



NAVAL POSTGRADUATE SCHOOL

UPDATE

NPS



(U.S. Navy photo by MC1 Grant P. Ammon)

## Adaptive Optics CoE Established at NPS

By MC1 Rob Rubio

On May 2, Maj. Gen. Ellen Pawlikowski, Commander of the Air Force Research Laboratory (AFRL), placed the final signature on the Memorandum of Agreement (MOA) with the Naval Postgraduate School, completing the process to officially establish the Adaptive Optics (AO) Center of Excellence (CoE) for National Security – the only of its kind in the country. Housed on the NPS campus, the center benefits the Department of Defense (DoD) by educating students in adaptive optics and high-energy laser technologies, and allowing researchers to develop new technologies in risk reduction.

The MOA is between the AFRL, NPS, the Office of Naval Research (ONR) and National Reconnaissance Office (NRO) to develop the advanced technologies critical for reconnaissance and directed energy missions within the DoD and the Directorate of National Intelligence.

*“It is a great honor that this campus has a Center of Excellence in Adaptive Optics for National Security ... It really brings NPS ahead of other institutions in that field.” -Dist. Prof. Brij Agrawal*

“I am proud that NPS will be part of this and am pleased to be partnering with NRO, AFRL and ONR,” said NPS President Dan Oliver. “This is a big day and a big deal for us.”

Distinguished Professor Brij Agrawal of the Department of Mechanical and Aerospace Engineering serves as the Director of the AO CoE, and anticipates that it will have a powerful impact on NPS and future DoD systems.

“This Center of Excellence will educate our military officers and DoD personnel in challenging technologies and help develop technologies and provide risk reduction in the development of future imaging satellites and high-energy laser systems,” Agrawal noted.

The cornerstones of the center are the unique segmented mirror telescope, which NPS acquired in December 2009, and the high-energy laser testbed. With this center, the university is becoming a leader in adaptive optics research, with the testbed bringing the technology directly to the school’s researchers and opening the door to developing new capabilities.

“For NPS, this is critical. It is a great honor that this campus has a Center of Excellence in Adaptive Optics for National Security,” Agrawal added. “It really brings NPS ahead of other institutions in that field.”

**p3** NPS Awards Longtime Senator John Warner with Honorary Doctorate

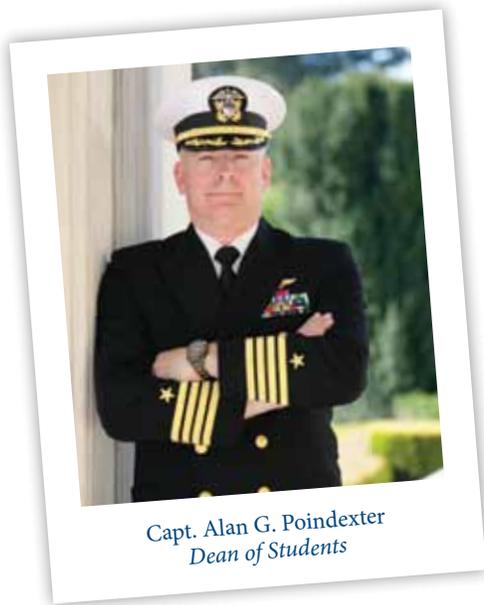
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JUNE 2011

# A Message From ...

Capt. Alan G. Poindexter, Dean of Students



As this is my first opportunity to author a message for “Update NPS,” I would like to take this chance to address the students who are now just days away from graduating.

As an alumnus, I am very aware of the long hours and sacrifices each of you have made to reach this career milestone. The Naval Postgraduate School curricula – be it operations research, national security affairs, systems engineering or any one of the more than 60 degrees we offer – are highly demanding and academically challenging. I recall many long nights studying for exams in the Dudley Knox Library in order to complete my degree.

With this personal experience at my disposal, I have but one simple and concise message to each of you ... and that is one of pride. To all those graduating this month, your institution and your respective services, countries and organizations, are very proud of each and every one of you and the significant accomplishments you have made.

