

**AWARD NARRATIVE  
EVALUATION CRITERIA FOR  
ENVIRONMENTAL QUALITY-LARGE SHIP AWARD**

**1. Introduction.** FRANK CABLE (AS 40) is an EMORY S. LAND class submarine tender with a hybrid crew of 950 Navy Sailors and 156 Civilian Mariners from the Military Sea Lift Command (MSC). The ship is home ported in the pristine waters of Apra, Guam. FRANK CABLE's mission is to conduct maintenance and provide repair parts and supplies in support of submarines deployed to the FIFTH and SEVENTH Fleet area of responsibility. Over the past two years, FRANK CABLE's 53 specialized repair shops completed 12 continuous maintenance availabilities (CMAV), 120 voyage Repair availabilities and 22 remote-site Fly Away teams encompassing over 7,000 jobs and 300K man-hours of quality work. MSC brings to our Navy Team specialists in engineering, deck, logistics and personnel services. It is imperative that FRANK CABLE's crew ensures her actions do not harm Guam's attractive beaches and untouched marine ecosystems that draw thousands of tourists every year.

**2. Background**

**2.1 Environmental challenges.** USS FRANK CABLE operates in a sensitive marine ecosystem with extensive regulations enacted to protect the coral reefs. FRANK CABLE completed nine underway periods to include: Hong Kong, Saipan, Malaysia, Thailand, Subic Bay, Cebu Republic of the Philippines, Yokosuka, Japan, Portland, Oregon, Pearl Harbor and Hawaii sailing over 26,200 miles with minimal environmental impact. In addition, Guam opened a new landfill which has significantly increased the disposal restrictions of solid waste.

**2.2 Environmental Management, Organization and Staffing.** Ultimately, environmental management is the responsibility of all hands. The Safety Officer is designed by the Commanding Officer as the Afloat Environmental Protection Coordinator (AEPC). The Chief Mate oversees the proper executive of quarterly spill response drills. The Chief Engineer plays a significant role in ensuring that the Collection, Holding, and Transfer (CHT) system and Oily Water Separator (OWS) stays properly maintained and our boilers are kept in good operating condition to limit emissions. The Fire Marshall maintains Spill Response Kits (SRK) and Supply Department oversees the proper disposal of Hazardous Waste.

**2.3 Environmental guidance, Plans and Agreements.** Command policies are easily accessible via every terminal connected to the ship's Intranet. FRANK CABLE's environmental guidance comes

from OPNAVINST 5090.1C, COMSCINCT 5090.1C, and numerous Safety Management Systems (SMS) instructions. Specific guidance for HAZMAT is outlined in FRANK CABLE INSTRUCTION 5100.21 of 09 Oct 2009 and in SMS instruction. Spill contingency plans are reviewed and updated as needed during each quarterly drill.

### **3. Program Summary**

#### **3.1 Environmental Quality and Degree of Attainment.**

**Inspections:** FRANK CABLE was audited in December 2010, April 2011, October 2012, and July 2013 by MSC Safety Specialists using MSC Checklist 12.1-001-02-ALL, Environmental Assessment Checklist. FRANK CABLE passed each inspection.

**Water consumption:** The Chief Engineer submits a daily "noon report" to the Commanding Officer advising if consumption levels have increased above normal.

**Mileage Reduction in Voyage Planning:** The ship's navigator ensures that underway voyages are reviewed and revised to reflect minimum mileage from Point A to Point B. This ultimately helps with fuel conservation. Frank Cable has a fuel efficient RPM of 110 RPM. This allows for the vessel to achieve optimal movement and fuel efficiency at the same time.

**Steam Plant Configuration:** Inherently, USS Frank Cable has an environmentally conscious engine room plant utilizing and recycling water and steam throughout the plant.

**Training:** All hands receive environmental training during Fleet Indoctrination Training (FIT) Class and annual training is presented to the crew via the closed circuit television. The Environmental Compliance Board (ECB) meets quarterly to discuss spill response procedures, pollution prevention, hazardous materials and proper waste disposal.

