



NAVAL POSTGRADUATE SCHOOL

UPDATE
NPS



(U.S. Navy photo by MC3 Brian H. Abel)

Former SECNAV Talks Cyber Security

by Kenneth A. Stewart

Former Secretary of the Navy the Honorable Richard Danzig addressed NPS students, faculty and staff during a Secretary of the Navy Guest Lecture at King Auditorium, Feb. 9. During his address, Danzig offered insight into the national security implications of digital insecurity.

“The problem is a complicated one ... Cyber systems are inherently insecure,” said Danzig. “[But] we have to have them, they are essential to the major enterprises of this world.”

“We are living on a [cyber] diet of poison fruit, but you can’t skip the diet. You have to have the nutrition. The question is, how do you live with it?”
— the Honorable Richard Danzig

Danzig also discussed the ramifications of the world’s growing reliance on cyber systems as well as the affect of that reliance upon “our national well-being.”

“There are insecurities within the system that could allow an adversary to render us unable to act ... We may find that we have no ability to get our airplanes where we want them, or our ships to function properly, or our missiles to fly where we need them, because those systems were dependent on digital systems and they were subverted,” Danzig explained.

Danzig challenged NPS students, faculty and staff to delve deeper into the problem in order to understand why cyber challenges exist and to find ways to live with them.

“It’s easy for policy makers to say, “This is a technical problem why don’t you give me a technical solution? Why don’t you give me some sort of magic bullet?” I think there are good answers to that question, and I hope that through this talk we will get to some of the deeper answers to that problem,” he said.

To that end, Danzig offered seven recommendations that he believes are broadly relevant to the general American public, the security establishment, the Navy and to the university. Those recommendations ranged from questioning the necessity of some digital network connections, as well as the mass compilation of data and the ease at which it can be shared. He also discussed the problems of complexity and interconnectivity, and even the possibility of using analog technology where appropriate.

Danzig was sworn in as Secretary of the Navy on Nov. 16, 1998. He served as Under Secretary of the Navy from Nov. 1993 to May 1997.

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WOMEN’S HISTORY MONTH

March 2016

NPS Well Represented in SECNAV Innovation Awards

By Kenneth A. Stewart

When the winners of the Secretary of the Navy Innovation Awards were announced, Feb. 8, NPS was well represented among the honorees. NPS alumnus Lt. Brendan Geoghegan was named winner of the Innovation Scholar (Professional Military Education) Category for his thesis research while a student on campus. Similarly, Lt. Clay Greunke received an honorable mention for his student thesis, and members of the university's Advanced Robotics Systems Engineering Laboratory (ARSENL) were recognized with an honorable mention.

Geoghegan was honored for his work leading to an NPS thesis titled, "Navigational Heads-Up Display: Will a Shipboard Augmented Electronic Navigation System Sink or Swim?" In it, he utilized Oculus Rift Virtual Reality (VR) head-mounted displays to explore the viability of augmenting a conning officer's visual field with an overlay of Critical Navigational Information (CNI).

"It was a great project to work on and hopefully the excitement of utilizing AR [augmented reality] and VR [virtual reality] in the military domain does not fade away," said Geoghegan.

NPS Research Associate Professor Amela Sadagic served as both Geoghegan and Greunke's thesis advisor.

"Never in my wildest dreams did I imagine that both of my students would be recognized like this," said Sadagic.

Sadagic and Geoghegan ran hours of experiments testing his thesis against seasoned ship drivers and navigators at the Surface Warfare Officers (SWO) School in Newport, Rhode Island.

"Lt. Geoghegan's innovative use of concepts of Augmented Reality technology allowed him to conduct research that would have otherwise been nearly impossible. He also leveraged elements of commercial-off-the-shelf virtual reality products to conduct rapid prototyping and test real-world operational concepts," said Sadagic.

In another twist, Sadagic pointed out that it was Geoghegan that recommended Greunke be considered for the SECNAV Innovation Award and Greunke ended up receiving an honorable mention in the same category as Geoghegan.

