



University of Hawai'i Diving Safety Program

COVID ADVISORY #4

CONDITIONAL RETURN TO NECESSARY RESEARCH DIVING ACTIVITY UNDER UNIVERSITY OF HAWAII AUSPICES

As of today's date, according to testing data, the State of Hawaii continues to enjoy one of the lowest detected incidences of CoVi-SARS-2 virus (SARS-2) infection in the nation, averaging in the past two weeks of less than one per day. Local health care resources are currently estimated to be well below the maximum capacity necessary to attend to emerging COVID19 cases. In recognition of this fortunate state, the UH Diving Control Board has determined that necessary research diving activity under University auspices may be allowed under specific conditions designed to reduce the risk of infection, as specified in the following.

- New dive plan approval applications will be accepted as of today's date for current and ongoing UH research projects, for which Principal Investigators (PI), with the approval of the respective Department Chair/Head, deem that diving is immediately necessary to the continuance of its research effort. Applications may also be submitted for proficiency maintenance dives, following the same policies and procedures. Departmental concurrence should be indicated by a signature line inserted into the dive plan application above that for the PI and Lead Diver.
- Plans must include detailed descriptions of how dive operations will be designed to comply with the MINIMUM COVID19 EXPOSURE CONTROL GUIDELINES TO BE EMPLOYED FOR NECESSARY UH RESEARCH DIVING ACTIVITY, as outlined below. These guidelines in some cases are modified and/or extended from previous guidelines for essential/emergency diving operations (COVID Advisory #3, March 2020).
- Per standard UHDSP procedures, approved dive plans will be valid for 6 months, unless essential parameters (e.g., location, personnel, platform, activity, technology, dive profiles, etc.) change, or in the event that public health indicators require a subsequent stand-down.
- Essential diving is authorized to commence on Friday, May 15, upon dive plan approval and these guidelines until further notice.
- All PI's and divers must recognize that the current window of diving opportunity may be fleeting based on future public health trends. Pandemic stand-downs may be deemed necessary by the DCB with little forewarning. As such, project leaders should remain vigilant and prepared for periodic stand-downs dictated by increases in local SARS-2 infection rates.
- The following pertains to necessary research diving operations only. Procedures for training dives are still on stand-down, under development and to be determined.

MINIMUM COVID19 EXPOSURE CONTROL GUIDELINES TO BE EMPLOYED FOR NECESSARY UH RESEARCH DIVING ACTIVITY

The following are considered minimum requirements as of the date of this document. Additional measures may be required by the DCB based upon specific characteristics of the planned operations, environmental conditions, current community public health situation, or further guidance from UH.

- No diver will participate who feels ill or has reasonable cause to believe they have been exposed to COVID-19.
- All diving is voluntary. Each diver is free to decline to dive if he/she feels any condition (including potential SARS-2).
- All diving operations must be conducted under the assumption that at least one member of the operations is currently infected, asymptomatic, and contagious.
- Dive teams and auxiliary personnel must be kept to a minimum, to reduce cross-infection and enhance infection tracing capability if needed. Small, discrete teams of 5 or fewer total personnel (including support roles such as vessel operators and stand by divers) should be the objective.
 - If larger numbers of divers are required, the assigning of divers to specific, alternating of separate teams operating at different time or in different locations should be developed.
- As a guide;
 - Shore-based dive operations should consist of no more than two independently operating and segregating buddy pairs, with the option for a shore-based safety diver if needed for the location, conditions or planned operations;
 - Dive teams deploying from small craft of 17 feet LOA or less without a separate operator/topside watch should be conducted only in sheltered locations with no more than two persons per vessel as approved by the unit's Boating Safety Officer. If more divers are needed for the planned operation or a topside watch is deemed necessary, multiple vessels may be employed.
 - Diving from larger small craft requires a dedicated captain/topside watch who must be counted against total personnel aboard. The total personnel in most cases should be limited to three or five, depending on the vessel size, deck layout, and other characteristics which affect the ability of the team to maintain adequate interpersonal distancing. These considerations must be elucidated in the dive plan application based on the characteristics of the proposed vessel.
- During all aspects of the operation, adequate interpersonal distancing must be maintained unless appropriate PPE are employed. Minimum surface interpersonal distances must not be less than 6 feet. **It must be recognized that the 6-foot distance is generally specified for indoor, land-based conditions. In a windy and moisture-laden environment such as a dive operation, downwind positions require greater distancing.** Interpersonal distancing procedures apply to all surface activities associated with the dive including :
 - Vehicular and vessel transit to dive sites
 - Vessel and vehicle sizing must be planned to allow adequate interpersonal distancing, and will be reviewed by the DCB as part of dive plan evaluation.
 - At a minimum all personnel while on the surface must wear a covering over their mouth and nose in order to reduce respiratory droplet dispersal from coughs and sneezes into the air and onto vehicle and vessel surfaces, and discourage the inadvertent face touching.
 - If standard PPE equipment is not available, all team members must use the best available substitute, such as sunglasses, and balaclavas, neck gaiters/buffs, etc...which cover the mouth and nose.
 - Pre-and post-dive briefings and debriefings
 - Primary dive team operational planning and briefing should be conducted prior to departing for the dive site.
 - On site discussions and prep must be minimized to essential items.
 - Buddy and equipment checks