#### **3.2 Most Outstanding Program Features in the Past Two Years.**

**OWS:** FRANK CABLE installed a new U.S. Coast Guard (USCG) certified OWS to separate oil from bilge water before being discharged overboard and thus preventing the undesirable transfer of waste oil to the marine environment. The Oil Content Monitor (OCM) diverts the discharge of anything greater than 15 parts per million (PPM). The Engineering Department ensures the equipment is in proper working order, that the OCM is properly calibrated in accordance with manufacturer's instructions, and equipment is routinely inspected for damage,

deterioration, missing or inoperative parts and unusual noise, vibration and temperature. The Chief Engineer ensures that the ship complies with USCG approved oil transfer procedures.

**Paint Application and Removal Policy:** FRANKCABLEINST 5103.1 was signed March 2013 to minimize aggressive paint removal techniques and prevent lead dust from becoming airborne. Prior to painting, ship's personnel shall request an X-ray fluorescence (XRF) "lead sampling" test. Paint that tests positively for lead (any amount) is deferred to a shipyard for abatement and removal. FRANKCABLEINST 5103.1 requires lead based paint to be removed manually (e.g., by chipping, scraping, or wet sanding method) or through the use of power tools equipped with high-velocity, low-volume HEPA vacuum systems. The use of non-ventilated power tools is prohibited. Paint chips and dust are required to be collected with a HEPA filtered vacuum cleaner, or when vacuuming is not feasible, with wet rags. Personnel shall not dry sweep or blow down surfaces with compressed air. Paint chips shall be collected, labeled and disposed of properly through our Hazardous Material Inventory Control System (HICS) as hazardous lead contaminated, waste. Brush and roller painting is used exclusively for paint application to minimize airborne chemicals and to reduce the potential for environmental spills. Duty personnel and MSC deck department are trained to report sheen sightings, the locations of Spill Kits and the proper manner in which to prevent spills.

**HAZMAT Storage:** FRANK CABLE purchased and installed two state of the art temporary HAZMAT Storage buildings that can provide storage for up to four submarines at one time. They have automatic fire suppression systems, alarm systems, sumps with drain fittings to contain spills, climate control and a 4-hour fire rating.



#### **4. Accomplishments**

**4.1 Air Pollution Control.** FRANK CABLE engineers maintain a high quality refrigerant leak detection protocol that has

ensured no reportable release of chlorofluorocarbons (CFCs) into the environment during FY11-13. They utilize SMS, 2.2-001-ALL, Ozone Depleting Substances and Refrigeration Usage Management. FRANK CABLE had numerous exterior areas that contained lead based paint. Over the past two years, lead paint has been removed from the forward cargo handling area, main deck, weather deck, bulkheads and overheads. Paint that tests positively for lead (any amount) is deferred to a shipyard for abatement and removal. If the paint is negative (no trace amount) it is removed by Navy personnel or by MSC per FRANK CABLE's Paint Application and Removal Policy. Proper lead containment and disposal is enforced to ensure that it does not affect the health of our crew or become airborne.

#### **4.2 Water Pollution Control.**

**4.2.1 CHT System Management Practices.** The last cleaning of the entire CHT system was in February 2012. FRANK CABLE has had zero spills and no personnel casualties.

**4.2.2 Successful Spill Prevention.** FRANK CABLE's Oil/Hazardous (OHS) Spill/Discharge response plan is outlined in MSC's Integrated Vessel Response Plan (VRP) for Tank Vessels, 8.18-001-SQ. MSC personnel in conjunction with Navy duty section personnel conduct quarterly training on notification and reporting requirements, shipboard mitigation procedures, shore side response activities, exercise requirements, and emergency response. The Spill Response Checklist is updated by the Chief Mate and AEPC. Navy and MSC Department Heads were briefed at the quarterly Environmental Compliance Board (ECB) on correct procedures and notifications for spill response. Copies of this checklist are kept both on the bridge and with the Command Duty Officer (CDO). FRANK CABLE did not have a reportable oil or hazardous substance spill in the last two years.

**4.2.3 Oily Waste Management.** FRANK CABLE installed a new OWS to separate oil from bilge water before being discharged overboard and thus preventing the undesirable transfer of waste oil to the marine environment. The OCM diverts the discharge of anything greater than 15 parts per million (PPM). While in port, the ship disposes of bilge water by pumping to a permanent shore reception facility, using its installed OWS.

