



## Congressman Jimmy Panetta Rallies Fall Quarter Grads

By MC2 Patrick Dionne

The Naval Postgraduate School (NPS) bid farewell to 365 graduates earning 368 advanced degrees, including 37 international students, during the 2018 Fall Quarter Graduation ceremony in King Auditorium, Dec. 14.

University president retired Vice Adm. Ronald A. Route opened the ceremony with a congratulations to the quarter's graduating class, reminding the new NPS alumni of the higher calling that brings to NPS.

"While you reflect on your accomplishments and look ahead towards an uncertain future in a changing and sometimes violent world, we are reminded of our call to service; your call to service," Route said. "It is our hope and expectation that you will leave here prepared to serve, and prepared to do something great."

Route then turned the podium over to commencement speaker, representing California's 20th district, Congressman Jimmy Panetta, who began his speech with a special recognition of Route, who will soon complete his five-year term as NPS President.

*"Through your work here at NPS, through your service to our nation and each other, we know that you have emerged at the top of your physical and mental game,"*

*-Congressman Jimmy Panetta*

A former member of the U.S. Naval Reserve, Panetta volunteered for active duty in 2007 and was deployed to Afghanistan in support of Operation Enduring Freedom. As a congressman, he is currently a member of the House Air Force Caucus, Army Caucus, the Coast Guard Caucus, Cyber Security Caucus and the Navy and Marine Corps Caucus.

"Each of you has put in the work and are prepared to confront any threat that lies ahead of us," he continued. "As former President George H. W. Bush once said, 'Think about every problem, every challenge, every issue we face, the solution for each starts with education.'"

"That is why we will continue to call on you, and expect great things of you as you step up and lead through your service, your innovation and of course through your fight," he concluded. "I know, that you will continue to do so with the attitude that no issue, no problem and no challenge will ever be above your paygrade."



NAVAL POSTGRADUATE SCHOOL

UPDATE  
NPS

- p2 **Tillman Leadership Award Recognizes Enduring Legacy**
- p3 **New Climate Model to Be Built from the Ground Up**
- p4 **NPS Internship Could Lead to NASA Partnership**
- p6 **New Educational Requirements For URL Officers**

**Welcome Back!**

January 2019

# Tillman Leadership Award Recognizes Maples' Enduring Legacy

By Javier Chagoya

NPS Information Electronic Warfare and Special Operations Program student U.S. Army Maj. Peter Arendt is the recipient of the NPS Foundation Pat Tillman Leadership Award for the 2018 Fall Quarter, presented Dec. 4 on the university campus.

Arendt is being recognized for his unyielding support for fellow NPS student Army Maj. Sean Maples and his family, as he faithfully stayed by his comrade's side during his long battle with cancer. Maples, who sadly succumbed to his illness October 14, is co-recipient of the award posthumously. His wife, Katie Raychel, accepted the award on his behalf.

Arendt met Maples while at 1st Special Forces Group at Joint Base Lewis-McChord, in Tacoma, Wash. They served in the same battalion together for four years and had known Maples for six, including their academic time at NPS.

"Sean is the one who meets the criteria for the [Pat Tillman] Award, and I just get to be alongside my friend," Arendt said, noting he couldn't count how many times he saw Maples tackle the next challenge despite his battles with cancer.

"I'm honored that others can hear Sean's story, about how he successfully beat cancer by becoming a Green Beret, summiting Mt. Rainier, deploying to combat and finally, receiving his master's degree from NPS," he said.

On that particular ascent to Mt. Rainier, Maples saved the life of a team member who was suffering high altitude cerebral edema. Maples and his rope team safely descended with the injured Soldier to medical care and then proceeded to make a second ascent to summit the 14,000-foot peak.

This was Maples' third and final bout with cancer. He had been

diagnosed with melanoma following his deployment to Afghanistan several years ago.

