



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Pacific Islands Fisheries Science Center
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Final Project Instructions

Date Submitted: March 09, 2016
Platform: NOAA Ship *Hi'ialakai*
Project Number: HA-16-03 (OMAO)
Project Title: Hawaiian monk seal population assessment
Project Dates: April 17, 2016 to May 13, 2016

Prepared by:  Dated: March 14, 2016

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Approved by:  Dated: 3/15/16

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Approved by:  Dated: 3/15/16

Commander Matthew J. Wingate, NOAA
Commanding Officer
Marine Operations Center – Pacific Islands

I. Overview

A. Brief Summary and Project Period

B. Days at Sea (DAS)

Of the 27 DAS scheduled for this project, 27 DAS are funded by an OMAO allocation, 0 DAS are program funded. This project is estimated to exhibit a high Operational Tempo.

C. Operating Area (See Appendix 1)

The operating area includes the main Hawaiian Islands (MHI) and Papahānaumokuākea Marine National Monument from the island of Hawaii to Kure Atoll with Hawaiian monk seal surveys and/or camp deployments at Ni'ihau Island, Nihoa Island, Necker Island, French Frigate Shoals, Laysan Island, Lisianski Island, Pearl and Hermes Reef, Midway Atoll, and Kure Atoll.

D. Summary of Objectives

The main objectives for HA-16-03 are:

1. Deploy Hawaiian monk seal camps at French Frigate Shoals, Laysan Island, Lisianski Island, Pearl and Hermes Reef and Kure Atoll.
2. Conduct monk seal surveys at Ni'ihau, Nihoa, and Necker Islands, and Midway Atoll.
3. Perform retagging and opportunistic health assessment and sampling of seals at all sites visited.
4. Transport Hawaiian monk seals between a rehabilitation facility in Kona on the island of Hawaii and NWHI sites.
5. Deliver supplies to Kure Atoll for the Department of Forestry and Wildlife (DOFAW), Department of Land and Natural Resources (DLNR), State of Hawaii.
6. Marine debris surveys and removal operations at Kure Atoll, Midway Atoll, Pearl and Hermes Atoll, Laysan Island, Lisianski Island, and French Frigate Shoals.
7. Deploy and recover a High-frequency Acoustic Recording Package (HARP) near Kona (off the island of Hawaii) as time allows.

E. Participating Institutions

Hawaiian monk seal research program of the Protected Species Division of the NOAA Pacific Islands Fisheries Science Center (HMSRP/PSD/PIFSC); the Coral Reef Ecosystem Project of PIFSC (CREP/ESD/PIFSC), Joint Institute for Marine and Atmospheric Research (JIMAR).

F. Personnel/Science Party: name, title, gender, affiliation, and nationality

Name (Last, First)	Title	Date Aboard	Date Disembark	Gender	Affiliation	Nationality
Acoba, Tomoko	JIMAR Marine Debris Specialist	5/1/2016	5/13/2016	F	JIMAR	Japan. (USA permanent resident)
Barbieri, Michelle	Veterinarian	4/17/2016	5/12/2016	F	NOAA	USA
Barcina, Keelan	JIMAR biological research technician	4/17/2016	4/25/2016	M	JIMAR	USA
Bayless, Alexandra	JIMAR cetacean biologist	4/27/2016	5/13/2016	F	JIMAR	USA
Becker, Brenda	Biologist	4/17/2016 5/5/2016	4/24/2016 5/13/2016	F	NOAA	USA
Bohlander, Jessica	Field Research Supervisor /Chief Scientist	4/17/2016	5/13/2016	F	JIMAR	USA
Brack, Jon	JIMAR biological research assistant	4/17/2016 5/4/2016	4/25/2016 5/13/2016	M	JIMAR	USA
Burns, Mike	JIMAR response technician	4/17/2016	4/25/2016	M	JIMAR	USA
Chauvin, Matthew	JIMAR volunteer	4/17/2016	4/23/2016	M	JIMAR	USA
Dillon, Amanda	JIMAR Marine Debris Specialist	5/1/2016	5/13/2016	F	JIMAR	USA
Dolan, Brittany	JIMAR biological research assistant	4/17/2016	4/24/2016	F	JIMAR	USA
Duffy, Maureen	JIMAR biological research technician	4/17/2016	4/29/2016	F	JIMAR	USA
Garriques, Joao	JIMAR Marine Debris Specialist	5/1/2016	5/13/2016	M	JIMAR	USA
Hilliard, Genevieve	JIMAR volunteer	4/17/2016	4/21/2016	F	JIMAR	USA
Hughes, Olivia	JIMAR Marine Turtle Technician	4/17/2016	4/21/2016	F	JIMAR	USA
Johanos, Thea	Biologist	4/17/2016 5/7/2016	4/23/2016 5/13/2016	F	NOAA	USA
Kaufman, Angela	JIMAR veterinary technician	4/17/2016 5/1/2016	4/28/2016 5/12/2016	F	JIMAR	USA
Kelly, Kristin	JIMAR Marine Debris Specialist	4/27/2016	5/13/2016	F	JIMAR	USA
Lyons, Kerry	JIMAR Marine Turtle Technician	4/17/2016	4/21/2016	F	JIMAR	USA
Morioka, James	JIMAR Marine Debris Operations Lead	4/27/2016	5/13/2016	M	JIMAR	USA
Nichols, Ross	JIMAR biological research assistant	4/17/2016	4/21/2016	M	JIMAR	USA
Nimz, Ilana	JIMAR biological research technician	4/17/2016	4/24/2016	F	JIMAR	USA
Portner, Liat	JIMAR Marine Debris Specialist	4/27/2016	5/13/2016	F	JIMAR	USA
Ronco, Hope	JIMAR biological research technician	4/17/2016	4/23/2016	F	JIMAR	USA
Slater, David	JIMAR Marine Debris Specialist	4/27/2016	5/13/2016	M	JIMAR	USA
Smith, Michelle	JIMAR volunteer	4/17/2016	4/23/2016	F	JIMAR	USA
Suka, Rhonda	JIMAR Marine Debris	4/27/2016	5/13/2016	F	JIMAR	USA

	Specialist					
Surgent, April	JIMAR volunteer	4/17/2016	4/25/2016	F	JIMAR	USA
Sullivan, Mark	JIMAR response technician	4/17/2016	4/21/2016	M	JIMAR	USA
Tabata, Ryan	JIMAR Marine Debris Specialist	5/1/2016	5/13/2016	M	JIMAR	USA
Westrbook, Charley	JIMAR Marine Debris Specialist	4/27/2016	5/13/2016	M	JIMAR	USA
White, Laura	JIMAR biological research assistant	4/17/2016	4/25/2016	F	JIMAR	USA
Younstrom, Sadie	JIMAR biological research technician	4/17/2016	4/21/2016	F	JIMAR	USA

G. Administrative

1. Points of Contacts:

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2. Diplomatic Clearances

None Required.

