

Office of the Dean

October 31, 2003

Mr. Mike Prince
Executive Secretary
University-National Oceanographic Laboratory System (UNOLS)
Moss Landing Marine Laboratories
8272 Moss Landing Road
Moss Landing, CA 95039

Dear Mike:

The University of Hawaii School of Ocean and Earth Science and Technology (SOEST), the operating institution of R/V KAIMIKAI-O-KANALOA (KOK), formally requests that UNOLS designate this ship as a UNOLS vessel, operated by SOEST. A brief description of the vessel and her proposed operating schedule for 2004 are attached.

Conditions for UNOLS designation are given in the UNOLS document "Guidelines for Requesting/Becoming UNOLS vessel," part 6. In answer to those conditions, the following information is provided:

- 6a. SOEST operates the vessel for research purposes, as indicated by the ship schedules and federal funding received.
- 6b. The continuing record of SOEST in successfully operating this and other UNOLS vessels since the inception of UNOLS satisfies this requirement.
- 6c. SOEST routinely submits NSF ship operations proposals in the standard format, including projection of user charges, and will incorporate KOK ship day rates into its NSF proposal for CY 2004.
- 6d. The vessel has successfully completed a NSF Ship Safety Inspection at SOEST's expense.
- 6e. The ship operates under all applicable UNOLS and other safety standards.
- 6f. The vessel will be regularly available to all federally-funded users.

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6g. The vessel is maintained and operated to accommodate the needs of academic oceanographic programs.

6h. SOEST has participated fully in the UNOLS scheduling process since the inception of UNOLS, and will continue to do so, including receipt and acknowledgment of requests for use, and close cooperation with the UNOLS Office on scheduling issues.

6i. SOEST regularly submits cruise reports and assessments in accordance with UNOLS practice.

6j. SOEST adheres to UNOLS cost accounting and performance standards and will continue to do so for KOK.

6k. SOEST has proven capable of requesting the necessary funds to support the operations of its vessels, including KOK.

6l. This letter constitutes the required written application. If any further information is required, please do not hesitate to contact me.

Sincerely,

Brian Taylor
Acting Associate Dean of Research

cc: John Freitag, ONR
Linda Goad, NSF
Tim Cowles, OSU

University of Hawaii
Section 1
DESCRIPTION OF VESSEL
R/V KA IMIKAI-O-KANALOA

BUILT: 1979 (modified in 1993)

LENGTH: LOA 223'

BEAM: 38'

DRAFT: 13'6"

GROSS TONNAGE: 259

DISPLACEMENT: 1,961 tons

COMPLEMENT:

CREW: 13

SCIENTIFIC PERSONNEL: 19

SCIENTIST: 10

PISCES-V: 6

ROV: 3

MAIN ENGINES: (2) Detroit Diesel
(16D0-149TI) 1035 SHP (ea)

BOW THRUSTER: 1000 HP (Electrical)
Derated to 250 HP)

HANGER: 1,332 sq. ft.

SERVICE GENERATOR: 1-250 kW 12V71
1-150 kW 8V71

PROPELLERS: Twin-Fixed Pitch

OWNERSHIP: Title held by State of Hawaii

SPEED:

CRUISING: 10 knots

FULL: 11 knots

MINIMUM: 1 knot

ENDURANCE: 50 days (Food/Stores/FW)

RANGE: 15,000 nm (60 days — Fuel)

FUEL CAPACITY: 175,744 Gal.

LABORATORIES:

ROCK: 303 sq. ft.

WET: 300 sq. ft.

CLEAN: 150 sq. ft.

DRY: 300 sq. ft.

SEWAGE SYSTEM:

MSD: 750 (gal/day)

HOLDING TANK: 12,000 (gal.)

Red Fox marine Sanitation Device
(RF-705M)

CONFERENCE ROOM: 256 sq. ft.

INCINERATOR: None

AUXILIARY GENERATOR:

STATE I.D. NO.: HA-343-XS

UH Section 1: DESCRIPTION OF VESSEL: Scientific Capabilities

Brief Description: R/V KA IMIKAI-O-KANALOA is a general purpose Oceanographic Research Ship designed to operate in coastal and blue-water areas. She is configured to support the UH manned submarines (PISCES-V and PISCES-IV) and ROV operations.

NAVIGATION:

Trimble NAVTRAC in the bridge and Ashtech in the main lab. Both can receive DGPS.

