraduate School faculty-student team led by Assistant Professor of Oceanography Jamie MacMahan.

Seven students in MacMahan's Littoral Field Studies course participated in a 10-day capstone field experiment collecting tidal inlet measurements using portable unmanned underwater vehicles (UUVs). They programmed NPS' EcoMapper UUV to collect real-time data on waves, currents, temperature, salinity, sediments, pollutants and bathymetry in the highly energetic Bear Cut tidal inlet near Miami, Fla.; and learned how to input the data into the Navy's nearshore Delft3D model and output the resulting maps using Google Earth Matlab.

"Tidal inlets are important to the Navy's littoral focus, because when you move from the deep ocean to any land water body, you have to go through an inlet, and spatially mapping the velocity field is critical for many expeditionary warfare exercises, particularly involving human swimmers such as Navy SEALs," MacMahan explained. "And this is the first time smaller UUVs have been used in fast-flow inlet or riverine environments.

"This is a unique exploration and educational opportunity for students that simultaneously tests transformative ideas that can

be integrated into future naval operations," MacMahan noted. "We wanted to answer the question, 'If you only have UUVs, how do you get the best observational data using specialized research and numerical models that many of the students will utilize in the future?'"

Participants in the tidal inlet study were doctoral students Lt. Cmdr. Bill Swick and Jenna Brown; and Lts. David Paul Smith, Mark Hebert, Chris Tuggle, Stephanie Johnson, Chris Beuligmann and Will Ashley. Partnering in the exercise were Delft3D expert Prof. Ad Reiners of the University of Miami and Naval Undersea Warfare Center (NUWC) AUV experts Mike Inzce and Scott Sideleau. NUWC also provided state-of-the-art AUVs in addition to the NPS EcoMapper.

"Professor MacMahan is a great teacher. He's energetic, hands on and passionate, and cares very deeply about helping students get the most out of the learning experience," said Tuggle, who wirelessly loaded the EcoMapper's programs. "This is an incomparable class in the amount of hands-on experience you get and in taking you through all the steps for your thesis, and should really be the first class in the oceanography program."

The tidal inlet exercise was sponsored by N4/N7 Assistant Chief of Staff for Readiness, Training and Education, Mr. Rich Jeffries, and funded by Dr. Tom Drake of the Office of Naval Research Coastal GeoSciences.



Naval Postgraduate School Oceanography Assistant Professor Jamie MacMahan, center, gathers with officer students and teaching assistants from his Littoral Field Studies course around NPS' EcoMapper Unmanned Underwater Vehicle. (U.S. Navy photo by Javier Chagoya.)

from the
MEZZ

Dr. Christine Haska, Vice President for Information Resources and Chief Information Officer, along with members of the Office of Institutional Advancement, attended the Council for Advancement and Support of Education (CASE) District VII Conference in Los Angeles in early March. During the conference, NPS received a gold award for its Centennial video, "NPS 2010."

On Mar. 10, Executive Vice President and Provost Leonard Ferrari, along with Tom Hazard and C.J. LaCivita, briefed the Faculty Council on international outreach and other efforts being made to increase international student attendance through partnerships with institutions in other countries. Over the past two years, NPS has been actively pursuing partnerships with schools in Geneva, Singapore, South Korea, Jordan and others.

Provost Ferrari also attended the World Affairs Council meeting in San Francisco in mid-March. The World Affairs Council of Northern California provides a forum where more than 18,000 participants from diverse backgrounds can engage in discussion on the global issues.

President Dan Oliver attended a dinner for area higher education presidents hosted by the Monterey County Business Council. Doug Garrison of MPC and Diane Harrison of CSUMB were also in attendance.

Visits from foreign delegations in March included the Chief of Staff from the Royal Norwegian Navy, members of the Indian Ministry of Defence, and the Commandant of the NATO Maritime Interdiction Operational Training Center.

From the Mezz provides a brief report on the activities of NPS' senior administration. For more details on any of these reports, please contact the Office of Institutional Advancement at pao@nps.edu.



Dean of Students Capt. Alan Poindexter fields questions from students in King Auditorium. (U.S. Navy photo by Javier Chagoya.)