3. Licenses and Permits

This project will be conducted under the Scientific Research and Enhancement Permit (U.S.) Nos. 16632-00 and 18786 issued per the Endangered Species Act and Marine Mammal Protection Act by NMFS Office of Protected Resources to the PIFSC; Conservation and Management Permit PMNM-2016-001 issued by the Papahānaumokuākea Marine National Monument (PMNM) to the PMNM CoTrustees (NOAA, USFWS, and the State of Hawaii); and Conservation and Management Permit PMNM-2016-006 issued by PMNM to Commanding Officer, NOAA ship *Hi'ialakai*.

NEPA: An Environmental Assessment (EA) for Research Activities Conducted by the Coral Reef Ecosystem Division, PIFSC, 2010-2015, and Finding of No Significant Impact (FONSI) signed May 7, 2010. (http://www.pifsc.noaa.gov/nepa/CRED_Programmatic%20Environmental%20Assessment_Final.pdf).

ESA: On March 28, 2011, PIRO PRD concurred with a “may affect, not likely to adversely affect” determination that was made by CRED. This determination was based, in part, on best practices that would be carried out during debris removal activities as described in 2011 Biological Evaluation.

II. Operations

The following plans can be considered only a guide as to how the Chief Scientist intends the surveys to progress without being able to predict the weather, operational and scheduling problems, and equipment failures. In particular, it should be noted that the amount of time required at each of the working areas is approximate and may be altered, based on weather or the progress of the survey.

The Chief Scientist is responsible for ensuring the scientific staff are trained in planned operations and are knowledgeable of project objectives and priorities. The Commanding Officer is responsible for ensuring all operations conform to the ship's accepted practices and procedures.

This itinerary is PRELIMINARY and may be modified based on days allocated, personnel needs, coordination with Midway flights, etc.

A. Project Itinerary:

17 April **Pearl Harbor:** Embark 22 scientists: Barbieri, Barcina, Becker, Bohlander, Brack, Burns, Chauvin, Dolan, Duffy, Johanos, Hilliard, Hughes, Kaufman, Lyons, Nichols, Nimz, Ronco, Smith, Sullivan, Surgent, White, Youngstrom, and 7 seals. Depart Ford Island, Pearl Harbor en route to Ni'ihau Island.

- 18 April **Ni'ihau Island:** Early morning arrival at Ni'ihau Island. Launch inflatable small boat to transport personnel to shore to conduct monk seal survey. Small boat returns to ship and launch with release seal team and one rehabilitated seal. Recover small boat. Transit to Lehua rock and launch small boat with second survey team conduct survey of Lehua rock. Secure operations at Lehua Rock, recover personnel and small boat. Transit to initial launch point to recover shore team. Depart Ni'ihau en route to Nihoa Island.
- 19 April **Nihoa Island:** Morning arrival at Nihoa Island. Launch inflatable with survey team to conduct monk seal survey and remote camera recovery on main beach and West Ledge. Afternoon, recover small boat and survey team, depart en route to Mokumanamana Island.
- 20 April **Mokumanamana Island:** Morning arrival at Mokumanamana Island. Launch inflatable with survey team to conduct monk seal survey. Afternoon secure operations depart Mokumanamana en route to French Frigate Shoals. Fill 120 water jugs en route.
- 21 April **French Frigate Shoals:** Morning arrival at FFS. Disembark Sullivan, Youngstrom, Nichols, Hilliard, Hughes, and Lyons, and deploy additional day personnel to assist in camp set up. Offload equipment and supplies including 1 17-ft Boston Whaler, 1 6-m RHIB, 9 55-gal drums of gasoline, 8 bins frozen bait, TBD propane tanks, and 170 5-gal water jugs. Possible transport and release of 3 rehabilitated seals. Afternoon, recover shore personnel and depart en route to Laysan Island. Fill 100 water jugs en route.
- 22 April **Transit**
- 23 April **Laysan Island:** Morning arrival at Laysan Island. Disembark Ronco, Smith, Chauvin, and Johanos and deploy additional personnel to assist with camp set up. Offload equipment and supplies including 4 pallet tubs, buckets, and 100 5-gal water jugs. Recover shore personnel. Afternoon depart Laysan Island en route to Lisianski Island. Fill 70 water jugs en route.
- 24 April **Lisianski Island:** Morning arrival at Lisianski Island. Disembark Nimz, Dolan, and Becker, and deploy additional personnel to assist with camp set up. Offload equipment and supplies including 4 pallet tubs, buckets, and 70 5-gal water jugs. Possible transport and release of 2-3 rehabilitated seals. Afternoon, recover shore personnel and depart Lisianski en route to Pearl and Hermes Reef. Fill 120 6-gallon water jugs en route.
- 25 April **Pearl and Hermes Reef:** Morning arrival at PHR. Disembark Barcina, Brack, Burns, White, and Surgent and deploy additional personnel to assist with camp set up. Offload equipment and supplies including one 5-meter inflatable boat, one 5.5-meter RHIB, 5 pallet tubs, buckets, 100 5-gal water jugs, and 7 55-gallon drums of gasoline. Afternoon, recover shore personnel.

