

R/V Coral Sea Handbook for Scientific and Educational Users

Revised
November 19, 2019



R/V Coral Sea
Scientific and Educational Users Handbook

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A. Introduction

This handbook is provided to all users of the R/V Coral Sea to familiarize them with the vessel, the university, the crew and current operations and policies on the use of the vessel. The handbook for users comprises the rules, regulations and expectations for all users to include: HSU faculty, staff and students; any non-HSU faculty, staff and students; and any contractors using the R/V Coral Sea. *All users* should endeavor to be familiar with sections A and B if you are going to use the vessel for instruction or research. If you are employed on the R/V Coral Sea you must be aware of all sections of the handbook.

1. Mission of the R/V Coral Sea

The primary mission of the R/V Coral Sea is to provide a safe platform for oceanographic and marine science instruction and research. An important emphasis of the Humboldt State University mission is undergraduate instruction and the R/V Coral Sea supports this activity. Student and faculty research is also encouraged and supported on the R/V Coral Sea. In the teaching and research roles, the R/V Coral Sea is an integral part of the Humboldt State University mission. The R/V Coral Sea is available to persons outside HSU for instruction and research on a contract basis.

2. Ship Information

Brief History of the R/V Coral Sea.

The keel was laid for the ship on February 16, 1973 at Lindwall Boat Works in Santa Barbara, California. The ship design was by Shannon Eleuterius and stability calculations were done by Clyde Leavitt, Naval Engineer. Mr. Glen Miller had the vessel built as a USCG inspected passenger vessel for recreational divers around the Channel Islands of southern California and later used in treasure hunting. It was a US Coast Guard Inspected vessel for carrying passengers for hire, certified for 49 passengers. The vessel was launched on August 15, 1974, and used by Glen Miller until his death in 1981. Ronald Markowski purchased the vessel in 1981 and used it for dive charters in Florida until 1984. It was seized by the Florida Department of Law enforcement in 1984 during a drug raid and sold at auction to Florida Marine Research Institute (FMRI) of the Florida Department of Natural Resources. It was renamed Hernan Cortez II. In 1992 Mark Pudloe, Marine Architect, SeaCraft Design, designed a mid-hull addition of 13.5 feet which was added at LaForce Shipyard in Bayou La Batre, Alabama. The vessel was used by FMRI for research in the Gulf of Mexico until 1997.

It was purchased by Humboldt State University in 1998. In 2006, both main engines (low emission Tier II), reduction gears, shafts, propellers, exhaust system and engine controls were replaced. In 2006 Mark Pudloe completed stability calculations after reconfiguration of the hull and the addition of a bulbous bow and bow thruster. In 2008 the center generator was replaced with a new Northern Lights 55 kw tier II low emissions generator, and all new bridge electronics were installed. In 2009 a \$205k grant was received from NSF which allowed for the purchase and installation of various oceanographic equipment including a Continuous Underway Fish Egg Sampling (CUFES) system, Sea Bird 25 CTD, Hull mounted RCI-ADCP, SOSI- STW-22L real time Oceanographic winch with 5,000' ¼" conductive cable, Otter Trawl nets, Lab computers,

servers, monitors, flow through system, Furuno RD-30 Weather system, AIS, DVR camera/security system. In 2010 a new 12' Zodiac with 20hp Honda motor. In 2011 a new JRC Inmarsat satellite phone/data system was installed. In 2012 a new Northern Lights tier IV 20kw Emergency/House generator. In 2008 a Deep Ocean Engineering Phantom XL Remotely Operated Vehicle (ROV) rated to 300m was acquired and is operational. An additional ROV, a Deep Oceans System Max Rover rated to 1000m was donated to HSU by the US Navy and is in the process of being made operational. Both systems include forward directed HD cameras, lights and scaling lasers along with a Kongsberg acoustic position system and GPS tracking.

Management

The R/V Coral Sea is managed by the College of Natural Resources and Sciences. The Dean of the College of Natural Resources (CNRS) and the Captain oversee operations of the R/V Coral Sea. R/V Coral Sea is scheduled through the HSU Marine Lab in Trinidad where the main office for the program is located. The vessel Captain can be contacted by phone or email as listed on the R/V Coral Sea website, <http://www.humboldt.edu/marinelab>.

3. Ship Specifications

General Specifications

Official Number:	559373	Owner:	HSU
Built:	1974, 1992	Propellers:	48" x 32" 4 bladed
Length:	90 ft.	Speed Cruise:	10 kn at 1550 rpm
Beam:	22' 4 "	Speed Max:	11 kn at 1800 rpm
Draft:	6' 7" fore, 9' aft	Speed Min.:	0.5 kn
Gross Tonnage:	143 ITC	Endurance:	10 days
Displacement:	220 tons	Range:	2,700 nm.
Crew:	2 or more	Fuel Capacity:	6,262 gal.
Total Berths:	15	Fuel:	20 gal. / hr.
Main Engines:	KTA 19 m, 2006 500hp	Radio Call Sign:	WCX 9122
Bow Thruster:	Westmar 75 hp.	Lab Wet:	45.5 sq. ft.
Generators:	2 @ 55 kw, 1 @ 20 kw	Lab Dry:	176.17 sq. ft.
Potable Water Capacity:	4,260 gal.	Sewage System:	MicroFir 300 gal.
Open Deck Space:	440.86 sq. ft.	Holding Tank:	2,000 gal.

Navigation Communication

Cell Phone:	(707) 599-2147	Computer:	Dell PC w/Nobeltec VNS Rose Point plotting software
GPS:	2 - Furuno GP-80	Radar:	Furuno 1954C-BB 72 mile
Radar:	Furuno 1731 Mk 3 16 mile	Radio-VHF:	4 Standard hand held
Radio-VHF:	2 - ICOM M602 DCS	Autopilot:	ComNav 1001
Radio-SSB:	Furuno FS 1503	Loud Hailer/Fog:	Standard Horizon LK-10
Fathometer:	Furuno FCV 1100L 28- 50kHz	AIS:	Furuno FA-150
Weather:	Furuno RD-30	Compass:	6 " Dirigo
Satellite Compass:	Furuno SC-502	Charting:	Nobel Tec 8.0
Loran:	Trimble GPS 10 X		

Steering Stations:	Bridge, Starboard Forward	Aft Port:	Morse Electronic
Security System:		Nuvico NVJV-8000	9 zones

Deck Equipment;

