

Award Narrative

1. Introduction

USS DEWEY (DDG 105) is an ARLEIGH BURKE Class Guided Missile Destroyer commissioned in March 2010 and homeported in San Diego, California. DEWEY has a crew of 300 officers and enlisted Sailors. DEWEY's mission is to conduct sustained at sea combat operations independently or in direct support of a Carrier Strike Group or Expeditionary Strike Group. DEWEY is part of Destroyer Squadron ONE (CDS 1) and CARL VINSON Carrier Strike Group (CSG 1).

2. Background

2.1 Environmental Challenges. DEWEY has maintained a high operational tempo this year, conducting operations, exercise, and inport periods in US and international waters. Specific examples include:

a. DEWEY executed a demanding operational schedule in FY14 which included INSURV in April, Pre-deployment Strike Group work-ups in May, and departed for a 10 month deployment in August. During FY14, DEWEY unloaded 3 million gallons of diesel fuel with zero spills or mishaps and under-consumed fuel by 105,000 gallons when compared to the DDG class average.

b. While on deployment, DEWEY has transited through 5th and 7th Fleet AOR's. Each port of call and area of operation has brought new challenges particularly in regards to waste management and water pollution controls. Not all pier services have been readily available. In each case, DEWEY trained all watchstanders on local laws and regulations prior to entering port and modified standard operating procedures to ensure zero spills occurred while offloading CHT and oily waste in port.

c. During multiple ASW exercises including CARL VINSON Carrier Strike Group C2X/JTFEX, USWEX, and VALIANT SHIELD, DEWEY conducted thorough watchstander training prior to each event for all bridge watchstanders, look outs, and combat information center watchstanders to ensure all personnel understood and complied with the unique marine mammal mitigation measures of each exercise.

2.2 Organization and Staffing. DEWEY maintains a designated Afloat Environmental Protection Coordinator, a Hazardous Material and Waste Coordinator and Assistant, a Marine

Mammal Awareness Officer, an Ozone Depleting Substance Program Manager, a Plastics Waste Control Coordinator, a Fuels Officer, and a Protective Measures Assessment Protocol Manager. All positions are filled with officer or Chief Petty Officer subject matter experts to ensure each program receives the best management possible.

2.3 Environmental Guidance. A list of all shipboard environmental instructions and their date of issue or review is below:

a. DEWEYINST 3121.1C Commanding Officer's Standing Orders. Date of Issue: 18 May 2014. Read monthly by all Officers, Bridge watchstanders, and Combat Information Center watchstanders.

b. DEWEYINST 5090.1 Plastic and Solid Waste Management Date of Issue: 09 Oct 2009. Reviewed 29 Sep 2014.

c. DEWEYINST 5090.2 Oil Spill Contingency Plan. Date of Issue: 22 Aug 2012. Reviewed 24 Jun 2014.

d. DEWEYINST 5090.3 Ozone Depleting Substances. Date of Issue: 20 Feb 2013. Reviewed 24 Jun 2014.

e. DEWEYINST 5090.4A Environmental Protection Program. Date of Issue: 23 Jan 2014. Reviewed 27 Nov 2014.

f. DEWEYINST 9510.1 Hazardous Material Control and Management (HMC&M) Program and Spill Response Procedures. Date of Issue: 19 Oct 2014.

3. Program Summary

3.1 Environmental Program. DEWEY conducted quarterly reviews of the environmental program using the Afloat Environmental Checklist. Each review DEWEY was found in compliance with all Federal, State, and local environmental laws.

3.2 Program Features.

a. DEWEY maintains a standard of excellence for proper use and disposal of hazardous material. Proactive management ensured all hazardous waste was segregated, containerized, labeled, and ready for offload. DEWEY maximized her operational schedule at sea through transferring hazardous waste off the

ship during UNREP or to a shore facility within 3 days of pulling into port.

b. DEWEY has continued to maintain her Oily Waste Separator (OWS) system in a high state of material readiness throughout the year. With OWS frequently identified as a troubled system, DEWEY routinely verifies system operability, corrects any faults as expeditiously as possible, and ensures all bilge water or waste water is processed through OWS or held onboard for offload in port.

c. DEWEY conducts fresh water washdown weekly and when pulling into port outside of 12nm from land to prevent the buildup and runoff of environmental pollutants into inland waters.

4. Accomplishments

4.1 Air Pollution Control. Emission control efforts are always in use by DEWEY to minimize the release of airborne pollutants.

a. Engine Emissions. DEWEY aggressively operates and maintains her gas turbine engines and gas turbine generators in a high state of material readiness to enable the most efficient use of resources possible. Fuel conservation curves are posted at all controlling stations and constantly reviewed by bridge and engineering watchstations to ensure DEWEY operates at the most fuel efficient engineering plant configuration possible. In FY 14, DEWEY consumed 105,000 gallons of fuel below the DDG class average, saving over 2.3 million pounds of CO2 from being released into the atmosphere. Fuel consumption data is reviewed daily by command leadership and is routinely a major factor when planning ship movements. DEWEY regularly adjusts her transit plans to reduce fuel burn rates whenever possible.

b. Refrigerant Use. DEWEY operates five 200 ton air conditioning plants, two 1.5 ton refrigeration plants, and multiple smaller commercial grade refrigeration units in drinking fountains, battery and medical storage refrigerators, and ice machines all using R-134A refrigerant. DEWEY has two air conditioning and refrigeration technicians onboard, each certified by the Environmental Protection Agency. The plants are routinely monitored by both roving watchstanders and remotely in controlling stations to ensure efficient plant operation. When replacing one ice machine and three drinking

fountains in FY14, DEWEY captured the refrigerant from each unit before properly disposing of them.

c. Volatile Organic Compounds. DEWEY routinely conducts preventative maintenance on all Halon, CO₂, AFFF, and CHT systems containing volatile organic compounds. Each piece of equipment is maintained to ensure no leaks are present and that equipment operates within design parameters.