- Each diver must only handle and test their own equipment.
 - Each diver will perform functional testing and demonstrate operation of his/her equipment while observed by the buddy.
 - During pre-dive checks, divers must not breathe from their own secondary second stage. Pre-dive functional testing must be accomplished via depressing the purge and listening for free flows.
- Entries, exits and surface swims
 - Diving must only be conducted under conditions in which normal (non-emergency) entries and exits can be made unassisted and in full gear.
 - These must be accomplished with each diver's mask in place and the divers breathing from their regulators.
- If air sharing is required, refrain from sharing a single second stage unless to refrain would result in injury or loss of life.. Responding divers will establish contact and control, and then donate the secondary second stage.
 - Equipment configurations with auxiliary second stages integrated into a BC inflator are not compatible with this requirement and cannot be used until further notice.
- Diver assist, rescues, and first aid must be approached with extra safety precautions in mind.
 - Reinforce with all participants the need for standard use of PPE whenever available. This includes face masks and eye shields in all first aid situations, when available.
 - If standard PPE equipment is not available, team members must use the best available substitute, such as sunglasses, and balaclavas, neck gaiters/buffs, etc..., which cover the mouth and nose.
 - In surface rescue and assist scenarios, unless an immediate assist is necessary to prevent loss of life, responding divers must stop a safe distance (at least two full body lengths, approximately 12 feet) from the distressed diver to perform initial assessment ("Are you OK? Inflate your BC! Drop your weights!").
 - Where possible, divers should remain on their scuba regulators with their dive masks in place during surface activity.
 - Surface tows should be performed with the primary objective of expediting extraction without attempting rescue breathing during transport.
- Dive equipment and any personal auxiliary equipment used must be dedicated to an individual diver for the duration of the diving operation.
- Each diver will only prepare, maintain and handle their own diving equipment including during transportation and exit and entry from the water.
- All dive equipment and vehicles and vessels used must be properly disinfected according to CDC procedures before and after use, by the diver using it.
 - Each diver must be responsible for disinfecting his/her own equipment. All regulator second stages and BC oral inflators must
 - Receive an initial freshwater rinse, then
 - Be immersed in a 10% bleach solution or other EPA-approved disinfectant, remaining wetted for at least 4 minutes, and then
 - Receive a final freshwater rinse before drying.
 - Equipment used by one diver will not be used by a different diver without an intervening period of at least 5 days and a re-disinfection prior to use.
 - O2 kits, first aid supplies, etc... must be disinfected and disposed after use, using best practices.
- Upon completion of a day's operations, the Lead Diver must communicate a log of the day's dive to the DSO, including:
 - Time, date, location, nature of diving activity;
 - Names and contact information of all participants, their roles, and dive parameters (number of dives conducted, diver pairings, dive time and depths, and dive modes used);
 - Any incident or accident, including possible breaches of exposure protocols.

WHILE THE UH DCB SETS THESE GUIDELINES AS A MINIMUM FOR RESEARCH DIVING OPERATIONS DEEMED NECESSARY TO THE UNIVERSITY'S RESEARCH MISSION, RESEARCHERS, PRINCIPAL INVESTIGATORS AND ADMINSTRATORS SHOULD REMAIN MINDFUL THAT SIMILAR CONDITIONS AND CONCERNS EXIST IN ALL MARINE FIELD OPERATIONS, INCLUDING BOATING AND SNORKELING/SKIN DIVING. ALL PARTIES ARE ADVISED TO CONSIDER WHETHER A PARTICULAR ACTIVITY IS TRULY NECESSARY, AND ENSURE SIMILAR PROCEDURES ARE FOLLOWED IN OTHER ACTIVITIES.

APPROVED BY UH DCB 5/12/2020 12:50PM