- 26 April **Pearl and Hermes Reef:** Continue offload if necessary. Deploy shore team to survey and tag seals. Afternoon, depart en route to Midway Atoll. Fill 60 water jugs en route.
- 27 April **Midway Atoll:** Morning arrive Midway cargo pier. Deploy shore team to retag seals and survey at Eastern, Spit, and Sand Islands. Embark Morioka, Suka, Slater, Westbrook, Kelly, and Portner. Load marine debris and equipment. Offload 7 empty drums for fuel transfer. Possible collection of monk seal rehabilitation candidates. Overnight at cargo pier.
- 28 April **Midway Atoll:** Load 17 55-gallon drums of gasoline (previously staged at Midway). Conduct seal surveys. Possible collection of monk seal rehabilitation candidates. Disembark Kaufman. Afternoon, depart for Kure Atoll.
- 29 April **Kure Atoll:** Morning arrival at Kure Atoll. Disembark Duffy and deploy additional personnel to assist with camp set up. Offload NMFS and DLNR gear. Possible transport and release of rehabilitated seal. Fill 50 water jugs from island. Afternoon, recover shore personnel.
- 30 April **Kure Atoll:** Continue offload if necessary. Deploy shore team to survey, retag seals and collect marine debris. Load marine debris from shore. Possible collection of monk seal translocation candidates. Afternoon, recover shore personnel. Afternoon, depart en route to Midway Atoll.
- 1 May **Midway Atoll:** Morning arrival at cargo pier. Load additional marine debris. Deploy shore team to retag seals and survey at Eastern, Spit, and Sand Islands. Embark Garriques, Dillon, Acoba, Tabata, and Kaufman. Afternoon, departure en route to Pearl and Hermes Reef.
- 2 May **Pearl and Hermes Reef:** Arrive Pearl and Hermes Reef. Deploy shore team to retag seals. Deploy marine debris team to collect shore debris. Possible collection of monk seal translocation candidates. Offload 4 drums gasoline. Load land debris. Afternoon, recover shore personnel.
- 3 May **Pearl and Hermes Reef:** Continue work at PHR. Deploy shore team to retag seals. Deploy marine debris team to collect shore debris. Possible collection of monk seal translocation candidates. Load land debris. Afternoon, recover shore personnel.
- 4 May **Pearl and Hermes Reef:** Continue work at PHR. Deploy shore team to retag seals. Deploy marine debris team to collect shore debris. Possible collection of monk seal rehabilitation candidates. Load land debris. Embark Brack. Afternoon, depart en route to Lisianski Island.
- 5 May **Lisianski Island:** Morning arrival at Lisianski Island. Deploy shore team to retag and sample seals. Deploy marine debris team to collect land debris.

- Load land debris. Possible collection of monk seal rehabilitation candidates. Embark Becker. Afternoon, recover shore personnel and depart en route to Laysan Island.
- 6 May **Laysan Island:** Morning arrival at Laysan Island. Deploy shore team to retag and sample seals. Deploy marine debris team to collect land debris. Load land debris. Possible collection of monk seal rehabilitation candidates. Afternoon, recover shore personnel.
- 7 May **Laysan Island:** Continue work at Laysan Island. Deploy shore team to retag and sample seals. Deploy marine debris team to collect land debris. Load land debris. Possible collection of monk seal rehabilitation candidates. Embark Johanos. Afternoon, recover shore personnel and depart en route to French Frigate Shoals.
- 8 May **Transit**
- 9 May **French Frigate Shoals:** Arrive French Frigate Shoals. Offload 10 drums of gasoline. Deploy shore team to retag and sample seals. Possible collection of monk seal rehabilitation candidates. Afternoon, recover shore personnel and depart en route to Kona. If no rehab seals were collected, additional surveys will be done at Nihoa or Mokumanamana instead of going to Kona.
- 10 May **Transit**
- 11 May **Transit**
- 12 May **Kona:** If rehab seals were collected at any site, they will be taken to the rehabilitation facility in Kona. Arrive Honokohau Harbor. Deploy small boat and seal team with juvenile seals to meet seal team on shore. Disembark Barbieri and Kauffman if seals are being dropped off. Depart en route to Pearl Harbor after seal transfer is complete.
- 13 May **Pearl Harbor:** Arrive Ford Island, Pearl Harbor. End of Project.

Note: The return (eastbound) itinerary is assuming that monk seal translocation candidates will be present and collected at some sites. If that is not the case, the ship will not go to Kona and the extra time will be used to conduct additional surveys and sampling at a site or sites decided upon by the chief scientist, operations lead, commanding officer, and operations officer.

B. Staging and Destaging:

Staging Plan – On April 4, 2016 offload chamber and load 20’ container at Kilo pier to boat deck. On 11, April, load 10ft container and boat cradles at F pier onto fantail. On 13-15 April, begin loading all other supplies and equipment including boats, 1000 gallons of gasoline, 20 empty fuel drums, ~20 pallet tubs, ~3 cages of propane cylinders 5 seal cages, and 30 nitrogen dewars w/liquid nitrogen. Continue loading

large supplies and equipment 13-15 April. Scientists continue loading hand-carried gear. 7 Seals will be loaded on departure day, April 17.

Destaging Plan - On 13 May offload 20' container and load chamber at Kilo pier. 16-17 May, ship's crane and operator support will be needed to offload scientific gear and equipment onto the pier, including 10ft container, 2 boats, seal cages, and propane cages.

The Chief Scientist and Operations Lead will coordinate staging and destaging operations with the *Hi'ialakai* Operations Officer.

C. Operations to be conducted:

The Chief Scientist has the authority to revise or alter the technical portion of the instructions as work progresses, provided that, after consultation with the Commanding Officer, it is ascertained that the proposed changes will not (1) jeopardize the safety of personnel or the ship, (2) exceed the overall time allotted for the project, (3) result in undue additional expenses, and (4) alter the general intent of the project instructions. In addition, the Chief Scientist must notify the Office of the Science Director of the Pacific Islands Fisheries Science Center at the earliest opportunity prior to making (1) deviations from the general project track or area of operations noted in the project instructions, (2) changes or additions of research operations to those specified in the project instructions, or (3) port calls not specifically identified in the project instructions.

Hawaiian monk seal field camp deployment

HMSRP teams will be establishing field camps at French Frigate Shoals, Laysan Island, Lisianski Island, Pearl and Hermes Reef, and Kure Atoll. The project will also transport supplies for DLNR at Kure Atoll. All field gear, including pallet tubs, buckets, pelican cases, fuel drums, propane cylinders, and nitrogen dewars will be transferred from r/v *Hi'ialakai* to shore using small boats.

Hawaiian monk seal opportunistic surveys, retagging, and sampling

Hawaiian monk seal surveys will be conducted at Midway Atoll, Nihoa, Necker, and Ni'ihau Islands by HMSRP scientists. Personnel will be transferred to shore for surveys using small boats. At all sites, opportunistic seal retagging and sampling will be conducted.

