

The Coast Guard Innovation Program

Captain Niels P. Thomsen Innovation Awards



Left: Petty Officer First Class Kevin Spratt of the Coast Guard Cutter Spar welded a hook to the head of a maul, combining two tools frequently used on a buoy deck. The hammer hook reduces clutter on the deck and makes it easier for crewmembers to switch between tools. Right: Chief Petty Officer Tim Manske of the Command, Control and Communications Engineering Center designed the Coast Guard Communications Portable Alignment Fixture to help quickly align the 133 TMR-1090 300W Linear Power Amplifier. The device simplifies a common maintenance procedure on medium endurance cutters. U.S. Coast Guard photos.

Each year, the Innovation Program recognizes ideas that have had a significant impact on Coast Guard operations. Awards are given in five categories: science and technology; operations or readiness; administration, training or support; management; and cultural change.

2016 Winners

Science or Technology



From Left: Commandant of the Coast Guard Adm. Paul Zukunft; Melvin McAlister, who accepted the award on behalf of Cmdr. Chad Cooper; and Deputy Master Chief Petty Officer of the Coast Guard Leilani Cale-Jones. U.S. Coast Guard photo.

Vessel Screening Algorithm – Cmdr. Chad Cooper, Atlantic Area Maritime Intelligence Fusion Center MIFC LANT

The Coast Guard uses a predominantly manual process to screen the more than 96,000 advance notices of arrival for voyages to LANTAREA ports. Currently, MIFC LANT personnel invest tens of thousands of hours to identify less than 1 percent of vessel arrivals that present risk. To address this glaring cost/benefit imbalance, Cooper developed a screening algorithm that eliminates vessels with no red flags from the screening pool. Initial operational tests indicate that the application will reduce the pool of vessels requiring analyst review, greatly decreasing screening errors stemming from analyst fatigue. An automated screening application will free up analytical capacity which can be reinvested in support to other Coast Guard missions.

Operations or Readiness



From Left: Zukunft; Petty Officer 1st Class Taylor Conlin, who is holding the hammer hook; Petty Officer 1st Class Kevin Spratt; and Cale-Jones. U.S. Coast Guard photo.

The Hammer Hook – Petty Officer First Class Kevin Spratt, Coast Guard Cutter Spar

Crewmembers working on a buoy deck primarily use two heavy hand tools, a chain hook and a maul. Spratt welded a hook to a maul, eliminating the need for crewmembers to manage two separate tools. This innovation creates a safer environment by de-cluttering the buoy deck, mitigating the crewmember's need to swap tools, and allowing the crewmember to maintain greater focus on the job at hand.

Innovation Program note: the Hammer Hook has become this year's "diamond bullet;" a seemingly-simple idea that could have an impact on operations for generations to come. The Buoy Deck Training Team sent PO Spratt's idea out to all buoy crews, and CG-751 also enthusiastically supports this nomination.

Administration, Training, or Support



From Left: Zukunft, Chief Petty Officer Tim Manske, Petty Officer 1st Class Curt Smith and Cale-Jones. U.S. Coast Guard photo.

Coast Guard Communications Portable Alignment Fixture – Chief Petty Officer Tim Manske, Command, Control and Communications Engineering Center (C3CEN), Baltimore

The 133 TMR-1090 300W Linear Power Amplifier (LPA) is a maintenance-intensive component found on all medium endurance cutters. Improper alignment is directly related to 75 percent of LPA faults. To reduce the complexity of aligning this system and the associated personnel safety concerns, C3CEN's Electronics Repair Facility designed and fabricated a bench-top test device. The new device reduces the time needed for this common repair from 72 hours to less than two hours, mitigating costs, increasing asset operational availability across the entire WMEC fleet, and reducing the need to expose repair personnel to hazardous conditions.

Commander Joel Magnussen Innovation Award for Management



From Left: Zukunft, Cmdr. Chad Brick and Cale-Jones. U.S. Coast Guard photo.

Coast Guard Common Core for Finance, Procurement, and Property Managers – Cmdr. Chad Brick, District 7 Budget Office.

CG Common Core is a custom SharePoint module created by a Coast Guard member that facilitates procurement, finance, and property management. Common Core collects reference material, process guides, and training materials in a central location, and establishes repeatable, easy to follow processes to maintain alignment with policy. Through a standardized workflow, Common Core increases transparency and enhances audit compliance. The system provides real-time data to managers, as well as automatic notifications, and views of subordinate workloads. Currently over \$1 billion in Coast Guard property is managed using Common Core. The system has been adopted by 500+ units and financial management elements across the Coast Guard. Brick taught himself SharePoint customization and programmed the module himself.

Cultural Change



From Left: Zukunft, Petty Officer 1st Class William Flores, Petty Officer 1st Class Brian Geer and Cale-Jones. Flores and Greer received the award on behalf of the crew of Station Michigan. U.S. Coast Guard photo.

Automated Search and Rescue Alert System - Crew of Station Michigan City

In an effort to improve search and rescue (SAR) response times, Station Michigan City prototyped an inexpensive off-the-shelf automated alert system. The system gathers call information and automatically pushes the alert to mobile devices. Not only does the system provide quicker alerts, it also provides features commonly found within the realm of mobile computing such as live maps, text messaging, real-time updating of alert status and asset response, and pushes any amplifying information recorded during the 911 call. The system has been used successfully for nine SAR cases, reducing response time by an average of four minutes. One of the alerts provided by this system allowed the crew to respond, recover, resuscitate, and transfer a person in the water to local emergency medical services within 10 minutes of the initial automated notification.