"To me, receiving this award embodies the first SOF [Special Operations Forces] truth that humans are more important than hardware," added Arendt. "I would like others to be inspired by Sean's desire to succeed despite the challenge of cancer, and how he didn't let cancer get in the way of achieving his goals and dreams."

Arendt, humbled by the nomination and deflecting the attention to his friend, was nominated by fellow student, Army Maj. Jordan Smith, along with a few other NPS Department of Defense Analysis (DA) professors and advisors.

"[Arendt's] military record is impressive with combat and operational deployments to the PACOM and

CENTCOM theaters. His selection for NPS best demonstrates his potential for positions of increased responsibility and leadership. He was, and is continually selected for special assignments," noted Smith.

"Academically, Peter took on a challenging and perhaps controversial topic delving into the efficacy and opportunity cost of military online training which has stakeholders' interest at senior levels within the DOD with millions of allocated dollars. His research hits a tough topic which needed to be addressed," he added.

NPS' National Intelligence Chair, Dr. John Tullius, a faculty member of the DA department, had both Maples and Arendt in his Human Intelligence (HUMINT) course last summer and recalls the students vividly.

"I just want to express my strongest support for this nomination—I had Majors Arendt and Maples in my HUMINT class summer quarter and this experience has left an indelible mark on me," said Tullius.



*NPS Information Electronic Warfare and Special Operations Program student U.S. Army Maj. Peter Arendt holds a portrait of classmate Maj. Sean Maples, who lost his battle to cancer in October. Both Arendt and Maples are recipients of the NPS Foundation Pat Tillman Leadership Award presented during the 2018 Fall Quarter Awards Ceremony held at Herrmann Hall's Quarterdeck, Dec. 4. (U.S. Navy photo by Javier Chagoya)*

**"Update NPS" is a monthly publication for students, faculty and staff of the Naval Postgraduate School produced by the Public Affairs Office. For additional copies, comments, or to suggest story ideas, contact the editorial staff at [pao@nps.edu](mailto:pao@nps.edu).**

# New Climate Model to Be Built from the Ground Up

By NPS, CalTech and MIT Public Affairs

Facing the certainty of a changing climate coupled with the uncertainty that remains in predictions of how it will change, scientists and engineers from across the country are teaming up to build a new type of climate model that is designed to provide more precise and actionable predictions.

The new model will be built by a consortium of researchers led by Caltech, in partnership with MIT the Naval Postgraduate School (NPS) and Jet Propulsion Lab (JPL), which Caltech manages for NASA. The consortium, dubbed the Climate Modeling Alliance (CliMA), plans to fuse Earth observations and high-resolution simulations into a model that represents important small-scale features, such as clouds and turbulence, more reliably than existing climate models. The goal is a climate model that projects future changes in critical variables such as cloud cover, rainfall, and sea ice extent more accurately with uncertainties at least two times smaller than existing models.

“Projections with current climate models—for example, of how features such as rainfall extremes will change—still have large uncertainties, and the uncertainties are poorly quantified,” says Tapio Schneider, Professor of Environmental Science and Engineering, senior research scientist at Caltech’s JPL, and principal investigator of CliMA. “For cities planning their stormwater management infrastructure to withstand the next 100 years’ worth of floods, this is a serious issue; concrete answers about the

likely range of climate outcomes are key for planning.”

The consortium will operate in a fast-paced, start-up-like atmosphere, and hopes to have the new model up and running within the next five years—an aggressive timeline for building a climate model essentially from scratch.

“A fresh start gives us an opportunity to design the model from the outset to run effectively on modern and rapidly evolving computing hardware, and for the atmospheric and ocean models to be close cousins of each other, sharing the same numerical algorithms,” says Frank Giraldo, professor of applied mathematics at NPS.

