



## Come One, Come All to the Centennial Finale!

By Joan Ackerman

It was nearly one year ago, Memorial Day 2009, when the Naval Postgraduate School (NPS) embarked on its Centennial Celebration. Throughout the course of this journey have been countless notable events celebrating the school's landmark achievements — a century of Excellence in Education. While that voyage is nearing its conclusion, it will close with a plethora of festivities during the upcoming Reunion Weekend and Centennial Celebration, May 27-31, as NPS "Celebrates the Past, Defines the Future."

On Thursday, May 27, at 10:00 a.m. President Daniel Oliver will present the State of the School address in King Auditorium followed by an NPS Centennial Tribute presented by the Alumni Relations Office. The academic quad in the center Spruance Plaza is host to the next event, where at 11:30 a.m. the school will dedicate its Centennial Time Capsule, the contents of which will offer a hands-on look at what life was like on campus, in the community, in the nation and globally in 2010.

Memorabilia collected from faculty, staff, students, alumni and members of the community, which will be stored and protected within the gas-treated air- and water-tight vessel, will include letters, photos, keys, coins, newspapers, books, programs, brochures, CDs, thumb drives, iPhones and more. For a \$10 fee, all current and past students, faculty, staff, alumni and friends can also write individual messages to be included in the time capsule through the centennial Web site by visiting [http://nps.imodules.com/time\\_message](http://nps.imodules.com/time_message).

The capsule will be buried on June 9, the university's precise 101st anniversary, under a four-foot bronze cover plate bearing the Centennial

peacock logo and will remain sealed until NPS' bicentennial year, 2109-2110. Like the school's timeline along Root Hall, dedicated in 2009, the time capsule and bronze cover plate will serve as lasting symbols of the great achievements of NPS, representing the promise of many more successes in the years to come.

On Friday, May 28, the NPS Reunion Enrichment Lecture begins at 1:00 p.m. in King Auditorium, where NPS alumnus and astronaut Navy Capt. Alan Poindexter, Commander of STS-131, will talk about his latest space shuttle mission to the International Space Station. The event is free and open to anyone with base access, although pre-registration is required.

At 7:00 p.m., under white cathedral-style tents on the east lawn of Herrmann Hall, an evening of music and festivities will begin with "Sip the Peninsula," a wine and beer tasting event and silent auction. Sponsored by the NPS Foundation, and co-hosted by the Alumni Relations Office and the NPS Officers' Spouses' Club, over 10 brewers and vintners will be represented and prizes include hotel packages, certificates from restaurants, spas, wineries and jewelers. All tax-deductible proceeds will benefit local military charities and scholarships at the School for Military Dependents,



NPS Provost and Executive Vice President Leonard Ferrari welcomes a near record crowd to last year's Memorial Day Concert on the Lawn. This year's concert, to be held Monday, May 31, will bring a close to the yearlong Centennial Celebrations, honoring the university's 100-year anniversary.

as determined by the Allocations Committee of the Spouse's Club, which is celebrating its 50-year history. Tickets are \$40 per person in advance and \$45 at the door.

The Centennial Finale Gala, "A Toast to the Next 100 Years," will be held on May 29 at 6:00 p.m. in the Barbara McNitt ballroom. The grand space in the infamous Hotel Del Monte will be transformed into an elegant and intimate setting featuring cocktails and hors d'oeuvres followed by a seated dinner, music and dancing. Tickets are \$125 per person —

seats are limited and registration is required.

The Annual NPS Memorial Day Concert on the Lawn and Non-Profit Fair — the university's most popular annual event — will bring a close to the Centennial festivities. On Monday, May 31, the campus will be open to welcome the community for a day of food and fun, children's activities and a special performance by the Monterey Bay Symphony Orchestra on the grounds near Herrmann Hall.

To register for any and all of these Centennial events, follow the link located at [www.nps.edu](http://www.nps.edu).

## Research Revolutionizes Understanding of Rip Currents

By Barbara Honegger

In surf zones near the Naval Postgraduate School and around the world, NPS Oceanography Assistant Professor Jamie MacMahan is quietly revolutionizing the understanding of rip currents, turning them from a swimmer's worst nightmare into a friend.