A Frame:	15'6" x 13' 6"	15' swing	5,000 lbs. max
Crane :	Hiab 15'		1,500 lbs. max
Main Deck Winch:	2000 m of 7/16 "	Markey DES 3	
Hydro Winch:	1500 m of 3/16 "		
Oceanographic Winch:	Sound Ocean Systems STW-1022L, 5,000' data cable		
Electrical Power:	110 V- 3 phase 208/480 V two 55 KW generators, 1 Emergency/House 20 KW		
Seawater Supply:	Aft sink, Aft deck, CUFES		
Anchor Windlass:	360' of 5/8" chain 300 lb. anchor-bow, 2 – 150 lb. anchors- side		
Dive Ladder:	6' tubular aluminum		

Safety Equipment

Life Jackets:	44 Type 1
Work Vests:	44 Type 5
Survival Suits:	44 Sterns
Life Rafts:	44 Max capacity, 1 Viking 20, 2 Viking 12,
EPIRB:	1 ACR 406mHz
Life Rings:	7- 3' throwable
Hard Hats:	17
Engine Room:	Fixed CO2, Fire pump 10 HP seawater
Extinguishers:	18 Hand held CO2, Bll, Halon
First Aid Kit	
Bilge Alarm:	Engine Room Alarm

Lab areas

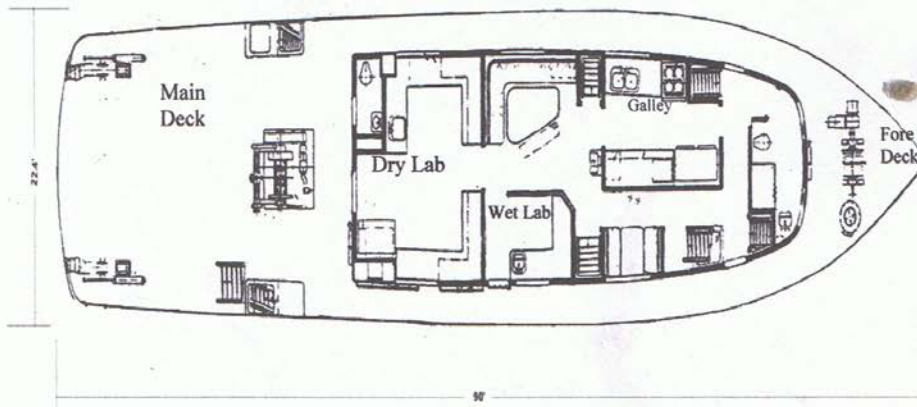
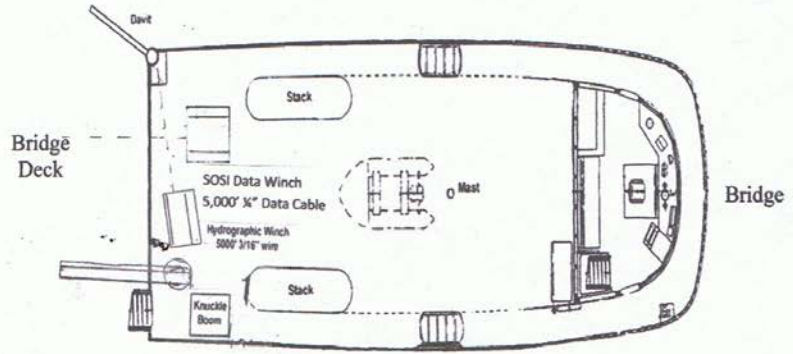
<u>Wet Lab:</u>	45.5 sq ft. counters
Counters:	Waist high, storage
Power:	110 V 20 amp
Water:	Sink, Freshwater
<u>Dry Lab:</u>	176.17 sq ft.
Counters:	Waist high, storage
Power:	220/110 V 20-30 amp
Water:	Sink, Freshwater
Computers:	3 PCs, 1-3 tb server, SBE 33 Carousel, WetStar Chlorophyll, Teledyne RD Deck Box, SBE 45 Micro Thermosalinograph, PDMI CTD power and data system, RCI Work Horse Mariner, 300 kHz Trhu-hull mounted ADCP
GPS:	Furuno GP-80
Fathometer:	Furuno FCV 5822; 50 kHz
Charting:	Rose Point Coastal Explorer and Nobel Time Zero Odyssey
Meteorological:	Davis Vantage Vue

4. Scientific Equipment

1. 25 foot otter trawl
2. Plankton nets and collectors
3. Continuous Underway Fish Egg Sampler (CUFES)
4. PC Computers with monitors including 32" remote monitor
5. 1-3 tb Server
6. Teledyne RD Deck Box
7. SBE 33 Carousel
8. WetStar Chlorophyll
9. SBE 45 Micro Thermosalinograph
10. PDMI CTD Power & Data System
11. Seawater flow through system
12. RCI Work Horse Mariner 300 kHz Thru-hull mounted ADCP
13. SeaBird 25 CTD
14. Bongo nets
15. Plankton net
16. Three dissection microscopes
17. Hand Held refractometer
18. YSI oxygen probe and 10 meter cable
19. Shipek sediment grab
20. Smith McIntyre Mud Grab
21. Large Box corer
22. Deep Ocean Engineering Phantom XL ROV (300m)
23. Meteorological, Davis Vantage Vue

