

US Coast Guard Academy Honors Program

NEWSLETTER – SPRING 2018



Dr. Alina M. Zapalska, Director

CONGRATULATIONS TO THE 2018-2019 FULBRIGHT SCHOLARS!

ENSIGN LAURA BECK (CLASS 2017) - FULBRIGHT AWARD TO NORWAY



Ensign Laura Beck

Ensign Laura Beck (Naval Architecture and Marine Engineering Major, Class 2017)

Ensign Laura Beck has been awarded a Fulbright Award in Norway to pursue a two-year International Master of Science degree in Marine Technology with a specialization in Marine Engineering at the Norwegian University of Science and Technology (NTNU) in Trondheim, Norway. As the NTNU is a research leader in the field of green maritime transport, Ensign Beck will conduct research to develop a hybrid propulsion solution that will increase fuel efficiency and reduce emissions in ships. She proposes to design a hybrid of a diesel engine and a high-capacity battery system charged by renewable energy sources, such as wind or solar. This alternative will reduce emissions in ships, especially those that operate in coastal areas.

1/c ERIN WRIGHT (CLASS 2018) - FULBRIGHT AWARD TO THE UNITED KINGDOM



1/c Erin Wright

1/C Erin Wright (Mechanical Engineering, Class 2018)

Cadet Wright has been awarded a 2018-2019 Fulbright scholarship to pursue a Master of Philosophy degree in Energy Engineering at Newcastle University, Newcastle, UK. Her Fulbright research project will be on the biofuel combustion process in diesel engines. She plans to explore the effects of nanoparticle additives to biodiesel as a method for decreasing emission levels and increasing engine efficiency. As a Fulbright scholar, she plans to establish a research partnership between the Sir Joseph Swan Centre for Energy Research at Newcastle University and the USCG Research and Development Center's Science and Technology Division. She will also join the *Engineers Without Borders* organization within Newcastle community to become a mentor to young students and teach them sustainable engineering principles.



Dean Colella, 1/c Wright, RADM Rendón and Professor Zapalska



The Academy's Internships and Fellowships - 2018

The 2018 American Service Academies Program Fellows: 3/c Jacob Skimmons and 3/c Elaine Weaver

Internship dates: May 27, 2018 - June 11, 2018



The Academy's Honors Program provides its members with the opportunity to participate in the American Service Academies Program (ASAP). This three-week educational initiative was created by the Auschwitz Jewish Center specifically for a select group of cadets and midshipmen from the four U.S. military academies. The Honors Program accepts cadets who exhibit a dedication to extracurricular endeavors, an interest in cultural issues and a strong commitment to community service. Selected cadets must demonstrate exceptional leadership potential and be effective communicators to convey the knowledge from their experience in Poland to their peers at the Academy.

The 2018 Saratoga Fellows: 1/c Ryan Burk, 1/c Kurt Caminske, and 1/c Jordan Fonville

Academic Residency: June 2, 2018 - July 14, 2018



The Saratoga Fellows Program provides a post-undergraduate educational and professional experience for officers in the Armed Forces of the United States. The program is designed to broaden each fellow's understanding of our country's intellectual and moral traditions. That understanding addresses the ability to engage in public discourse, and thus it strengthens an officer's calling to public service.

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OUR NEWS ON THE PREVIOUS CGA HONORS PROGRAM SCHOLARS



ENS Ledzian competing in the International Standard Style at the 2017 Delft TU Ballroom Dance Competition, Delft, Netherlands.

Ensign Patrick Ledzian (Electrical Engineering Major, Class of 2017) **2017-2018 Fulbright scholar in the Netherlands** and a recipient of a *Justus en Louise van Effen Excellence Scholarship 2017-2019* from Delft University of Technology, Delft, Netherlands is currently completing his first year of a two-year Master of Science degree program in Systems and Control at the Technical University of Delft. In fall 2018, ENS Ledzian will work on his Fulbright research project. His plan is to develop a fault-tolerant and predictive flight control system that will react to events that unexpectedly obstruct or destruct vehicle flight, to respond quickly to prevent damage or destruction, and to reprogram its operation to complete a designated task. The project will be conducted collaboratively with the scholars from the Robotics Institute at TU Delft.