Each of the partner institutions brings a different strength and research expertise to the project. At Caltech, Schneider and Stuart will focus on creating the data-assimilation and machine-learning algorithms, as well as models for clouds, turbulence, and other atmospheric features. At MIT, Ferrari and John Marshall, also a Cecil and Ida Green Professor of Oceanography, will lead a team that will model the ocean, including its large-scale circulation and turbulent mixing. At NPS, Giraldo will lead the development of the computational core of the new atmosphere model in collaboration with Jeremy Kozdon and Lucas Wilcox. At JPL, a group of scientists will collaborate with the team at Caltech’s campus to develop process models for the atmosphere, biosphere, and cryosphere.



## FACULTY news & notes

The Monterey Rotary Club welcomed NPS professors as guest speakers for their December meetings at the Hilton Garden Inn.

On Dec. 6, Operations Research Professor retired U.S. Navy Capt. Jeff Kline spoke about the heroism and bravery that U.S. service members demonstrated during the attack on Pearl Harbor.

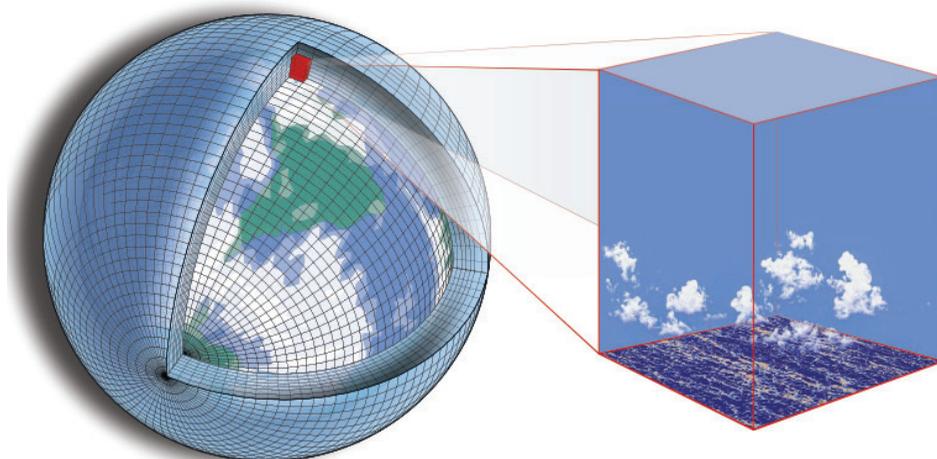
“I had the choice to talk about the history, the operations and the intelligence failures beforehand,” said Kline. “But instead, I decided to talk about the people. I chose to talk about the people because I find that as an interesting topic when we talk about how strong our society is.”

Dr. Clay Moltz, NPS Professor in the National Security Affairs Department and Chair of Space, Nuclear Strategy, East Asia and Russia, talked about the future of space technologies during the Monterey Rotary Club meeting on Dec. 13.

Moltz said that while the U.S. led the space race, its constellation and satellites were aging and had vulnerabilities. Budget cuts also reduced space expeditions. Moltz said that the U.S. is regaining its lead in space technologies allying with the commercial sector instead of bureaucratically tying them up.

“Within the U.S. military, we’re seeing some new directions,” added Moltz. “One of these is working with allies. We’ve signed a number of agreements with critical allies in space that are helping us build more resilient constellations.”

**Have a story to share?**  
**Public Affairs is constantly seeking interesting news and stories for Update NPS. Send your tips to [pao@nps.edu](mailto:pao@nps.edu).**



An artist’s representation of the way climate models parse the globe into a grid. (Courtesy Tapio Schneider/Kyle Pressel/Momme Hell/Caltech)

# NPS Student's Internship Could Lead to Research Partnerships with NASA

By Matthew Schehl

A NASA delegation's visit to the Naval Postgraduate School (NPS) could open the door to fruitful future collaboration on some of the nation's most critical technology challenges.

"Cooperative research among all government agencies and industry is vital to our national defense now more than ever," said Dr. Howard Pace, an NPS Graduate School of Business and Public Policy (GSBPP) professor who helped coordinate the visit. "In the age of great power competition, we must extract what each of us is best at, and in the ensemble, provide the best capabilities for our nation.

