By U.S. Navy

The Department of the Navy's top innovators were recognized by Secretary of the Navy Ray Mabus during a ceremony April 21 at the Pentagon.

> "The accomplishments of those recognized through this year's innovation awards are truly remarkable and should serve as inspiration for the entire workforce to continue to think boldly to solve our most challenging problems."
>
> - SECNAV Ray Mabus

As such, it was only fitting that the DON's top innovators were recognized innovatively.

Each winner received a unique SECNAV innovation trophy designed by Sailors at a fab lab in Norfolk, Va., consisting of 3D printed parts.

The winner of the Enlisted Innovator Award was Sonar Technician Surface Chief Petty Officer (STGC) Benjamin A. Lebron.

While forward deployed to the western Pacific Ocean as combat acoustics division leading chief petty officer on USS Fitzgerald (DDG 62), Chief Lebron developed, authored and tested a new class of sonar tactical decision aid that significantly improves anti-submarine warfare warfighting ability. Chief Lebron's application provides a tactical advantage by decreasing the time required to achieve a solution by up to 60 percent.

For a non-traditional award, Chief Lebron was selected for the anti-submarine warfare distance learning program at the Naval Postgraduate School. Due to his extensive knowledge of the subject matter, the prerequisite for a bachelor's degree was waived. BZ!

In the Innovation Scholar Award Category for Professional Military Education, Lt. Brendan Geoghegan from the Naval Postgraduate School will be assigned as an FY-18 SECNAV Innovation Advisor.

Lt. Geoghegan's thesis paper "Navigational Heads-Up Display: Will a Shipboard Augmented Electronic Navigation System Sink or Swim?" developed and tested a proof-of-concept augmented reality display that presents critical navigation information to naval conning officers. The goal: Study the feasibility and usability of such an approach in operational conditions.

The testbed platform consisted of a virtual environment that fully simulated a conning officer's basic tasks in conditions of restricted navigation; this setup enabled a cost-effective test solution that was safe and supported scenario repeatability in studies with human subjects. The study involved 25 experienced test subjects who were surface warfare officers at both the Naval Postgraduate School and Surface Warfare Officer School. This effort helped gather comprehensive data that provided insight into the performance of conning officers. The results demonstrated the viability of such a system in an operating environment and supported a need for further research and development of working display platforms aboard Navy warships. BZ!

In the Innovation Scholar Award Category for Midshipmen, George Washington University Midn. Second Class Annie McDonald was awarded an aviation service assignment. She'll also receive several unique aviation training opportunities this summer and a VIP tour of the space center at the Naval Research Laboratory.

Midn. McDonald's thesis paper "The Nuclear Triad and Interoperable Weapons" examined the current threats to the United States, evaluated the status of emerging nuclear powers and established the most efficient use of funds when considering the future of our nuclear arsenal. The question: Are all three components of the nuclear triad necessary?

She provided evidence that geopolitical drivers indicate that the triad is the best option the United States has to stay technically relevant and tactically prepared. That said, her thesis found the nuclear arsenal could be improved to save money through weapon modifications and interoperability. She then evaluated the Pentagon's 3+2 Plan and offered modifications to decrease spending and increase interoperability.

Her essay also considered the ramifications of The Nuclear Non-Proliferation Treaty, and how to update the arsenal without accidentally antagonizing the United States' nuclear competitors. Finally, she considered the relevance of anti-ballistic missile systems, and why we must secure our status as the primacy in space missions and research. BZ!

Join us in congratulating these three Navy innovators as well as winners in the other categories who received the Innovation Trophy and a cash award:

- **Innovation Catalyst Category**: Project Longhorn Team at Naval Undersea Warfare Center Division, Keyport; Naval Surface Warfare Center, Philadelphia Division; and Department of Energy partners at Sandia National Laboratories.
- **Additive Manufacturing Category**: Sensor Embedding in Additive Manufacturing Team at Naval Air Systems Command.
- **Data Analytics Category**: Realtime Acoustic Imaging Team at Naval Surface Warfare Center, Carderock Division.
- **Robotics/Autonomous Systems Category**: Underwater Wireless Energy Transfer System Team at Naval Surface Warfare Center, Carderock Division.
- **Outside the Box Category**: Daniel Robinson at Naval Research Laboratory.

Cmdr. Jeffrey Heames, commanding officer of USS Preble (DDG 88), won the Innovation Leadership Award. On April 22nd, Admiral Scott Swift attended Preble's change of command ceremony, and on SECNAV's behalf, presented the innovation award trophy and certificate, as well as the first Command Innovation Excellence Award to Preble's crew.

Under Heames's leadership, Preble's Sailors made substantive contributions that crosscut a wide spectrum – from new warfighting tactics and techniques, to streamlined administration and operations improvements, to safety management tools and practical mariner innovations.

Again, join us saying BZ to these Navy innovators!