Hawaiian monk seal translocations

Up to six juvenile seals will be transported from a rehabilitation facility in Kona (via Honolulu) to sites in the NWHI. A seventh may be transported to Ni'ihau. Sites of release in the NWHI will be determined by HMSRP staff and discussed with ship personnel prior to the project with secondary sites identified in the event of a schedule change or weather disruption. Up to eight Juvenile Seals will be transported from a yet undetermined NWHI site to Kona. The collection site will be determined by field teams that are deployed on the westbound leg and will not be confirmed until all camps have been deployed. The existence

of candidates at Midway will be determined once staff is on site at Midway. Small boats will be used to move seals to and from islands and the ship in stretcher nets and or large kennels. Once on board the ship, the seals will be held in cages on the aft deck. While seals are on deck, limited access will be allowed to maintain quarantine around seals. Seals will be monitored by scientists 24 hrs while on the ship. Chief scientist and operations lead will meet with commanding officer and operations officer to determine if changes need to be made to the return leg itinerary based on existence and locations of monk seal rehabilitation candidates.

HARP

The project will support the PSD Cetacean Research Program by opportunistically recovering and deploying High-frequency Acoustic Recording Packages (HARPs) off the island of Hawaii near Kona. This will be accomplished by acoustically releasing the HARP. Once the package is spotted at the surface, recovery will be done directly by the ship using the aft crane or by small boat, to be determined by the Chief Scientist, Chief Boatswain, and Operations Officer. HARP location is 19-34.985 N, 156-00.939 W.

Marine Debris Operations

Marine debris teams will conduct shoreline survey efforts, following a slightly modified version of the standardized shoreline-survey protocol established by the NOAA Marine Debris Program. At French Frigate Shoals, Lisianski Island, Laysan Island, Pearl and Hermes Reef, Midway Atoll and Kure Atoll, teams of marine debris field technicians will focus on surveying and removing derelict fishing gear (DFG) and potential 2011 Japan Tsunami debris, and opportunistically survey the shorelines of the islands from the vegetation line to the water's edge for various types of debris with a focus on DFG and plastics (> 10 cm long). This is an attempt to determine what type of marine debris is most prominently entering the NWHI. Large notable items that are left in place will be tagged and identified for future efforts and to determine if it may be associated with the 2011 Japan Tsunami. Any potential Japan Tsunami debris will be documented and reported to the Japan Tsunami Marine Debris Assessment and Response Framework Subject Matter Expert Group for the NWHI.

Along with the survey and removal of DFG and plastics, a micro-plastic (< 5 mm) surface water trawl study and meso-plastic (5 mm – 2.5 cm) shoreline study (where applicable) may be conducted at French Frigate Shoals, Lisianski Island, Laysan Island, Pearl and Hermes Atoll, Midway Atoll and Kure Atoll opportunistically, as time allows. These trawls would be towed from the marine debris small boats. For the micro-plastic surface water trawl survey, the marine debris teams will apply a manta-trawl technique, a method that accurately and efficiently samples surface waters for micro-plastics and plankton. The micro-plastic samples will be brought back to Honolulu and sent to external partners for further laboratory analysis. The meso-plastic shoreline surveys will be conducted by surveying randomly selected locations at each island, and collecting a 0.025 m³ sample of shoreline at the high-tide line, the wrack-line, and one meter from the vegetation line. The samples will be sieved on-scene for meso-plastics, and the plastics will be brought back to Honolulu for further analysis.

D. Dive Plan

No Dives are planned for this project.

E. Applicable Restrictions

Conditions which preclude normal operations: Poor weather conditions, equipment failure, safety concerns, and/or unforeseen circumstances, may alter or prohibit operations as planned. At these times, the Chief Scientist, Operations Lead, and Commanding Officer will determine the appropriate plan of action.

1. "Take" of Protected Species

- a. Under the Marine Mammal Protection Act and Endangered Species Act it is unlawful to take a protected species. The MMPA defines take as "harass, hunt, capture, kill or collect, or attempt to harass, hunt, capture, kill or collect." The ESA defines take as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." An incidental take is one that incidental to, but not the purpose of, otherwise lawful activities.
- b. In the event of an incidental take of a marine mammal or federally listed threatened or endangered species during the project, the chief scientist will report the incident to the PIFSC Director and Deputy Director IMMEDIATELY via IRIDIUM, INMARSAT, and email. Samples should not be collected from any incidentally taken marine mammals, sea turtles, or seabirds. Photos of the incidentally caught animal should be taken to properly identify the species, but the process of taking the photos must not contribute to the further injury of the animal. These photos are for the purposes of internal NMFS verification only, and must not be shared outside of PIFSC or the Office of Protected Resources (i.e., do not post the photos on the internet).
- c. PIFSC has developed mitigation measures for our fisheries and ecosystem research projects to avoid take and comply with the Lecky, Murawski, and Merrick guidance. A copy of these documents is available at <https://sites.google.com/a/noaa.gov/pifsc-science-operations/home/nepa-permits/protected-species-mitigation-measures> and on the ship's bridge.

III. Equipment

A. Equipment and Capabilities provided by the ship (itemized)

Equipment: To successfully meet the project objectives, the scientific compliment aboard will need the ship to provide the items listed below. Prior to sailing, the ship's crew will inspect these items to ensure they are in proper working order for the project:

- Deck Crane
- Small boats capable of transporting equipment and gear from ship to shore
- Handheld VHF radios for ship's small boats
- Global Positioning System units for small boats
- Storage of up to 1000 gallons at a time of non-ethanol gasoline
- Scientific Computer System

- Adequate fresh water for gear wash down of boats and equipment and filling up to 600 6-gallon water jugs
- Iridium phone
- Scientific freezer for storage of bait, specimens, and equipment.
- Freezer space for storage of up to 12 100qt coolers frozen food.
- 1 1 inflatable boat (for transporting gear to shore)
- Acoustic Doppler Current Profiler (ADCP)
- Scientific Computer System (SCS)
- ThermoSalinoGraph (TSG)
- Sea Surface Sound Velocity (SSSV)
- Wet Lab faucets and drains
- Field lunches for scientific personnel

Capabilities: It is requested that the ship provide the following:

- Permission for Scientists to ready scientific work spaces and set up gear seven days prior to departure.
- Assistance from the ship's Deck Department in craning and staging large gear during loading.
- Support from the Engineering and Deck departments prior to sailing to transfer TBD gallons of program-provided gasoline into the ship's hip tanks to be used as outboard engine fuel during the project and to be deployed to field camps. The gasoline will be delivered by truck and may be pumped directly into the deck tanks and drums. Empty drums will be provided to pump gas into to deploy to the islands.
- Small boats (metal shark and inflatable) and coxswain support (3 capable of landing small boats on shore) will be needed for transfer of personnel and equipment to islands.