"This was exactly the case with the NASA and NPS exchange," he stressed.

The daylong event was originally prompted thanks to a rare, quarter-long internship conducted this summer at Air Force Reserve Command by NPS student, U.S. Navy Lt. Todd Coursey.

The NPS graduate student not only supplemented his applied physics curriculum researching next-generation fiber optic cables at NASA, but also took advantage of the opportunity to network with professionals in his field that he would not otherwise have encountered. Walking around one day, he came across AFRC's technology partnerships office.

"I thought to myself, 'Oh man, that's perfect!'" Coursey said. "So I just knocked and walked in and they welcomed me with open arms;

we were able to put together a tentative plan.

"Decades ago, NPS had a pretty good relationship with NASA Armstrong Flight Research Center, but that kind of faded away," he continued. "Then I had the chance for the internship and to kind of pick it back up. There's so much opportunity to collaborate. As budgets tighten and as technology advances, collaboration is absolutely paramount to moving things forward."

"The Navy especially hasn't had as much insight into what we're doing, so we came to NPS to get the word out," said Mark Skoog, principal investigator of automatic systems at AFRC. "We're primarily creating awareness of what we're developing and when it'll be available, so the Navy can start to potentially use it in ways we haven't even thought about."

Engagements like this open the door to long-term collaboration possibilities between NPS and AFRC. This would be a mutually-beneficial relationship, according to Coursey. NASA can tap into the expertise of NPS' students and faculty, and NPS can thrive in the expanded research opportunities which would have a direct impact on the Department of Defense.

"Through these joint efforts, we are shaping the future of the DOD with the men and women who walk on campus to learn the art of the possible, whether in a lab or a desert field at NASA Armstrong," Coursey continued. "Our technological strength will come through challenging the status quo."



Mark Skoog, Principal Investigator of Automated Systems at NASA Armstrong Flight Research Center, briefs NPS students on his work in Resilient Autonomy, Nov. 27. The campus visit was initiated by current student, U.S. Navy Lt. Todd Coursey, following his three-month internship at AFRC. (U.S. Navy Photo by Javier Chagoya)

## MACO Graduate Commissioned to Warrant Officer

By MC2 Patrick Dionne

Chief Cryptologic Technician (Networks) Kurt Myers was commissioned to Chief Warrant Officer 2 in a ceremony held on the Naval Postgraduate School (NPS) campus, Nov. 30. Myers, a recent graduate of NPS' Master of Applied Cyber Operations (MACO) program, is one of a very few enlisted Sailors to be selected for commission while enrolled at NPS.

"It feels surreal to be

commissioned, but it was sad to not be a chief anymore because I really liked being a Chief," said Myers. "When I found out, I was surprised, happy, excited but it was a long nine-month wait to finally be commissioned.

The rank of Warrant Officer is that of a commissioned technical specialist who directs specific activities essential to strategic operations that require a higher level of authority. The highly-

competitive commissioning program is only available to high-performing chief petty officers with a minimum of 14 years of service.

"Being a Chief Warrant Officer to me means that I hold a lot of responsibility that not a lot of people in the Navy get, so it is an honor to take on that challenge but it is also a little intimidating because I want to live up to those expectations," said Myers.



Chief Warrant Officer 2 Kurt Myers, left, recites the uniformed services oath of office during the ceremony officially commissioning him as a Cyber Warrant Officer. Myers is a 2018 graduate of NPS' Master of Applied Cyber Operations program. (U.S. Navy photo by MC2 Patrick Dionne)

# NPS Student Wins Outstanding Thesis Award

By MC2 Taylor Vencill

Lt. Cmdr. Matthew Timmerman earned the Outstanding Thesis Award for his work in integrating ship network diagrams into three-dimensional augmented reality diagrams.

Through his experiences at sea, Timmerman realized that it was often difficult to review ship's networks when issues arose due to the system's complexities.