Greunke's work will be featured at a meeting of the Institute of

Electrical and Electronics Engineers (IEEE) later this year. His work on light-weight, virtual reality trainers has implications in the training of inexperienced Landing Signal Officers (LSO), deploying to aircraft carriers for the first time.

"Before they actually see the landing platform themselves, [LSOs] can at least experience some sort of cognizance of what is going on in the circus of the carrier environment. Once you have that higher cognizance, maybe you are able to see something that doesn't look right and point it out to one of the other LSOs," said Greunke.

NPS' third honoree in the awards program actually represents a team of university faculty and staff. The Advanced Robotics Systems Engineering Laboratory (ARSENL), led by Assistant Professor Timothy Chung, received an honorable mention for their work with

autonomous unmanned aerial vehicle (UAV) swarms in the Robotics/Autonomous Systems category.

"It is a distinct honor and privilege for my team to be recognized by the SECNAV for its innovative efforts. I believe this honorable mention speaks to the caliber, commitment, and character of each of the ARSENL team members, bringing together their own innovative talents and diverse backgrounds synergistically," said Chung.

Chung's research into UAV swarms garnered attention last year when he broke a record for flying 50 autonomous UAVs at Camp Roberts, Calif.

"This project came from the notion that quantity is a quality.

It's like trying to play a game of tennis against an entire 5th grade class. If they were all lobbing tennis balls across the court, it would be very hard to defend against them," explained Chung.

The Secretary of the Navy Innovation Awards are part of a broader initiative that aims to spur innovation throughout the service through recognition.

The awards target innovation in categories ranging from robotics and autonomous systems to thinking "outside the box." Commands throughout the DON are encouraged to nominate exceptional innovators at the Innovation Awards portal.



NPS computer science graduate Lt. Brendan Geoghegan demonstrates the Oculus Rift Virtual Reality (VR) head-mounted display he used as a tool to determine the viability of a novel operational view of the bridge onboard U.S. Navy warships. Geoghegan was awarded the top prize in the SECNAV Innovation Awards in the Innovation Scholar (Professional Military Education) category. (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.

Student's Explosive Containment Technique Leads to Patent

By Kenneth A. Stewart

Former NPS Department of Defense Analysis student Navy Lt. Deward Cummings was recently awarded a patent for the explosives storage system he developed at NPS.

Cummings' invention offers a novel technique for building inexpensive containment systems using local materials in hopes of mitigating the deadly effects of Explosive Remnants of War (ERW).

The invention has roots in the Southern Philippines, but it culminated in Cummings' NPS thesis titled, "Explosive Remnants of War – Collection Points in Stability Operations."

"ERW collection points provide local populations with an effective ERW management solution in stabilization post-conflict, reconstruction environments, peacekeeping operations, and humanitarian aid/disaster relief operations.

"ERW are a global problem contributing to instability in undeveloped and developing regions and pose a direct threat to the U.S. military and its strategic partners," explained Cummings.

The motivation to remove ERW from the battlefield and former combat zones may have never been higher. ERW are a primary component in the construction of improvised explosive devices (IED).

Cummings also acknowledges that ERW pose a safety risk to civilian populations who may inadvertently stumble upon them and cause them to detonate. With affected populations in mind, Cummings strove to develop a solution that was locally sustainable and affordable.



SeaBees from the 30th Naval Construction Regiment help Indonesian service members utilize former NPS student Lt. Deward Cummings' explosive containment technique. (Courtesy Photo)

"In most cases, neither localized disposal capacity, nor safe and secure storage solutions exist. As a result, ERW remain a threat and hindrance to stabilization even after being discovered or collected," said Cummings.

Cummings' invention is not the first to attempt to rid active and former battle zones of explosive ordnance, but he feels that his work fills a needed gap in global attempts to protect vulnerable populations.

"In spite of the many robust ERW and landmine awareness education programs and disposal efforts, there remains a glaring capabilities gap in global ERW management," said Cummings. "Finding ERW is not the principal problem affecting stability, safely removing and disposing of ERW in a timely manner is."