B. Equipment and Capabilities provided by the scientists. Full cargo list is presented in *Appendix x* (Attached).

- 8 bins bait
- ~1200 5gal buckets – stored in 20ft and 10ft container
- 4 freezers in pallet tubs
- 1 pallet plastic tables and cot boards
- ~ 25 pelican cases (various sizes)
- 2 rack tent poles
- 20 large pallet tubs field gear (4 ft by 4 ft)
- 5 5gal buckets refrigerated food
- 12 80 qt.coolers frozen food
- 30 36 liter nitrogen dewars
- 10 12v deep cycle batteries (in pallet tubs)
- 5 Honda generators
- 20 empty 55 gallon drums for gasoline
- 1850 gallons non-ethanol gasoline (1000 loaded in Honolulu, 850 loaded at Midway)

- 7 55-gallon drums gasoline (previously staged on Midway)
- 1 18ft RHIB (PHR)
- 1 5 meter inflatable boat (PHR)
- 1 6 meter RHIB (FFS)
- 1 17 ft Boston Whaler boat (FFS)
- 1 19ft Safeboat (for transporting gear to shore)
- 5 seal cages

IV. Hazardous Materials

A. Policy and Compliance

The Chief Scientist is responsible for complying with FEC 07 Hazardous Materials and Hazardous Waste Management Requirements for Visiting Scientific Parties (or the OMAO procedure that supersedes it). By Federal regulations and NOAA Marine and Aviation Operations policy, the ship may not sail without a complete inventory of all hazardous materials by name and quantity, MSDS, appropriate spill cleanup materials (neutralizing agents, buffers, or absorbents) in amounts adequate to address spills of a size equal to the amount of chemical brought aboard, and chemical safety and spill response procedures. . Documentation regarding those requirements will be provided by the Chief of Operations, Marine Operations Center, upon request.

Per OMAO procedure, the scientific party will include with their project instructions and provide to the CO of the respective ship 30 days before departure:

- List of chemicals by name with anticipated quantity
- List of spill response materials, including neutralizing agents, buffers, and absorbents
- Chemical safety and spill response procedures, such as excerpts of the program's Chemical Hygiene Plan or SOPs relevant for shipboard laboratories
- For bulk quantities of chemicals in excess of 50 gallons total or in containers larger than 10 gallons each, notify ship's Operations Officer regarding quantity, packaging and chemical to verify safe stowage is available as soon as chemical quantities are known.

Upon embarkation and prior to loading hazardous materials aboard the vessel, the scientific party will provide to the CO or their designee:

- An inventory list showing actual amount of hazardous material brought aboard
- An MSDS for each material
- Confirmation that neutralizing agents and spill equipment were brought aboard sufficient to contain and cleanup all of the hazardous material brought aboard by the program
- Confirmation that chemical safety and spill response procedures were brought aboard

Upon departure from the ship, scientific parties will provide the CO or their designee an inventory showing that all chemicals were removed from the vessel. The CO's designee will maintain a log to track scientific party hazardous materials. MSDS will be made available to the ship's complement, in compliance with Hazard Communication Laws.

Scientific parties are expected to manage and respond to spills of scientific hazardous materials. Overboard discharge of hazardous materials is not permitted aboard NOAA ships.

B. Inventory

Common Name of Material	Qty	Notes	Trained Individual	Spill control
Gasoline	1000 from Honolulu. 850 from Midway		Ship's engineers	G
Propane	55 tanks	Various sizes	Bohlander	PR
Formaldehyde (37%)	5 gallons		Bohlander	F
Isopropyl Alcohol (91%)	20 pints		Bohlander	AL
Liquid Nitrogen	30 x 34L dewars		Bohlander	LN
Betadine	2.5 gallons		Bohlander	B
DMSO	240 2ml vials 120 5ml vials		Bohlander	DMSO
Clorox Bleach	10 gallons		Bohlander	BL
Pool Time Shock XtraBlue 6 in 1 Pool Shock (primarily Sodium Dichloro-s-Triazinetrione-Dihydrate)	4.6 kg	Corrosive Contained in 101-lb bags within lidded 5-gal bucket	Morioka	P
12 v batteries	15		Bohlander, Morioka	A
Magnum .44 Caliber Shells	22 rounds	Store in secured area	Sullivan, Burns	

C. Chemical safety and spill response procedures

A: ACID

- Wear appropriate protective equipment and clothing during clean-up. Keep upwind. Keep out of low areas.
- Ventilate closed spaces before entering them.
- Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.
- **Large Spills:** Dike far ahead of spill for later disposal. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.
- **Small Spills:** Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
- Never return spills in original containers for re-use.

- Neutralize spill area and washings with soda ash or lime. Collect in a non-combustible container for prompt disposal.
- J. T. Baker NEUTRASORB® acid neutralizers are recommended for spills of this product.

AL: Alcohols

- Extinguish smoking lamp. Remove all sources of ignition.
- Wear appropriate PPE and clothing during clean up
- Ventilate closed spaces before entering them.
- Use absorbent socks to surround spills or divert fluid flow.
- Use vermiculite or kitty litter to soak up and absorb fluid.
- Do not use combustible materials such as saw dust.
- Use absorbent pads/diapers to wipe up the spill or a dustpan to sweep up vermiculite/kitty litter.
- Place used absorbents in plastic bag or pail.
- Clean surface thoroughly to remove residual contamination
- Bags containing used absorbents will be properly disposed of once the ship returns to port.

B: Betadine:

- Use absorbent material and dispose in a proper waste disposal container.
- Finish by spreading water on contaminated surface and use absorbent material to dispose of cleaning water.

BL: Bleach:

- Control spill. Containerize liquid and use absorbents on residual liquid; dispose appropriately.
- Wash area and let dry.
- Breathing protection should be worn in enclosed, and/or poorly ventilated areas until hazard assessment is complete.

