

UC Santa Barbara Diving Safety Program
Research Dive Plan Proposal

Date Submitted: 10/11/05

Submitted By: Keith Seydel

Dates Proposed: 12/05-09/10

Dept: MSI

Principal Investigator: Dr. Russell Schmitt

Project Dive Manager: Keith Seydel

General Dive Site Location: Moorea, French Polynesia

Proposed # of Dives per day/week: 4 /16

Max. and Average Dive Depths: 60/30 **Min. Surface Int. (for dives >30ft):** 15

Estimated # of Research Divers: 4 **Use of Undergraduates:** Yes No Maybe

Mode:

Open Circuit (SCUBA) Closed Circuit Hookah Surface-Supplied

Environment:

Coastal Island Blue water Ice/Polar Altitude
 Oil Platform Seeps Live-Boat Overhead

Dive Entry:

Shore UCSB Boat other R/V: MCR LTER boats Other:

Breathing Gas:

Air Nitrox (%O2) Other:

Air Compressor: Is the compressor being used owned by the university.

Yes No If No, then list owner:UCB Gump Station

SCUBA Cylinders: Hydrostatically tested within the past 5 yrs and visually inspected within 1 yr.

Yes No

Air Tools: Will air tools (lift bag, vacuum, drill etc) be used for this project.

Yes No

Joint Diving Operations (*Diving conducted jointly with other agencies/institutions*)

Yes No If Yes, list agencies/institutions: UCSC

Oxygen at Site:

Yes No

First Aid at Site:

Yes No

Dive Flag at Site:

Yes No

Nearest Medical Treatment Facility to Dive Site:

- Location: Afareaitu
- Telephone: 56.24.24
- Transportation Method & Distance: Boat/Car - 25km

Nearest Recompression Treatment Facility to Dive Site:

- Location: Papeete, Mamao Hospital
- Telephone: 42.01.01 Emergency, 46.62.62 Standard
- Transportation Method & Distance: Boat, Car & plane - 12miles across channel

Emergency Contact Numbers:

- Local EMS telephone number - 18
- United States Coast Guard – Channel 16 on Marine VHF Radio
- **Diver's Alert Network (DAN): 1-919-684-8111 or 1-800-326-3822**
- **UCSB's Diving Safety Cell Phone: (805) 451-5099**

Detailed Dive Plan:

(Describe sub-tidal techniques: add separate pages, diagrams and/or a copy of the proposal if necessary)

All sites have permanent boat moorings available. After securing the boat to the mooring the two teams of divers enter the water and the lead diver and buddy check the security of the mooring. The teams will descend deep enough (usually 30 feet) to follow the bottom markings and contours to the permanently marked fish transects. At the center point of the transects one team will turn left and the other right counting their respective 50 meter by 5 meter transects. At the end of the transect the teams will turn and return along the transect counting the bottom associated fish. At the completion of the transect the divers will return to the mooring line, ascend to the subsurface buoy at 15 feet and complete a 3 min safety stop. After a surface interval on the boat the teams will change tanks for another transect. Total bottom time for each transect should be about 30 min.

List of sampling equipment and other tools not listed in dive plan:

(sampling equipment, compressor, air tools: drills, vacuum, lift bags, scooters, etc)

Slates and underwater digital cameras

Hazardous Conditions Anticipated: *(cold water, currents, deep depths, low visibility, etc)*

There can be surface currents at some of the sites depending on wave action. If the currents are bad the divers should descend and return to the mooring line at depth. Fire coral can be present - but the divers will not be touching the coral anyways. There are some sharks that have been known to be dangerous - extremely rare.

Safety Precautions/Training:

Site description and dive plan will be discussed on the boat before each dive. Emergency procedures and contacts are discussed before leaving the dock at Gump Research station. Cell phone and radio contact is required. Extensive in field training will be needed for the fish identification.

Expected Dive Team Members *(if known)*

UCSB Research Diver:

Name	Depth Certification
1. Diver in Charge: Keith Seydel	100ft
2. Andrew Brooks	100ft
3. Stephen Holloway	60ft
4. Cori Kane	100ft
5.	Select Depth
6.	Select Depth
7.	Select Depth
8.	Select Depth

Visiting Research Diver: *(AAUS Reciprocity Form also required from Agency/Institution's DSO)*

Name	Agency/Institution	Depth Certification
1. Giacomo Bernardi	UCSC	
2.		
3.		
4.		
5.		

General Dive Plan Considerations

- Any diver has the right to refuse to dive without fear of penalty if s/he feels the conditions are unsafe or unfavorable **OR** the dive violates the precepts of their training **OR** the regulations of the UCSB Diving Safety Program. UCSB Dive Manual: <http://ehs.ucsb.edu/units/diving/dsp/html/dsm.html>
- All Dive plans **MUST** be based on the competency of the least experienced diver.
- An ascent rate of **30ft/min** and a precautionary stop at **15-20ft for 3-5min** should be made for each dive.
- Depth certification levels may be extended only to the next deepest certification level and only if the diver with the limiting depth certification level is buddied with a diver certified to the deeper depth level.
- For all diving conducted under hazardous conditions a plan should be formulated to deal with such conditions.
- All divers using dive computers to plan dives and indicate or determine decompression status should follow the AAUS recommended dive computer guidelines noted in the Dive Manual.
- Plan dives conservatively and maximize surface intervals.
- A diver should wait at least **24hrs** before flying or traveling to altitude (1000+ft) after any dive.
- An Emergency Plan should be reviewed for each project including the following: emergency contact information (including name, relation and telephone number may be available on Webdiver) for each diver, nearest recompression chamber, nearest accessible hospital and anticipated means of transportation.

Diving Accident Emergency Management Plan

A diving accident victim is any person who has been breathing air underwater regardless of depth. It is essential that emergency procedures are pre-planned and that medical treatment is initiated as soon as possible. It is the responsibility of the "Diver-In-Charge" to develop procedures for such emergencies including evacuation and medical treatment for each dive location.

General Procedures:

Depending on and according to the nature of the diving accident, stabilize the patient, administer 100% oxygen, and initiate the local Emergency Medical System (EMS) for transport to nearest medical facility. Explain the circumstances of the dive incident to the evacuation team, medics and physicians. Do NOT assume that they understand why 100% Oxygen may be required for the diving accident victim or that recompression treatment may be necessary.

- 1. Rescue victim and/or position so the proper procedures may be initiated.**
- 2. Establish (A)irway, (B)reathing and (C)irculation as required.**
- 3. Administer 100% oxygen, if appropriate (in cases of Decompression Illness or Near Drowning).**
- 4. Activate the local EMS for transport to the nearest appropriate medical facility. (the local EMS will vary from site to site – it must be stated in dive plan)**
- 5. Contact the Diver's Alert Network as deemed necessary.**
- 6. Contact Diving Safety Officer (DSO) and Emergency Contact Person, as deemed necessary.**
- 7. Complete and submit Incident Report Form (in manual) to DSO.**

Diver's Alert Network (DAN): 1-919-684-8111 or 1-800-326-3822

- 24 hour medical advise—if necessary call collect and state "I have a Medical Emergency"—Use to locate closest recompression chamber or physician consultations. The emergency procedures for all dive sites in the Santa Barbara area are in the Oxygen Kits.

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