The Naval Postgraduate School is our nation’s premier defense focused research university and your degree from NPS has never been more valued. The education you have received, and the research you have performed, are relevant to our national defense and increasingly important for global security. You, the future senior leadership of your parent services, can leave Monterey knowing that you are prepared to accept whatever challenge those services ask of you. And likewise, your countries and services can rest assured that their investment in you will pay great dividends.

In addition to our unique and distinctive curricula, there is another inimitable and critical value to the NPS experience. Students on this campus come from every service, from dozens of international partners, and are civilians from throughout the defense enterprise. That diversity, matched with a collaborative, joint educational experience, is absolutely invaluable in today’s globalized society.

*“The Naval Postgraduate School is our nation’s premier defense focused research university and your degree from NPS has never been more valued. The education you have received, and the research you have performed, are relevant to our national defense and increasingly important for global security.”*

With that, I must express how especially proud I am of our international class of graduates – 31 students from 20 countries that will cross the stage in King Auditorium on June 17. You came to Monterey to study on behalf of your nation. And while we are all optimistic that you will leave NPS better prepared, I can say with certainty that we are all far better off from your presence here. We place great value on the lifelong friendships developed on this campus, and our growing relationships with our international partner communities are only getting stronger.

As you leave Monterey for your next duty assignment, or for your home countries, I encourage all of you to stay in touch with the Naval Postgraduate School. From the moment you matriculated, we have considered you a member of this community, and now you are an alumnus. I encourage all of you to become an advocate for NPS. If you have not already done so, please give some thought into joining both our Alumni Relations online community, and the NPS Foundation. You are, and always will be, part of the ever growing network of our graduates that have gone on to become leaders in our military services, throughout the defense community, and in many partner countries.

The Naval Postgraduate School prides itself on being transformative ... on evolving experienced, intelligent officers into the next generation of senior defense leaders. I congratulate all of you on your accomplishments, on taking the next step on your path to leadership, and for the invaluable roles you will all play in global security.

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

# NPS Awards Longtime Senator John Warner with Honorary Doctorate

By MC1 Grant P. Ammon

The Naval Postgraduate School honored former Senator John Warner with an honorary Doctor of Military Science degree, May 25. Warner served as a Sailor and a Marine before becoming the 61st Secretary of the Navy (SECNAV). After departing from his position as SECNAV, Warner was elected to the U.S. Senate where he served for 30 years.

“Senator John Warner has served his nation in many capacities,” said NPS President Dan Oliver during the ceremony. “Senator Warner has an innate proclivity for public service in addition to a strong commitment to education, both of which have made him exceptionally deserving of an honorary doctorate degree.”

Oliver went on to detail many of the unique attributes that made Warner an exceptional leader, and concluded with a reading of the formal degree citation.

“During his career in the legislature, Senator Warner stood steadfast in his unwavering commitment to our men and women in uniform,” noted Oliver. “His expertise in military affairs made him a respected member of the Senate Armed Services Committee.”

After being formally presented with the degree, Warner humbly accepted the award and concluded the ceremony with recollections of his distinguished career in politics and experiences serving in uniform.

“I humbly accept this honor with the deepest sense of humility,” noted Warner in his acceptance remarks. “I would like to say thank you to the generations of men and women that served in the United States military.”

Warner entertained the crowd for nearly an hour with sea-stories and tales of debates on the Senate floor. He also shared with participants the moment he personally realized the importance of education in the military.

“We were herded into a big gymnasium, and a Chief Petty Officer got up there with a big bullhorn and called us to attention,” recalled Warner speaking of his military induction experience. “Members of the group were asked to stand up if they could not read or write. I have to tell you, 10-15 percent of that newly-formed class stood. That was a very important experience for me. The importance of education in the military was quickly driven home when I realized that the person standing next to me that couldn’t read or write could be responsible for my life aboard a ship or in a foxhole.”

Oliver noted that throughout his career, the Honorable John W. Warner exemplified dedication, drive and character that are the hallmarks of a role model for NPS’ military and civilian students.