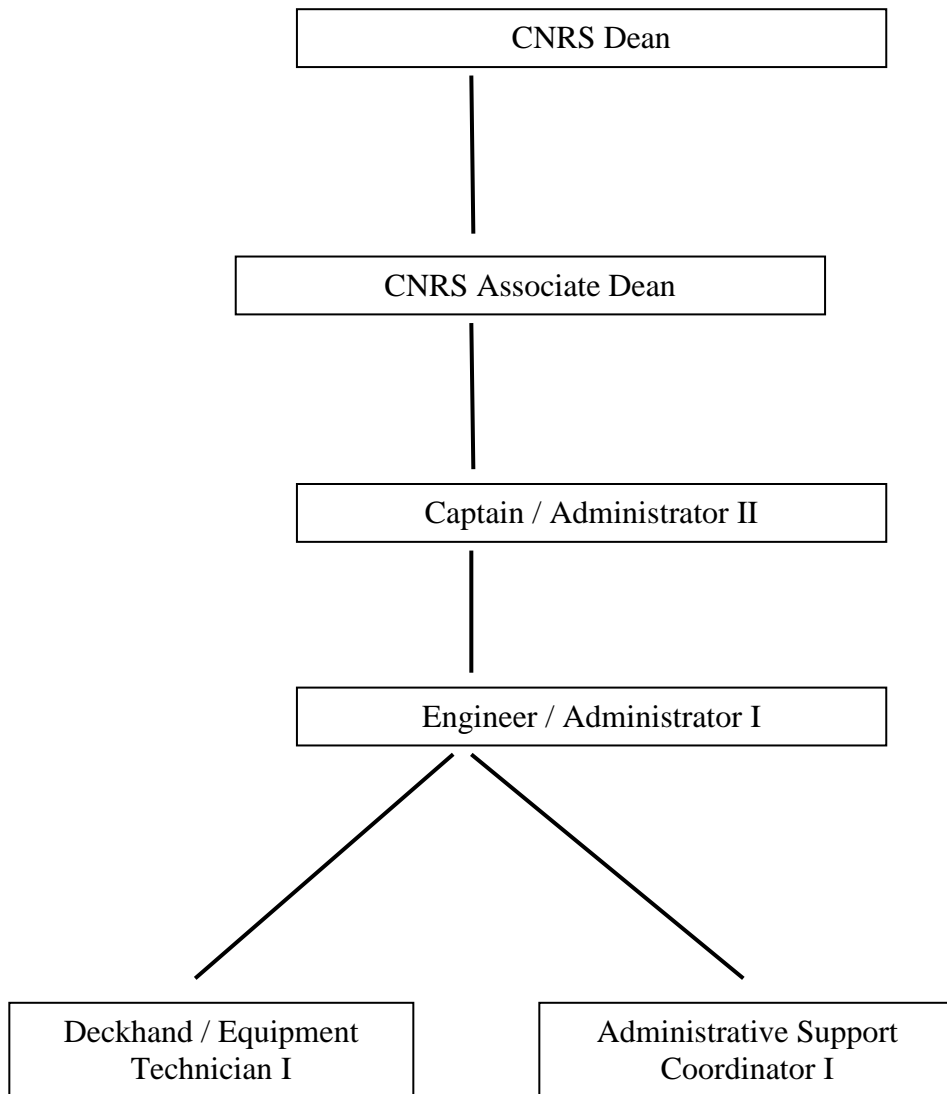
Additional equipment may be obtained locally as needed.

5. R/V Coral Sea Deck Plan

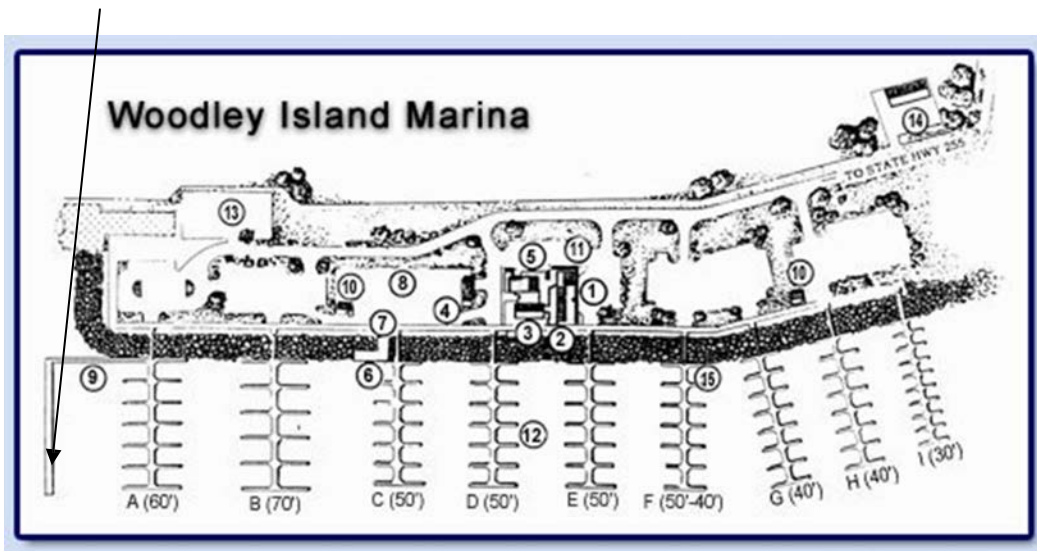


6. HSU Marine Facilities Organizational Chart

Research Vessel Coral Sea
Organizational Chart 2019



7. R/V Coral Sea's home port is [Woodley Island Marina](#), Eureka CA.,



1. Marina Offices
2. Dock Master/Security
3. Cafe & Bar
4. Laundry
5. Restrooms/Showers
6. 1 & 2-ton Hoists
7. Work Dock
8. Work Area

9. Sewage Pump-out
10. Restrooms
11. Ships Chandlery
12. Transient Vessel Berths
13. Storage Yard
14. National Weather Service
15. Boat sales, rentals, lessons, canoe and kayak launching

Information:

Woodley Island Marina
237 berths, full utilities, water, power
(20-50 amps), bilge pump-out, fire
protection, and 24 hour security.

Address:

601 Startare Drive
P.O. Box 1030
Eureka, CA 95502-1030
(707) 443-0801
VHF Radio Channel 14 & 16
woodleyisland@portofhumboldt.org

Other Important Numbers:

U.S. Coast Guard Group Humboldt Bay:
(707) 839-6103

U.S. Coast Guard Station Humboldt Bay:
(707) 443-2213

U.S. Customs:
(707) 442-4822

National Weather Service: 707-443-6484

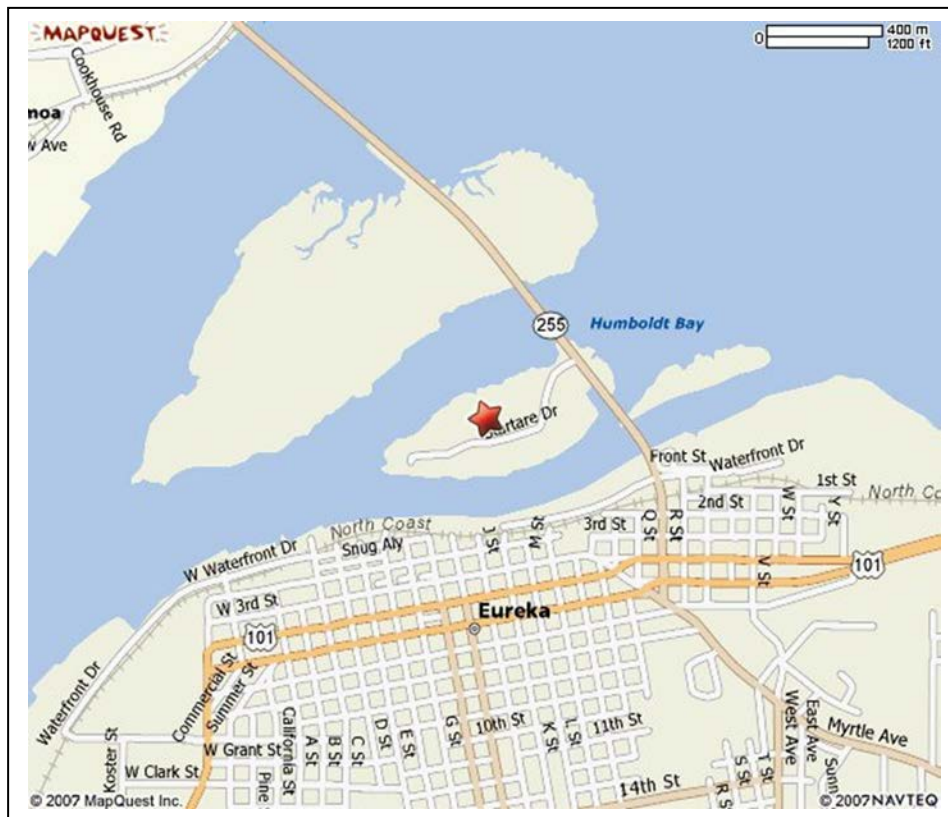
Directions to Woodley Island Marina

From Arcata, California:

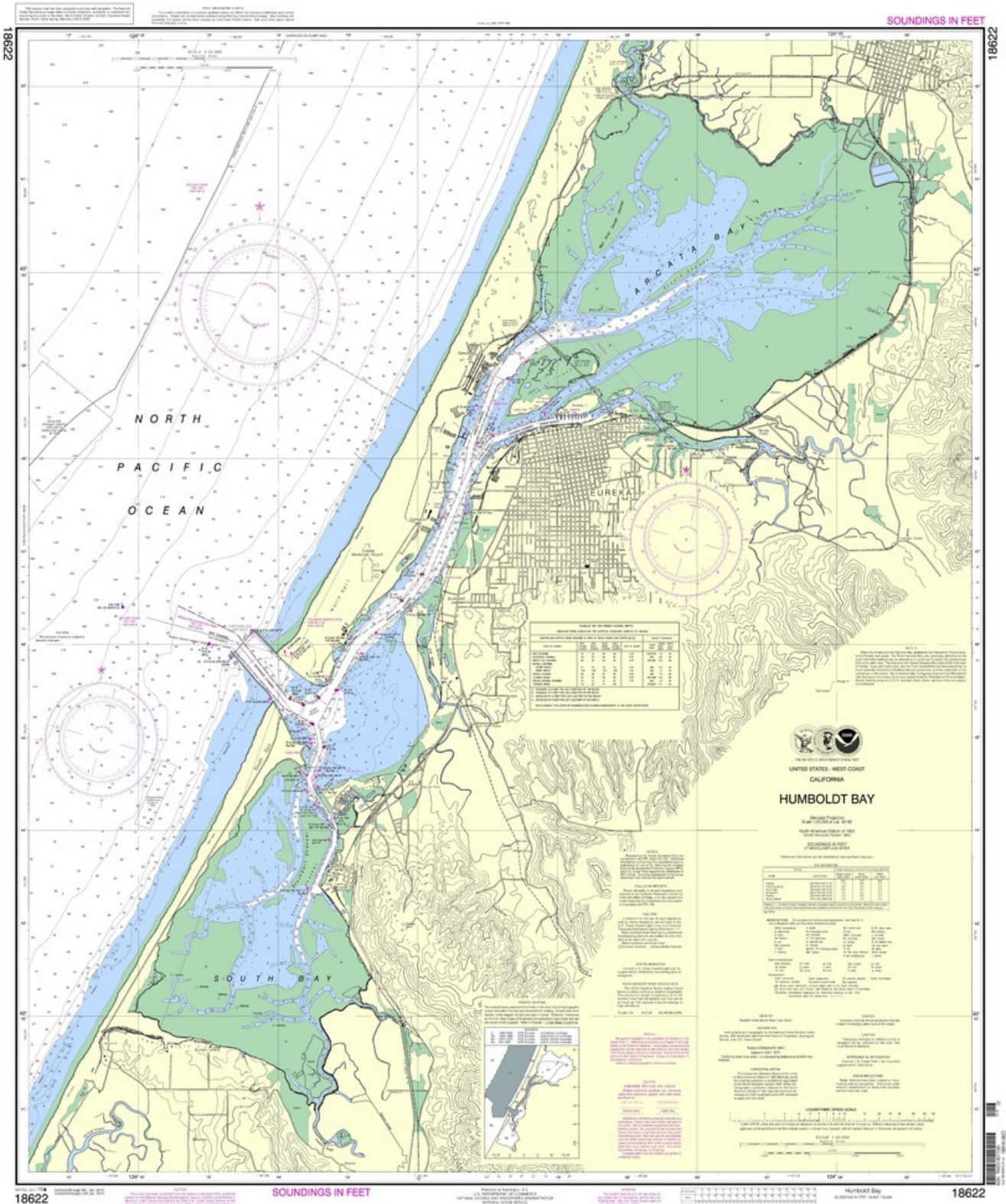
Take US - 101 South for 7 Miles
Turn right at CA-255 - go 0.6 mi
Turn right at Startare Dr - go 0.3 mi
Arrive at Woodley Island Marina
601 Startare Dr
Eureka, CA 95501

From Fortuna, California

Take US - 101 North for 13 miles
US - 101 turns into Broadway go about 3 miles
Broadway turns into Fifth Street follow for about 1 mile
Turn left at CA-255 N - go 0.6 mi
Turn right at Startare Dr - go 0.3 mi
Arrive at Woodley Island Marina
601 Startare Dr
Eureka, CA 95501



8. Humboldt Bay Chart



B. Operations

1. Ship Scheduling

The current ship schedule for R/V Coral Sea is kept by the HSU Marine Lab. Anyone can access a copy of the schedule by submitting a request to the Marine Lab ASC who can send you a current copy of the schedule.

2. Cruise Reservations

HSU Faculty: Teaching

Reservations for ship time are made through a [Cruise Request](#) form that can be found on the HSU Marine Lab [website](#). HSU faculty should submit their teaching cruise requests no later than the end of the first week of classes each semester for each academic year but reservations may be made at any time provided there is at least two weeks advanced notice. Faculty will be notified when their reservations have been confirmed. Ship time is awarded to the Chief Scientist on each cruise for a specific course, not the specific department of that faculty member. Ship time is allocated on a first come-first serve basis so early reservations are strongly encouraged.

HSU Faculty: Research:

HSU faculty requesting ship time for research cruises can be scheduled in advance at any time, but generally we request 30 days notice in advance. Reservations for research ship time are made through a [Cruise Request](#) form that can be found on the HSU Marine Lab [website](#). An HSU Account to be charged for vessel use must be included in the ship time request. Upon receipt of the ship time request, the Marine Lab ASC will contact the Chief Scientist to arrange for specific cruise dates and will post the cruise dates on the ship schedule.