COMMUNICATIONS: HF (SSB), VHF, INMARSAT-C, Cellular Phone

STRAZA TOWER: 4 x 4 moon pool

WINCHES:

Hydrographic Markey DESH-5 single drum hydrographic winch carries 32,000 ft. of 0.322 inch three conductor electromechanical CTD cable.

Trawl Northern Line coring winch (Model 3355-EHAOW); 24.7 mm double armored electro-optical cable (ROV Derated Umbilical).

STERN-A-FRAME: Moveable (15 ton capacity)

CRANES:

Pitman Crane Capacity — 10,000 lbs

Aurora 45F Folding Crane Model 45KTNC 10,000 with capacity — 40,000 lbs. at 15 ft., 16,200 lbs. at 25 ft., and 10,000 lbs. at 45 ft.

HIAB Folding Crane Capacity — 2,000 lbs.

Installed Scientific Equipment:

Deep Water Multibeam Sonar System The *SeaBeam 210* bathymetric mapping system is capable of acoustically charting the seafloor to full ocean depths (11 km). A near real-time contour plot of the current swath is produced. The digital data are recorded for post processing on the shipboard Silicon Graphics UNIX workstations.

ADCP RD Instruments VM-150 kHz Acoustic Doppler Current Profiler (ADCP) measures profiles of water velocity relative to the ship with 8M vertical resolution from 180-450 meters.

CTD System Seabird CTD with rosette with assorted bottles.

Uncontaminated Sea Water An uncontaminated seawater system is installed, with a thermosalinograph and a bench top fluorometer.

Dark Room

Home Page: http://www.soest.hawaii.edu/HURL/hurl_KOK_specs.html

**University of Hawaii
Section 3**

**SHIP OPERATING SCHEDULE
FOR 2003
R/V KAIMIKAI-O-KANALOA**

CRUISE DATES	MAP INDEX/AREA/ PURPOSE	P.I./INSTITUTION/ PROPOSAL NO.	PORTS	DAYS/AGENCY/ STATUS/ CLEARANCE
15 JAN 19 JAN	NP12/Hawaiian Islands/ HOT Series	Karl, D./UHI/ OCE96-17409	Honolulu Honolulu	04/NSF/F
22 JAN 31 JAN	NP12/Hawaii/MOBY/	Clark, D./NOAA/	Honolulu Honolulu/	09/NASA/F
17 FEB 22 FEB	NP12/Hawaiian Islands/ Alkenone Production	Parhl, F../UHI/ OCE00-94329	Honolulu Honolulu	05/NSF/F
24 FEB 28 FEB	NP12/Hawaiian Islands/ HOT Series	Karl, D./UHI/ OCE96-17409	Honolulu Honolulu	04/NSF/F
09 APR 10 APR	NP12/Hawaii/PMEL Equipment Test	Lake, B./NOAA/	Honolulu Honolulu	01/NOAA/F
16 APR 18 APR	NP12/Hawaii/MOBY	Clark, D./NOAA/	Honolulu Honolulu	03/NASA/F
22 APR 26 APR	NP12/Hawaiian Islands/ HOT Series	Karl, D./UHI/ OCE96-17409	Honolulu Honolulu	04/NSF/F
19 MAY 23 MAY	NP12/Hawaiian Islands/ HOT Series	Karl, D./UHI/ OCE96-17409	Honolulu Honolulu	04/NSF/F
10 JUL 13 JUL	NP12/Hawaii/MOBY	Clark, D./NOAA/	Honolulu Honolulu	03/NASA/F
18 JUL 22 JUL	NP12/Hawaiian Islands/ HOT Series	Karl, D./UHI/ OCE96-17409	Honolulu Honolulu	04/NSF/F
08 AUG 18 AUG	NP12/Hawaii/HURL	Malahoff, A../UHI/	Honolulu Honolulu	03/NURP/F

19 AUG	NP12/Hawaiian Islands/	Karl, D./UHI/	Honolulu	04NSF/F
23 AUG	HOT Series	OCE96-17409	Honolulu	
24 AUG	NP12/NW Hawaii/HURL	Malahoff, A./UHI/	Honolulu	71/NOAA/F
06 NOV	NW Hawaiian Isl Survey		Honolulu	
11 NOV	NP12/Hawaii/MOBY	Clark, D./UHI/	Honolulu	05/NASA/F
16 NOV			Honolulu	
18 NOV	NP12/Hawaii/HURL	Malahoff, A./UHI/	Honolulu	27/NURP/F
17 DEC			Honolulu	
19 DEC	NP12/Hawaiian Islands/	Karl, D./UHI/	Honolulu	02/NSF/F
21 DEC	HOT Series — Dickey	OCE96-17409		