Former U.S. Senator John Warner poses for a photo with his honorary Doctor of Military Science degree, May 25, presented during a formal ceremony held on the university campus. (U.S. Navy photo by Javier Chagoya)

from the  
**MEZZ**

In mid-May, President Dan Oliver, Executive Vice President and Provost Leonard Ferrari and Vice President for Finance and Administration Colleen Nickles traveled to Washington, D.C. to meet for four hours with Chief of Naval Operations (CNO) Adm. Gary Roughead and other top Navy officers. Oliver presented two briefs, one on the current state of NPS and its value to the Navy, and a second outlining possible ways in which the NPS model might operate more effectively and how the Navy could assist. The week before this meeting, the Strategic Planning Council met to review and provide comments on the briefs as part of preparation for the talks. The results of the meeting were very positive and the CNO pledged support for NPS.

From May 5-9, President Dan Oliver and Executive Vice President and Provost Leonard Ferrari attended the Advanced Education Review Board (AERB) meeting in Washington, D.C. The purpose of the AERB is to provide guidance on integrated governance of advanced education policies, programs and institutions.

On May 24, the Committee on the Future met in an all-day session to jointly review the various report chapters that have been in progress. The draft report will be distributed across the campus for review in June and the final version presented to the President at the end of summer.

*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](mailto:pao@nps.edu).*

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



Dr. Jacques S. Gansler offers opening remarks at the 8th Annual Acquisition Research Symposium. (U.S. Navy photo by MC1 Grant P. Ammon)

## Acquisition Symposium Analyzes Defense Spending

By Amanda D. Stein

Acquisition leaders and professionals gathered in Monterey for the 8th Annual Acquisition Research Symposium, May 11-12. Hosted by the Naval Postgraduate School Acquisition Research Program, the symposium featured keynote speaker, Former Under Secretary of Defense for Acquisition Technology and Logistics, Dr. Jacques Gansler, and opening remarks from Chair of the Acquisition Research Program, retired Rear Adm. Jim Greene.

The symposium offered 25 panel sessions throughout the event, highlighting a full spectrum of acquisitions-related issues from across the departments and services.

“This symposium is unique in providing a rich opportunity for meaningful dialogue among scholars, practitioners and policy makers on a diverse set of acquisition subjects that they cannot get elsewhere,” explained Greene.

On the second day of the event, keynote speaker Lt. Gen. William N. Phillips, Principal Military Deputy to the Assistant Secretary of the Army, offered the Army perspective on the importance of responsible spending.

Phillips recalled an example of a soldier saved from enemy fire by his Advanced Combat Helmet – the kind of product that, he noted, is acquired after going through the proper testing to determine that they are of the best possible quality.

“So if you ask me what my mission is,” Phillips said, “we can never take our eye off supporting soldiers, sailors, airmen, Marines or civilians who are downrange in making sure they have the tools and the capability to protect them. That’s what we do for a living.”

The symposium also featured presentations by NPS Graduate School of Business and Public Policy (GSBPP) students Lt. Cullen Greenfield, Lt. Cameron Ingram and Lt. Cmdr. Stephen Ures, in a panel session titled, “Acquisition and Logistics in Support of Disaster Relief and Homeland Security.”

The students took advantage of the platform for their research to be heard, noting that it was rewarding to present to such a diverse acquisition audience.

“The experience was great in the sense that we could connect with the acquisition community,” explained Ingram, “and receive a solid feel for what the future of the DoD will look like and the goals for future programs and platform implementations.”

NPS President Dan Oliver also touched on the value of such gatherings.

“There is a lot of pressure on the defense budget,” he explained. “And there will continue to be a lot of scrutiny from the public as well as Congress. So it behooves us to pay a lot of attention to how we do business.”

## Retired Astronaut Alumni Now Space Industry Leaders



Kent Rominger

Naval Postgraduate School alumni and former astronauts Kent Rominger (1987) and Ken Reightler (1984) have spent most of their lives involved in aeronautical engineering and space exploration. And they show no signs of stopping.

After retiring from NASA, Reightler joined the development side of space capabilities, working at Lockheed Martin for over 15 years. Rominger, however, stayed on and became Chief of NASA’s Astronaut Office until 2006.



Ken Reightler

Today, both men apply their problem solving skills at Alliant Techsystems (ATK), a Fortune 500 aerospace and defense company that works closely with NASA to develop new capabilities to further space exploration.

