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National Oceanic and Atmospheric Administration
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Pacific Islands Fisheries Science Center
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PROJECT REPORT¹

VESSEL: *Hi'ialakai*, Project HA-15-02

PROJECT PERIOD:

The NOAA Ship *Hi'ialakai* was engaged as a support vessel for a Pacific Islands Fisheries Science Center (PIFSC), National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA) project from May 18 through June 8, 2015, for a total of 22 sea days at the Northwest Hawaiian Islands (NWHI) in the Papahānaumokuākea Marine National Monument (PMNM) and main Hawaiian Islands (MHI).

AREA OF OPERATION:

The operating area included transit northwest along the MHI and NWHI from Ford Island, Pearl Harbor, to Kure and southeast to Kona, Island of Hawaii, with Hawaiian monk seal research program (HMSRP) operations including opportunistic Hawaiian monk seal surveys, field camp deployment, and the collection of Hawaiian monk seals for rehabilitation and transport at Nihoa Island, Necker Island, French Frigate Shoals, Laysan Island, Lisianski Island, Pearl and Hermes Reef, Midway Atoll, and Kure Atoll.

TYPE OF OPERATIONS:

The ship established monk seal field camps by transporting HMSRP personnel, equipment and supplies to French Frigate Shoals, Laysan Island, Lisianski Island, Pearl and Hermes Reef, and Kure Atoll. The project also transferred supplies to and from Kure Atoll for the State of Hawaii Department of Land and Natural Resources (DLNR), Department of Forestry and Wildlife (DOFAW). Day monk seal surveys at Ni'ihau Island and Midway Atoll were conducted to census the monk seal population.

Two prematurely weaned Hawaiian monk seal pups were translocated from Pearl and Hermes Reef in the NWHI to a rehabilitation facility in

¹ PIFSC Cruise Report CR-15-007
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Kona, Island of Hawaii. Small boats were used to transport seals from islands to the ship in stretcher nets. Once on board the ship, the seals were held in an enclosure on the aft deck. While seals were on deck, limited access was allowed to maintain quarantine and seals were monitored by scientists 24 hours a day. The seals will be rehabilitated in Kona until they are healthy enough for release back to the NWHI.

ITINERARY:

- 18 May **Pearl Harbor:** Embarked Bohlander, Sullivan, Farry, Barbieri, Ronco, Wickham, McAtee, Matsuoka, Barcina, Burns, Gosliner, Giuseffi, Becker, Nimz, Cook, Callan, Cate, Hess, Leach, Roberts, Pacarro, and Harris. Departed Ford Island 0800 and transited to fuel pier. Departed fuel pier at Pearl Harbor at 1700 en route to Ni'ihau Island.
- 19 May **Ni'ihau Island:** Arrived 0800 at Ni'ihau Island. Launched Avon to transport personnel to shore to conduct monk seal survey. Recovered Avon and transited to Lehua rock for seal survey. 0930 launched Avon with seal team to conduct survey of Lehua Rock. 1200 recovered Avon. 1430 recovered Ni'ihau survey team. Departed en route to French Frigate Shoals.
- 20 May **Transit**
- 21 May **French Frigate Shoals:** Arrived 0800. Disembarked Farry, Matsuoka, Barcina, Gosliner, Giuseffi, and additional personnel for the day to help with camp set up. Offloaded equipment and supplies for the French Frigate Shoals field camp including one 17' Boston Whaler, one 6-m RHIB, ten 55-gal drums of gasoline, 3 pallet tubs, and 120 water jugs using Kaku and Metal Shark. 1530 recovered shore personnel and departed.
- 22 May **Transit:** WNW swell predicted, indicated landing at Laysan and Lisianski would likely be hazardous. Itinerary was changed to travel straight to Pearl and Hermes Reef.
- 23 May **Transit**
- 24 May **Pearl and Hermes Reef:** Arrived 0800. Disembarked Roberts, Hess, and Harris and deployed additional personnel to assist with camp set-up. Off loaded equipment and supplies including one 5-meter inflatable boat, one 5.5-meter RHIB, and five 55-gallon drums of gasoline. 1530 recovered shore personnel. Departed 1600 en route to Midway Atoll.
- 25 May **Midway Atoll:** Arrived 0800 and tied up to cargo pier. Launched Kaku with monk seal personnel to conduct seal survey at Spit and Eastern Islands. Additional personnel conducted seal survey of Sand Island. 1600 recovered Kaku. Ship overnigheted at cargo pier.

