

# **NOAA DIVING PROGRAM**



## **UNIT DIVING SUPERVISOR**

### **Operational Guidelines**

Revised 22 September 2015

## **A Message from the NOAA Diving Control and Safety Board**

The Unit Diving Supervisor is the most important position in the NOAA Diving Program. You are the final arbiter for all diving related activities at your unit: when dives occur, how the dives are executed, and who goes in the water. You are also the conduit between the NOAA Diving Control and Safety Board and your divers, explaining policies and procedures down the chain and elevating concerns and needs up the chain.

Many things will be required of you as UDS. Some are tangible; others are intangible. The tangible items are listed in the following pages – which reports you need to complete, the forms required for a range of situations, etc. However the intangible requirements are far more important and impossible to define in a manual. These skills are acquired over time, and require diligence, constant attention, and the avoidance of complacency. Your decision making skills define your performance as a UDS. People's lives depend on the decisions you make. The toughest part of the job will be to maintain safety as your highest priority and not let friendships or pressure from project leaders or supervisors exert undue influence. You are not alone in this position, your LODO/SODO and the Safety Board will back you up on tough calls. Use these resources often.

The remainder of this manual is devoted to the tangible items you will use to administer the UDS duties. The UDS Manual begins with descriptions of the most common activities you will undertake as a UDS (e.g., how to file a dive plan, how to select Divemasters). Each report, form, or checklist is included in this manual and prefaced with a description of when and how it should be used. These documents were current at the time this manual was written, however please refer to the NDP website for the most recent versions. While there is a lot of information in this manual, it is not meant as a substitute for the standards, policies and procedures in the NOAA Diving Standards and Safety Manual (NDSSM). You should have a copy and be familiar with the NDSSM and refer to it when you are uncertain how to proceed with any particular issue. The NDSSM is revised periodically, so policies that are drafted between revisions are codified through the OMAO 0300 series. These official policies are produced by the NOAA Diving Control and Safety Board (NDCSB) and become effective after the Director, OMAO signs them. The OMAO 0300 policies can be found on the NOAA Diving Program (NDP) website. Another resource you should utilize is your LODO or SODO. Remember your LODO or SODO works for you; they represent you on the NDCSB. If you have a problem or concern, raise it to your LODO or SODO.

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## **QUICK REFERENCE of DIVE UNIT SCHEDULES**

### **REPORTS**

**External DUSA** – Triennially, conducted by DSO and/or Inspectors from NDC

**Annual Report** – Due to LODO/SODO by 15 October

**Internal DUSA** – Due to LODO/SODO by 15 January

### **EQUIPMENT**

**SEP gear service** – Annual, arrange timing with SEP Coordinator

**SEP inventory check** -- Annual

**Scuba cylinders visual inspection (VIP)** – Annual

**Scuba cylinders hydrostatic inspection** – Every five (5) years

**Oxygen regulator pressure test** – Every three (3) months

**Oxygen regulator service** – Biannually

**AED inspection** – Monthly for batteries, monitor pad expiration dates

**First Aid Kit medication replacement** –As required

**Dive computer service** – Follow manufacturer’s recommendations

### **PERSONNEL**

**Dive skills checkout dive** – Annual

**Watermanship test** – Annual

**Rescue drills** – Annual

**Topside training** – Annual

**Verification of Coverage (contractors only)** – Annual

**Annual medical history report** – Due at the end of the month of the anniversary of last dive physical

**Dive physical** – Every one to five (1-5) years, depending on age

## Distinguishing Between OSHA-exempt and OSHA-compliant Dives

One of the most frequent decisions you will make as a UDS is the determination of which standards to apply to a dive – the NOAA standards for scientific dives or the OSHA standards for commercial (working) dives. Scientific dives require several conditions be met in order to be exempt from the OSHA Standards for Commercial Diving. The OSHA standards are found in 19 CFR 1810, subpart T. OSHA offers the following definition of scientific diving: “Scientific diving means diving performed solely as a necessary part of a scientific, research, or educational activity by employees whose sole purpose for diving is to perform scientific research tasks.”

There are seven questions you should ask to help make this determination:

1. Can the tasks be accomplished using simple hand tools (e.g., small hammers, pliers, chisels, wrenches, cameras, measuring tapes, nets, collection jars) weighing 25 pounds or less underwater?
2. Do the tasks require the expertise of a scientist or scientist-in-training?
3. Can the tasks be accomplished with minimal physical exertion?
4. Can the tasks be accomplished in short duration (e.g., <1-hour)?
5. Are the tasks limited solely to the observation of natural phenomena or responses of natural systems and/or gathering of data for scientific analysis?
6. If any object is to be lifted or moved, is its weight underwater <100 pounds?
7. Will the tasks result in the advancement of science?