Rominger serves as ATK’s Vice President of Strategy and Business Development, while Reightler recently joined the team as Vice President of Engineering Services at ATK Aerospace Systems.

# Former NPS Senior FAO Delivers Speech to JFSSPP

By MC1 Grant P. Ammon

U.S. Army Brig. Gen. Charles Hooper, a former lecturer and Foreign Area Officer (FAO) Coordinator at NPS returned May 9 to speak at the Joint Foreign Area Officer Skill Sustainment Pilot Program's (JFSSPP) latest course focusing on FAO operations in the Asia-Pacific region. Hooper shared his experiences serving as a FAO, infantry leader, and political advisor in the Asian theatre.

"I'm very proud of being a FAO," noted Hooper in his opening remarks. "I'm here to teach, coach and mentor FAOs, and I'm happy to pass on whatever advice and wisdom I can provide you with."

While emphasizing the responsibilities of senior FAOs, Hooper noted the capabilities that make these cultural and regional experts contributors to the PACOM mission.

"What makes us unique is that we have the advanced degrees and training required for developing overarching strategies and framework, but you also wear the uniform. As senior officers in the FAO community, you're not expected to interpret others' views anymore. Now you're being looked at to generate your own."

## University Welcomes Top County Students for Annual Mathletics

By MC1 Leonardo Carrillo

The Naval Postgraduate School opened its doors to local math whizzes when the university hosted the 43rd Annual Monterey County Mathletics Competition, May 14.

Mathletics is an annual contest established to promote excellence in mathematics, and to recognize the achievements of local students and their schools. Coordinated by the Monterey County Office of Education, the event was made possible by donations and volunteers from the primary sponsoring schools, the mathematics department at California State University Monterey Bay and NPS.

The contest, open to Monterey County students grades 5-12, offered a \$1,000 Richard Morgantini Scholarship as the grand prize, which was awarded this year to Matthew Ryan, a senior at York School for placing first among high school seniors in the advanced calculus test.

Dr. David Nickles, NPS' Director of Research Communications and Outreach, played a lead

role in bringing the event to NPS, and was already well versed in the competition.

"I've been a big fan of Mathletics for 12 years dating back to my days as Science/Math Coordinator for the Monterey County Office of Education," he said.

Nickles added that recognizing the fun in math is a primary goal of the competition, but the value in the annual event is far greater than just fun and games.

"Mathematics courses, especially algebra, are generally considered the gatekeepers to kids' taking advanced science in high school, and in their later pursuit of science, engineering or technology careers while in college," Nickles explained. "Becoming 'Mathletes' encourages children to practice mathematics – not only will they enjoy and not fear learning to abstract, but they will compete better in school and be acknowledged among their peers by showcasing their skill in answering challenging mathematical problems."



Former lecturer and Foreign Area Officer U.S. Army Brig. Gen. Charles Hooper (U.S. Navy photo by MC1 Grant P. Ammon)



## FACULTY news & notes

At the Spring Graduation Awards Ceremony, this year's Schieffelin Award for Teaching Excellence will be presented to GSBPP Senior Lecturer **Elliott Cory Yoder**.

Prof. **Clyde Scandrett** was appointed as the new Chairman of the Undersea Warfare Academic Group, bringing his experience and leadership to the group effective May 1, 2011.

Applied Mathematics Prof. **Art Krener** was named a fellow of the International Federation of Automatic Control, honored for his many "contributions to the geometric theory of nonlinear control and estimation." He will receive the official citation at the IFAC World Congress in Milan, Italy later this year.

GSBPP Assoc. Prof. **Rene Rendon** presented his research on contract management process maturity at a recent International Defense Acquisition Resource Management (IDARM) Acquisition and Contract Management course attended by over 30 Iraqi acquisition and contracting officials.

GSBPP Assoc. Prof. of Economics **David Henderson**, attended the Association for Private Enterprise Education, where he gave a talk about his blog, Econlog, named among the top 25 economics blogs by the "Wall Street Journal," and presented two papers on war and economics.

Economics Prof. **Yu-Chu Shen's** work on emergency department care appeared in the May 18, 2011 issue of the "Journal of the American Medical Association." Hsia, R.Y., Kellermann, A., and Shen, Y. 2011.

