



**U.S. DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
**NATIONAL MARINE FISHERIES SERVICE**  
Pacific Islands Fisheries Science Center  
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## **PROJECT REPORT**

**VESSEL:** *Oscar Elton Sette*, Project SE 18-04

### **PROJECT PERIOD:**

The NOAA Ship *Oscar Sette* was engaged as support for a Pacific Islands Fisheries Science Center (PIFSC), National Marine Fisheries Service (NMFS), NOAA, project from 28 Aug 2018 to 14 Sept 2018, with 2 days in port at Pearl Harbor (waiting out Tropical Storm Olivia) and 16 days at sea in Papahānaumokuākea Marine National Monument (PMNM) and Main Hawaiian Islands (MHI).

### **AREA OF OPERATION:**

The operating area included transit from Ford Island, Pearl Harbor, to the northwest along the main Hawaiian Islands and through PMNM. Protected Species Division (PSD) operations (including field camp recovery and transport of Hawaiian monk seals) took place at Hawaii Island, French Frigate Shoals (FFS), Laysan Island, Lisianski Island, Pearl and Hermes Reef (PHR).

### **TYPE OF OPERATIONS:**

1. Recover Hawaiian monk seal camps at Laysan Island, Lisianski Island, Pearl and Hermes Reef.
2. Conduct monk seal surveys at Ni'ihau, Nihoa, and Mokumanamana.
3. Instrumentation of seals at French Frigate Shoals.
4. Pick up seals in need of rehabilitation for transport from any site where seals are found to Ke Kai Ola monk seal hospital in Kona, Hawaii.
5. Opportunistic CTD casts.
6. Deploy / recover HARP at Pearl and Hermes Reef

### **ITINERARY:**

28 Aug **Pearl Harbor:** Embarked 11 (Robinson, Carpenter, Barlow, Fauquier, Kaufman, McGinnis, Johanos, Allen, Thomson, Link, McAtee) and then began transit toward Mokumanamana approximately 1700.

- 29 Aug      **Transit:** Continued transit toward Mokumanamana.
- 30 Aug      **Mokumanamana:** Arrived in the morning, examined weather and sea state, determined that a small boat launch would be unsafe (winds ~ 25 kts and high swell). Departed toward FFS, CTP conducted before arrival at FFS.
- 31 Aug      **French Frigate Shoals:** Arrived in the morning and launched *SE4* and *Steel Toe* to send an instrumentation ashore. The instrumentation team successfully deployed a camera and satellite tag on one subadult male seal (Y76F). Throughout the day *SE4* and *Steel Toe* transferred gear including 6 fuel drums, one pallet load of plywood sheets, 1 chest freezer, ~ 10 buckets from the ship to the camp. Additionally empty propane containers, buckets and dewars were retrieved from the camp. Turtle Biologist, Allen, disembarked to join the turtle camp for the week until *Sette*'s return. McAtee disembarked to join the monk seal camp for the remainder of the season, Guerin embarked from FFS. By approximately 1700, *Sette* departed for Pearl and Hermes Reef.
- 1 Sept      **Transit:** Continued transit toward Pearl and Hermes Reef.
- 2 Sept      **Transit:** Continued transit toward Pearl and Hermes Reef. The ship arrived at the intended HARP sight at approximate 2000, too dark to recover the existing HARP or deploy the new one. A CTD was conducted on the way to PHR.
- 3 Sep      **PHR:** Arrived during the night, in the morning both *SE4* and *Steel Toe* were launched to deploy shore a party to assist camp break-down, and then made gear runs throughout the day. Gear retrieved included pelicans, buckets of supplies, 4 pallet tubs, 2 19ft Zodiac Inflatables, empty gas drums and propane containers, and 120 empty 5-gal water jugs. We embarked the PHR team: D. Roberts, M. Roberts, Gibson, Mino. *Sette* set off toward Lisianski around 1400.
- 4 Sep      **Lisianski:** Arrived in the morning and launched *SE4* and *Steel Toe* to deploy shore a party to assist camp break-down, and then made gear runs throughout the day. Gear retrieved included pelicans, buckets of supplies, 4 pallet tubs, empty propane containers, and 70 empty 5-gal water jugs. Camp recovery was completed by mid-day and the shore team used the afternoon to search for seals in need of rehabilitation, and tagged 3 adult male seals. *Sette* stayed in the area for the night and conducted a CTD.