DMSO:

- Combustible material. Keep away from heat. Keep away from sources of ignition.
- Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.
- Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

F: Formalin/Formaldehyde/Fixatives

- Ventilate area of leak or spill. Remove all sources of ignition.
- Wear appropriate personal protective equipment.
- Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible.
- Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container.
- Do not use combustible materials, such as saw dust.

G: Gasoline

- Evacuate nonessential personnel and remove or secure all ignition sources.

- Carefully contain and stop the source of the spill, if safe to do so. Do not flush down sewer or drainage systems, unless system is designed and permitted to handle such material.
- Take up with sand or other oil absorbing materials. Carefully shovel, scoop or sweep up into a waste container for reclamation.

LN: Liquid nitrogen

- Wear appropriate PPE (closed-toed shoes, cryogloves, goggles, long-sleeved and long-legged clothes are of particular importance.
- Ventilate area.
- Contain spill where safe to do so.
- Nitrogen is more harmful in its liquid state than in gaseous state, in a well-ventilated area. Minimally handle or interfere with the spilled LN, and allow it to sublime off after restricting personnel access to the contained spill area under will maintained ventilation.

P: Powdered Chlorine Salts

- Wear appropriate PPE (gloves, eyewear, dust mask, etc.) and clothing during clean-up.
- Ventilate area.
- Keep upwind. Avoid inhalation of salts, granules or dust.
- **Large Spills:** Sweep or scoop all spilled material, contaminated soil or other materials and place into clean, dry containers for disposal. Do not close containers containing wet or damp material. If wet or damp, container should be left open in a well-ventilated area to disperse any hazardous gases that may form. Once cleaned, neutralize/flood the spill area with large amounts of water as appropriate.
- **Small Spills:** Sweep or scoop up spilled material and add it to dive gear “disinfectant” rinse tote if available and full of water. If dive gear “disinfectant” rinse tote is not available, dispose of collected material into a clean, dry container. Once cleaned, neutralize/flood spill area with large amounts of water as appropriate.
- Never return spills to original containers for re-use.

PR: Propane

- Evacuate the immediate area.
- Eliminate any possible source of ignition and provide maximum ventilation.
- Shut off source of propane if possible.

R: Roundup

- Small quantities: Flush spill area with water.
- Large quantities: absorb in earth, sand or absorbent material. Collect in containers for disposal. Flush residues with small quantities of water.

Inventory of Spill Kit supplies

Product Name	Amount	Chemicals it is useful against	Amount it can clean up

Absorbent Pads and socks	18	A, AL, B, BL, DM, F, G	6 gal
Dust pan	1 set	A, AL, B, BL, DM, F, G	n/a
Goggles	3 pair	All	n/a
Absorbent material for Roundup (DLNR)		R	20 gal
Loose absorbent	40 lb	A, AL, B, BL, DM, F, G	12 gal
Nitrile Gloves	6 pair	All	n/a
Plastic bags	5	All	

D. Radioactive Materials

No Radioactive Isotopes are planned for this project.

E. Inventory (itemized) of Radioactive Materials

N/A

V. Additional Projects

A. Supplementary (“Piggyback”) Projects

This project will transfer personnel and supplies to Laysan Island for ABC and to Kure Atoll for DLNR. See appendix for cooperating agencies’ cargo.

B. NOAA Fleet Ancillary Projects

No NOAA Fleet Ancillary Projects are planned.

VI. Disposition of Data and Reports

Disposition of data gathered aboard NOAA ships will conform to NAO 216-101 *Ocean Data Acquisitions* and NAO 212-15 *Management of Environmental Data and Information*. To guide the implementation of these NAOs, NOAA’s Environmental Data Management Committee (EDMC) provides the *NOAA Data Documentation Procedural Directive* (data documentation) and *NOAA Data Management Planning Procedural Directive* (preparation of Data Management Plans). OMAO is developing procedures and allocating resources to manage OMAO data and Programs are encouraged to do the same for their Project data.

A. Data Classifications: *Under Development*

- a. OMAO Data
- b. Program Data

- B. Responsibilities: *Under Development*

VII. Meetings, Vessel Familiarization, and Project Evaluations

- A. Pre-Project Meeting: The Chief Scientist and Commanding Officer will conduct a meeting of pertinent members of the scientific party and ship's crew to discuss required equipment, planned operations, concerns, and establish mitigation strategies for all concerns. This meeting shall be conducted before the beginning of the project with sufficient time to allow for preparation of the ship and project personnel. The ship's Operations Officer usually is delegated to assist the Chief Scientist in arranging this meeting.
- B. Vessel Familiarization Meeting: The Commanding Officer is responsible for ensuring scientific personnel are familiarized with applicable sections of the standing orders and vessel protocols, e.g., meals, watches, etiquette, drills, etc. A vessel familiarization meeting shall be conducted in the first 24 hours of the project's start and is normally presented by the ship's Operations Officer.
- C. Post-Project Meeting: The Commanding Officer is responsible for conducting a meeting no earlier than 24 hrs before or 7 days after the completion of a project to discuss the overall success and shortcomings of the project. Concerns regarding safety, efficiency, and suggestions for future improvements shall be discussed and mitigations for future projects will be documented for future use. This meeting shall be attended by the ship's officers, applicable crew, the Chief Scientist, and members of the scientific party and is normally arranged by the Operations Officer and Chief Scientist.
- D. Project Evaluation Report: Within seven days of the completion of the project, a Customer Satisfaction Survey is to be completed by the Chief Scientist. The form is available at <http://www.oma.noaa.gov/fleeteval.html> and provides a "Submit" button at the end. Submitted form data is deposited into a spreadsheet used by OMAO management to analyze the information. Though the complete form is not shared with the ships', specific concerns and praises are followed up on while not divulging the identity of the evaluator.
- The Customer Satisfaction Survey is one of the primary methods OMAO and Marine Operations (MO) utilize to improve ship customer service. Information submitted through the form is automatically input into a spreadsheet accessible to OMAO and MO management for use in preparing quarterly briefings. Marine Operations Centers (MOC) address concerns and praise with the applicable ship. Following the quarterly briefings the data are briefed to the Deputy Director of OMAO.