Instead of expensive GPS sensors that relay position data in real time, MacMahan and his students mount low-cost GPS devices with memory cards inside swarms of drifters whose brightly-colored fluorescent poles bob in the waves like giant pick-up sticks. The dozens of position-tracking sensors are then retrieved and their saved location and velocity data post-processed to reveal detailed surf zone



flow patterns across various wave and tidal conditions.

This more comprehensive data produced a paradigm-shifting discovery.

The conventional view of rip currents — that they're fast, narrow flows moving away from shore and that everything in the current goes out to sea — is dangerously incomplete. Rather, they're a system of giant whirlpools whose circular eddies act like conveyer belts to carry a swimmer who treads water safely back to shore; and only 10 to 20 percent of the currents exit the surf zone.

"I've jumped in a lot of rip currents all over the world, and I've always ended up back onshore," said MacMahan. "Many experienced surfers know this, and even talk about 'riding the rip.'"

"The whole idea is to keep the drifters cheap, so you can field 40 or 50 instead of just four or five, and then do an aggressive analysis afterwards," explained MacMahan, who won the NPS Menneken Research Award in 2009.

"This new view matters because rip currents are the third deadliest natural hazard in the U.S., after heat waves and floods, and kill more people in Florida than lightning, hurricanes and tornados combined," MacMahan noted. "Each year in the U.S., 18,000 swimmers and divers have to be rescued from these currents, representing 80 percent of all surf zone rescues, and 100 of them drown. We're working with lifeguards on how to integrate the new view into their training and public awareness campaigns."

"The mechanisms behind rip currents are also important for tracking and predicting the trapping of pollutants from rain runoffs and other sources and harmful algae within surf zones," MacMahan added, "and thus for water quality and sea biology."

As for the future, surfers know "The Seventh Wave" is the biggest. With the new rip current paradigm, it looks like MacMahan has caught his "Big One" and that his research will be making waves for a long time to come.

*Oceanography Assistant Professor Jamie MacMahan revolutionized the understanding of rip currents by discovering a fresh approach to researching the near-shore phenomena. (U.S. Navy photo by Javier Chagoya/Released.)*

## IN BRIEF

- ✦ The three subcommittees created for the three themes of the WASC reaccreditation effort have been working on the first draft of the *Educational Effectiveness Review*, which has been reviewed by the Strategic Planning Council. The report will be made available to the entire campus for review prior to its submission to WASC in July.
- ✦ The Defense Resources Management Institute (DRMI) Field Studies Program (FSP) Office and the NPS Staff Development Council are offering a **Cross-cultural Communications course** for 30 staff on May 13-14, taught by Charlie Orsburn, DRMI FSP Manager and Alan Howard, Global Public Policy Academic Group Senior Program Manager. To register, contact Laura Cole at [lacole@nps.edu](mailto:lacole@nps.edu).
- ✦ An "All Hands Cybersecurity and Privacy Refresher Training," a 90-minute session for all users of the ERN/.edu that will satisfy the five-hour required online annual refresher training, will be offered Tuesday, May 25 from 9:00-10:30 a.m. and Thursday, June 20, from 11:30 a.m.-1:00 p.m. in Glasgow Hall Room 102.
- ✦ For security purposes, the Del Monte gate is now open at night from 4:00 p.m. until 8:30 a.m. the following day. The 9th Street/Sloat Ave. gate is open daily from 7:00 a.m. to 5:30 p.m. The Pass and ID office is now open weekdays only from 7:30 a.m. to 4:00 p.m.
- ✦ NPS will host the **68th Anniversary of the Battle of Midway** on Saturday, June 5. Retired Army Col. Professor Jon Czarnecki, who teaches Joint Maritime Operations at NPS, will speak on "The Heart of Command: Chester Nimitz at Midway." Reservations are now open and can be made at the MWR ITT Office or at [www.nps.edu/midway](http://www.nps.edu/midway). POC is Lt. Brad Thompson at [bgthomps@nps.edu](mailto:bgthomps@nps.edu).

## A Message From Provost and Exec. Vice Pres. Leonard A. Ferrari



The Naval Postgraduate School is a truly unique combination of cultures – I cannot think of any organization that is quite the same blend of defense department organization and high-level academia. We are fortunate that our university has such a clear and concise mission to guide us, and that we are so truly driven by that mission.

Ask any academic, and they will tell you the role of research is well intertwined within the fabric of education – they are intrinsically inseparable. But there are times when we need to be reminded about why we give so much of ourselves to the effort of research. In the simplest of terms, research fulfills the mission-critical needs of the Departments of Defense

and Navy as well as our allies, enhancing our national security. But its benefits exist so far beyond this one crucial element.