NPS would like to congratulate the newest tenure-track faculty member, Assistant Prof. **Joseph P. Hooper**, who will join the Physics department.

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

# NPS Students Travel to the Arctic for ICEX 2011

By Amanda D. Stein

Part of the Navy's maritime domain includes the frigid and desolate frozen Arctic Ocean north of the Alaskan Coast, where swiftly melting ice has researchers at NPS looking to fully understand the causes. From March 14-25, Undersea Warfare student Lt. Brandon Schmidt and Oceanography/Meteorology student Lt. George Suh took part in Ice Exercise (ICEX) 2011, a series of maritime experiments to ensure the Navy's technology is capable of operating optimally in extreme Arctic conditions.

Schmidt and Suh represented the Naval Postgraduate School in what is NPS' third round of student involvement in the exercises



NPS Undersea Warfare student Lt. Brandon Schmidt, left, and Meteorology/Oceanography student Lt. George Suh spent 11 days in the Arctic studying ice keels. (Photo provided by Lt. Brandon Schmidt)

over the past six years. Schmidt and Suh used sensors and sonar to essentially map out the underwater upside-down ice "mountains" known as keels, that form beneath the surface. They hoped to determine what impact, if any, those keels have on the ocean-ice interaction that leads to melting Arctic ice.

"We found a large underwater ice feature," explained Schmidt, "and we used sonar to map it out and create a 3D image of the bottom of the ice. As the wind blows and moves the ice around, we are hoping to determine if those large underwater keels create enough turbulence to cause mixing, and if that contributes to the decrease in multi-year ice."

After drilling approximately five feet through the ice, the pair used a device called an ocean flux package, developed in Oceanography Research Professor Tim Stanton's Ocean Turbulence Group, to collect data in addition to sonar scans over the ten-day period.

The data will later be sorted and evaluated, and used by Schmidt in his thesis. He is scheduled to graduate in March 2012. Suh graduated from NPS in March of this year, and will go on to work at the Stennis Space Center as part of the Fleet Survey Team.

Their theses projects will help the Navy build a more comprehensive picture of the conditions in the Arctic, a region that is largely part of the maritime domain, and increasingly so as the ice layers melt.

ICEX 2011 also brought out to the Arctic Secretary of the Navy Ray Mabus, a strong supporter of research and graduate education, who voiced his support for the exercise.

"You've got a lot of different scientific work that goes on here," he noted. "You've got a lot of different educational work that goes on here, and a lot of different Navy tactical work that goes on here. And it's for those reasons that ICEX is so valuable to us as a Navy and to our whole educational process in general."

## Focus On ... Academic Support via CED3

A Monthly Look at Names and Faces on Campus

For more than 10 years, NPS' Center for Educational Design, Development and Distribution (CED3) has supported the needs of faculty and programs through its vast expertise in instructional design, educational media development, marketing, student services and administrative services.

"We're here to support educational efforts the faculty bring to us," said Diana Beardslee, one of CED3's Instructional Designers, who work with faculty to implement sound educational principles through effective use

of technologies.

Media Development team members then build high-quality instructional materials as requested. "I've seen requests for video, audio, logos, Sakai tools and support, and mobile device solutions," said team leader Philip McCullick.

"The professional print materials and videos we produce are great marketing tools," added Mike DiFranco, Marketing/Communications manager, who works with program managers

to identify key audiences and distribute programmatic information.

CED3 also offers both administrative and student support functions so faculty can achieve their mission requirements. "We provide nearly 700 students with a single POC for their needs prior to and throughout their NPS careers," said Nikki Brink, CED3 Student Services manager.

The Administrative Services



team collected nearly \$6 million in Reimbursable Education tuition in FY10. "My staff and I support all requests for budgeting, contracting, purchasing, travel and tuition collection," said manager Mary Anne Egan.

CED3 is the go-to for support of all academic design, development and distribution needs. "Visit us any time," noted DiFranco. "We're here for you!"