An answer of ‘NO’ to any of these questions means the OSHA standards for commercial (working) dives should apply. Questions 1, 3, 4, 5, and 6 are fairly straightforward. Questions 2 and 7 require your judgement and often can be the source of debate during dive planning. Be realistic in assessing question 2, evaluate the task and think about the skills needed to accomplish it. Does it really require scientific expertise? Let’s look at some examples: The task of dive one is to install a sand anchor in a patch of sand and attach a buoy line to the anchor. Dive two requires the installation of a ‘No Fishing Zone’ marker buoy anchor in a coral reef with minimal damage to living corals. Dive one is clearly a working dive, there is no scientific expertise needed to screw a sand anchor into open sand. Dive two however, would qualify as a scientific dive because scientific expertise is required to determine where the living corals are and the best location for the anchor to be installed without damaging them.

Question 7 also requires a realistic assessment of the task. Avoid over-reaching in an attempt to qualify for the scientific exemption. For example, dive three involves using a water jet to install a piling you will use to tie up your 21 ft research vessel. The boat missions may advance science, but providing a place to tie up the boat does not, this would be a working dive. Another type of dive which falls under question 7 is one involving education and outreach. These dives qualify for the scientific exemption if they result in the advancement of science by promoting interest in NOAA’s scientific mission, increasing public awareness of ocean-related issues, or encouraging students to undertake a scientific career.

If a dive combines scientific and working tasks, the working requirements take precedence and the commercial standards apply. If dive two and dive three above were combined, the tasks were to install a mooring buoy in the reef without damaging corals and then the divers are to swim over to a sandy area and install a piling, the commercial standards would apply.

If you cannot make a determination, you should follow the more conservative approach and apply the commercial standards. The primary differences are the manning levels and the requirement for an alternate breathing gas supply.

The NOAA Diving Standards and Safety Manual explains this subject in greater detail. Additional information can be found in the OSHA standards, which are available at this website:

[https://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=10139](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10139)



## Submitting a Dive Plan

Submitting a dive plan is another common task you will perform as a UDS. There is a one-page form which is the administrative component of submitting a dive plan; Dive Operations Plan (NF 57-03-20). Once completed, this form should be submitted to the [NDP.Diveplans@noaa.gov](mailto:NDP.Diveplans@noaa.gov) email address. One dive plan can cover several days or even weeks, as long as the operations are the same. It is also acceptable to have multiple tasks on one plan (e.g., dive 1 is to measure coral heads on a reef, dive 2 is an hour later and the goal is to remove line from the rudder on the research vessel). However if the coral dive is today and the ship husbandry dive is next week, submit two separate dive plans. In the case of a working dive and a scientific dive on the same plan, you should indicate a working dive as that requires stricter standards. There is no penalty for conducting a scientific dive under the working standards, but you do not want to go the other direction.

While submitting the dive plan is simple, preparing the plan requires your full attention. The first section of the plan provides details of the diving operation, location, date, depth range, number of divers, etc. Occasionally there is confusion about the box for number of consecutive dive days. The first day of diving does not count so begin incrementing the number in this box on the second day. For example, a two-day mission would have one consecutive dive day, a five-day mission would have four consecutive days. There are some checkboxes to indicate if the safe ship checklist or a float plan is required. The most important checkbox is the one describing the standards to be followed, scientific or working. This determination is described in detail in an earlier section of this manual; if the plan will include both working and scientific dives, check the working dive box but indicate which dives will follow the scientific standards in the Purpose of Dives and Tasks to be Performed section.

The Divers section is a simple list of the divers who may be involved with the dive. Include all divers, not only the NOAA divers if there is a mixed team involved. It is helpful to list a little additional information about non-NOAA divers, such as T. Nugent (Univ. Detroit). The first person listed is the Divemaster or Lead Diver for the operation. Match this person with the skills needed for the job. You may have an operation to change zincs on a NOAA research vessel, a Divemaster who has overseen a thousand fish counting dives and a NOAA Corps officer who did two hundred ship husbandry dives at her previous assignment. Choosing the Corps officer to be the Lead Diver for this mission would be a good decision.

The next section has several boxes for narrative descriptions of the dive purpose, diver-worn equipment and breathing gases, tools or special equipment needed, potential hazards and mitigations, and the plans for evacuating injured divers. In the hazards and mitigation box, you do not need to list common hazards which are present on every dive (i.e., drowning, hypothermia, AGE, DCS). You should list hazards that are unique to this particular operation AND what steps you are taking to minimize these risks. For example, the dive is to take place in a channel between a bay and the open ocean which is subjected to strong tidal currents and your mitigation is to dive at slack high or slack low tide.

The final section is the authorization. Two people must sign the plan; one of them must be the UDS or their designee. The UDS (or designee) may be the originator of the plan, in which case a second diver

may sign as the approving diver. The important thing is to have two different people review and sign the plan and one of them must be the UDS (or designee).

The first time a plan is submitted in any calendar year, a copy of the Diving Emergency Assistance Plan (DEAP) (NF 57-03-21) should also be submitted. Also any time the circumstances of the DEAP change, a new plan should be submitted along with the dive plan. For example, a DEAP would change if the recompression chamber or hospital were different or if the evacuation method were different, say a change from government vehicle to helicopter, or from research vessel to ambulance. If you are planning an operation in a location where another NOAA Dive Unit routinely operates, contact their UDS while preparing your DEAP; they will be able to provide their plan and save you time. They can also provide local knowledge which will make your operation easier and safer.