LTJG Chris DiBari (Government Major, Class of 2016) **2017-2019 Fulbright Scholarship to Iceland**

LTJG Chris DiBari will be completing his first year of a graduate study towards a Master of Science degree in *Environment and Natural Resources* with a concentration in *Renewable Energy-Energy Economics, Policy, and Sustainability* at the University of Iceland. During the 2018-2019 academic year, LTJG DiBari will take a wide variety of courses on sustainability, policy, and methodology while completing a Master's Thesis focusing on micro-grid development in remote Arctic communities. The goal of his research is to identify a framework that remote communities can use to combine storage technologies, renewable energy, and micro-grid technologies to reduce dependence on diesel fuel, increase energy security, and transition to a low carbon future. The research will focus on the case study of Grimsey Island, the only area of Iceland not powered by renewable energy. As a Fulbright ambassador, LTJG DiBari is active in the Icelandic community as a member of the graduate student group GAIA, a mentor for visiting exchange students to the University of Iceland, and is a member of the Reykjavik Raiders rugby club. LTJG DiBari will also be spending ten days underway with the Icelandic Coast Guard Ship Thor and has participated in a variety of training exercises with the Icelandic Coast Guard and the Icelandic Search and Rescue organization.

LTJG Chris DiBari, University of Iceland



CDR William Woityra



Commander William Woityra – 2018 Fulbright Scholarship to Finland

CDR William Woityra (CGA'99) recently completed a Fulbright Scholarship with the Finnish Transport Agency. He spent four months in Finland studying all aspects of the Winter Navigation system, including the design, construction, operations, and management of modern icebreakers. CDR Woityra engaged with public and private stakeholders including Aker Arctic, Arctia, ICEYE, the Finnish Coast Guard, Finnish Vessel Traffic System, Finn Pilots, and the Finnish Meteorological Institute. He spent eight weeks aboard Finnish and Swedish icebreakers, including POLARIS, TURVA, and ODEN. He presented his findings at several venues and conferences, including the Fulbright Forum, IMO International Maritime Law Institute, Turku University of Applied Science, Aalto University, and the Arctic Shipping Forum. In May, CDR Woityra returns to the US to resume duties and the HQ program manager for polar and domestic icebreaking policy (CG-WWM-3).

Lieutenant Junior Grade Jacquelyn Kubicko (Class of 2016, Marine & Environmental Science Major) **2016-2017 Fulbright scholarship to the United Kingdom**

LTJG Kubicko, a 2016-2017 UK Fulbright scholar, who received a Master of Research degree in Ocean Science at University of Southampton (SOTON), Southampton, UK in August 2017. Her Master's thesis research at SOTON investigated using ship noise in a deep-water environment to measure variability in the ocean thermal structure, an important parameter in physical oceanography and climate science. Her research project entitled "Feasibility of Deep-Water Environmental Inversion Using Ships as Acoustic Sources of Opportunity" supported the Coast Guard's climate change initiatives. Her Master's thesis was successfully defended September 2017, and LTJG Kubicko officially graduated from SOTON on 14 December 2017. She reported to the CG Sector Maryland - National Capital Region (NCR) Maryland: Response Department under the Incident Management Division (IMD) in October 2017.



Lieutenant Junior Grade Stephen Horvath. (Class of 2015 – Mechanical Engineering)

LTJG Stephen Horvath officially graduated on August 25, 2017 with a Master's degree in *Bioenergy Technology* and two minors: *Separation Technology* and *Sustainable Technology and Business*. During his two-year study at Lappeenranta University of Technology in Lappeenranta, Finland, LTJG Horvath worked on evaluating various fuel options that could be utilized for ship propulsion to create a carbon neutral shipping industry. His research resulted in an academic style article entitled "Techno-Economic Analysis of a Decarbonized Shipping Sector: Technology Suggestions for a Fleet in 2030 and 2040." His paper has been recently published in the *Journal of Energy Conversion and Management*. LTJG Horvath is currently stationed on CGC Healy as the Damage Control Assistant. In addition, he has been designated as the Exchange Officer.