VIII. Miscellaneous

A. Meals and Berthing

The ship will provide meals for the scientists listed above. Meals will be served 3 times daily beginning one hour before scheduled departure, extending throughout the project, and ending two hours after the termination of the project. Since the watch schedule is split between day and night, the night watch may often miss daytime meals and will require adequate food and beverages (for example a variety of sandwich items, cheeses, fruit, milk, juices) during what are not typically meal hours. Special dietary requirements for scientific participants will be made available to the ship's command at least seven days prior to the project.

Berthing requirements, including number and gender of the scientific party, will be provided to the ship by the Chief Scientist. The Chief Scientist and Commanding Officer will work together on a detailed berthing plan to accommodate the gender mix of the scientific party taking into consideration the current make-up of the ship's complement. The Chief Scientist is responsible for ensuring the scientific berthing spaces are left in the condition in which they were received; for stripping bedding and linen return; and for the return of any room keys which were issued. The Chief Scientist is also responsible for the cleanliness of the laboratory spaces and the storage areas utilized by the scientific party, both during the project and at its conclusion prior to departing the ship.

All NOAA scientists will have proper travel orders when assigned to any NOAA ship. The Chief Scientist will ensure that all non NOAA or non Federal scientists aboard also have proper orders. It is the responsibility of the Chief Scientist to ensure that the entire scientific party has a mechanism in place to provide lodging and food and to be reimbursed for these costs in the event that the ship becomes uninhabitable and/or the galley is closed during any part of the scheduled project.

All persons boarding NOAA vessels give implied consent to comply with all safety and security policies and regulations which are administered by the Commanding Officer. All spaces and equipment on the vessel are subject to inspection or search at any time. All personnel must comply with OMAO's Drug and Alcohol Policy dated May 17, 2000 which forbids the possession and/or use of illegal drugs and alcohol aboard NOAA Vessels.

B. Medical Forms and Emergency Contacts

The NOAA Health Services Questionnaire (NHSQ, NF 57-10-01 (3-14)) must be completed in advance by each participating scientist. The NHSQ can be obtained from the Chief Scientist or the NOAA website

<http://www.corporateservices.noaa.gov/noaforms/eforms/nf57-10-01.pdf>.

All NHSQs submitted after March 1, 2014 must be accompanied by [NOAA Form \(NF\) 57-10-02](#) - Tuberculosis Screening Document in compliance with [OMAO Policy 1008](#) (Tuberculosis Protection Program).

The completed forms should be sent to the Regional Director of Health Services at the applicable Marine Operations Center. The NHSQ and Tuberculosis Screening Document should reach the Health Services Office no later than 4 weeks prior to the start of the project

to allow time for the participant to obtain and submit additional information should health services require it, before clearance to sail can be granted. Please contact MOC Health Services with any questions regarding eligibility or completion of either form. Ensure to fully complete each form and indicate the ship or ships the participant will be sailing on. The participant will receive an email notice when medically cleared to sail if a legible email address is provided on the NHSQ.

The participant can mail, fax, or email the forms to the contact information below. Participants should take precautions to protect their Personally Identifiable Information (PII) and medical information and ensure all correspondence adheres to DOC guidance (http://ocio.os.doc.gov/ITPolicyandPrograms/IT_Privacy/PROD01_008240).

The only secure email process approved by NOAA is [Accellion Secure File Transfer](#) which requires the sender to setup an account. [Accellion's Web Users Guide](#) is a valuable aid in using this service, however to reduce cost the DOC contract doesn't provide for automatically issuing full functioning accounts. To receive access to a "Send Tab", after your Accellion account has been established send an email from the associated email account to accellionAlerts@doc.gov requesting access to the "Send Tab" function. They will notify you via email usually within 1 business day of your approval. The "Send Tab" function will be accessible for 30 days.

Contact information: [Include only the Pacific OR Atlantic Office as applicable.](#)

Regional Director of Health Services
Marine Operations Center – Pacific
2002 SE Marine Science Dr.
Newport, OR 97365
Telephone 541-867-8822
Fax 541-867-8856
Email MOP.Health-Services@noaa.gov

Prior to departure, the Chief Scientist must provide an electronic listing of emergency contacts to the Executive Officer for all members of the scientific party, with the following information: contact name, address, relationship to member, and telephone number.

C. Shipboard Safety

Hard hats are required when working with suspended loads. Work vests are required when working near open railings and during small boat launch and recovery operations. Hard hats and work vests will be provided by the ship when required.

Wearing open-toed footwear or shoes that do not completely enclose the foot (such as sandals or clogs) outside of private berthing areas is not permitted. At the discretion of the ship CO, safety shoes (i.e. steel or composite toe protection) may be required to participate in any work dealing with suspended loads, including CTD deployment and recovery. The ship does not provide safety-toed shoes/boots. The ship's Operations Officer should be consulted by

the Chief Scientist to ensure members of the scientific party report aboard with the proper attire.

D. Communications

A progress report on operations prepared by the Chief Scientist may be relayed to the program office. Sometimes it is necessary for the Chief Scientist to communicate with another vessel, aircraft, or shore facility. Through various means of communications, the ship can usually accommodate the Chief Scientist. Special radio voice communications requirements should be listed in the project instructions. The ship's primary means of communication with the Marine Operations Center is via e-mail and the Very Small Aperture Terminal (VSAT) link. Standard VSAT bandwidth at 128kbs is shared by all vessels staff and the science team at no charge. Increased bandwidth in 30 day increments is available on the VSAT systems at increased cost to the scientific party. If increased bandwidth is being considered, program accounting is required and it must be arranged at least 30 days in advance.

E. IT Security

Any computer that will be hooked into the ship's network must comply with the *OMAO Fleet IT Security Policy* 1.1 (November 4, 2005) prior to establishing a direct connection to the NOAA WAN. Requirements include, but are not limited to:

- (1) Installation of the latest virus definition (.DAT) file on all systems and performance of a virus scan on each system.
- (2) Installation of the latest critical operating system security patches.
- (3) No external public Internet Service Provider (ISP) connections.

Completion of the above requirements prior to boarding the ship is required.

Non-NOAA personnel using the ship's computers or connecting their own computers to the ship's network must complete NOAA's IT Security Awareness Course within 3 days of embarking.

F. Foreign National Guests Access to OMAO Facilities and Platforms

No foreign nationals planned for this project.