# Any Day at NPS ...



Members of the NPS Color Guard Team present colors during the 22nd Annual Memorial Day Concert on the Lawn, May 30. An estimated 2,000 members of the NPS community and the public filled the lawn in front of Herrmann Hall to listen to patriotic tunes performed by the Monterey Bay Symphony and Cypressairs. (U.S. Navy photo by Javier Chagoya)

The Defense Travel Management Office chose the Naval Postgraduate School's Travel Office team as the winner of the 2011 Icon Award, recognized during a ceremony, May 3. The award honors an organization for excellence in all areas of their travel program management, customer guidance and communications. (U.S. Navy photo by Javier Chagoya)



Members of the official party at Fleet Numerical Meteorology and Oceanography Center's (FNMOC) 50th anniversary celebration cut a ceremonial ribbon signifying the grand opening of a \$10 million construction project at FNMOC. Members, from left to right, are Rear Adm. Jonathan White, U.S. Rep. Sam Farr, Capt. James Pettigrew, Dr. Simon Chang and Capt. Gerral David. (U.S. Navy photo by Javier Chagoya)

Foreign naval attachés representing 19 partner nations begin a walking tour of the Naval Postgraduate School campus, May 16, as part of the Chief of Naval Operations' (CNO) Foreign Liaison Naval Attaché Spring Visit. (U.S. Navy photo by MCI Grant P. Ammon)



NPS faculty granted promotion and tenure gather on the front steps of Herrmann Hall for a group photo with NPS President Dan Oliver and Executive Vice President and Provost Leonard Ferrari following the Promotion and Tenure ceremony held on the Quarterdeck, May 13. (U.S. Navy photo by MCI Rob Rubio)

## STUDENT voice

By Lt. Matthew Yokeley  
Chairman, President's  
Student Council

It is hard to believe it, but another quarter is rapidly winding down. Despite the approach of summer break, there are still lots of things for us to do. Whether it's finishing one more paper, collecting just a bit more data, or studying for that one final, the work of an NPS student is never really done.

While we continue to work hard, it is also important to remember that a little rest and relaxation can go a long way. With that in mind, I want to take a second to mention some upcoming events that allow students that critical opportunity to "take a break" from the daily grind of classes.

The Battle of Midway Dining Out, remembering the 69th anniversary of one of the most important naval battles of World War II, is right around the corner. The event is sponsored by the Student Council, along with the Monterey Chapter of the Naval Order of the United States, and is shaping up to be a great opportunity for students to have some fun reminiscing about "days gone by" with some of those who have gone before us.

Also, coming up is Military Appreciation Day sponsored by the Del Monte Center. They invite you to join in as they salute our local military community with free food and entertainment for military families along with discounts at the Del Monte Center shops.

These are just some of the many great activities coming soon, so check out the "Community Interest Items" on the NPS intranet site for more great ways to spend some relaxing time with your friends and family, but don't forget to work hard and KEEP STUDYING!

Lt. Yokeley 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

**June 4**

Military Appreciation Day at Del Monte Shopping Center  
POC Alan Richmond, Ext. 3649

**June 4**

Battle of Midway Dinner  
POC Ken Johnson, 831-657-9793

**June 7**

Spring Graduation Awards Ceremony  
POC Capt. Alan Poindexter, Ext. 2291

*U.S. Navy Photo by Javier Chagoya*

**June 14-16**

Cultural and Organizational Awareness Forum  
POC William Rodriguez, 619-556-3286

**June 17**

Spring Graduation Ceremony  
Speaker, David R. Oliver  
Chief Operating Officer  
EADS North America  
POC Capt. Alan Poindexter, Ext. 2291

*Photo provided by EADS North America*

**June 20-23**

79th Military Operations  
Research Symposium

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NPS community. Are you following?

## Historical Highlights

When the Naval Postgraduate School was established at Annapolis, Md., students attended classes and worked in the labs in their military uniforms.

That changed in June 1934. The "Annapolis Evening Capital" and the "Washington Post" published short news articles announcing the new uniform regulations at NPS. The Post's June 30, 1934 headline read, "Navy School Men May Wear 'Civvies.'"

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

### Navy School Men May Wear 'Civvies'

#### New Regulation Makes Uniforms Optional

Annapolis, Md., June 29 (Spl.).  
It will be optional with student officers attending the Navy Post Graduate School during the course starting Monday whether they wear regular uniforms or civilian attire.