



TOPSIDE



NOAA Diving Program News - May 2008

New Policy Clarification

This month, RADM Jon Bailey, Director, Office of Marine and Aviation Operations and Dave Dinsmore, Director, NOAA Diving Program implemented a Three Day Safety Stand Down for all NOAA Dive Operations. During this period, they personally spoke with all Unit Diving Supervisors and Line Office Diving officers. RDML Philip Kenul, Director, Office of Marine and Aviation Operations Centers and immediate supervisor to NDC, spoke with all NOAA ship Commanding Officers. They discussed the findings of the two recent incidents/investigations, emphasized the need to follow dive regulations and procedures exactly and reiterated the paramount importance of safety. They also introduced an eight-point action plan. All CO's and UDS' have certified that they understand new requirements and are taking the steps to integrate new NDP policies at their sites. In the future, a regular onsite inspection process will be implemented at all units.

As divers and dive supervisors have responded to the eight-point action plan, the NDC has been inundated with many questions and comments from across the country. Many have already provided suggestions that NDC still needs to evaluate. Some changes have already been implemented (See Below). During the stand down briefings, many of the issues concerned interpretation of one or more of the eight-point action items. On a daily basis, all NDC staff are providing guidance and answers to many good questions. Dave Dinsmore has written a follow-up e-mail that addresses many of these questions and it is reprinted on page 3 for further clarification. The eight-point plan is also included for your convenience. **Please note that dive plans should not be sent to any NDC staff member unless you are seeking approval of the plan. Use ndp.training@noaa.gov.** NDC will work with you to incorporate new procedures into the NOAA Diving Program. Thank you to all for your patience and understanding during this period. Meanwhile, here is the latest announcement to all NOAA divers:

Andy David, NMFS/UDS in Panama City, FL has taken the NDP Pre- and Post-Dive Checklist, provided with the eight-point action plan, and made it into 1-page fillable pdf document. He also developed a 1-page, fillable diver checkout form for documenting the bi-annual diver checkout. These improved documents will be posted on the NDC website.

Many thanks to Andy for producing these documents which will greatly simplify their preparation.



Divemaster Training



The NOAA Dive Center offers Divemaster training three times per year. It is a 5-day course that includes: Introduction to Dive Leadership; Dive Planning; Neurological Exams; Conducting Diving Operations, Oxygen Administration & Spinal Immobilization; Dive Accident Management Reporting; Problem Management & Counseling; Recognizing diving equipment problems and medical problems; Dive Regulations; and Equipment Troubleshooting and Repairs. Students first assist the NDC instructors in supervising dive operations. Then they practice giving dive briefings. Next, they receive project assignments. On the next day, they meet the Working Diver candidates, brief them on the projects and supervise dive operations for the day.

Divemasters are challenged during "shams" day. The divers they are supervising are instructed to present various diving problems for the divemaster to resolve. Pre-dive issues include improper gear configurations; wrong repetitive dive information, arguing buddies and anxious divers. During the dive, divemasters will have to cope with panic situations; lost equipment; separated buddies, ear problems, surfacing beyond time limits or with low air pressures; and unconscious divers. Post-dive shams include the onset of DCS symptoms up to 30 minutes after the dive. Divemasters must be able to perform a 5-minute neurological exam and administer oxygen and backboard an unconscious diver as well as pass a written exam.

The next class will be held September 22-26, 2008.

NDC congratulates and thanks its newest NDP leaders: David Witting, NMFS; Emily Evans, NOAA'S FAIR-WEATHER; Kim Foley, NOS; Kathryn Thompson, NMS HQ; Sean Meehan, NMFS; and Faith Opatrny, NOAA'S OSCAR DYSON.



Working Diver Training



NDC congratulates these NOAA personnel on successfully completing a rigorous 3-week Working Diver course: Adam Argento, NOAA's FAIRWEATHER; Cliff Cosgrove, NOS; ENS Colin Kliever, NOAA's OREGON II; and Dana Mancinelli, NOAA's RONALD H. BROWN. The other successful trainees included local sheriff and police officers and firefighters.

During this training, divers conducted 19 open-water dives, 9 pool/tank dives and a chamber dive. They dived at night and under two NOAA ship hulls while training in ship husbandry. They logged 20 hours of bottom time. Water work included navigation and search & rescue techniques using circle search and jackstay methods. Projects included item investigation of a sunken boat, removing and replacing a propeller, assembling and disassembling a midwater flange, assembling pipe puzzles, and using a pneumatic impact wrench and lift bags on a heavy pressure pot. Students received 54 hours of classroom instruction.