A Conversation with DoS, Capt. Alan Poindexter

By MC1 Leonardo Carrillo

When NPS welcomed its new Dean of Students (DoS) early this year, it was a face the campus had seen many times before. Capt. Alan Poindexter is not only an alumnus, earning a Master of Science degree in aeronautical engineering in 1995, he has also visited the university on several occasions. With a couple of months now under his belt, Poindexter has settled into his new role, and looks forward to providing leadership to the 1,500 plus students on campus.

“I’m very glad to be back serving in this position,” said Poindexter. “I think it’s a great opportunity for me to lead and influence officers as they’re going to school here. I think I have a lot to offer them and I hope I can serve them and help them make their way through the school.”

A veteran NASA astronaut with two previous space shuttle flights, one as commander of STS-131 in early 2010, Poindexter attributed part of his success to the technical education he received at NPS.

“The technical knowledge and the technical education certainly assisted me,” said Poindexter. “I think a large part, though, was that I

broadened my knowledge base. I learned about systems management, systems engineering and it allowed me to be more analytical in my thought process ... My NPS education was instrumental in my follow-on tours.”

It’s no surprise that an NPS Dean of Students considers education to be an important part of an officer’s career path – in fact, Poindexter sums it up with one word.

“Critical,” he stated. “Whether it be in engineering, management, business or one of the many other great degrees we offer here, it will serve the individual and the Navy or their service very well to have that capability and that background.”

Poindexter affirmed that his goal is to continue to serve the student population. “I’m really honored to be back here in this job working for the school and working for the students,” concluded Poindexter. “I have an open door policy and I would be glad to talk with or counsel anyone, and I hope that I can influence them in some small way.”

Oracle Corp. Security Chief Lectures at NPS

By MC1 Leonardo Carrillo

In today’s world, cybersecurity has never been more critical. To help drive this point forward, NPS hosted a Secretary of the Navy Guest Lecture with Mary Ann Davidson, Chief Security Officer at Oracle Corporation, Mar. 8 in King Auditorium.

The former U.S. Navy civil engineer spoke about the importance of cybersecurity, the challenges involved, and the value of implementing concepts from different fields into the cyber defense arena.

“Warfighting now relies on an IT backbone,” said Davidson. “Information has become your force multiplier and now the network itself has become the battlefield.”

She cautioned, however, that while technology can be a great advantage, it can also be an Achilles’ heel – a weaker opponent could cause

serious problems by attacking U.S. networks and stealing technology. She noted that the military understands this concept but she sees many challenges in making developers think defensively.

“My biggest issue is convincing people, who are truly excellent technicians, that there are bad guys out there,” said Davidson. “This is not a problem that I would have with anybody in this audience.”

Davidson said that if the software was designed with defensive measures from the beginning, technicians could focus on more productive tasks. “If the quality of commercial software assurance were better, you wouldn’t have to patch your systems,” Davidson added. “And frankly it would make attackers work harder, and making bad guys work harder is a good thing.”

Physics Prof. Wins 2011 Hamming

By MC1 Leonardo Carrillo

The Naval Postgraduate School presented the 2011 Richard W. Hamming Annual Faculty Award for Interdisciplinary Achievement to Dr. Ronald E. Brown, Research Professor of Physics in the Graduate School of Engineering and Applied Sciences, during a ceremony, Mar. 15.

Brown began work at NPS in 2002 after retiring from a 40-year career in the aerospace industry as a way to fulfill his lifelong dream of teaching. His work is focused on modeling explosive detonation processes, shaped-charge jet formation, and high-velocity impact phenomena.



Physics Research Professor Ron Brown
(U.S. Navy photo by Javier Chagoya.)

“Dr. Brown’s contributions to the success and reputation of NPS go beyond his teaching and research contributions,” said NPS Executive Vice President and Provost Dr. Leonard Ferrari. “A true leader in his field, Research Professor Brown exemplifies Professor Hamming’s commitment to interdisciplinary scholarship.”

“I am overjoyed with the acknowledgement of my work,” said Brown. “I’m very grateful for the opportunities provided here at the Naval Postgraduate School to follow a lifelong dream of teaching and, recently in life, a desire for contributing to the education and critical decision-making of our fine armed forces members.”

Brown noted that working with students was one of many valued aspects of his work at NPS. “The contributions cited in this award,” said Brown, “resulted from close working relationships with dedicated and well-motivated student researchers and very rewarding collaborations here and abroad, and by the continuous support from the Office of Naval Research.”