4.2 Water Pollution Control. DEWEY maintains strict compliance with all Federal and Local laws for discharges over the side. The Commanding Officer's Standing Orders direct when, where, and how all discharges may occur, and his approval is required before any type of discharge is allowed. All Officers of the Deck review the Standing Orders monthly and are well trained on the allowable discharges for sewage, garbage, and medical waste.

4.2.1 CHT System Management Practices. DEWEY operates two Vacuum Collection and Holding Tank (VCHT) systems onboard. Both systems are routinely aligned in accordance with EOSS and under direct khaki supervision, resulting in zero CHT spills. During long transits in and out of port, DEWEY routinely holds all CHT onboard until it can be properly offloaded.

4.2.2 OHS Spill Prevention and Response Efforts. All crew members receive training on oil spill prevention and response upon checking onboard. DEWEY conducts routine oil spill drills with all crew members and maintains a 150% inventory for all materials in the oil spill response kit. Prior to any oil onload or offload, oil spill kits are made available for use at each station.

a. DEWEY takes extraordinary care during each fueling evolution to prevent any fuel spill. Prior to each evolution, all controlling watchstations brief their safety measures and actions to be taken in the event of a casualty. The Engineering Officer, Fuels Officer, and Oil King independently verify the fuel system alignment prior to all fueling evolutions. During FY14, these measures were professionally executed resulting in 3 million gallons of fuel received and zero fuel spills.

4.2.3 Oily Waste Management Practices. DEWEY maintains and operates an excellent Oily Water Separator (OWS) onboard. All waste water and bilge water, regardless of oil content, is pumped to the oily waste holding tanks for processing through

OWS. Identified as a troubled system on most INSURV inspections, only one minor discrepancy, a faulty relay preventing the system's fully automatic operation, was noted during DEWEY's INSURV. Using the EOSS procedure already in place for manual operation and a temporary standing order from the Commanding Officer, OWS was routinely used to process all oily waste onboard.

4.3 Solid Waste (SW) Management and Resource Recovery.

4.3.1 SW Management Practices. DEWEY operates two Compress Melt Units, one glass/metal shredder, and one pulper unit. All personnel on DEWEY separate trash into paper, plastic, and metal containers before bringing it to the trash room for disposal. Additionally, the trash room operator verifies all trash is separated during processing. All solid waste is disposed of in accordance with the Commanding Officer's Standing Orders and Federal Regulations.

4.3.2 Source Reduction Techniques. DEWEY adjusts the amount of food prepared based on fluctuations in crew size to reduce the amount of excess food waste generated. All printers capable of double-sided printer are configured to print double-sided, reducing solid waste and ensuring maximum use of resources.

4.3.3 Resource Recycling Techniques. While in homeport, DEWEY recycles all scrap metal and electronic waste with Naval Station San Diego.

4.4 HM and HW Management. DEWEY proactively manages the use of HAZMAT onboard to minimize the risk to the environment. DEWEY's HAZMAT space is opened on a daily basis in the morning for issue and again the evening for turn in. Satellite HAZMAT lockers are inspected and inventoried weekly to verify contents. Lockers no longer in use are marked and locked to prevent any unauthorized storage. DEWEY's HM Coordinator aggressively tracks all HAZMAT brought onboard and offloaded to ensure only the minimum amount necessary is ordered, minimizing the amount of hazardous waste needing to be offloaded.

4.5 Protective Measures Assessment Protocol (PMAP). DEWEY's Anti-Submarine Warfare Officer is charged with maintaining the PMAP program. The PMAP program is re-installed every thirty days to ensure DEWEY is using the most recent version. The report is generated, reviewed, and signed by the Commanding Officer prior to all exercises and unit-level training requiring PMAP. The

report is briefed to all controlling station withstanders to ensure compliance. The PMAP software is effortless to use and requires little time to generate an appropriate report. All signed PMAP reports are kept on hand as a record for two years.

4.6 SONAR Positional Report System. DEWEY used the new web based forum for all SONAR Positional Reports System (SPORTS) submissions. If IP services are not available, then a record message is generated and transmitted offship. For the USS CARL VINSON Carrier Strike Group C2X/JTFEX 14-1, DEWEY accounted for over 180 hours of active SONAR time using the web based SPORTS site. Our reporting efforts allowed NMAWC to produce a detailed report on how marine mammal life encounters affect ships in tactical environments. MSAT 4.0 training is completed for the crew annually. All lookouts understand the requirements of reporting marine mammal sightings. This ensures applicable information is incorporated in SPORTS submissions along with detailed descriptions of DEWEY's mitigation actions.

4.7 Environmental Awareness. DEWEY is committed to protecting the environment and preserving our natural resources as much as possible. During command indoctrination, all personnel are briefed on proper procedures for trash disposal onboard. DEWEY's preservation plan includes cross-departmental coordination to ensure no materials such as lagging materials, decking materials, cleaning supplies, and HAZMAT are wasted.