"One of the things I noticed when a ship's network had issues was that it was hard to visualize the issues because the network diagrams were on paper," said Timmerman. "To visualize the length of a destroyer on paper, you're laying out papers on desks."

Timmerman devised a system that could simplify this and experimented with it during his thesis.

"My goal was to combine all of that paperwork into one virtual 3-D augmented reality diagram," said Timmerman. "Something that one person could visualize and see the entire ship network in one view, and then be able to collaborate with the ship's captain or department heads who can also visualize

where the problem is and what the solution could be."

Timmerman's experimentation involved 30 naval officers working in small teams using augmented reality to collaborate on a network issue and developing course of action for a figurative ship captain.

"The teams were able to collaborate and show the captain which course of action they chose and how each course of action affected the network," said Timmerman.

Timmerman was able to brief his developments to the Space and Naval Warfare Systems Command, Battlespace Exploitation of Mixed Reality Lab, and to the Navy's Surface Warfare Association and discuss how it can help create a more efficient Navy.

"I built the baseline for many people in the future to build upon," said Timmerman. "Instead of using a white board and paper, using this technology, that is advancing very quickly, will help build tools to help solve the Navy's problems."

# NPS Student Receives Navy League Award

By MC2 Patrick Dionne



Retired Lt. Cmdr. Tom Winnant presents Lt. Cmdr. Scott Stafford with the Monterey Navy League Highest Academic Achievement Award during a ceremony at NPS' Herrmann Hall, Dec. 4. (U.S. Navy photo by Javier Chagoya)

Naval Postgraduate School (NPS) student Lt. Cmdr. Scott Stafford has been recognized with the quarter's top academic honor, receiving the Monterey County Navy League Award for Highest Academic Achievement during the 2018 Fall Awards Ceremony in Herrmann Hall, Dec. 4.

The Navy League Award is achieved through outstanding academic performance, motivation, and the ability to possess the qualifications of a leader.

"It is an award for essentially being well-rounded," said Stafford. "It includes several areas from community involvement, to your thesis, to general military bearing. This isn't just about getting the best grade in class but representing your service and showing you are involved in more aspects than a single one."

A major influencer on his selection for the award was his thesis, which examined organized crime in Albania, in particular how its thriving cannabis market impacts its relationship with the European Union and NATO.

"I believe by exploring something that is under-researched allowed me to find out a lot of information that has been ignored or lost over time," said Stafford. "I think looking at that niche area really helped my thesis stand out against some of the others."

The Navy League of the United States, founded in 1902 with the support of President Theodore Roosevelt, is a nonprofit civilian, educational and advocacy organization that supports America's sea services.

## CAMPUS news & notes

Vice Adm. Johnny R. Wolfe Jr., Director for Strategic Systems Programs (SSP), visited the Naval Postgraduate School (NPS), Nov. 26-28, to perform a periodic review of the university's system engineering (SE) curriculum.

"Every two years, the director of SSP comes out and reviews the program, making any modifications or changes needed based on the current needs of both what I need as the SSP and what the Navy needs," explained Wolfe. "They really do provide the Navy's technical expertise from a curriculum and learning perspective, making sure we have the right talent in the right place for the Navy."

For the students, the opportunity provided them with an invaluable interaction with the senior leadership of their field.

"It really helps with networking," said Lt. Andrew Miller. "Talking with leaders eye-to-eye really helps, compared to just looking at someone as a name on paper. It's huge, especially with a small community like the engineering community."

Wolfe's review of the SE curriculum included a recommendation to look at the addition of cyber to the program ... Fortunately, it's a specialty of NPS.

System engineering is considered a major component in today's Navy, Wolfe says, touching almost every aspect of the service and its platforms.

"If you fundamentally think about everything we do in the Navy, everything is a system," said Wolfe. "Everything we design starts with a list of requirements and a process to take those through to guarantee we got the system right."

Send your campus news and notes to [update@nps.edu](mailto:update@nps.edu).