To that end, Cummings' invention calls for the creation of relatively simple collection points for artillery shells and other ERW. His technique has been demonstrated to provide safe and secure temporary storage of ERW at the local level in a manner that is reproducible by the people most affected by ERWs.

"The only thing that we provide is the knowledge of how to build an explosive collection point using this technique," said Cummings. "It's the old teach a man to fish analogy ... If you get the general design of the structure right, it will do its job."

While developing the storage technique, Cummings strove for a solution that was locally sustainable, affordable, and which relied solely upon local materials. We did not want to create a solution that is dependent upon outside resources, Cummings explained.

The structure, despite the materials used, is cylindrical in shape allowing explosive forces to move upward rather than outward. While many different materials can be used, Cummings found that tires stacked three to four high and reinforced with fibrous material mixed with concrete were both ideal and readily available around the world.

Cummings has moved on, but the work he did at NPS continues to gain traction. At a recent innovation workshop sponsored by the Naval Warfare Development Command and Old Dominion University, Cummings was named the "Technical Innovation Presentation Winner" after showcasing his invention.

FACULTY news & notes

Dr. James Wirtz, Dean of NPS' School of International Graduate Studies, has been selected to receive the Distinguished Scholar Award from the Intelligence Studies Section (ISS) of the International Studies Association (ISA) at the organization's conference in March. Wirtz was nominated and selected by his peers for his service to ISA and his numerous scholarly contributions to the intelligence studies literature.

"It's a great honor to receive this award," said Wirtz. "I've been a member of the ISS for over 25 years ... I was introduced to the ISA and befriended by senior scholars, taken under their wing and became an active participant in the ISA. I also served as section president for six years."

The ISS studies the role of intelligence in international foreign affairs, from the role of intelligence in democracy, intelligence analysis, and the relationship between policy makers and intelligence analysts.

NPS Department of National Security Affairs Associate Professor Ryan Gingeras recently released his latest book, a biographical effort entitled "Mustafa Kemal Ataturk: Heir to an Empire."

The work chronicles modern Turkish Republic founder Ataturk, and is already Gingeras' fourth book covering contemporary Middle Eastern history.

"Heir to the Empire' tells the story of Mustafa Kemal Ataturk, the founding president of the Republic of Turkey," said Gingeras. "His ideas, policies and life story continue to shape how contemporary Turks view the country's politics, culture and national identity."

**Have a story to share?
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NPS Explores Ultra High-Speed Navy Vessel

By MC3 Brian H. Abel

The Defense Advanced Research Projects Agency (DARPA) has awarded NPS Department of Operations Research Associate Professor Johannes Royset, in partnership with the Massachusetts Institute of Technology (MIT) and Brown University, a \$2 million grant to develop the mathematical models that will be utilized in the early design phase of a Joint Ultra High-Speed Vessel JUHSV.

“DARPA is thinking many decades ahead, and that really allows us to go outside of conventional designs and think about something that will bring a lot of change,” said Royset. “Certainly we’re looking many decades into the future.”

That distant perspective means that researchers must lay a foundation for the decision-making process ... This is done through intricate models that can be utilized as pre-decisional aids.

“Mathematical models are essential for developing a vessel of this type because we simply don’t know how a vessel of this type will behave,” said Royset. “This is so much beyond existing Navy architectural technology that we really need to simulate all different aspects of this ship, not only to simulate, but to make sure our simulations are correct.”

NPS student, U.S. Army Capt. John Sabol, has joined Royset, assisting with the modeling and simulation for his NPS degree thesis.

“We’re looking at how we can use existing mathematical equations and relationships to try and [limit] uncertainty in the most extreme

cases,” said Sabol. “It’s a way to analyze the data we’re collecting and estimate what the worst case could be even though we haven’t seen it.”

The researchers say there are countless levels of uncertainty that need to be considered when it comes to the development of an ultra high-speed vessel. But through careful analysis, they can begin to understand critical factors that require more detailed modeling and simulation.