Outside Contractors: Teaching or Research

All outside contractors (anyone not directly employed by Humboldt State University) likewise needs to fill out a reservation for ship time through a [Cruise Request](#) form that can be found on the HSU Marine Lab [website](#). This will begin the process of arranging a contract for use of the R/V Coral Sea with HSU. The Cruise request form will be sent back to the contractor for verification, then to ship scheduling.

Outside contractors must also contact HSU Contracts to establish a contract for vessel use. This will require proof of insurance for those persons using the R/V Coral Sea. Contracts and Procurement negotiates the outside contracts for use of the R/V Coral Sea for HSU. Contracts and Procurement will also receive a copy of your cruise request form, so that billing can be calculated. HSU has certain limits as to all contracts for the use of the R/V Coral Sea, so early contact with Contracts and Procurement is important to ensure a smooth progression of the contracts.

3. Cruise Reporting

For HSU cruises, at the completion of the cruise, prior to disembarking the vessel, each Chief Scientist must fill out a [Cruise Report form](#). This form documents the ship time used, clean up required, and a review of ship operations and equipment. The Cruise report is used to create the invoice if a cruise is charged to an HSU Faculty person. This report is filed with the Dean, HSU ML and then an invoice for charges is sent to HSU Accounting, with a formal copy to the Chief Scientist. If required, a copy of the R/V Coral Sea Bridge log for each cruise can be obtained from the Captain after the cruise. A copy of the official cruise manifest may also be obtained if required. It is the responsibility of the Chief Scientist to keep their own Science Log of events, equipment deployment and any data generated.

4. Cruise Sharing

HSU faculty can at their discretion and with approval from the Dean of CNRS, share their cruise with more than one HSU class, faculty and students. Each cruise will have one designated faculty as Chief Scientist, and be charged accordingly.

5. Cruise Billing

An initial cost estimate for a particular cruise can be provided by the Captain prior to the departure. The estimated bill will include the ship time day rate charges at the current rate, any pre- deployment charges and clean up charges. Any special modifications, new equipment required, or special requests will be charged at cost and included in the estimate of the bill. Dockage at any location outside the Eureka homeport will be charged to the user at cost. Depending on the actual cruise report filed, these charges may be adjusted up or down.

Waiving Use fee

The State requires that all use of its facilities be charged at the set costs. Therefore, use fees for the R/V Coral Sea can not be waived without approved prior negotiation.

In special pre-negotiated cases, some funds have been acquired in the past to balance ship time costs for outside users where there is a demonstrated benefit to HSU. This must be discussed and agreed upon with the Captain, Dean and HSU Contracts and Procurement in advance of the cruise.

On some occasions, outside contractors have allowed HSU students to participate in their contracted cruise. The presence of an HSU student on board does not mean that cruise will be billed as a discount for HSU users. If a significant number of HSU students and faculty participate in an outside contractor cruise, it may be possible to pre-negotiate a reduction in user fees. Please contact the Captain in advance to discuss the possibility of a reduced fee.

6. Weather Cancellations

The Captain can at any time before the cruise, cancel the cruise due to weather predictions and his local experience. The Captain can at anytime during a cruise determine that safe operations are no longer possible, and return to the dock. The Chief Scientist and only the Chief Scientist can cancel the cruise due to weather predictions or conditions at least 18 hours before the departure, with no fees charged. Once the vessel leaves the dock, there will be a minimal required charge of 4 hours if weather then requires cancellation of the cruise by either the Captain or the Chief Scientist. Weather predictions and tidal prediction can be found for Eureka at the local [National Weather Service](#), and these are the predictions used for all local cruise planning. A weather cancelled cruise, will get high priority for immediate re-scheduling if possible. It may be prudent during the winter months to plan for alternate weather dates for a particular cruise. The ship schedule will allow for soft holds on some dates if required for weather cancelled trips. Please discuss this with the Captain and indicate weather options on your Cruise Request form.

Summary Steps for Shiptime Cruise Requests.

<u>Event</u>	<u>HSU Faculty</u>	<u>Outside Contractors</u>
1. Cruise Request form to HSU Marine Lab	Yes	Yes
2. Marine Lab returns form to Chief Scientist	Yes	Yes
3. Marine Lab posts ship schedule	Yes	Yes
4. Outside Contractor contacts HSU Contracts	No	Yes
5. HSU Contracts negotiates Contract	No	Yes
6. Chief Scientist checks with Captain	Yes	Yes
7. Cruise takes place	Yes	Yes
8. Chief Scientist fills out Cruise report	Yes	Yes
9. Captain submits Cruise report to HSU ML	Yes	Yes
10. Invoice to HSU Account or Contractor	Yes	Yes

7. Scientific Party Protocols and Crew Expectations for R/V Coral Sea

1. All persons will report to the ship's crew when boarding the R/V Coral Sea and personally sign in on the ship's manifest for the cruise. At this time, all persons must hand to the ship's crew a signed [liability release waiver](#) or have completed an online waiver. ***Departure will be delayed until all persons have produced their waiver.*** All persons must also check out with the ship's crew and check off the manifest when departing the ship. All persons must attend and participate in a ship safety briefing before each cruise.
2. The Engine Room is off-limits during normal ship operations to all persons.
3. The fore deck is off-limits during rough weather and rough bar crossings. During calm weather, in normal operations, the Bridge Officer or Captain may grant permission for persons to use the fore deck. Permission must be obtained directly from the Captain or Bridge Officer.
4. Scientific Party assigned duties for each cruise must be posted in the lab prior to leaving the harbor. ***The Chief Scientist is responsible for the assignment of duties, and posting of the assigned duties.*** All loose scientific equipment must be properly and safely stowed upon departure from the harbor. It is the responsibility of the scientific party to stow their gear in a safe and prudent manner. When moving about the ship, all doors must be closed and latched; open swinging doors can present significant hazards.
5. Scientific Party with assigned duties may not leave their assigned task unless they notify the Chief Scientist. The Chief Scientist, not the ship's crew, will find replacements for assigned duties.
6. Personal gear of the scientific party must be properly stowed in the Wet lab area or as directed by the vessel crew. Loose gear should not be left in passageways, the head, galley or any common spaces. The Chief Scientist is responsible for ensuring all scientific party gear is properly stowed.
7. All members of the scientific party will wear work vests (type V PFD) and a hard hat when working on the aft deck. No open-toed shoes or ear buds are allowed at anytime.
8. For trips, food and drink is provided by the Scientific Party, unless other arrangements are made in advance. Scientific Party has access to the Galley for fresh and hot water. Longer trips may have food provided as negotiated.
9. With out exception, pre-existing physical conditions that may be of concern due to the type of work being performed, environmental hazards, severe allergies or any other reason **MUST** be reported to the Captain **PRIOR** to the vessel departing the dock.
10. Consumption of alcohol on the R/V Coral Sea is prohibited. Smoking, vaping and chewing tobacco are likewise prohibited. No illegal drugs of any kind are allowed on board. Persons with/or under the influence of alcohol or mood altering or narcotic prescriptions must notify the captain, prior to boarding the vessel.
11. Hazardous or noxious chemicals must be properly stored. Formalin should be stored outside the

cabin on deck. The Captain and ship's crew must be notified of any chemicals required for your cruise, their location, amount and use. Material Safety Data Sheets are required for all chemicals brought on board each cruise.