# Navy Announces New Educational Requirements for URL Officers Taking Major

By MC2 Nathan K Serpico

The Navy has released a new naval administrative instruction, NAVADMIN 263/18, stating that officers in unrestricted line (URL) communities must now be screened by administrative boards in order to attend in-residence graduate education programs, which they must complete to be eligible for taking major command starting with officers in year group 2015.

The Navy's Graduate Education Program supports our National Defense Strategy by developing Navy leaders who understand the art and science of warfighting and can lead in complex strategic environments. In-residence education programs provide the best opportunity to mature critical and strategic thinking skills.

"I think there are advantages to being an in-resident graduate because you're taken out of your operational environment for a specific set of time and you can focus on your studies," said NPS Director of Programs Cmdr. Doug Jones. "You also have the time to develop those critical thinking skills and that will pay benefits when you're in a major command because you'll know how to analyze, access, critically think, and will develop characteristics that I think are desired at the major command level."

Beginning in fiscal year 2019, administrative boards will screen the most fully qualified, due course officers for top-line, key competitive

in-residence graduate education and in-residence Joint Professional Military Education opportunities, such as Naval War College, NPS Fleet Scholar Education Program, Olmstead Scholar and other similar programs.

"You'll find that they will try and select the front-runner, best and brightest people early on to make sure they get that in-resident

graduate education to groom them for major command at some point in their careers," said Jones. "I think that's going to impact the type of individual that gets screened to come to NPS."

Officers in year group 2015 and beyond will be required to graduate from an in-residence program prior to assuming any major command. Officers will be able to screen for a major command before completing their in-residence requirement to allow for maximum career flexibility. For the purpose of this policy, in-residence

graduate education is defined as a completion of a graduate degree or professional military education program allowing officers to dedicate time in an academic environment.

While this new instruction will undoubtedly mean change for NPS, the amount of change and how long before the effects are seen are still up for debate. Until then, NPS will continue to educate and empower service members and civilians in the DOD.



Naval Postgraduate School students and attendees honor the national ensign during the National Anthem to start the Fall 2018 graduation ceremony in King Hall, Dec. 14. (U.S. Navy photo by MC2 Michael Ehrlich)

## Focus On... President's Student Council

NPS President's Student Council (PSC) Chair U.S. Air Force Maj. Caitlin Diffley is ready to start a new quarter and a new year representing the student body of NPS. The PSC is an organization within NPS advocating for students by students who can relate to many of the challenges faced on a daily basis.

"What we do in the President's Student Council is connect student body to leadership, and help them

connect back to you, because they are interested in what is going on in each student's personal, academic and professional lives and development," said Diffley.

The PSC is also ushering in a new generation of members and leaders committed to improving the student experience at NPS.

"Our biggest push coming up in the spring is to build networking and mentorship in NPS," said

Diffley. "By networking between branches and curriculums, we hope to tap into this robust talent we have around campus."

"We are also tapping into mentorship from alumni ... those that are still serving, retired or in industry. They can help keep you connected to your career field so that you are making this time at NPS not only about getting a degree, but you are also ready professionally to go back to your job."



To get involved in the President's Student Council, please reach out to school leads or representatives at the PSC monthly meeting on the first Wednesday of every month in the Dudley Knox Library room 263A or email them at [PSC@nps.edu](mailto:PSC@nps.edu).