NPS Department of Operations Research Associate Professor Dr. Johannes Royset is pictured in his Glasgow Hall office, Feb. 17. Royset is developing the mathematical models that will be utilized in the early design phase of a possible ultra high-speed Navy vessel. (U.S. Navy photo by MC3 Brian H. Abel)

“We try to understand how such a vessel is going to behave, so that we can make decisions on which type of simulations to carry out,” Royset added. “That introduces an additional level of uncertainty about what and how we should learn about this vessel through simulations, and also through physical experiments. We need to account for all of these levels of uncertainty when we plan the design process, not just of the vessel, but of the whole process of design.”

With the Spearhead-class Expeditionary Fast Transport vessels beginning to hit their stride, the services are examining the high-speed vessel at the next level, smaller and faster.

“The Marines and the Navy, Army included, have foreseen a need to operate at high speeds in littoral waters,” said Sabol. “We’re hoping that the results of our work can be extended well beyond the joint ultra high-speed vessel ... If we can prove these methodologies are relevant and useful to the joint high-speed vessel, it would be great to show how they could be relevant to other projects in the future as well.”

GSBPP Grads Earn Professional Certifications

By Dale M. Kuska

A select group of graduates from NPS’ Graduate School of Business and Public Policy went the extra mile during their time at the university and earned a prestigious professional certification in their given field.

“In many of the disciplines we are teaching our students, such as contract management or program management, there are professional associations that collectively advance the profession, partly through these professional certifications,” explained GSBPP Associate Professor Dr. Rene Rendon. “To earn one of these certifications, a student must demonstrate that they have a specific level of experience, a level of education, professional training, and then they must pass a very rigorous test.”

The Fall quarter graduates earning their professional certifications are:

Air Force Capt. Michael Murrow, Certified Federal Contracts Manager (CFCM); Air Force Capt. Jacques Lamoureux, Certified Federal Contracts Manager (CFCM), Certified Professional in Supply Management (CPSM), and Project Management Professional (PMP); Air Force Capt. Matthew Comer, Certified Professional Contracts Manager (CPCM) and Project Management Professional (PMP); Air Force Capt. Clinton Walls, Project Management Professional (PMP); Air Force Master Sgt. John Menanno, Certified Fraud Examiner (CFE); Marine Corps Capt. Jason Wood, Certified Fraud Examiner (CFE), and Navy Lt. Lupei Chou, Certified Fraud Examiner (CFE).

MOTO Continues Mentoring Efforts

By Javier Chagoya

NPS' Motivating Others Through Outreach (MOTO) mentorship program met with Central Coast High School (CCHS) students, teachers and administrators to discuss leadership principals at the high school's career fair, Feb. 18.

"The MOTO program is about inspiring young individuals to make good life decisions, building goals toward making it to college,



Marine Corps Capt. Nick Aionaaka discusses leadership principles with students during the Central Coast High School Career Fair in Seaside, Calif., Feb. 18. (U.S. Navy photo by Javier Chagoya)

and overcoming obstacles in learning," said Aionaaka.

At CCHS, MOTO volunteers typically interact with at-risk teens facing potentially significant socio-economic challenges. Principal Alan Crawford says the program is a great fit for his students, as many who come to the school are struggling academically and can use the one-on-one support of a tutor.

"The Marines who volunteer their time and energy have integrated well with our own teaching programs as many of our graduates testify their success to MOTO," said Crawford.

Although initially a Marine Corps-led function, MOTO volunteer coordinator Marine Corps Capt. Heather Pelachick says the program has now opened its doors to volunteers from all the military services at NPS.

"We hope for more success in recruitment, and expansion into other schools. This quarter, we have already branched out to an independent study with yet another school," said Pelachick.

Robotics Lab Sparks Innovation

By Javier Chagoya

NPS Systems Engineering student Lt. Ryan Beall recently demonstrated how a rapidly prototyped aircraft could perform in the field using a guidance control system he built in the RoboDojo laboratory.

Beall's prototype is one example of many different robotics and design possibilities open to NPS students through the various classes offered at the RoboDojo.