He continues to do research on shaped charges and other projects that have a significant impact on explosive behavior, including a recent effort on developing a universal technique for accelerating detonation.

Union President Appointed to Serve on DoD Personnel Design Team

By MC1 Rob Rubio

National Federation of Federal Employees (NFFE) Local 1690 Union President Pete Randazzo has been appointed to serve on the Performance Management System Design Team that will develop new Department of Defense personnel authorities.

DoD established the National Security Personnel System Transition Office (NSPSTO) to provide overall management and direction of NSPS transition activities and development of the new personnel authorities. The NSPSTO hosted an initial New Beginnings Conference back in September to bring together diverse stakeholders to explore information, insights and ideas on civilian employee performance management and recognition.

“The composition of the people at the initial meeting in Los Angeles was extraordinary. With the equal number of management and labor representatives, everyone wanted to get the job at hand done,” Randazzo said. “You were unable to tell who was who, and

everyone was able to come to the same conclusion.”

The Performance Management System Design Team held its first meeting in late February, with Randazzo selected as one of only three NFFE representatives to the team. He will represent not only the labor perspective, but the Navy and NPS perspectives as well. Randazzo says the opportunity for NPS to have input into such a critically-important area as personnel and performance management is truly significant. Randazzo remarked, “I’m happy to be selected due to the opportunity to make a difference beyond the footprint of NPS.” He added, “I’m grateful that the NPS leadership has embraced this opportunity.”

This opportunity to form what management should look like in all of DoD will affect some 2 million employees. Randazzo brings 31 years of government service to the design team, 17 of those occurring at NPS.

FACULTY news & notes



Operations Research Assistant Professor Army Lt. Col. **Scott Nestler** has been designated an Accredited Professional Statistician (PSTAT) by the American Statistical Association (ASA). Nestler is an “early adopter” – one of the first 50 accredited as a PSTAT by the ASA.

DRMI’s **Dr. Robert McNab** spoke on the topic of “Corruption, Culture, and Conflict” at the NATO Building Integrity Conference. The talk was an extension of McNab’s research program into corruption and conflict, sponsored by the U.S. Army’s Training and Doctrine Command in Monterey.

GSBPP Associate Professor **Rene Rendon**, Assistant Professor **Max Kidalov** and Senior Lecturer retired **Cmdr. Cory Yoder** served as keynote speakers, subject matter experts and presenters at the NATO Building Integrity Conference. Rendon presented his research on DoD contracting processes, Yoder on a three-tier model assessment tool for educational resources, and Kidalov on COIN operations and proper framework for the Afghan First program.

National Security Affairs Assistant Professor **Sophal Ear** was named a Young Global Leader for 2011 by the World Economic Forum. Each year, the forum recognizes up to 200 leaders worldwide for their professional accomplishments, commitments to society, and potential to contribute to shaping the future of the world.

Clark Weissman and Research Associate Professor in Computer Science **Timothy E. Levin** published an article entitled “Network System Security Engineering: Lessons Learned Building a High Assurance Crypto Gateway,” in the January/February edition of “IEEE Security & Privacy” magazine.

Send your faculty news and notes
to update@nps.edu.

CRUSER Launches, Joins Robotics and Unmanned Systems Researchers at NPS

By Amanda D. Stein

Chartered by Under Secretary of the Navy Robert Work, the Naval Postgraduate School has commissioned the Consortium for Robotics and Unmanned Systems Education and Research (CRUSER). CRUSER is a broad-based community of interest that offers a collaborative environment for researchers, industry, students and defense personnel interested in all aspects of employing unmanned systems in an operational environment now and in the future.



Dr. Timothy Chung, Director of Research and Education for CRUSER, stands beside the RMP 400 Robot. (U.S. Navy photo by Javier Chagoya.)

Where one group of researchers might be exploring how to best develop sensing capabilities to help unmanned systems navigate the battlefield, for example, another department across campus might be exploring the ethical implications of using unmanned systems in combat. CRUSER will facilitate connecting the two and others in their fields, utilizing each group's findings to contribute to the bigger picture.

CRUSER Program Director retired Navy Capt. and Operations Research Senior Lecturer Jeff Kline, notes the value of the program in support of DoD's mission.