# Any Day at NPS...



NPS students and staff participate in a wargame strategy scenario conducted by Dr. Jeff Appleget in the U.S. Army Training and Doctrine Command Analysis Center, Dec. 6. (U.S. Navy photo by Javier Chagoya)



The 77th class of the Naval War College (NWC) Monterey partnership with NPS for Joint Professional Military Education (JPME) stands for a group portrait on the steps of Herrmann Hall, Dec. 6. Through the partnership, 5,172 officers have earned this certification since the program's inception in September 1999. (U.S. Navy photo by MC2 Taylor Vencill)



NPS professor retired U.S. Navy Capt. Jeff Kline retells various accounts of dedication and heroism during the attack on Pearl Harbor at a Monterey Rotary Club meeting in the Hilton Garden Inn, Dec. 6. (U.S. Navy photo by MC2 Tom Tonthat)



Graduates of the National Security Affairs Regional Security Studies Course and their families attend the certificate presentation ceremony at the Navy Postgraduate School, Dec. 13, 2018. (U.S. Navy photo by MC2 Taylor Vencill)



NPS Academic Planning Administration, along with other members of NPS' staff, celebrate the holidays in the Tower Room of the old Del Monte Hotel, Dec. 18. (U.S. Navy photo by MC2 Tom Tonthat)



The 2019 Operations and Logistics Management staff in the Graduate School of Business and Public Policy pose for a photo in Spruance Plaza, Dec. 20. (U.S. Navy Photo by MC2 Tom Tonthat)



## STUDENT voice

**Maj. Caitlyn Diffley, USAF**

Welcome (back) colleagues!

Today I enjoyed a thrill sitting down in my first class of the quarter, reuniting with a colleague from DLI, introducing her to a colleague I met last quarter, talking to one of my favorite professors, and jumping into Russia's military history. The President's Student Council is returning, rejuvenated from break and ready to jump into some new initiatives. We'll be meeting Wednesday, Jan. 9, discussing mentorship and networking, professional development, the student survey results, and council leadership openings. Come out to join us at our monthly meeting and consider how you can maintain your professional vector and learn from others during your time at NPS.

While we are entering into a new year, a new quarter of classes, we students must also say farewell to an exemplary leader, one of our strongest advocates, President Route. In his tenure as president, he has brought to bear his significant leadership and operational experience, ensuring the Naval Postgraduate School retains her place among the best graduate programs and that students are able to learn, grow professionally, and still have time to enjoy the area with family and friends. His dedication has ensured that students develop their critical-thinking skills, build lasting relationships with their classmates from across the DOD and international community, and carry the knowledge they've gained back to shape their respective services and increase America's competitive advantage in the world. We wish President Route the best and relish the opportunity to honor his legacy by carrying the NPS experience with us as leaders and lifelong learners. Blue Skies, Sir.

With Warm Regards,  
Caitlin B. Diffley, Major, USAF

- |                              |                                |
|------------------------------|--------------------------------|
| <b>Chair:</b>                | Maj Caitlin Diffley, USAF      |
| <b>Vice-Chair:</b>           | Lt. Christina Gatti, USN       |
| <b>SIGS School Lead:</b>     | Maj Peter Cox, USA             |
| <b>SIGS Representative:</b>  | Lt. jg. Tim Cole, USN          |
| <b>SIGS Representative:</b>  | Maj Pete Larsen, USAF          |
| <b>GSOIS School Lead:</b>    | Master Sgt. Alex Eudy, USAF    |
| <b>GSOIS Representative:</b> | Lt. Cmdr. S. Shivashankar, USN |
| <b>GSEAS School Lead:</b>    | Lt. Josh Malia, USN            |
| <b>GSEAS Representative:</b> | Lt. Cmdr. Peter Harley, USN    |
| <b>GSEAS Representative:</b> | Lt. jg. Aaron Demers, USN      |
| <b>GSEAS Representative:</b> | Lt. Adam Waymouth, USN         |
| <b>GSBPP School Lead:</b>    | Capt. Tyler Flansburg, USAF    |
| <b>GSBPP Representative:</b> | 1st Lt Helene Caniac, USAF     |

**Have a story to share?  
Public Affairs is constantly  
seeking interesting news and  
stories for Update NPS. Send  
your tips to [pao@nps.edu](mailto:pao@nps.edu).**