#### **4.3 Solid Waste Management and Resource Recovery.**

**4.3.1 Solid Waste Management Practices.** Solid waste is disposed of through the appropriate shore facility while FRANK

CABLE is in port. At sea, solid waste is segregated at the lowest level and disposed of in accordance with SMS 202-016-ALL, Shipboard Garbage Management Procedures and OPNAVINST 5090.1C. While visiting non-Navy ports, the ship requests sewage reception facilities in LOGREQs. Medical Waste is consolidated by the Health Services Department for medical waste generated on board FRANK CABLE, as well as, their tended units. It is transported to Naval Hospital Guam for proper disposal.

**4.3.2 Source Reduction Techniques.** MSC Steward Department pre-calculates the amount of food crew members consume during each meal to conserve man hours, power and water consumption.

**4.3.3 Recovery Recycling Techniques.** FRANK CABLE completed a seven month Dry Dock Planned Maintenance Period in Portland from January to July, 2012 where over 30 tons of steel was recycled.

**4.4 Hazardous Material (HM)/Hazardous Waste (HW) Management.** The primary goal and function of our Navy and MSC Supply Departments are to conform to Navy policy and minimize the amount of new HM that is brought on board. Prior to procuring HM, personnel shall verify that the material they need is not already available in HICS. This policy ensures both effective fiscal management and on board quantity control which is a direct link to SAFETY. Our storerooms diligently follow an effective shelf-life program, issuing HM on a first-in/first-out basis. Personnel are only allowed to store HM in satellite lockers when they can justify its need. Satellite locker inventory sheets are reviewed by the Safety Officer to ensure that HM is being properly stowed. Sailors shall return used HM to HICS to ensure HW is properly disposed of. Sailors are trained to not accept HM that is not properly labeled, does not contain a Hazardous Compatibility Code (HCC), or is not accompanied by a material safety data sheet (MSDS). The Safety Department along with HICS personnel conduct monthly satellite locker inspections and quarterly storeroom inspections using Navy (INSURV) checklists. The inspections resulted in 100% compliance of fulfilling items required in spill response kits (AEL 2-55MSC8001) and incompatible materials being properly stored. We have not had a HM spill or HM health related incident in the last two fiscal years.

**4.5 Protective Measures Assessment Protocol (PMAP).** The PMAP is integrated for training purposes prior to conducting all gunfire evolutions using medium and large cal, 20mm - 5 in. Lookouts are posted and briefed to report and secure the evolution in the presence of marine mammals and sea turtles.

The MOW is briefed to maneuver this ship to keep at least 200 yards away from any observed sea turtle and marine mammal. Six successful gunfire evolutions were performed without incident over the past two fiscal years.

**4.6 SONAR Positional Report System (SPORTS).** Not Applicable

**4.7 Environmental Awareness.** As evidenced by FRANK CABLE receiving the 2010 Environmental Stewardship Award, crewmembers unselfishly volunteered significant effort and personal time in activities that protect the island of Guam and other areas from environmental threats. 175 crew members donated 925 hours towards Guam beach clean up. They spent 60 hours cleaning and cutting grass in Hong Kong and 80 hours of trash removal and tree planting in Subic Philippines. FRANK CABLE'S "capstone" environmental project this year included 203 Sailors and family members dedicating over 1,100 hours on a seven-month project with Guam National Wildlife Refuge (GNWR) cutting a one mile nature trail. The University of Guam, Biology and Archeology Departments currently use the trail as an outdoor laboratory. The US Department of Agriculture uses the trail for access to control the destructive Rhinoceros Beetle. Scientists are also using the trail to capture and study the brown tree snake that threatens the native bird population. While on the project, our Sailors discovered an unexploded Japanese WWII grenade, they calmly and professionally cleared the area, ceased working, and notified EOD. The project was part of the GNWR's 15-year plan, but was a project for which they did not have the funding nor the manpower. In all, FRANK CABLE efforts saved GNWR over \$16,000 and will prove beneficial to the environment for years to come.



During the past two years, FRANK CABLE has fostered a culture of Safety and Environmental excellence. Safety is the CO's #1 priority and the ship's environmental compliance program is woven into the Safety program's philosophy which is why it is equally successful.