12. Use of fragrances such as perfumes, colognes etc are strongly discouraged as they may effect others with allergies.

13. At the discretion of the Captain and the Chief Scientist and compliant with all state and federal laws, hook and line pole fishing may take place by persons with a valid California (or applicable state) Fishing License or Scientific Collecting Permit. Persons must receive permission from both Captain and Chief Scientist before they begin any fishing activity.

14. For HSU cruises, at the end of each cruise, the Chief Scientist must submit a post-Cruise report to the Captain. [Forms](#) are available on the Bridge computer for this report.

15. At the end of each cruise, the Scientific Party is required to clean and rinse all their equipment and ship's equipment used that day. They are also required to clean up the decks, common spaces, labs and galley. The ships crew will clean up special equipment as required. The scientific party cannot depart the ship until it meets ship's crew inspection for general cleanliness.

16. Use a buddy system when moving about the ship during normal operations. At night, or when it is foggy, do not go out on deck without a personal flotation device and buddy. Inform the ship's crew if you want to go on deck during hours of darkness.

17. All activities on board the R/V Coral Sea are predicated on safe operations. If you have a question, or do not understand how to use some equipment, or do not understand any ship's orders please ask a member of the ship's crew. A moving ship at sea presents innumerable hazards that must be accommodated. Please watch out for your own well being and those of your scientific party. If you feel ill or are injured, report to the ship's crew for first aid (kit located in the dining salon).

8. Ship Operations

The R/V Coral Sea operates under a set of standing orders from the Dean of the CNRS and the HSU President. These orders are not negotiable and may be found in the bridge documents binder. Chief Scientists should be familiar with all the elements of the standing orders. In summary, the Captain determines if safe operations can occur on the R/V Coral Sea at any time. If safe operations can not be conducted, using his judgment, he will cease all scientific operations and return to dock or the nearest safe port at his discretion. The Captain will endeavor, within the limits of prudence and safety, to accommodate the needs of the scientific party as communicated solely by the Chief Scientist for each cruise. A summary sheet of Scientific Ships Party Protocols has been established. This delineates the expectations of the crew of R/V Coral Sea, its Captain and HSU with regard to all parties using the vessel for any purpose. It would be prudent for each Chief Scientist to review these protocols with each member of their scientific party prior to the cruise. Copies can be made available on the ship for review.

Safety Requirments

The Captain or designated crew member will give a detailed safety briefing prior to the vessel getting underway. ALL persons are required to attend the safety briefing and are encouraged to ask questions regarding safety procededures and equipment aboard the vessel.

Safety Oreintation topics will include all but not limited to the below

- Vessel familiarization and rules
- Manifest Station Bill number
- General alarm system, fire, flooding, MOB Abandon ship and mustering
- Proper use, donning and operation of light and whistle on Type 1 PFD's
- Proper protocols, use and donning of Work Vests and Hard hats
- Proper use, donning and location of Immersion suits
- Proper procedures for Man Overboard, rescue equipment and location
- Proper deployment process, location and use of inflatable life rafts
- Proper use, deployment and location of 406 EPIRB
- Proper use of First Aid kit and location
- Location of AED and portable Oxygen unit

Prior to exiting Humboldt Bay, all persons are required to understand the location and proper procedures of all safety related equipment including the successful and completed donning of an Immersion suit. Any person unable to successfully put on an Immersion suit will not be allowed to travel aboard the vessel while operating outside of Humboldt Bay.

All persons are required to comply with the following

- Work vests must be worn at ALL times when on deck.
- Hard hats are required when working near or under overhead loads and are not allowed to be worn on hats or other head gear without the use of a chin strap.
- No open toed shoes.
- Long hair should be restrained and confined while working around machinery, cranes, hoists, winches, power tools.
- Use of cell phones, ear buds, music or any other device capable of distraction are forbidden while on the work deck.

On overnight voyages where the lower accomodations area is being used, ANYONE sleeping or using the below deck accomodations area or other below deck areas are required to demonstrate the ability to locate, operate and exit the area Escape Hatch.

ALL cell phones and other rechargeable devices will ONLY be charged via electrical outlets on the main or upper decks. Charging devices and extension cords of any kind are banned from lower bunk areas.

With out exception, pre-existing physical conditions that may be of concern due to the type of work being performed, environmental hazards, severe allergies or any other reason **MUST** be reported to the Captain **PRIOR** to the vessel departing the dock.

Manifest

Only those persons whose names appear on the approved persons manifest or vessel crew list will be allowed on the vessel at any time during a cruise. Cruises, all or part of which will be in foreign waters, require advance documentation and clearance. Requests for clearance must be submitted to the Coral Sea Captain at least 120 days prior to the scheduled departure date. Normally, in order to avoid customs and immigration problems, all personnel and equipment for foreign cruises will embark and debark from a U.S port. On cruises to foreign waters, the Chief Scientist will ensure that all members of the scientific party have a valid Passport. Those who are not U.S. citizens will require a passport with a multi-entry U.S. visa. In clearing U.S. and foreign customs, various forms are required to be filed by the Captain.

One of these is a Complement List indicating the names, addresses, nationality and next of kin for everyone on board. The Captain states under oath that this list is complete and accurate. Last minute changes cannot be made after the clearance has been filed except in extremely unusual or emergency circumstances and with a resulting ship delay to re-file clearances. The ship's Captain is the sole authority in entering and clearing the ship and all onboard personnel through U.S. and foreign customs and immigration. No member of the scientific party or crew may leave the ship prior to the completion of customs and immigration clearance. In general, the composition of the scientific party is the responsibility of the Chief Scientist. All members of the party must be of the age of majority.

Chain of Command

By law, the Master (Captain) of a vessel has full and final responsibility for the safety of the vessel and all personnel on board. Because of this responsibility, he/she has full authority over all operations and embarked personnel. If circumstances require alteration of the cruise plan for safety or legal reasons, he/she shall keep the Chief Scientist apprised of matters affecting this decision. The Captain is also responsible for effective and economical operation of the vessel in support of the scientific mission.