Research recruits world-class faculty; it is a constant and unrelenting safeguard to the quality of our curricula; and it meets the accrediting standards that require our faculty to remain on the cutting-edge of their given fields.

At NPS, faculty should and do have the academic freedom to pursue relevant research in support of the school's mission. Research funds are requested through Principal Investigators with expertise in areas reflected on research funding proposals and Broad Agency Announcements. Programs and projects are screened and reviewed by Chairs, Deans and the Vice President of Research to ensure academic rigor and relevant results. Because most research is reimbursable, funded and supported by the Department of Defense or the national security enterprise, only space and time – not dollar amounts – dictate the extent of research produced at our university. Without the variety of reimbursable programs at the school, the advancements in our superb programs would erode, and research would be relegated to those with less expertise.

Nowhere else but at NPS is a univer-

sity's mission so intrinsically connected to operational relevance. Our students are officers whose personal skill sets and varied experiences in the battlefield bring a distinct focus, discipline and determination in the pursuit of their studies, AND their research. At the same time, our faculty bring dual expertise to the teaching and research they perform, coupling military knowledge with adroitness in their respective fields.

The reality is, master's level education alone cannot satisfy the NPS mission of education and research in support of the United States military and our allies, nor can it maintain the expertise of our faculty and the quality of our programs by itself. Integral to the bestowment of a graduate level degree is an uncompromising demand of operationally-relevant student research in every thesis or dissertation topic.

NPS is, in the truest sense, a research university ... One that has never been more closely aligned with our guiding mission. From the institution's strategic planning to its curricula development, faculty publications to vital research, the heart of this institution is centered on our service to the Departments of Defense and Navy, and our global partners – all to improve the national security of the United States.

## Announcements

Advanced Distributed Learning signed a Memorandum of Agreement with the *MOVES Institute*, establishing a long-term relationship to develop capabilities within the armed forces related to modeling, simulation, training and human systems integration. Initial tasks will provide data on cutting-edge training technologies and investigate technical data standards.

Professor *Douglas Borer* of Defense Analysis has been accepted as a 2010-2011 Academic Fellow with the Foundation

for the Defense of Democracies, a non-profit, non-partisan think tank based in Washington, D.C. that seeks to educate Americans about the terrorist threat to democracies worldwide.

Professor and Chairman of the Mechanical and Aerospace Engineering *Dr. Knox T. Millsaps* is currently serving as the Chairman of the Board of Directors for the International Gas Turbine Institute ([igti.asme.org](http://igti.asme.org)), the largest and most prestigious organization in the world dedicated to gas turbines and related energy technologies.

## Faculty Notes

Congratulations to *Deborah Gibbons*, *Craig Martell* and *Javier Salmeron*, who have been awarded tenure; to *Anne Marie Baylouny*, *Nicholas Dew*, *Frank Kragh*, *Jessica Piombo*, *Marcello Romano*, *Weilian Su*, and *Roberto Szechtman*, for their promotion to Associate Professor and an award of tenure; and to *Frank Giraldo*, *Pantelimon Stanica*, and *Clifford Whitcomb*, who are now Professors.

GSBPP Assoc. Prof. *David Henderson* had an article, "From 'Porous' to 'Ruthless' Conscription, 1776-1917,"

published in *Independent Review*, Vol. 14, No. 4, Spring 2010.

"Humanitarian Logistics: A New Field of Research and Action," a sole-author monograph written by *Aruna Apte* of GSBPP has been published in *Foundations and Trends® in Technology, Information and OM* (Vol. 3: No. 1, pp 1-100, <http://dx.doi.org/10.1561/0200000014>). Humanitarian logistics is a critical element of an effective disaster relief process.

*Dr. Mary Batteen*, Professor of Oceanography, contributed a chap-

ter titled "Climate Change and Sustainability: Connecting Atmosphere, Ocean and Climate Science with Public Literacy" to *Climate Change and Sustainable Development* which was published in March 2010 by Linton Atlantic Books, Ltd. The chapter has two co-authors, *Timothy Stanton*, and *Wieslaw Maslowski*, both professors in Oceanography.

Cmdr. *Dr. Rebecca Stone*, Military Faculty, GSEAS Program Officer for METOC, Oceanography, has been promoted to Captain in the US Navy.