"I came to the 3-D class and that led to a solid works class. I thought it was going to be hard, but it was extremely easy. Components are easily fabricated and can be made to be interchangeable to create a powerful prototype," said Beall who offered a presentation to NPS students on the lab's laser cutter and other design tools.

According to RoboDojo founder and NPS Department of Defense Analysis Lecturer Kristen Tsoilis, NPS students can not only take advantage of the RoboDojo's offerings; they can offer classes to interested students and faculty as well.

"The RoboDojo Lab is designed to promote hands-on learning with a flexible schedule. Generous volunteer mentors help the NPS community to learn about the basics of robotics ... Most of all, the RoboDojo lab is here to spark the imagination," said Tsoilis.

Students and staff can visit the RoboDojo web page for a full schedule of upcoming classes.



NPS Systems Engineering student Lt. Ryan Beall holds a laser-cut, rapid-prototype aircraft design produced in the RoboDojo laboratory, Feb. 10. (U.S. Navy photo by Javier Chagoya)

CAMPUS news & notes

Graduate School of Business and Public Policy (GSBPP) Associate Dean Capt. James Hitt will be leaving his position at GSBPP to serve as NPS' Interim Director of Business Operations.

"I have been working at the business school for over two years now, so the 'box' is very comfortable. [Serving] as the Director of Business Operations, even for a short period of time, gives me a new perspective on things and the opportunity to see into the 'boxes' of other people," he said.

Monterey Bay Officers' Spouses Club (MBOSC) scholarship applications are now available for eligible military family members. These merit-based scholarships are available to military dependents of active duty, retired, or deceased military members living in the Monterey County area or military dependents of NPS alumni.

Acting NPS Provost Dr. Jim Newman recently announced the 2016 Winter Quarter Outstanding Academic Achievement and Superior Service Award winners:

Navy League Award for Outstanding Academic Achievement winner Lt. (jg) Caroline Brown; NPS Academic Achievement Award for Department of Defense Students winner Adrianna Ward; NPS Outstanding Academic Achievement Award for International Students winner Turkish Air Force 1st Lt. Halis Can Polat; Association of the U.S. Army, General Joseph W. Stillwell Chapter, Award for Outstanding Army Student winner Army Maj. Ian Dietz; NPS Superior Service Award winner Lt. Cmdr. Jesse-Larou Walsh; U.S. Marine Corps Superior Service Award winner Capt. Christine Taranto and Air Force Association Award for Outstanding U.S. Air Force Student winner Capt. Marc Marmino.

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

NPS Research Team Prepares for Arctic, ICEX 2016

By MC2 Michael Ehrlich

NPS Research Professor Tim Stanton and Oceanographer Jim Stockel recently met with students and fellow researchers to discuss pre-deployment operations for an upcoming arctic expedition dubbed Ice Exercise (ICEX) 2016.

NPS student Lt. Stephen Fleet and Research Associate Sean Kragelund are part of a handful of students that will be taking part in the exercise.

“Sean and Stephen are going to go up for about a week to deploy this buoy, which has a new instrument system attached to measure the vertical transport of heat and salt right underneath the ice,” said Stanton. “It also has a new feature that will measure the heat flux down in the stratified density structure part of the water column.”

Instrumentation like the ocean flux buoy is able to capture continuous data sets from multiple regions without the need for manned ice camps. This research will create uninterrupted raw data, and a unique operational experience for those involved.



NPS Meteorology and Oceanography student Lt. Stephen Fleet, left, and Research Associate Sean Kragelund, right, practice deploying an ocean flux buoy in Spanagel Hall, Feb. 19. (U.S. Navy photo by MC2 Michael Ehrlich)



Lt. Stephen Fleet, center left, and Research Associate Sean Kragelund, center right, are instructed by Research Professor Tim Stanton, left, and Oceanographer Jim Stockel on buoy deployment operations. (U.S. Navy photo by MC2 Michael Ehrlich)

“I think it’s a phenomenal opportunity for students to get out there, and they can have the experience in operating unmanned vehicles in an extreme environment,” said Kragelund. “Doing this in conjunction with ICEX 2016 ensures many of the logistical hurdles are taken care of by big Navy allowing us to focus on the science and research.”

