

GUIDELINES FOR THE OPERATION OF THE
RESEARCH VESSEL KAAHELE'ALE

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I. DESCRIPTION OF BOAT

The RV Kahele'ale is a former U.S. Navy personnel boat that has been converted to a small fishery research vessel to be used in the nearshore waters around the Hawaiian Islands. The boat was acquired by the Southwest Fisheries Center, Honolulu Laboratory, to fulfill a need for a versatile vessel intended for trips of a relatively short duration and range, for which larger National Ocean Survey-operated vessels would not be suitable. The Kahele'ale is 33 ft long and has a fiber glass hull and a fiber glassed plywood pilothouse. Initially, the vessel is to be used for monitoring fish aggregation buoys and for tuna/billfish tracking, utilizing acoustic depth-sensing devices and a directional hydrophone installed in a sonar well.

II. SPECIFICATIONS

Name:	<u>Kahele'ale</u>
Hull:	Navy personnel boat, model 33MK3, built in 1965.
Construction:	Fiber glass
Length:	33 ft
Beam:	11 ft
Draft:	3 ft
<u>Power</u>	
Engine:	250 hp, General Motors 671, diesel model 6088M, with a 35 A alternator, 24 V dc starting system
Auxiliary:	7.5-kW Onan marine diesel generator with 12 V dc battery charging capacity, 12 V dc starting system
Battery charger:	110 V ac powered LEWCO 40 A, 12 V dc charging unit
Range:	200 mi
Speed:	11.5 kn
Fuel capacity:	240 gal (diesel)

Electronics

Radios (2): Motorola Nautilus 440 with all U.S. marine channels 25 W vhf
 Regency 8-channel 12.5 W vhf

Fathometers (3): Apelco flasher/recorder, 0 to 540 ft
 Coastal navigator digital sounder and depth alarm 2 to 99 ft/2 to 99 fathoms
 Ross SL-600C straight line recorder 50 kHz, 0 to 900 ft

Radar: Decca 202, 24-mi range

Steering: Wagner hydraulic model N85

Autopilot: Benmar course setter 21, hydraulic

Compass: Airguide

Refrigeration: Ice chest

Accommodations: Two bunks

Emergency equipment

Radio	2
Emergency position indicating radio beacon (EPIRB)	1
Life jackets with ACR firefly rescue lights	6
Horseshoe life buoys with lights	2
Flare/signal kit	1
Searchlight	1
Medical kit	1
Fire extinguisher, 15-lb CO ₂	1

III. VESSEL OPERATOR CERTIFICATION PROCEDURES

A vessel operator will be certified by a memo signed by Donald C. Aasted, Small Vessel Supervisor (SVS), and Richard S. Shomura, Director, Honolulu Laboratory, after demonstrating a comprehensive knowledge of the operation of small boats by completing the Coast Guard Auxiliary examination or by submitting a record of documented prior experience of vessel operations. This knowledge or practical experience will include the following:

1. Seamanship
2. Rules of the road
3. Aids to navigation
4. Piloting
5. Operation of radios
6. Operation of radar
7. Operation of fathometers
8. Basic engineering (diesel) principles and procedures, specifically:
 - a. Analysis and correction of minor fuel, cooling, and electrical problems
 - b. Recognition of potential engine problems through use of gauges and audible, olfactory, and visual clues
 - c. Possession of a working knowledge of valves, bilge pumps, plumbing, and electrical systems
 - d. Ability to perform minor maintenance and repair tasks
9. Vessel handling skills:
 - a. Docking
 - b. Cruising
 - c. Heavy weather operations
 - d. Man overboard and other rescue operations
 - e. Anchoring situations--bottom and high seas

10. Operation of fire and lifesaving equipment

IV. PRE-CRUISE REQUIREMENTS AND OPERATIONS

A. Travel Orders

A blanket travel order has been issued to the Honolulu Laboratory covering all personnel anticipated to participate on trips aboard the vessel during FY-1979; additional personnel must be included on an addendum. If trips require reimbursement for per diem or meals, an additional Trip Authorization Form (42-5) must be filled out and submitted to the SVS prior to departure.

B. Vessel Scheduling

Vessel scheduling will be handled by the SVS. Requests for vessel time should be submitted in ample time before cruise dates to insure the readiness and availability of the vessel. A standard form cruise plan will be submitted to the SVS prior to departure and will include the following:

1. Personnel
2. Destination
3. Duration
4. Purpose
5. Special gear
6. Trip Authorization Form (if necessary)
7. Any additional information

C. Vessel Preparation

Prior to departure, the vessel operator will be required to check out the vessel and fill out a trip checkoff sheet. This sheet will be forwarded to the SVS together with the trip log upon completion of the trip. It is the responsibility of the vessel operator to work with the SVS to insure that the vessel is equipped and ready for sea.

V. OPERATIONS AT SEA

It is the responsibility of the vessel operator to ensure that the vessel is operated in a safe and prudent manner; therefore, while at sea, the operator will have final authority on all

aspects of vessel operation. If a significant deviation from the cruise plan occurs, it will be the responsibility of the vessel operator to notify the SVS via "radiocall" service.

The vessel operator will maintain a record of deck and radio operations including:

A. Deck Log

1. Trip number and date
2. Personnel list
3. Purpose
4. Destination
5. Date and time of:
 - a. Vessel departure
 - b. Engine start-up and shut down
 - c. Generator start-up and shut down
6. Activity--research or maintenance
7. Additions of fluids to engines or batteries
8. Deviations in gauge readings
9. Fuel filter reading at end of trip
10. Engine hours at the beginning and the end of a trip

B. Radio Log

1. Date and time
2. Channel
3. Purpose of call (brief)

VI. POST-CRUISE OPERATIONS

Upon completion of a trip the trip leader will submit a cruise report to the Director, Honolulu Laboratory, through the SVS, covering the highlights of the trip. This report will be submitted no later than 2 weeks after completion of the trip.

The vessel will be cleaned and all excess gear removed. The operator will submit the completed checkoff sheet and logs to the SVS.

VII. MISCELLANEOUS

The Director, Honolulu Laboratory and the SVS will have sole authority to authorize vessel operators.

The SVS will be responsible for the following:

1. Maintaining records and schedules
2. Managing the vessel reservation schedule
3. Maintaining a financial records system

The SVS will submit a monthly report of all vessel operations by the 25th of each month for inclusion in the Honolulu Laboratory's Monthly Narrative Report.