- 26 May **Midway Atoll:** 0800 Kaku launched to conduct survey of Spit and Eastern Islands. Additional personnel conducted seal survey of Sand Island. 1100 recovered Kaku. Loaded 15 drums of gasoline, 2 seal cages, and 1 freezer previously staged at Midway. Departed cargo pier 1400 en route to Kure Atoll.
- 27 May **Kure Atoll:** Arrived 0800. Disembarked Nimz and Leach and additional personnel to help with offload. Off loaded equipment for HMSRP and DLNR camps. Loaded approximately 3000 lbs of debris from shore. 1500 recovered shore personnel and departed 1600 en route to Pearl and Hermes Reef.
- 28 May **Pearl and Hermes Reef:** Arrived 0800. Deployed seal team to collect seal rehabilitation candidates and off loaded 5 drums gasoline. Team collected 1 female weaned pup from Seal Kittery Island and 1 male weaned pup from Southeast Island. Departed Southeast Island 1300 en route to Lisianski Island.
- 29 May **Lisianski Island:** Arrived 0800. Disembarked Ronco, Cate, and Becker and deployed additional personnel to assist with camp set up. Off loaded equipment and supplies. 1600 recovered shore personnel.
- 30 May **Lisianski Island:** Deployed teams to conduct monk seal survey and conduct a cleanup of marine debris on the south point of the island. 1530 recovered shore personnel.
- 31 May **Lisianski Island:** Deployed teams to conduct monk seal survey and conduct a cleanup of marine debris on the south point of the island. 1530 recovered Becker and other shore personnel. Departed Lisianski 1600 en route to Laysan Island.
- 1 June **Laysan Island:** Arrived 0800. Disembarked McAtee, Cook, and Callan and deployed additional personnel to assist with camp set-up. Off loaded equipment and supplies. 1600 recovered shore personnel.
- 2 June **Laysan Island:** Deployed team to conduct monk seal survey. 1530 recovered shore personnel and departed Laysan Island. 1630 en route to French Frigate Shoals.
- 3 June **Transit**
- 4 June **French Frigate Shoals:** Arrived 0800. Disembarked Burns and embarked Giuseffi. Off loaded 9 drums of gasoline and additional supplies. Departed 1100 en route to Kona.
- 5 June **Transit**
- 6 June **Transit**

- 7 June **Kona:** 0800 Arrived Honokohau Harbor. Deployed Metal Shark with seals and seal team to meet Ke Kai Ola staff on shore. Disembarked Barbieri and Wickham. 1200 Departed en route to Pearl Harbor.
- 8 June **Pearl Harbor:** Arrived 0900 Kilo pier, offloaded 20' container and loaded dive chamber. Departed Kilo pier 1145. 1245 arrived F9 pier at Ford Island. Disembarked Bohlander, Sullivan, Pacarro, Giuseffi, Becker. Off loaded all gear and supplies. End of Project.

MISSIONS AND RESULTS:

The main objectives for HA 14-02 were:

1. Deploy monk seal camps: The ship successfully transported personnel, equipment, and supplies to field camps at French Frigate Shoals, Laysan Island, Lisianski Island, Pearl and Hermes Reef, and Kure Atoll. All personnel were disembarked and offloads were conducted safely within the time allotted.
2. Conduct beach surveys for Hawaiian monk seals: The third-ever survey of Ni'ihau Island (including Lehua rock) for Hawaiian monk seals was conducted on 19 May. Two atoll counts were completed at Midway Atoll on 15 and 16 May.
3. Perform opportunistic health assessment and sampling of seals at all sites visited: Eleven seals were biomedically sampled and/or retagged opportunistically at Pearl and Hermes Reef, Midway Atoll, Lisianski Island, and Laysan Island.