- 5 Sep           **Lisianski:** In the morning a shore team was deployed to continue the search for rehab candidates (none found) and tagging adult seals (2 tagged). We embarked the Lisianski team: Dolan and Cummings. *Sette* set off toward Laysan around 1700.
- 6 Sep           **Laysan:** Arrived in the morning and launched *SE4* and *Steel Toe* to deploy shore a party to assist camp break-down, and then made gear runs throughout the day. Gear retrieved included pelicans, buckets of supplies, 4 pallet tubs, empty propane containers, and 100 empty 5-gal water jugs. The vet team assessed two seals identified as rehab candidates, both were taken aboard *Sette* in the morning. Camp recovery was completed by mid-day and the shore team used the afternoon to search for additional seals in need of rehabilitation, and tagged 2 adult male seals. We embarked the Laysan team: Ronco, Mathieu, Morrison. *Sette* set off toward French Frigate Shoals around 1700.
- 7 Sep           **Transit:** Continued transit toward French Frigate Shoals.
- 8 Sep           **French Frigate Shoals:** Arrived in the morning and launched *Steel Toe* to help the FFS teams search the atoll for rehab candidates (none found). *SE4* deployed a shore party to look for seals for instrumentation (none found). *SE4* made additional runs transferring 4 drums of gas to the camp. We embarked Allen after her week with the turtle team. By this time concerns had been raised regarding the track of Hurricane/Tropical Storm Olivia, so SE 18-04 altered course (in accordance with Project Instructions Amendment 2), foregoing additional survey stops and heading straight for Pearl Harbor.
- 9 Sep           **Transit:** Continued transit toward Pearl Harbor.
- 10 Sep          **Pearl Harbor:** Arrived late afternoon in Pearl Harbor and *Sette* was secured in anticipation of Tropical Storm Olivia. Disembarked 15: Robinson, Carpenter, Fauquier, Guerin, Johanos, Allen, Barlow, Thompton, Link, D. Roberts, M. Roberts, Mino, Ronco, Mathieu, Morrison. A seal care crew remained onboard with the rehab seals: McGinnins, Kaufman, Gibson, Dolan, Cummings.
- 11 Sep          **Dockside Pearl Harbor:** Secured to weather storm. Minimal crew remained aboard to continue caring for seals (McGinnins, Kaufman, Gibson, Dolan, Cummings).

- 12 Sep      **Dockside Pearl Harbor:** Secured to weather storm. Minimal crew remained aboard to continue caring for seals (McGinnins, Kaufman, Gibson, Dolan, Cummings).
- 13 Sep      **Kona Departure & Transit:** Embarked 3 (Robinson, Carpenter, Guerin) and departed Pearl Harbor in the morning to deliver the rehab seals to Ke Kai Ola in Kona.
- 14 Sep      **Kona:** Arrived early morning and launched *SE4* around 0230 to transport rehab seals and veterinary team to Honokohau Harbor, Kona. We disembarked Kaufman and McGinnis. *Sette* set off toward Pearl Harbor approximately 0400.  
**Pearl Harbor.** Arrived at Pearl Harbor in late afternoon. Disembarked 6 (Robinson, Carpenter, Guerin, Gibson, Dolan, Cummings) for the end of SE 18-04. Major offload activities occurred the following Monday.

#### **MISSIONS AND RESULTS:**

The main objectives and results for SE 18-04 were:

1. Recover Hawaiian monk seal camps at Laysan Island, Lisianski Island, Pearl and Hermes Reef.
2. Conduct monk seal surveys at Ni'ihau, Nihoa, and Mokumanamana.
3. Instrumentation of seals at French Frigate Shoals.
4. Pick up seals in need of rehabilitation for transport from any site where seals are found to Ke Kai Ola monk seal hospital in Kona, Hawaii.
5. Opportunistic CTD casts.
6. Deploy / recover HARP at Pearl and Hermes Reef.