“This part of the program has been sponsored by the National Science Foundation and the Office of Naval Research for a number of years ... incorporating students as much as possible to give them the opportunity to have a real world data acquisition and analysis experience,” added Stockel.

As a student in the METOC curricula, Fleet said he is looking forward to contributing to our understanding of the changing Arctic region. “The Arctic is melting, and part of this exercise is to further research into global climate change and how the Arctic will effect the environment.

“What we are going to try and do is calculate thermal diffusivity, which gives us information that we can put into our models and provides information researchers can use to advance the field,” said Fleet.

Focus On ... Customer Service

A Monthly Look at Names and Faces on Campus

Susan Valeriano is a 22-year NPS veteran. She initially worked with Morale, Welfare and Recreation (MWR), but now serves proudly with NPS’ Meteorology and Oceanography Department. What she loves most about NPS is getting to work with the vast number of students, faculty, staff and visiting guests from throughout the U.S. government and from all corners of the world.

“Meeting VIPs like astronauts, international politicians, military

personnel and scientists from all over the world who visit and study here is amazing.

“Working for MWR was different than the civil service, but I enjoyed both because they are both customer service related,” she said.

Valeriano has many fond memories at NPS, including a visit from former President Bill Clinton, helping to build a record breaking submarine sandwich with

MWR, and participating in the Asian American Pacific Islander Heritage Month.

“I participate with folk dancing for the Asian American Pacific Islander Heritage Month,” said Valeriano. “I very proud to work here and to be a part of NPS. It plays a key role in education and the invention of technology.”

Her official title is Office Automation Assistant, but Valeriano is willing to help out her NPS



Susan Valeriano

family wherever she is needed.

Any Day at NPS ...



NPS alumnus retired Navy Capt. and NASA Astronaut Edgar Mitchell is pictured prior to his launch on NASA's Apollo 14 mission in 1971. Mitchell, the 6th person to walk on the moon, passed away peacefully at the age of 85, Feb. 5. (Courtesy photo, NASA)



NPS students, faculty and staff gather in the Mechanical and Aerospace Engineering Auditorium for a celebration of Black History Month, Feb. 18. (U.S. Navy photo by MC2 Michael Ehrlich)



NPS NASA Chair and Ames Research Center Chief Engineer Tina Panontin is pictured in Bullard Hall, Feb. 9. Panontin will begin offering classes this spring drawing upon her expertise in Materials Failure Analysis. (U.S. Navy photo by Javier Chagoya)



Defense Innovation Unit Experimental (DIUx) Director of Operations Mark Gorenflo speaks to NPS students and faculty in Spanagel Hall, Jan. 28. DIUx aims to support innovation throughout the region for the Department of Defense. (U.S. Navy photo by MCI Lewis Hunsaker)



Naval War College (NWC) Monterey graduates earning academic honors during the first quarter of Academic Year 2016 are pictured near the NWC Monterey program office in Halligan Hall, Feb. 2. (U.S. Navy photo by MC3 Brian H. Abel)



Executive Master of Business Administration (EMBA) students are pictured at the Roman Plunge Reflecting Pool, Feb. 23. The class included students from Space and Naval Warfare Systems Center Charleston and Naval Surface Warfare Center, Panama City. (U.S. Navy photo by MCI Lewis Hunsaker)



STUDENT voice

Army Special Forces Maj. Tim Ball, Chairman of the President's Student Council

As we approach the end of another quarter, the PSC is looking to recruit new members. We have several members graduating and we need new representatives from every department at NPS.

The PSC has also continued to expand our communication and outreach to the student body. Nearly every week, an update is sent to every student at NPS. The PSC is here to help transmit information that is pertinent to the student body, so if you or your organization needs to get a message out, please let us know! We try to keep students updated on everything from volunteer events to thesis research opportunities.

