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## Future “TOP SWO” Instructor Honored With SNA’s Surface Warfare Research Award

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# Future “TOP SWO” Instructor Honored With SNA’s Surface Warfare Research Award

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*By Javier Chagoya*

Lt. Kristen Eriksen is NPS’ 2016 Summer Quarter recipient of the Surface Navy Association’s Award for Excellence in Surface Warfare Research. The award is presented to graduating students from any curriculum whose thesis topic and quality of supporting research, demonstrates the greatest potential for contribution to the surface Navy.

Eriksen is a Surface Warfare Officer (SWO) studying Operations Research (OR). Her thesis, entitled “Analyzing Tactics and Techniques Within Distributed Lethality Using Agent-Based Simulation,” is a partnership research project between NPS and the Naval Surface Warfare Center Dahlgren Division (NSWCDD).

“The results and insights I obtained with my experiments were viewed as a success by the researchers at NSWCDD,” explained Eriksen. “My thesis work was able to advance their modeling platform because I was able to model potential real-world scenarios. The Orchestrated Simulation through Modeling (OSM) is a more capable tool because of my research.”

Eriksen says a component of this type of modeling has needed a fresh look, and she hopes her work has made a modest contribution in this regard.

“Honestly, this type of research has been used for many years already. However, at the tactical level for surface combat engagements, there are not many choices for modeling software, so OSM is a Navy tool under development in this field,” said Eriksen.

Eriksen based her findings on a rigorous 800,000 simulated battles, involving 39 factors in the offense/defense experimentation.

“The 39 factors gave me insight into what is important and influenced the ability of a ship to fire the first missile. I ran over 400,000 experiments varying these factors, which would not have been possible without NPS’ high-performance computing clusters,” she added.

After graduation, Eriksen will report to the Naval Surface Mine Warfighting and Development Center (NSMWDC) to become a Warfare Tactics Instructor and then onto Surface Warfare Officer’s School in Newport, Rhode Island.

“I hope to get significant training in the area of anti-submarine and anti-surface warfare. I also hope to bring the analytical and combat analysis skills that I gained here, at NPS, to NSMWDC, a command that is really carrying the torch on distributed lethality,” she said.

Congratulations to the entire slate of 2016 Summer Quarter award recipients:

- The Hans Jones Award for Excellence in Thesis Research in Special Operations and Irregular Warfare or Security, Stabilization, Transition and Reconstruction Army Maj. William Holloway;
- The Richard W. Hamming Teaching Award Associate Professor Ralucca Gera;
- The Louis D. Liskin Award for Excellence in Regional Security Studies Lt. Cmdr. Z’hra M. Ghavam;
- Air Force Association Award for Outstanding U.S. Air Force Student Maj. Timothy Rolling;
- The Outstanding United States Air Force Graduate Award, Department of National Security Affairs Maj. Ellen Canup;
- Chief of Naval Operations Award for Excellence in Operations Research Cmdr. Kevin Williams;

- Space and Naval Warfare Systems Command Award in Electronic Systems Engineering Hellenic Navy Lt. j.g. Anastasios Antoniou;
- AFCEA John McReynolds Wozencraft Electrical and Computer Engineering Academic Honor Award Singapore Navy Military Expert Six Chew Kung Tan and Singapore Defense and Science Technology Agency of Singapore Chee Kiong Ong;
- NPS Outstanding Academic Achievement Award for International Students the Military Operations Research Society Stephen A. Tisdale Graduate Research Award Israeli Army Capt. Roey Ben Yoash;
- Monterey Council Navy League Award for Highest Academic Achievement Marine Corps Capt. Kiel Reese;
- Marine Corps Association Superior Service Award for Outstanding U.S. Marine Student Capt. Talya Havice;
- Association of the United States Army, General Joseph W. Stilwell Chapter, Award for Outstanding Army Student 2nd Lt. Thomas Knuth;
- Surface Navy Association's Award for Excellence in Surface Warfare Research Lt. Kristen Eriksen;
- NPS Superior Service Award Lt. Cmdr. Colleen McDonald;
- Rear Admiral Grace Murray Hopper Information Technology Management Award Maj. Kyle Opel; and,
- Chief of Naval Operations Undersea Warfare Award Lt. Zachary Lukens.