## NPS Launches New Video Portal

By *Amanda Stein*

To capture and share the exciting news, events and educational enrichment that happens everyday on the NPS campus, ITACS has developed an online Video Portal, allowing students, faculty and the public access to dozens of NPS-related videos in one place.

"It's like YouTube for NPS" explains site administrator Cullen Jones. The site launched officially on April 29 with over 100 videos, and more content is expected as the NPS community gets more familiar with the portal, and how they can use it.

The site has both a private and public side, allowing administrators to embed video on private group Web sites that are password protected. The public side provides footage of NPS news stories, events, graduation ceremonies, guest lecturers and off-campus footage relevant to different departments.

"For example, if a student wants to share his recent graduation ceremony with friends and family who couldn't attend, the captured footage is available on the portal," said Jones. "The site offers an introduction to the Naval Postgraduate School, current events, conferences and guest lectures that have taken place at NPS throughout various departments and institutes.

There's a lot of great stuff on here," he continued.

Videos on the portal can be accessed from on or off-campus, making it easier for students to catch up on the latest happenings at NPS or to watch a lecture they missed. The site also features monthly episodes of *Inside NPS*, a 30-minute show that appears regularly on the Pentagon Channel.

"Before the portal we were always managing our video by hand. When a new video request came in, we would have a link to it on the home page," said site developer Todd Wyatt, "but once that event was over a couple weeks later, the link went away and there was never any kind of archiving of it."

Now, footage is organized in categories and tagged based on the content. Visitors to the site can search through the quick tag links on the homepage, or search for videos by department or school within NPS. Upon selecting a video, the site also provides a handful of suggested related videos based on similar tags. The goal is to not only provide quick access to a video the user is looking for, but also to suggest other things happening on campus that may relate to the user's interests.

The site also provides the option to subscribe to the RSS channel to receive regular updates when new content is added. The portal is now available at [www.nps.edu/video/portal](http://www.nps.edu/video/portal).

## CALENDAR

### May 12-13

7th Annual Acquisition Research Symposium  
*Acquisition Research: Creating Synergy for Informed Change*  
POC: Karey L. Shaffer Ext. 2257 or [www.researchsymposium.org](http://www.researchsymposium.org)

### May 13

Gen. George Casey  
U.S. Army Chief of Staff  
Secretary of the Navy Guest Lecture  
POC: Vickie Hoy Ext. 7748

### May 17-20

9th International Symposium on Technology and the Mine Problem  
POC: Prof. Rick Williams Ext. 7702

### May 18

Dr. Brenda Shaffer  
School of Political Science and Department of Asian Studies, University of Haifa  
Secretary of the Navy Guest Lecture  
POC: Vickie Hoy Ext. 7748

### May 18-21

Rear Adm. Joe Leidig  
Joint Staff, J-5, Chief of Staff  
Menneken Lecture  
POC: Rear Adm. (ret.) Jerry Ellis Ext. 2488

### May 27-31

Centennial Finale  
State of the School Address, Time Capsule Dedication, Reunion Weekend, Centennial Gala NPS Campus  
POC: Kari Miglaw Ext. 2077

## HISTORICAL HIGHLIGHTS

The earliest known appointment for a Naval Postgraduate School professor occurred on May 6, 1910 when the 61st Congress approved Ensign Guy K. Calhoun as "professor of mathematics in the navy." Calhoun's Congressional appointment – discovered by NPS Mathematics Department Chairman Carlos Borges – sheds new light on the process of faculty hiring at Annapolis. (At this time, NPS was called the School of Marine Engineering and was co-located with the Naval Academy at Annapolis.)

Following his 1908 graduation from the Naval Academy, Calhoun made extensive computations to develop a set of math tables that proved to be highly useful to navigators. His work, "*Products of Arcs and Sines of 15-Degree Rhumbs*,"

was published by the Government Printing Office in 1910. *Products of Arcs and Sines*, possibly the first NPS faculty publication, has remained in print for a century and is still available to this day.



PRODUCTS OF  
ARCS AND SINES  
OF 15-DEGREE RHUMBS

COMPILED BY  
GUY K. CALHOUN, U. S. NAVY  
FOR USE IN ANALYSIS OF DEVIATIONS  
WHEN 15-DEGREE RHUMBS ARE USED

Historical Highlights are provided by the Dudley Knox Library.