The Chief Scientist is responsible for the coordination and direction of the science mission and for the conduct and activities of the embarked scientific personnel. It is vital to the success of a cruise that the Chief Scientist and the Captain keep each other informed of scientific goals and capabilities or limitations of the vessel and crew. R/V Coral Sea is a platform in which to carry out the scientific mission and crew are there solely for the safe operation of the vessel and equipment owned and operated by HSU and R/V Coral Sea. In practice, the Chief Scientist informs the Captain of what he/she desires and, unless it is unsafe, impractical or illegal, it will be carried out.

Equipment

HSU, R/V Coral Sea, the Captain and Crew are not responsible or liable for equipment other than that provided by HSU or the vessel. All equipment provided by the scientific party shall be attached,

connected, deployed, retrieved and remains the responsibility of the Chief Scientist. Scientific equipment handled by the crew of R/V Coral Sea at the direction of the scientific party shall NOT be the responsibility of HSU or R/V Coral Sea. The scientific party shall provide sufficient personnel as needed to accomplish the mission in a safe manner. Deployment of scientific equipment over the side is strictly forbidden without the knowledge and permission of the Captain or Watch Officer. R/V Coral Sea Captain and crew do not record any scientific data other than normal ship operations navigation data in the vessel log.

All data recorded in the official vessel log will pertain to vessel operations and navigation only. It is the responsibility of the Chief Scientist to provide any necessary personnel to complete a Scientific Deck log. The HSU Oceanography and Fisheries Departments maintain a comprehensive equipment pool from which items may be rented for use on board R/V Coral Sea. An up-to-date list of equipment is available and costs may be found by calling the HSU Marine Lab at (707) 826-3671.

The Chief Scientist shall ensure that all his/her party's personal effects and scientific equipment are removed from the vessel immediately at the end of the cruise and that the laboratory and berthing areas are cleaned and ready to accommodate the next scientific party. Unloading and cleanup can be delayed at the Captain's discretion, if circumstances permit.

Galley

R/V Coral Sea has a full galley/mess deck area which also serves as a lounge. Meal preparation and cleanup is a shared responsibility. All persons embarked aboard R/V Coral Sea will be expected to participate. If this arrangement will be impractical, notify the Captain who will decide whether a cook should be employed. Such notice must be made at least 30 business days prior to the scheduled cruise. When the vessel is away from a moorage for more than 12 hours per day it must be remembered that if a designated cook is carried as part of the crew, the size of the scientific party must be reduced to accommodate the extra crew member.

Heads and Berths

R/V Coral Sea carries 3,670 gallons of potable water, conservation is encouraged and at times, required. Please keep showers short and don't leave the fresh water running. For longer duration cruises, showers every other day will be encouraged or required. There are four berthing areas. The focsle (cabin #1) contains 2 bunks. The Captain's cabin (cabin #2) contains 2 bunks. Cabin #3 contains 6 bunks and cabin #4 contains 4 bunks. There is 1 additional bunk located in the lower cabin common area. There are drawers and hanging lockers located in all cabins. Locker space is limited so please bring only those personal effects that are absolutely necessary. There are two heads with one head/shower compartment to serve the entire vessel's complement.

First Aid and Safety

R/V Coral Sea has a First aid kit, o2, AED as well as other first aid supplies and the crew is trained in 1st aid, CPR and in the handling of minor medical emergencies. However, persons with health problems who will be sailing on the vessel must notify the Captain prior to leaving the dock and are advised that it can take several hours to get a person to adequate medical attention should it be necessary. The working deck on any vessel is an inherently dangerous area, especially during heavy weather and

weight handling operations when the vessel is working in a seaway. Each person embarked must be constantly alert to anticipate and prevent mishaps which could occur, such as doors swinging shut on fingers; loose clothing or long hair must be secured to prevent becoming entangled in moving machinery; being in the way of suspended weights or load bearing cables; or being thrown off balance by unexpected movement of the vessel. When working with deck machinery, all crew and scientific personnel will wear: hard hats, sturdy shoes and work vests. All personnel embarked must familiarize themselves with the vessel's interior and means of escape. Emergency bills are posted in the mess deck and bridge. When called or the General Alarm is sounded, in most cases, scientific personnel will don life jackets and muster on the upper Bridge Deck or as directed to await instructions.

All injuries MUST be reported to the Captain immediately. The Master will ensure that an "Accident-Injury Report Form" is completed and forwarded promptly to Marine Operations and appropriate departments at HSU and the USCG. The Chief Scientist will assist in preparation of the form when a member of the scientific party is involved.

Prohibited Items

The following items are not permitted on board R/V Coral Sea:

- Smoking, Vaping or Chewing tobacco
- Alcoholic beverages
- Narcotics and other controlled (illegal) drugs
- Pets (except service animals)
- Personal weapons, including sheath knives

Without prior authorization, explosives will not be carried on board R/V Coral Sea. Chemicals for scientific purposes may be carried on board in small quantities and adequately stored under the Chief Scientist's supervision and with the approval of the Captain. Compressed gases (non-toxic, non-flammable) may be carried under the Chief Scientist's supervision and with the approval of the Captain to the extent that suitable exterior storage is available. Compressed gas cylinders will be secured under supervision of the Captain. Cylinder protective caps must be in place at all times that the cylinder is not in use. There is no suitable storage on board for radioactive materials. Anyone who must use radioactive materials on board R/V Coral Sea must consult with the Captain at least 180 days in advance of the cruise to ensure that the material will be handled in accordance with Federal, State and University regulations governing its use.

Diving

If SCUBA or other diving operations are planned, this must be so noted on the Cruise Request and approved in advance by the Dean of the CNRS, HSU Dive Safety Officer and the Captain. Divers must hold a current Certification appropriate for the work to be performed, issued by an approved recognized certifying agency and must receive prior approval from the Humboldt State University Diving Safety Officer. Any/All scuba operations must be in strict compliance with all USCG, Federal, State and Local rules and regulations, some of which may require prior appropriate agency approval and coordination with the vessel Captain.

Small boat operations

Use of small boats operating from or in association with the R/V Coral Sea must be detailed in the Cruise Request. Approval of small boat operations must be received from the Captain and the HSU Boat Safety Officer and may require the filing of a float plan and comply with all Federal, State, CSU and HSU Boat Safety Policies and procedures.

Waivers

ALL persons intending to board R/V Coral Sea MUST file a completed, signed [HSU Release & Consent form](#) or [Liability Form](#) with the Captain or designated R/V Coral sea crewmember prior to boarding the vessel. All Volunteers must provide a copy of a completed Volunteer form signed by the CNRS Dean's office.