Agency	Funded	Proposed	TOTAL
NOAA	72	0	72
NSF	31	0	31
NASA	20	0	20
NURP	30	0	30
TOTAL	153	0	153

ALL KOK operations in 2003 are in Hawaiian waters

University of Hawaii
Section 3
2004 SHIP OPERATING SCHEDULE
R/V KAIMIKAI-O-KANALOA

<u>CRUISE DATES</u>	<u>MAP INDEX/AREA/ PURPOSE</u>	<u>P.I./INSTITUTION/ PROPOSAL NO.</u>	<u>PORTS</u>	<u>DAYS/AGENCY/ STATUS/ CLEARANCE</u>
19 JAN 24 JAN	NP12/Hawaiian Islands/ HOT Series	Karl, D./UHI/ OCE03-26616	Honolulu Honolulu	05/NSF/F
03 FEB 10 FEB	NP12/Hawaii/MOBY/	Clark, D./NOAA/	Honolulu Honolulu	07/NASA/P
23 FEB 28 FEB	NP12/Hawaiian Islands/ HOT Series	Karl, D./UHI/ OCE03-26616	Honolulu Honolulu	05/NSF/F
01 MAR 14 APR	LAY UP - out of service -		Honolulu Honolulu	(NON-OP)
15 APR 17 APR	NP12/Hawaii/MOSEAN/	Dickey, T./UCSB/ NSF-Other02-1-0941	Honolulu Honolulu	02/NSF/F
19 APR 24 APR	NP12/Hawaiian Islands/ HOT Series	Karl, D./UHI/ OCE03-26616	Honolulu Honolulu	05/NSF/F
26 APR 28 APR	NP12/Hawaii/MOSEAN/	Dickey, T./UCSB/ NSF-Other02-1-0941	Honolulu Honolulu	02/NSF/F
03 MAY 07 MAY	NP12/Hawaii/MOBY/	Clark, D./NOAA/	Honolulu Honolulu	04/NASA/P
17 MAY 22 MAY	NP12/Hawaiian Islands/ HOT Series	Karl, D./UHI/ OCE03-26616	Honolulu Honolulu	05/NSF/F
16 JUN 18 JUN	NP12/Hawaii/MOSEAN/	Dickey, T./UCSB/ NSF-Other02-1-0941	Honolulu Honolulu	02/NSF/F
21 JUN 26 JUN	NP12/Hawaiian Islands/ HOT Series	Karl, D./UHI/ OCE03-26616	Honolulu Honolulu	05/NSF/F
28 JUN 30 JUN	NP12/Hawaii/MOSEAN/	Dickey, T./UCSB/ NSF-Other02-1-0941	Honolulu Honolulu	02/NSF/F
19 JUL 24 JUL	NP12/Hawaiian Islands/ HOT Series	Karl, D./UHI/ OCE03-26616	Honolulu Honolulu	05/NSF/F

03 AUG 07 AUG	NP12/Hawaii/MOBY/	Clark, D./NOAA/	Honolulu Honolulu	04/NASA/P
23 AUG 28 AUG	NP12/Hawaiian Islands/ HOT Series	Karl, D./UHI/ OCE03-26616	Honolulu Honolulu	05NSF/F
27 SEP 02 OCT	NP12/Hawaiian Islands/ HOT Series	Karl, D./UHI/ OCE03-26616	Honolulu Honolulu	05NSF/F
11 OCT 15 OCT	NP12/Hawaii/MOBY/	Clark, D./NOAA/	Honolulu Honolulu	04/NASA/P
20 OCT 22 OCT	NP12/Hawaii/MOSEAN/	Dickey, T./UCSB/ NSF-Other02-1-0941	Honolulu Honolulu	02/NSF/F
25 OCT 30 OCT	NP12/Hawaiian Islands/ HOT Series	Karl, D./UHI/ OCE03-26616	Honolulu Honolulu	05NSF/F
01 NOV 03 NOV	NP12/Hawaii/MOSEAN/	Dickey, T./UCSB/ NSF-Other02-1-0941	Honolulu Honolulu	02/NSF/F
05 NOV 23 NOV	NP12/Hawaii/Food Web Dynamics	Benitez-Nelson, C./ OCE02-41645	Honolulu Honolulu	18/NSF/F
26 NOV 01 DEC	NP12/Hawaiian Islands/ HOT Series	Karl, D./UHI/ OCE03-26616	Honolulu Honolulu	05/NSF/F
02 DEC 17 DEC	NP12/Hawaii/HURL/	Malahoff, A./UHI/	Honolulu	15/NURP/P
18 DEC 23 DEC	NP12/Hawaiian Islands/ HOT Series	Karl, D./UHI/ OCE03-26616	Honolulu Honolulu	05/NSF/F
26 DEC 31 DEC	NP12/Hawaii/HURL/	Malahoff, A./UHI/	Honolulu	05/NURP/P

