

# U.S. Coast Guard Academy Honors Program

## NEWSLETTER – FALL 2020

Dr. Alina M. Zapalska, Director, Honors Program



### Mission

The Honors Program at the Academy cultivates academic excellence across all majors and encourages scholarly achievement.

Second- and first-class cadets may be selected for the Honors Colloquium to compete for:

- Scholarships such as the Rhodes, Marshall, Fulbright, Truman, Schwarzman, and Gates
- Honors internships, fellowships, and independent studies/research projects
- Travel to present research at academic conferences

The Academy offers opportunities to fourth- and third-class cadets:

- Validation and placement in advanced courses in chemistry, physics, and mathematics

### The Academy's Scholars

- Ms. Melissa McCafferty (Class of 2011) Tillman 2020
- 1/c Owen Gibson (Class 2020) Fulbright 2020
- 1/C Erin Wright (Class 2018) Fulbright 2018
- ENS Laura Beck (Class 2017) Fulbright 2018
- 1/c Patrick Ledzian (Class of 2017) Fulbright 2017
- ENS Christian DiBari (Class of 2016) Fulbright 2017
- CDR William Woityra (Class of 1999) Fulbright 2017
- 1/c Jacquelyn Kubicko (Class of 2016) Fulbright 2016
- 1/c Stephen Horvath (Class of 2015) Fulbright 2015-2016
- 1/c Jessica Lukasik (Class of 2014) Fulbright 2014
- LTJG Joe DiRenzo IV (Class of 2010) Fulbright 2012
- 2/c Allison Murray (Class of 2011) Kimsey 2010
- 1/c Joe DiRenzo IV (Class of 2010) Fulbright 2010
- 2/c Melissa McCafferty (Class of 2011) Truman 2010
- 1/c Alex LeKander (Class of 2010) Truman 2009
- 1/c Louise Mandour-Brackin (Class of 2009) Fulbright 2009
- ENS Sean Dolbow (OCS 2009) Fulbright 2007
- 2/c DeCarol Davis (Class of 2008) Truman 2007
- 1/c Patrick Pennella (Class of 2007) Fulbright 2007
- 1/c Kirsten Ambors (Class of 2007) Fulbright 2007
- LT Stephen Elliott (Class of 2005) Fulbright 2005
- Dr. Robert Pefferly (Class of 1991) Fulbright 1996
- CAPT Mike Christian (Class of 1986) Fulbright 1986
- Mr. Peter Seaman (Class of 1986) Fulbright 1986
- Mr. David Caron (Class of 1974) Fulbright 1974

### CONGRATULATIONS TO THE 2020-2021 FULBRIGHT SCHOLAR AND TILLMAN SCHOLAR

**ENSIGN Owen Gibson (Civil Engineering Major, Class 2020):** As a **Fulbright scholar** to Germany, ENSIGN Owen Gibson began pursuing a two-year Master of Science Degree in *Water Resource Engineering and Management* at the University of Stuttgart, Stuttgart, Germany. He is currently taking courses in climate change and soil erosion models. The goal of his master's thesis, *Predicting the Impact of Climate Change on Soil Erosion in Coastal Areas*, is to develop a model for assessing coastal soil erosion rates. The model will address the uncertainty of climate change using probability analysis and will be tested throughout coastal regions in Northern Germany. His research is vital to develop resilient infrastructure and to adapt designs in anticipation of future soil erosion. Civic planners and local governments could potentially use the results from this research to proactively combat and manage disruptive soil erosion before it manifests. Professors Silke Wieprecht and Kristina Terheiden from the University of Stuttgart, top experts in water resource management, are supervising Ensign Gibson's study and research. The Institute for Modelling Hydraulic and Environmental Systems at the University will help in constructing and testing the proposed probabilistic model. Gibson selected the University of Stuttgart because it belongs to a coalition of nine of the top German engineering schools and is a world leader in the field of hydraulic engineering and sediment transportation.