NDC wishes to thank the crew members of NOAA's MILLER FREEMAN and NOAA's OKEANOS EXPLORER for their participation in and support of the ship husbandry training. Special thanks to LCDR Mark Boland and LT Jeremy Weirich who gave valuable bonus presentations to the students during the pre-dive briefings.



Something Screwy Going On



During the pre-dawn hours of the 11th of May, NOAA Ship HI'IALAKAI propellers became entangled by a 3 inch towing hawser with a 1/2inch diameter wire towing bridle woven into one end. It was discovered through the rhythmic thumping on the hull as the screws turned. A dive was organized to remove the debris from our props before it would cause serious damage.

Two of our ships' Working Divers were to conduct the work with a small boat in the water to launch and support them. A thorough dive plan was created, and cutting tools prepared for them to utilize in removing the entangled line. The ship was in 2,000 fathoms of blue water 50 miles South of Nihoa Island, NWHI. There were 4-6 foot seas and approximately a quarter knot of current to deal with. The divers splashed first to conduct a visual survey of the line and returned to the surface to discuss removal methods. The line was ensnared in both screws and was approximately 60ft. long. They descended again to work on the port screw first, the line was cut and a lift line from the surface was attached by the divers. The line was lifted aboard and the divers started work on the starboard screw. They worked the rest of the line free and it was also lifted to the deck.

Without experienced NOAA Working divers aboard, the HI'IALAKAI would have had to limp back to port to and hire contract divers to come and clear her screws, adding expense and losing valuable operational time.

By LT Eric Johnson 



NOAA Ship OKEANOS EXPLORER and NOAA Ship MILLER FREEMAN were docked at NOAA's Western Regional Center-Sand Point facility during this month's training. Their presence provided an excellent opportunity for training in ship husbandry techniques.

NOAA DIVING PROGRAM MAY 2008 DIVE OPERATIONS STANDDOWN ACTION PLAN

To ensure that each dive program site has taken appropriate steps to strengthen the safety of their operations and minimize the likelihood of safety incidents (including nearmisses), each Unit Dive Supervisor must ensure the following actions have been completed and are integrated into the operational procedures being followed as part of each dive.

1. A formal written dive plan must be completed and submitted to the appropriate Unit Diving Supervisor, or his designee, for review, approval and signature prior to each separate dive operation. The approved plan shall be forwarded to the NOAA Dive Center until further notice. A standardized form (NOAA Dive Planning & Approval Form) has been developed for this purpose and can be downloaded from the NOAA Diving Center website at: www.ndc.noaa.gov.

2. A copy of the Dive Accident Management Plan must be submitted to the appropriate Unit Diving Supervisor, or his designee, for review and approval prior to each separate dive operation. Once approved, the plan shall be widely distributed to all divers and support personnel at the dive location. The UDS shall keep the DAMP on file for the duration of the dive operation. A standardized form (NOAA Dive Accident Management Plan Template) has been developed for this purpose and can be downloaded from the NOAA Diving Center website at: www.ndc.noaa.gov.

3. A formal written pre- and post-dive checklist must be completed by the on-site Divemaster or Lead Diver prior to each diving day. A standardized form (NOAA Pre and Post-dive Checklist) has been developed for this purpose and can be downloaded from the NOAA Diving Center website at: <http://www.ndc.noaa.gov>. The checklist includes a signature and date block that is to be completed by the individual completing the checklist. The checklist will be kept on file at the unit level for 48-hours.

4. A formal pre- and post-dive briefing must be completed prior to and at the completion of each dive by the Divemaster or Lead Diver. A standardized form (NOAA Pre-Dive Briefing Template) has been developed for this purpose and can be downloaded from the NOAA Diving Center website at: www.ndc.noaa.gov. At a minimum, the pre-dive briefing shall include: objectives of the dive, maximum depth and bottom time, minimum surfacing pressure of 500 psi, any hazards that may be expected, and accident management procedures.

5. All divers must surface from dives with a minimum of 500 psi in their scuba cylinders. Any recorded pressure of less than 500 psi will result in temporary suspension of dive privileges for that individual diver pending review by the on-site Divemaster or Lead Diver. If it is determined that the cause for the infraction is unjustified, the individual will not be permitted to resume diving until cleared by the diver's Unit Diving Supervisor (UDS). If the cause is justified, then the Divemaster may lift the suspension and allow the individual to resume diving. Repeated violation of the minimum pressure rule, even if justified, will result in temporary suspension pending review by the UDS.

6. All NOAA divers must demonstrate basic dive proficiency by completing a checkout dive and in-water rescue skills, including the retrieval of an unconscious diver from the water to a vessel or shore, twice a year.

7. A standby diver is required for all ship husbandry dives and dives conducted >100 feet. The standby diver must be ready to enter the water within 1-minute of notification. For open-water dives <100 feet, a topside support person must be available at the dive site and ready to render assistance in an emergency.