<u>Seal ID</u>	<u>Site</u>	<u>Date Captured</u>	<u>Age Class</u>	<u>Sex</u>	<u>Procedure</u>
BL62	PHR	5/24/2015	Subadult	Female	Retag
PF18	Midway	5/26/2015	Juvenile	Male	Biomedical Sampling
PN02	Midway	5/26/2015	Juvenile	Female	Biomedical Sampling
G6FQ	Lisianski	5/31/2015	Juvenile	Female	Retag
GL52	Lisianski	5/31/2015	Subadult	Male	Retag
GO48	Lisianski	5/31/2015	Adult	Male	Biomedical Sampling and retag
Temp 6FW	Lisianski	5/31/2015	Adult	Male	Biomedical Sampling and retag
GK46	Lisianski	5/31/2015	Juvenile	Male	Biomedical Sampling and retag
TD42	Laysan	6/2/2015	Adult	Male	Retag
TY40	Laysan	6/2/2015	Adult	Male	Biomedical Sampling and retag
TM16	Laysan	6/2/2015	Adult	Male	Biomedical Sampling and retag

4. Translocate Hawaiian monk seals from NWHI populations to a rehabilitation facility in Kona on the island of Hawaii: Two seals were captured at Pearl and Hermes reef after being identified by the field team as appropriate candidates for rehabilitation. Other field teams searched their sites for appropriate candidates for rehab but none were identified in the time the ship was in the area. One female weaned pup was captured from Seal Kittery Island, Pearl and Hermes Reef and one male weaned pup was captured from Southeast Island, Pearl and Hermes Reef on 27 May. The seals were kept on the aft deck of the *Hi'ialakai* in a cage with shade and water misters to maintain comfortable conditions. They were fed a mixture of fish mash, electrolytes, and vitamins per veterinary guidance. The seals were disembarked on 7 June at Honokohau Harbor on the Island of Hawaii and transported via trucks to Ke Kai Ola, a Hawaiian monk seal rehabilitation facility. The seals will be in rehab at Ke Kai Ola until they are deemed healthy enough to be returned to the NWHI. These will be the 7th and 8th seals to have been under care at Ke Kai Ola.

<u>Seal ID</u>	<u>Source site</u>	<u>Age class</u>	<u>Sex</u>	<u>Date Captured</u>
DG02	Pearl and Hermes Reef	Prematurely weaned pup	F	5/26/2015
DG10	Pearl and Hermes Reef	Prematurely weaned pup	M	5/26/2015


5. Deliver supplies and personnel to Kure Atoll for the Department of Forestry and Wildlife (DOFAW), Department of Land and Natural Resources (DLNR), State of Hawaii. DLNR staff and supplies were successfully transported from Honolulu to Kure via HA 15-02.
6. Set up a collaborative project with Sustainable Coastlines Hawaii for marine debris cleanup and monitoring during the field season. A collaborative effort was initiated during this project to collect and raise awareness about marine debris in the NWHI. Standardized systematic surveys for land debris will be conducted at previously identified locations at Pearl and Hermes Reef and Lisianski Island throughout the field season. During the project a larger scale clean-up was conducted on the south point of Lisianski Island by removing all of the plastic and glass debris. The larger items were moved to a location along the vegetation line. The smaller items were collected in large bags and removed from the island. Over the course of 2 days, 6 “supersacks” of debris were removed from the south point of Lisianski Island. Additionally, approximately 3000 lbs of entangling debris (nets and lines) was removed from Kure Atoll that had been previously collected by DLNR.

SCIENTIFIC PERSONNEL:

Barcina, Keelan, Joint Institute for Marine and Atmospheric Research (JIMAR) volunteer, JIMAR, UH
Barbieri, Michelle, Veterinarian, Pacific Islands Fisheries Science Center (PIFSC), National Marine Fisheries Service (NMFS)
Becker, Brenda, PIFSC, NMFS
Bohlander, Jessica, Field Research Supervisor and Chief Scientist, JIMAR, UH
Burns, Michael, Logistics and Response Technician, JIMAR, UH
Callan, Sarah, JIMAR volunteer, JIMAR, UH
Cate, Jenipher, Biological Research Assistant, JIMAR, UH
Cook, Benjamin, Biological Research Assistant, JIMAR, UH
Farry, Shawn, Biological Research Technician, JIMAR, UH
Giuseffi, Louise, Biological Science Technician, PIFSC, NMFS
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