“CRUSER's overall goal is to capture NPS' unique synergy between operationally-experienced students and a diverse faculty who focus on defense-related issues,” explained Kline. “The innovation, technical talent and concept generation potential at NPS provides an excellent foundation for a Department of Defense venue to cooperatively engage in all aspects of unmanned systems education and research.”

Robots and unmanned systems are increasingly being developed and utilized within the Navy to handle tasks that are too dull, dirty or dangerous for humans to perform. NPS students studying unmanned capabilities are encouraged to work with faculty, government laboratories, other universities and Navy experimentation programs to fully explore the potential of these systems to support the warfighter.

Developing a generation of officers ready to employ unmanned systems is an important CRUSER objective. Other goals include inspiring concept generation for new unmanned technologies, offering and aligning education programs, conducting and participating in at-sea experimentations, and conducting cooperative research in all aspects of unmanned systems. Together, the unmanned systems and robotics communities can look at some of the pressing questions to make the technology as efficient as possible, notes Dr. Timothy Chung, Director of Research and Education for CRUSER.

“CRUSER has the opportunity to align a lot of different people and bring them together in conversation,” said Chung. “Conversation leads to collaboration, and that collaboration is what's going to make things happen. There needs to be some understanding, some translation that occurs when people talk with one another, and CRUSER can help bring those people together. And even if they just have coffee together on a regular basis, that's already more than they are doing now, and that's helpful in the longer term when they try to do collaborative research.”

Focus On ... DKL Outreach

A Monthly Look at Names and Faces on Campus

Dudley Knox Library (DKL) is always looking for new, innovative ways to increase patrons' familiarity with and use of library materials and services, including distributed learning (DL) students.

Upon moving to San Diego, DKL Librarian Eileen Schnur began surveying DL students in the region to determine their interest in library services that could support their studies. She began highlighting to students in the region the many library

resources and services offered, including 24/7 access to scholarly research, active live chat with a librarian during business hours, text-a-librarian for quick answers to questions, and online tutorials and workshops using the Elluminate platform.

Within months, and with the support of the NPS Outreach Office at Naval Base San Diego, Schnur expanded her efforts to include workshops for EMBA cohorts, students located at SPAWAR, and students at the

Marine Corps' Camp Pendleton. Today, thanks to support from the Center for Educational Design, Development and Distribution, the scope of the DKL outreach program is growing to encompass DL students and faculty in other curricula and locations, adding one more feather to DKL's cap of success.



Dudley Knox Librarian Eileen Schnur organizes outreach to NPS DL students as well as other groups in the San Diego area.

Any Day at NPS ...



Members of the Information Dominance (ID) Center of Excellence Junior Officer Course pose for a group photo on NPS' Spruance Plaza. Part of Enrichment Week, Mar. 21-25, the junior officer course focuses on how the ID Corps can develop leadership qualities in its young officers as they move into increasingly important roles in the future of the corps. (U.S. Navy photo by Javier Chagoya.)

Dr. Selmo Cikotic, right, the Bosnia and Herzegovina Minister of Defense, meets with United States Partnership for Peace Training and Education Center (USPTC) staff members, Mar. 8 in the USPTC conference room. (U.S. Navy photo by Javier Chagoya.)



Army Lt. Gen. P. K. Keen, Military Deputy Commander of United States Southern Command (USSOUTHCOM), delivers a speech to members of the Joint Foreign Area Officer Skill Sustainment Pilot Program at NPS, Feb. 24. (U.S. Navy photo by MC1 Grant P. Ammon.)

NPS Prof. Timothy Chung introduces the science of robotics to a group of local middle and high school-aged girls as part of "Girls Day In" in the Barbara McNitt ballroom, Mar. 11. (U.S. Navy photo by MC1 Grant P. Ammon.)



Jaelyn Clement Kinney successfully defends her dissertation entitled "The Bering Sea: Communication with the Western Subarctic Gyre, mesoscale activity, shelf-basin exchange, and the flow through Bering Strait." (U.S. Navy photo by Javier Chagoya.)

STUDENT voice

By Maj. Randy Staab

As I sit here, I keep wondering if someone is going to stop by and ask me to start paying rent. I do have to admit that I have been spending nights and weekends here at the Dudley Knox Library (DKL) working on exams and writing papers throughout the extended hours offered during finals week, but there really is no better place on campus to work.