8. All required forms/certifications will be subject to future audit and verification as part of an ongoing inspection program we are implementing. Failure to complete the required checklists/plans/briefings, as evidenced by the forms being on file and available for audit will be grounds for future suspension of dive operations at a given site. An operational inspection program will be initiated for all NOAA diving units. During the inspection process, each unit will be certified to operate. At a minimum, the inspection will include a review of all records, dive lockers, operational procedures and observation of routine and emergency dive operations. Units found to be deficient will be suspended from diving until the discrepancies are corrected.

I understand these requirements and certify that I have taken all appropriate steps to integrate these procedures and requirements into the dive operations for my program. I understand that failure to effectively implement and execute these requirements on an ongoing basis will be grounds for suspension of operations at my dive site and potential administrative action.

Certified and Signed:

Unit Dive Supervisor or Commanding Officer Date



FOLLOW-UP CLARIFICATION OF EIGHT-POINT ACTION ITEMS

Item #1: Written Dive Plans

- 1) Dive plans are required for each unique day of diving. Multi-day operations with similar objectives, tasks and locations may be combined on one dive plan. Minor changes in dive plans may be made on-site by the divemaster or lead diver, however, any significant changes must be approved by the UDS or his designee.
- 2) Once a dive plan is approved by the UDS, or his designee, it is to be submitted electronically to the following address: NDP.Diveplans@noaa.gov. The email should include the following information in the subject line: "Dive Plan - [last name of person approving the plan] - [date plan was approved]." For example: "Dive Plan - Dinsmore 5.8.08." The file name should be the UDS last name and date of the dive such as: Cimilluca050708.pdf; McClellan050908.pdf; Towell060108.pdf; Stone070108.pdf; etc.
- 3) If the UDS is also the originator of the dive plan, then the plan must be reviewed and signed by another NOAA diver within the unit. This other diver should not be one of the divers listed as a participant on the plan - unless there's no one else available. Also, per RADM Bailey, the second signature is not actually approving the plan, but rather indicating that they reviewed it and found no obvious flaws or omissions.
- 4) All dive plans for operations conducted from NOAA ships must be approved by the Commanding Officer of the ship. Visiting scientists must present the completed dive plan to the ship's divemaster for initial review prior to submission to the CO for approval. The UDS may choose to review and approve the plan prior to its review by the ship's personnel.
- 5) If the CO is also the originator of the dive plan, then the plan must be submitted to LT Sean Cimilluca, OMAO UDS, for approval. LT Cimilluca's email is: Sean.Cimilluca@noaa.gov.
- 6) A written dive plan is required for all dives conducted "on the clock" that involve the use of NOAA dive equipment or from NOAA-owned vessels. Dives conducted during non-duty hours, including proficiency dives using NOAA dive gear, do not require approval of a written dive plan. All dives conducted during duty hours, including proficiency dives must comply with the action plan requirements.

Item #2: Dive Accident Management Plan

- 1) Dive Accident Management plans can be for specific time frames or entire regions if appropriate.

Item #3: Formal written pre- and post-dive checklists

- 1) The full pre and post-dive checklist is to be completed one time each dive day.
- 2) A copy of the checklist can be kept at the dive location or unit HQ and the UDS' discretion.
- 3) Checklists can be destroyed 48-hours after the checklist was used.

Item #4: Pre and post-diving briefing

- 1) Pre and post-diving briefings are to be conducted prior to and following each dive performed - no exceptions.

Item #5: 500 psi ending pressure requirement

- 1) Divers must reach the surface with 500 psi ending pressure. The 500 psi is reserved for emergencies only during ascent.
- 2) Sufficient air should be available to perform safety stops without eating into the 500 psi emergency reserve.

Item #6: Dive proficiency

- 1) A checkout dive is to be completed with the UDS, or his designee, once every 6-months, starting tomorrow 9 May using the checkout form used for certifying new divers.
- 2) Copies of the checkout form must be kept by the UDS for each diver.
- 3) This requirement does not need to be completed before units may resume diving following the 3-day stand-down.

Item #7: Standby diver

- 1) A boat coxswain counts as a topside support person.
- 2) Unless called to action, the standby diver must remain on the surface during dives.
- 3) Divemasters may serve as standby divers, but if they are deployed, another topside support person must take their place.

Item #8: Unit inspections

- 1) All dive units will be inspected by a NDC representative sometime in the future.
- 2) The FKNMS (lower region) and the NOAA OSCAR ELTON SETTE will be inspected before resuming diving operations.

The forms mentioned in the action plan are available on the NDC webpage at:

<https://inside.nmao.noaa.gov/dive/forms.html#admin>.