**Melissa McCafferty (Government Major, Class 2011):** Melissa McCafferty has been named a **2020 Tillman Scholar**. The Tillman Scholar program offers academic fellowship for military service members, veterans, and spouses who are dedicated to public service. McCafferty graduated with high honors as a Government major with a dual concentration in public policy and international affairs. As a cadet, McCafferty also received a Truman Scholarship in 2010 that allowed her to pursue a Master of Science in Applied Economics from the Krieger School of Arts and Sciences at Johns Hopkins University. While at the Academy, McCafferty founded the Spectrum Council which provides a support network for Lesbian, Gay, Bisexual, Transgender, Questioning, Intersex and Asexual cadets and creates an educational experience dedicated to the retention, development and commissioning of culturally and socially competent Junior Officers. As a Coast Guard Officer, she served as Operations Officer aboard the Coast Guard Cutter *Bernard Webber*. She was later selected to serve as part of the Commandant's Advisory Group, which advised then Commandant, Admiral Paul Zukunft on policy, national affairs, and strategy. During the devastating 2017 Atlantic hurricane season, she deployed to assist in the service's response to Hurricanes Harvey, Irma, and Maria. McCafferty saw the Coast Guard was a natural fit for her desired educational and life goals, helping to prepare her for a life in public service through law and politics. With the Tillman scholarship she has just begun attending Georgetown University Law Center as an incoming law student where she hopes to study criminal law and to continue to pursue a life of public service.

## CONGRATULATIONS TO FULBRIGHT SCHOLARSHIP APPLICANTS AND REAPPLICANTS DUE TO THE COVID-19 PANDEMIC

**Ensign Valerie Hines – 2020-2021 Fulbright Semi-finalist to the UK (Marine and Environmental Sciences, Class 2020):** Ensign Valerie Hines reapplied for a Fulbright - University of Bristol - Award as she was selected as a Fulbright semi-finalist to the UK Fulbright Student Program. She plans to pursue a research-based Master of Science degree in *Environmental Policy and Management* at the Faculty of Science, School of Geographical Sciences at University of Bristol, Bristol, the United Kingdom. Her master's thesis: *Contributions to Sea Level Variability along the UK Coast and the US East Coast* will examine how natural and anthropogenic climate change factors individually and collectively contribute to sea level rise in open-ocean waters versus coastal waters. The goal is to improve local sea level rise predictions along selected coastlines of the UK and the US. Currently, Ensign Hines is a CG officer and researcher at the CG Cutter *Healy*.

**Ensign Gyumin Lee – 2020-2021 Fulbright Alternate to Estonia (Electrical Engineering major, Class of 2019):** Ensign Gyumin Lee reapplied for a 2020-2021 Fulbright Scholarship (*Open Study/Research Award*) to pursue a two-year Master of Science degree in *Cyber Security* at the School of Information Technology (joint program with University of Tartu), Tallinn University of Technology in Tallinn, Estonia. His Fulbright project, *Designing Software Defined Networking Technique to Protect Networks from Cyber-Attacks*, is to develop a cyber security system that will monitor network traffic to detect cyber-attacks and to secure network infrastructure and industrial control systems. As a Fulbright scholar, Ensign Lee will collaborate with the cyber security experts from the NATO Cooperative Cyber Defense Centre of Excellence, located in Tallinn, Estonia, as well as with Technische Universität München, Delft University of Technology, and KTH Royal Institute of Technology. After graduation in 2019, Lee assumed a position at the Cyber Security Operations Center in Washington, DC.

**Ensign Greg Gaskel - 2021-2022 Fulbright Scholarship to Hungary (Operations Research and Computer Analysis major, Class of 2020):** Ensign Gregory Gaskel placed his Fulbright applications to pursue a Master of Science degree in *Applied Mathematics* from the Faculty of Science and Technology at the University of Debrecen, Debrecen, Hungary. Because Hungary has been known for its excellence in the field of mathematics, Ensign Gaskel selected Hungary for his host country. Under the Fulbright program, he will study probabilistic models that can estimate the spread of infectious diseases, the severity of climate change caused by natural and anthropogenic factors, and threats to computer networks. He also proposes to work on a master's thesis, *Developing Stochastic Models to Enhance Cyber Intrusion Detection via Anomalous Behavior* that will be applicable to protecting computer networks in the private and the public sectors. In July 2020, Ensign Gaskel began serving as a cybersecurity officer at USCG Cyber Command in Washington, D.C.