Communication

Intra-ship communication is via direct contact or use of the vessel intercom or portable VHF radio. External communications are available through VHF radio, Single Side Band radio or cellular telephone or Satellite communications. For planned satellite communications, users must notify the Captain of intent to use at least 30 days in advance of the cruise will and will be billed for all Satellite communications and data transmission costs.

Cruise/Voyage Reports

[The Cruise/Voyage Report](#) is the formal record of the scientific cruise. For HSU academic cruises it is prepared by the Chief Scientist. For HSU academic cruises, the Chief Scientist summarizes the scientific program and completes the electronic report before leaving the vessel.

For all contract voyages, the Voyage Report is completed by the Captain. The Captain enters operational and invoicing information including extracts from the log book as necessary.

9. Forms used by the R/V Coral Sea

All forms required for R/V Coral Sea users can be downloaded from the [HSU Marine Lab website](#). Forms are also available in the R/V Coral Sea Bridge computer. Copies of those forms are provided here for informational purposes only. If you have trouble obtaining the forms, please contact the Marine Lab at 707-826-3671.

A. Cruise Request Form

Humboldt State University Marine Laboratory		<input type="button" value="Submit by Email"/>
R.V. Coral Sea Cruise Request Application		<input type="button" value="Print Form"/>
<p>HSU Faculty : Please submit form as soon as possible to allow for scheduling, but no later than 14 days prior to cruise date. Include HSU Account # for all grants or contracts.</p> <p>All other users: Please submit form as soon as practical to allow for scheduling, but no later than 30 days prior to cruise date. Outside users must file a billing address. If you have problems with the form or need direct help, contact Yvonne Kugies, HSU Marine Lab, P.O. Box 690, 570 Ewing Street, Trinidad CA, 95570 or she can be reached at 707-826-3671 and yvonne.kugies@humboldt.edu.</p>		
Chief Scientist Name :	<input type="text"/>	
Email Address:	<input type="text"/>	
Phone Number (include cell, home, office #'s)	<input type="text"/>	
Course Title:	<input type="text"/>	
Course Number:	Enrollment:	<input type="text"/>
Depart Date:	Depart Time:	<input type="text"/>
Return Date:	Return Time:	<input type="text"/>
Cruise Objectives:	<input type="text"/>	
Equipment Required:	<input type="text"/>	
Operational Area or Station List by Lat/Long	<input type="text"/>	
HSU Grant Account # :	Alternate Cruise Dates Preferred	<input type="text"/>
Billing Address:	<input type="text"/>	
Edition : 5.22.12	Current Date <input type="text"/>	Submitted <input type="text"/>

B. Liability Release form

HUMBOLDT STATE UNIVERSITY

**RELEASE OF LIABILITY, PROMISE NOT TO SUE, ASSUMPTION OF RISK AND
AGREEMENT TO PAY CLAIMS**

Activity:

Activity Date(s) and Time(s):

Activity Location(s):

In consideration for being allowed to participate in this Activity, on behalf of myself and my next of kin, heirs and representatives, **I release from all liability and promise not to sue** the state of California, the Trustees of The California State University, California State University, Humboldt State University and their employees, officers, directors, volunteers and agents (collectively "University") from any and all claims, **including claims of the University's negligence**, resulting in any physical or psychological injury (including paralysis and death), illness, damages, or economic or emotional loss I may suffer because of my participation in this Activity, including travel to, from and during the Activity.

I am voluntarily participating in this Activity. I am aware of the risks associated with traveling to/from and participating in this Activity, which include but are not limited to physical or psychological injury, pain, suffering, illness, disfigurement, temporary or permanent disability (including paralysis), economic or emotional loss, and/or death. I understand that these injuries or outcomes may arise from my own or other's actions, inaction, or negligence; conditions related to travel; or the condition of the Activity location(s). **Nonetheless, I assume all related risks, both known or unknown to me, of my participation in this Activity, including travel to, from and during the Activity.**

I agree to **hold** the University **harmless** from any and all claims, including attorney's fees or damage to my personal property that may occur as a result of my participation in this Activity, including travel to, from and during the Activity. If the University incurs any of these types of expenses, I agree to reimburse the University. If I need medical treatment, I agree to be financially responsible for any costs incurred as a result of such treatment. I am aware and understand that I should carry my own health insurance.

I am 18 years or older. **I understand the legal consequences of signing this document, including (a) releasing the University from all liability, (b) promising not to sue the University, (c) and assuming all risks of participating in this Activity, including travel to, from and during the Activity.**

I understand that this document is written to be as broad and inclusive as legally permitted by the state of California. I agree that if any portion is held invalid or unenforceable, I will continue to be bound by the remaining terms.

I have read this document, and I am signing it freely. No other representations concerning the legal effect of this document have been made to me.

Participant Signature: _____
Participant Name (print): _____
Date: _____

If Participant is under 18 years of age:

I am the parent or legal guardian of the Participant. **I understand the legal consequences of signing this document, including (a) releasing the University from all liability on my and the Participant's behalf, (b) promising not to sue on my and the Participant's behalf, (c) and assuming all risks of the Participant's participation in this Activity, including travel to, from and during the Activity.** I allow Participant to participate in this Activity. I understand that I am responsible for the obligations and acts of Participant as described in this document. I agree to be bound by the terms of this document.

I have read this two-page document, and I am signing it freely. No other representations concerning the legal effect of this document have been made to me.

Signature of Minor Participant's Parent/Guardian

Name of Minor Participant's Parent/Guardian (print)

Date

Minor Participant's Name

Emergency Contact Information:

Person to contact in case of an emergency: _____

Phone Number (s): _____

Alternate Contact Person: _____

Alternate Phone Number (s): _____

C. Cruise Report Form

**Humboldt State University Marine Lab
R.V. Coral Sea Cruise Report**

**Please fill out the Cruise Report and file with the Captain or email to Director
before leaving the vessel**

Cruise date	<input type="text"/>	Chief Scientist	<input type="text"/>
Meeting Time	<input type="text"/>	Return Time : Including Unload and Clean up	<input type="text"/>
Course Number	<input type="text"/>	Course Title	<input type="text"/>
Was this a Required Cruise	<input type="text"/>	# students enrolled in course	<input type="text"/>
Summary Project Description	<input type="text"/>	# enrolled students on cruise	<input type="text"/>
		# student observers on cruise	<input type="text"/>

Summary of Cruise :
Include General Locations,
Gear Used,
Specific Objectives

Remarks and Suggestions
for Improvements

Signature of Chief Scientist Date

E. Signature Chief Scientist

R.V. Coral Sea Captain Date

E Signature of Captain Today's Date