We are also continuing to look for relevant speakers for our SGLs. Students have given us some great nominations, and we're working to get those names here. Remember, anyone at NPS, not just students, can nominate an SGL speaker. If you have someone in mind that would be a worthwhile speaker for the student body, please submit their name!

Finally, we continue to have a great turn out at our weekly get-togethers in the Trident Room. This is a great opportunity for faculty and staff to mingle with students outside the classroom. NPS is a unique institution in that most of the students have a tremendous amount of operational experience. Blending that experience with the academic expertise of the faculty is extremely valuable, and there's no better way to get that done than having a conversation between students and faculty outside the formal classroom. Come on down and join us every Thursday at 3:00 p.m.

Have a story to share? Public Affairs is constantly seeking interesting news and stories for Update NPS. Send your tips to pao@nps.edu.

On Campus this Month

WOMEN'S HISTORY MONTH

March 10

Women's History Month Celebration
12:00 p.m. in Dudley Knox Library, Room 151

March 11

Catch the Leprechaun
Family Fun Run
3:00 p.m. in front of Herrmann Hall



March 15

Quarterly Awards Ceremony
3:00 p.m. on the Quarterdeck

March 17

St. Patrick's Day



March 25

Winter Quarter Graduation
10:00 a.m. - 12:00 p.m. at King Auditorium

March 27

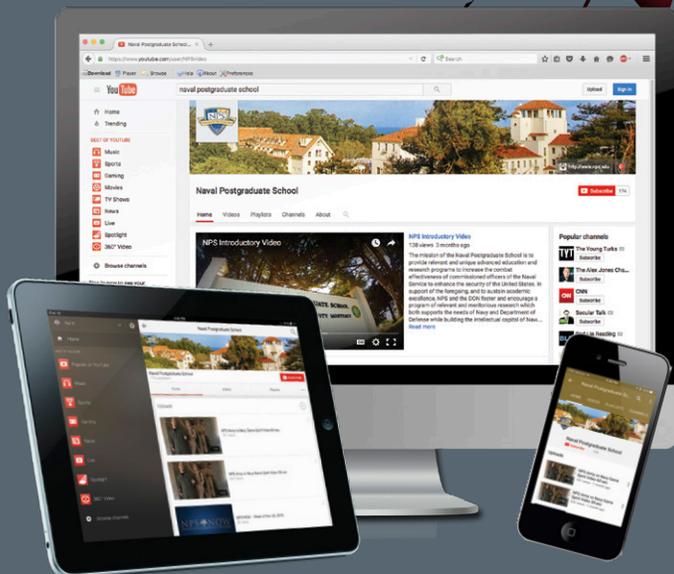
Easter Sunday



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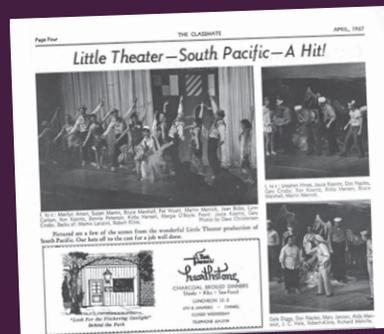
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Historical Highlights

NPS' Little Theater troupe was busy rehearsing Rodgers and Hammerstein's hit musical *South Pacific* in March 1967. The cast was comprised of NPS students, dependents, retirees, and non-military professionals.



South Pacific was an instant hit when first performed on Broadway in 1949, and the film adaptation, a decade later, amplified its fame. Its backdrop in World War II-era *South Pacific* was a familiar setting for many NPS community members. Its storyline tackles concerns about race and marriage, both contentious issues during the turbulent 1960s. The stars of the NPS performance were Navy wife, Joyce Koontz, and retired Army officer, Larry Sparks. The director was Seaside High School's music director, Richard Sheere, and the Twelfth Naval District Band provided the musical accompaniment. *South Pacific* ran the first two weekends in April and the NPS Officers Wives Club declared it "a hit!"

Historical Highlights are provided by the Dudley Knox Library.