**1/c Salena Bantz - 2021-2022 Fulbright Scholarship to Finland (Electrical Engineering major, Class of 2021):** 1/c Salena Bantz has applied for a *Fulbright-Tampere University Graduate Award* to pursue a Master of Science in Electrical Engineering at Tampere University, Tampere, Finland to study electric power systems. In her Fulbright application, 1/c Bantz argues that the emergence of smart grid technology represents an essential infrastructure strategy for the deployment of clean energy technologies. Designing a grid with the right design and infrastructure has been challenging due to its design complexity and the fast pace of technological innovation. In her Master's thesis, *Design of Smart Power Grids for Renewable Energy Systems*, 1/c Bantz will develop smart power grids that are *flexible, reliable, efficient, and resilient* to overcome the shortcomings of the traditional electric power grid to deploy clean energy technologies and to deliver power generation that is more reliable, secure, and affordable. The system will produce power closer to where it is consumed and will protect it from unexpected outages caused by natural disasters, cyberattacks, and other disruptions.

## CONGRATULATIONS TO THE HONORS PROGRAM FOR DEVELOPING VIRTUAL TUTORING SERVICES TO THE LOCAL ELEMENTARY AND HIGH SCHOOL PROGRAMS: FIELDS MEMORIAL SCHOOL, BOZRAH, CT

**Leaders:** 1/c Sean Seyller, 1/c Sarah Wenzel, and 3/c Christine Groves

**First volunteers and tutors:** 1/c Jenna Manning, 1/c Jordan Yriarte, 1/c Thomas Klawinski, 2/c Greg Costello, 2/c Abigail Horan, 2/c Madison James, 2/c Logan Tobias, 3/c Branyelle Carillo, 3/c Bridget Dineen, 3/c Natasha Muirhead, and 3/c Max Van Rees.

**Advisors:** Dr. Alina Zapalska, U.S.CGA, and Dr. Ruth Levy, Superintendent and Ms. Catherine Dowler, Fields Memorial School.

## THE 2020 AMERICAN SERVICE ACADEMIES PROGRAM

The American Service Academies Program (ASAP) is an educational initiative created by the Auschwitz Jewish Center (AJC) for a select group of cadets and midshipmen from the U.S. Military Academy at West Point, the U.S. Naval Academy, the U.S. Air Force Academy, and the Honors Program at the U.S. Coast Guard Academy. The primary purpose of this program is to educate, inspire, and empower future leaders in the U.S. Armed Forces with a clear understanding of the Holocaust. The program focuses on the Holocaust and related contemporary moral and ethical dilemmas and provides an authentic learning experience for future military officers extending beyond what they are taught in their Academy classrooms. **From the "C" division:** The 2021 ASAP is open to 2/c and/or 1/c cadets (this is your rank after May 2021) with a GPA equal or above 3.5. This year, it will be a 3-week (virtual/online if travel is not allowed) program. In that the program is offered at the end of May and beginning of June (dates TBD), please notice that 2/c cadets (current 3/c cadets) are advised that they will be required to use their leave to participate. 1/c cadets (current 2/c cadets) will be required to meet the same stringent requirements of an Academic Internship or other special training assignment (e.g., no probation, good academic and military standing, 11 weeks operational training 3/c summer). Additionally, they should expect a cutter assignment for the alternate phase of summer training. If they so choose, they may use their 3 weeks of summer leave. *If you plan to apply you need to contact Dr. Zapalska by an email by **noon Tuesday 11/24/20**. All applications must be approved for submission by Professor Zapalska by 12/05/20. The deadline for the 2021 ASAP (online) application is at **noon 12/10/2020**. The ASAP application is available at <https://mjhnyc.wufoo.com/forms/american-service-academies-program-2021/>.*