#### **1. Recover Hawaiian monk seal camps at Laysan Is., Lisianski Is., Pearl and Hermes Reef.**

Field staff and their gear were successfully picked up from Pearl and Hermes Reef (4 staff), Lisianski Island (2 staff), Laysan Island (3 staff). Additionally one person was picked up from French Frigate Shoals and another left in his place to complete the extended season at that camp. One member of the turtle team was deployed with the French Frigate Shoals turtle camp and picked up at the end of SE 18-04.

#### **2. Conduct monk seal surveys at Ni'ihau, Nihoa, and Mokumanamana.**

No surveys were conducted. *Sette* did stop at Mokumanamana as planned on 30 Aug, however weather prevented launching small boats to send a survey team ashore. Due to rerouting SE18-04 to avoid Tropical Storm Olivia, survey opportunities planned for 9-11 Sept were lost.

#### **3. Instrumentation of seals at French Frigate Shoals.**

One subadult male seal (Y76F) was instrumented with an underwater camera and satellite transmitter. The French Frigate Shoals field team recovered the camera on 24 Sept, the satellite tag continues to transmit.

**4. Pick up seals in need of rehabilitation for transport from any site where seals are found to Ke Kai Ola monk seal hospital in Kona, Hawaii.**

Two weaned pups (female WK04 and male WK40) were picked up at Laysan Island and transported to KKO.

**Table 1. Seals transported between NWHI and Ke Kai Ola (KKO).**

W = weaned pup.

	<u>Seal ID</u>	<u>Size</u>	<u>Sex</u>	<u>Source Site</u>	<u>Date Embarked</u>	<u>Destination Site</u>	<u>Date Disembarked</u>
1	WK04	W	F	Laysan	6 Sept 2018	KKO, Kona	14 Sept 2018
2	WK40	W	M	Laysan	6 Sept 2018	KKO, Kona	14 Sept 2018

**5. Opportunistic CTD casts.**

Shipboard CTD casts were conducted successfully at 3 (FFS, PHR, Lis.) out of 10 historical sites during transits between islands (many were curtailed due to tight transit times on our shortened mission). CTDs were conducted to a depth of 500m.

**6. Deploy / recover HARP at Pearl and Hermes Reef.**

Transit times were such that we arrived at the HARP sight after dark and could complete the recovery and deployment. The HARP is to be sent out on SE 18-05 for another attempt.

**SCIENTIFIC PERSONNEL:**

1. Robinson, Stacie, Chief Scientist, NOAA, NMFS
2. Carpenter, Josh, Operations Lead, JIMAR, UH
3. Fauquier, Deborah, Veterinary Medical Officer, NOAA, NMFS
4. Kaufman, Angie, Veterinary Technician, JIMAR, UH
5. McGinnis, Megan, Animal Care Technician, The Marine Mammal Center
6. Barlow, Jamie, Small Boat Coxswain, NOAA, NMFS
7. Johannos, Thea, Researcher, NOAA, NMFS
8. Thomson, Jamie, Researcher, NOAA, NMFS
9. Link, Daniel, Researcher, USFWS
10. Allen, Camryn, Researcher, JIMAR, UH
11. McAtee, Carrie, Research Associate, JIMAR, UH
12. Guerin, Sean, JIMAR Research Associate, JIMAR, UH
13. Roberts, Darren, JIMAR Research Technician, JIMAR, UH
14. Roberts, Megan, JIMAR Research Associate, JIMAR, UH
15. Gibson, Alix, JIMAR Research Associate, JIMAR, UH
16. Mino, Paige, JIMAR volunteer, JIMAR, UH
17. Dolan, Brittany JIMAR Research Technician, JIMAR, UH
18. Cummings, Caroline, JIMAR Research Associate, JIMAR, UH
19. Ronco, Hope, JIMAR Research Technician, JIMAR, UH
20. Mathieu, Amanda, JIMAR volunteer, JIMAR, UH
21. Morrison, Margaret, JIMAR volunteer, JIMAR, UH

**PROJECT MEDIA:**

Media associated with SE 18-04 can be found on the PIFSC Field Notes Page:

<https://www.fisheries.noaa.gov/science-blog/field-notes-science-and-stewardship-northwestern-hawaiian-islands>

Submitted by:



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