<u>Agency</u>	<u>Funded</u>	<u>Proposed</u>	<u>TOTAL</u>
NSF	85	0	85
NAVY	0	0	0
NASA	0	19	19
NOAA/NURP	0	20	20
TOTAL	80	39	124

**All 2004 KOK operations
will be in Hawaiian waters**



UNIVERSITY-NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

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(831)-771-4410 Fax (831) 632-4413 www.unols.org office@unols.org

December 18, 2003

Dr. Brian Taylor
Acting Associate Dean of Research
School of Ocean and Earth Science and Technology
University of Hawaii
1680 East-West Road, POST 802
Honolulu, HI, USA 96822

Dear Brian:

Mike Prince and I have been discussing the application from University of Hawaii to have the R/V KAIMIKAI-O-KANALOA (KOK) designated as a UNOLS vessel, and I wanted to let you know the process that UNOLS Council will be following as we evaluate your application.

Unfortunately your application arrived some months before our next Council meeting, now scheduled for March 2004. As you know, there are a number of ongoing issues about academic fleet renewal that are impacted by the potential addition of the KOK to the UNOLS fleet. UNOLS Council will need to discuss and evaluate your application in the context of these issues, as well as on the obvious merits of the capabilities of the KOK and SOEST and the potential contribution that the KOK could make to the UNOLS fleet.

Over the next two months, the members of UNOLS Council will evaluate the KOK application materials and will provide me with comments. At the March meeting of UNOLS Council we will conduct an open discussion and evaluation, and will contact you after that meeting to report the results of our discussion.

I realize that this time frame for a decision on your application may be longer than you had hoped for. I will do what I can to move the decision along, but I think it is reasonable to expect no decision until after the March Council meeting.

Sincerely,

Tim Cowles
UNOLS Chair

cc: UNOLS Office

From: taylorb@hawaii.edu
Subject: Fwd: KOK application for designation as UNOLS vessel
Date: December 19, 2003 4:20:11 PM PST
To: tjc@coas.oregonstate.edu
Cc: office@unols.org, lgoad@nsf.gov, FREITAJ@ONR.NAVY.MIL,
swinslow@soest.hawaii.edu, johnw@soest.hawaii.edu, keil@hawaii.edu,
dkarl@hawaii.edu, office@unols.org, pfryer@soest.hawaii.edu

Tim,

Thank you for the information. Yes, the time-line is long - but the issue is very important.

In your letter you say: "As you know, there are a number of ongoing issues about academic fleet renewal that are impacted by the potential addition of the KOK to the UNOLS fleet. UNOLS Council will need to discuss and evaluate your application in the context of these issues, as well as on the obvious merits of the capabilities of the KOK and SOEST and the potential contribution that the KOK could make to the UNOLS fleet."

As you know, the standard UNOLS application materials did not request that we address the issues to which you refer above. I do not know whether such considerations have been used in the evaluation of previous applications.

I do know that we, or better still the UNOLS office, could supply information on the extent of Federally-funded programs in the central Pacific in recent years that would greatly benefit from the inclusion of KOK in the UNOLS fleet. The HOT and MOBY programs, in particular, are federally-funded programs that are commonly left to UH-SOEST to solve with KOK. This year we also got left "holding the bag" on a 100-day NavAir program that was cancelled the week we were submitting our NSF ship ops proposal.

Please let me know if you would like us to prepare further information for the UNOLS Council to consider in their evaluation of our request. We expect to have a revised KOK schedule for 2004 of about 140-150 days when yet-to-be-funded NOAA-NURP-HURL work is included.

Sincerely,
Brian.

Brian Taylor
Acting Assoc. Dean Research
SOEST