All foreign national access to the vessel shall be in accordance with NAO 207-12 and RADM De Bow's March 16, 2006 memo (<http://deemedexports.noaa.gov>). National Marine Fisheries Service personnel will use the Foreign National Registration System (FNRS) to submit requests for access to NOAA facilities and ships. The Departmental Sponsor/NOAA (DSN) is responsible for obtaining clearances and export licenses and for providing escorts required by the NAO. DSNs should consult with their designated Line Office Deemed Export point of contact to assist with the process.

Foreign National access must be sought not only for access to the ship involved in the project but also for any Federal Facility access (NOAA Marine Operations Centers, NOAA port

offices, USCG Bases) that foreign nationals might have to traverse to gain access to and from the ship. The following are basic requirements.

Full compliance with NAO 207-12 is required.

Responsibilities of the Chief Scientist:

1. Provide the Commanding Officer with the e-mail generated by the Servicing Security Office granting approval for the foreign national guest's visit. (For NMFS-sponsored guests, this e-mail will be transmitted by FNRS.) This e-mail will identify the guest's DSN and will serve as evidence that the requirements of NAO 207-12 have been complied with.
2. Escorts – The Chief Scientist is responsible to provide escorts to comply with NAO 207-12 Section 5.10, or as required by the vessel's DOC/OSY Regional Security Officer.
3. Ensure all non-foreign national members of the scientific party receive the briefing on Espionage Indicators (NAO 207-12 Appendix A) at least annually or as required by the Servicing Security Office. Template Date: 14JAN2014
4. Export Control - Ensure that approved controls are in place for any technologies that are subject to Export Administration Regulations (EAR).

The Commanding Officer and the Chief Scientist will work together to implement any access controls necessary to ensure no unlicensed export occurs of any controlled technology onboard regardless of ownership.

Responsibilities of the Commanding Officer:

1. Ensure only those foreign nationals with DOC/OSY clearance are granted access.
2. Deny access to OMAO platforms and facilities by foreign nationals from countries controlled for anti-terrorism (AT) reasons and individuals from Cuba or Iran without written approval from the Director of the Office of Marine and Aviation Operations and compliance with export and sanction regulations.
3. Ensure foreign national access is permitted only if unlicensed deemed export is not likely to occur.
4. Ensure receipt from the Chief Scientist or the DSN of the FNRS or Servicing Security Office e-mail granting approval for the foreign national guest's visit.
5. Ensure Foreign Port Officials, e.g., Pilots, immigration officials, receive escorted access in accordance with maritime custom to facilitate the vessel's visit to foreign ports.
6. Export Control - 8 weeks in advance of the project, provide the Chief Scientist with a current inventory of OMAO controlled technology onboard the vessel and a copy of the vessel Technology Access Control Plan (TACP). Also notify the Chief Scientist of any OMAO-sponsored foreign nationals that will be onboard while program equipment is aboard so that the Chief Scientist can take steps to prevent unlicensed export of Program controlled technology. The Commanding Officer and the Chief Scientist will work together to implement any access controls necessary to ensure no

unlicensed export occurs of any controlled technology onboard regardless of ownership.

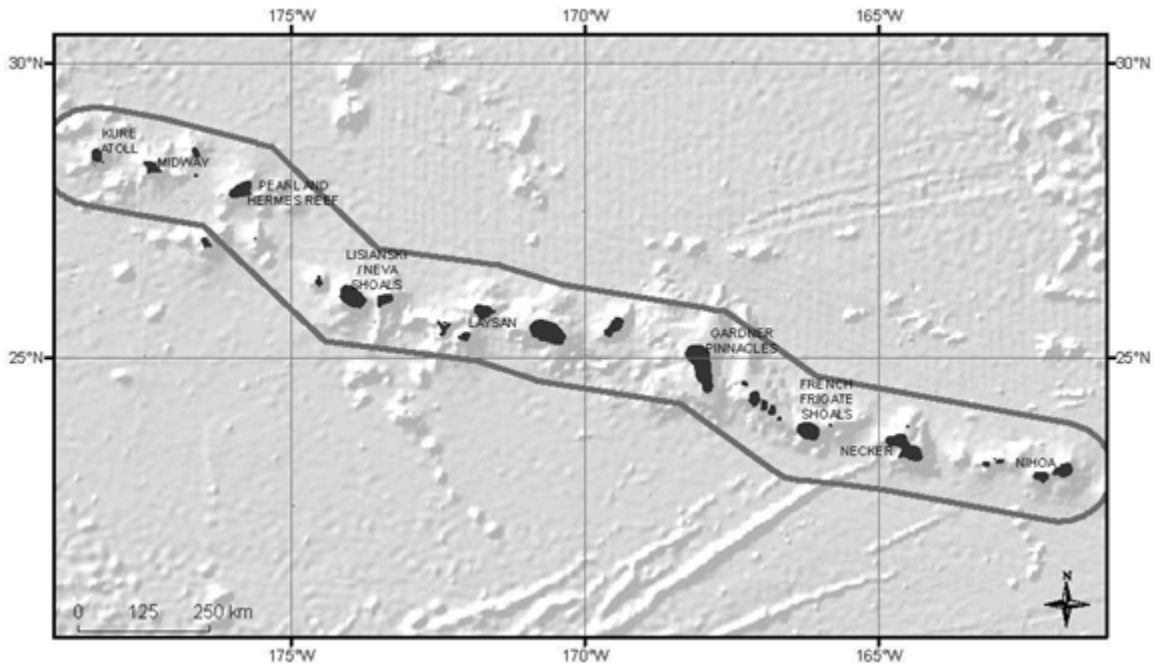
7. Ensure all OMAO personnel onboard receive the briefing on Espionage Indicators (NAO 207-12 Appendix A) at least annually or as required by the Servicing Security Office.

Responsibilities of the Foreign National Sponsor:

1. Export Control - The foreign national's sponsor is responsible for obtaining any required export licenses and complying with any conditions of those licenses prior to the foreign national being provided access to the controlled technology onboard regardless of the technology's ownership.
2. The DSN of the foreign national shall assign an on-board Program individual, who will be responsible for the foreign national while on board. The identified individual must be a U.S. citizen and a NOAA or DOC employee. According to DOC/OSY, this requirement cannot be altered.
3. Ensure completion and submission of Appendix C (Certification of Conditions and Responsibilities for a Foreign National

VIII. Appendices

Appendix 1: Operating Area for HA 16-03.



Appendix 2: Cargo list

Forwarded to Ship