DKL is looking better than ever with new chairs and new computers, including several Apple computers, throughout the library. The three workstations on the first floor and workstation four on the second floor allow me to print directly from my laptop, make photocopies and scan documents as a PDF and send them to my NPS e-mail account. For group projects, DKL offers collaborative study rooms, several equipped with audio/video services.

DKL resources and services include a wide variety of books and periodicals, particularly in the sciences, numerous electronic databases, and several special collections. Librarians are also available to assist through the "Ask a Librarian" service in which you can request help via text messaging, live online chat, e-mail, phone or in person. In addition, the library offers a variety of single-session workshops each quarter, and provides online introductions to many library resources.

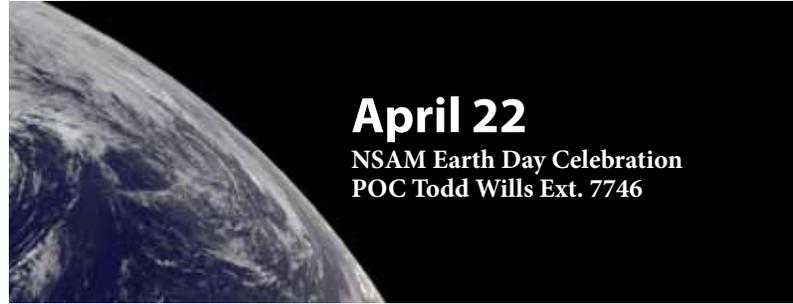
The President's Student Council needs your input; please consider joining Vice-Chairman, Capt Jim Gerber, Recorder, LTJG Kerri Ackman, and me on the student council by contacting rjstaab@nps.edu. The PSC is the venue for your actionable ideas and suggestions to become a reality.

Maj. Staab is the Chairman of the President's Student Council. Visit the PSC on the intranet at <http://intranet/psc/index.html>.

On Campus this Month

April 11-13

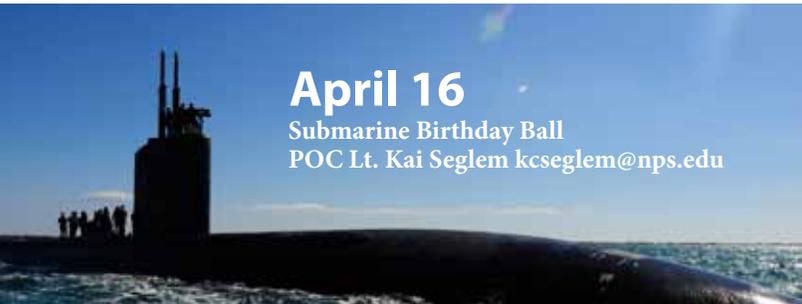
Sea, Air and Space Exposition
National Harbor, Md.
NPS Outreach
POC Kari Miglaw Ext. 2077



April 22

NSAM Earth Day Celebration
POC Todd Wills Ext. 7746

Photo by NASA/NOAA GOES Project



April 16

Submarine Birthday Ball
POC Lt. Kai Seglem kcseglem@nps.edu

U.S. Navy photo by MCSA Cameron Bramham

April 25-29

Technology Review and Update
POC Heidi Nalwasky Ext. 2948



April 19

Stories from the Front Lines
Cristo Ray Auditorium
NPS Foundation
POC Giovanna Kha Marino Ext. 2981



April 26-27

NPS Board of Advisors Meeting
POC Jaye Panza Ext. 2514

U.S. Navy photo by Javier Chagoya

Inside NPS

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Historical Highlights

In 1967, Secretary of the Navy Paul Nitze established the NPS Board of Advisors – senior defense, academic and industry leaders who assess the status of NPS education and research programs and report their findings to the Secretary of the Navy, the Chief of Naval Operations and the Commandant of the Marine Corps.

In 2010, Secretary Ray Mabus instituted a policy change to create a combined Board of Advisors to the Presidents of the Naval Postgraduate School and the Naval War College, along with two subcommittees to focus on the individual institutions. The first NPS subcommittee meeting of this newly constituted Board will take place Apr. 26-27, 2011, here in Monterey.

Historical Highlights are provided by the Dudley Knox Library.