# On Campus this Month

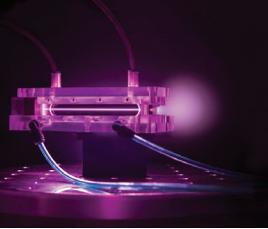
**January 1**

New Year's Day



**January 11**

Particle Beam Research  
11:00am  
Spanagel Room 117



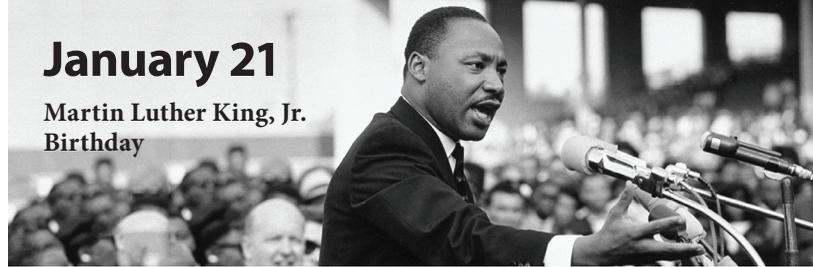
**January 8-17**

Navy Senior Leader Seminar  
Location: Center for Executive Education



**January 21**

Martin Luther King, Jr.  
Birthday



**January 10**

Welcome Back Luau  
Trident Room



**January 25**

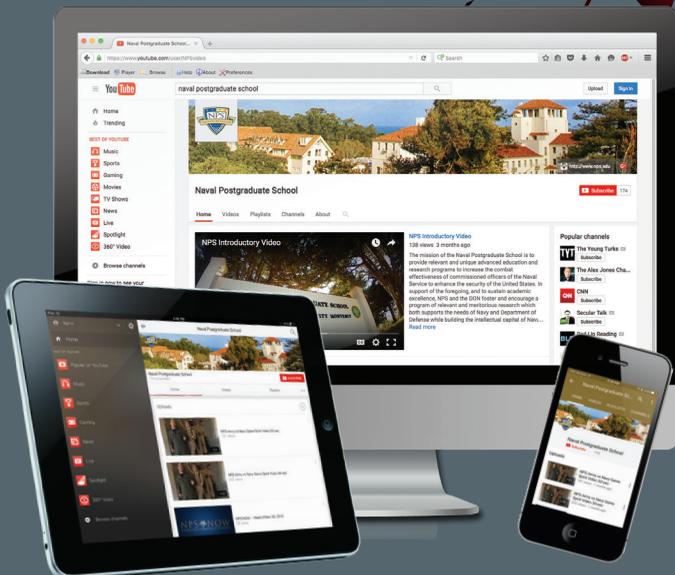
Defense Energy Seminar lecture  
"Hydrogen Cell Technology"  
MAE Auditorium



**BREAKING NEWS  
HAPPENS**

STAY CONNECTED. STAY INFORMED.

**YouTube**



JOIN OUR GROWING  
YOUTUBE COMMUNITY  
[www.youtube.com/NPSvideo](http://www.youtube.com/NPSvideo)

## Historical Highlights

Imagine a year-old humpback whale swimming tentatively through a calm, brackish river channel in a more or less straight line toward downtown Petaluma on a Saturday afternoon. What can be done to get the six ton "baby" back to safety?

Enter NPS. Sausalito's Marine Mammal Center sent out a call that brought NPS assistant professors Robert Keolian (Physics), Jim Miller (ECE), and lecturer Lt. Cmdr. Josh Rovero (Oceanography) to the scene. The NPS team reproduced and broadcasted gray whale vocalizations to the 25-foot long, year-old whale. By late afternoon and about four miles, the team returned to Petaluma. The following morning, the little whale was gone.

It had been an educational experience. Keolian, Miller and Rovero planned a publication; at least one resulted. (Read it in Calhoun: <https://calhoun.nps.edu/handle/10945/60853>)

The story is unresolved, though we'd like to think NPS had a hand in helping it find its way back to the open sea.

*Historical Highlights are provided by the Dudley Knox Library.*