The NF 57-03-20 form is for the submission of no-decompression air or nitrox dives using open circuit or closed circuit equipment. These do not require approval by the NDCSB, however NOAA Diving Center (NDC) personnel review the plans to ensure the information on the forms is complete and the unit is properly planning their dives.

There are different forms for decompression dives and mixed gas CCR dives. The Decompression Diving Request (NF 57-03-28) must be submitted to the NDCSB and approved before any dives requiring decompression. The Closed Circuit Rebreather (CCR) Decompression Diving Request (NF 57-03-29) must be submitted to the NDCSB and approved before any CCR dives using mixed gases (any breathing gases composed of more than 1% of an inert gas other than nitrogen) or requiring decompression. The Deco and CCR Deco forms are used infrequently and a detailed description of their use is not included in this Manual. If you need more information on these forms, please contact your LODO or SODO.

## Creating a new NOAA Diver

There are two avenues to follow for NOAA Diver Training based upon the location of the training. The NOAA Diving Center offers three full-service, modular classes per year, two in Seattle and one in Panama City, FL. In addition the NDP allows for local training by approved NOAA Dive Trainers. Many of the requirements for the local and NDC training options are the same, however there are important distinctions in the prerequisites. There are also differences in the pre-approval process for FTEs and contractors. Below is a step by step description of the process.

**NOAA Diver Training at the Unit Level with NOAA Dive Trainers** – This program is designed to bring divers with prior experience into the NOAA Diving Program. It is primarily a skills assessment and introduction to the NOAA Diving Program policies and standards. Requirements to participate in this program are certifications from a nationally recognized diver training organization in Basic Openwater, Advanced Openwater and Rescue. A list of NOAA Dive Trainers can be found on the NDP website.

**NDC Training Module Breakdown** – The NDC has adopted a modular approach to its diver training program. There are now five (5) options to complete dive training at the NDC depending on the needs and experience of the diver. Additionally NDC offers NOAA Divemaster (DM), Tethered Communications, and Diver Medical Technician (DMT) courses.

Module 1 – Designed for divers with limited or no diving experience and is open to all diving candidates with their UDS's endorsement. Students learn how to scuba dive, receive training in rescue procedures, and learn the NOAA Diving regulations. Graduates are NOAA Divers able to conduct basic underwater tasks.

Module 2 – Designed for previously certified recreational divers. Basic certification including 50 dives or an Advanced certification including 25 dives is required along with UDS endorsement. UDS endorsement should include an in-water skills checkout dive. Graduates will be NOAA Divers able to conduct basic underwater tasks.

Module 3 – Designed for any diver who has completed Module 1 or Module 2 or current NOAA Divers seeking additional skills and experience. Graduates will be able to conduct specialized underwater tasks including Core Skills and Special Task Endorsements (STEs).

Module 1 & 3 – This combination is recommended for prospective ship's divers or prospective scientific divers who would like expanded working skills and mission support capabilities.

Module 2 & 3 – This combination is the same as above but for previously certified divers.

Divemaster – Designed for current divers who want to supervise diving operations. Prior diving experience is required as is UDS endorsement.

Tethered Communications – This training and the use of this equipment are primarily for the purpose of reducing the number of personnel needed to conduct an OSHA designated working dive. A typical

working dive requires five (5) people (in-water Buddy Team, Person in Charge, pair of Standby Divers), whereas Tethered Communications diving reduces that minimum requirement to three (3) people (in-water Diver, Tender, Standby Diver). Tethered Communications is a one (1) week course typically held after a NDC Dive Training but can also be done on request given a sufficient number of students.

Dive Medical Technician – If you have multiple divers at your unit and are consistently conducting taxing diving operations, this is an excellent program to send your divers through. This is a nationally recognized course through the National Board of Diving and Hyperbaric Medical Technology and produces graduates who are certified DMTs specializing in the recognition and treatment of diving maladies. Prerequisite for this course is a national EMT certification.

**Training Authorization** – The first step is to ensure the diver candidate’s supervisor agrees to allow them to participate in the program. This is done by completing a Training Request and Authorization Form (NF 57-03-38). For FTEs, the first line supervisor should sign the form. For contractors, the supervisor from the contracting company should sign as well as the NOAA FTE for whom the contract employee is providing services. Not all contracts or contract positions allow diving. Make sure the Statement of Work (SOW) in the contract and the diver candidate’s position description provide for diving. The diver candidate and the UDS also sign the NF 57-03-38 form. NDC Training Courses have fees associated with them. Check with NDC or on their web site for the current fee schedule and include costs and accounting codes on the NF 57-03-38. For local Dive Unit training by a NOAA Dive Trainer, the Course and Payment Information section of NF 57-03-38 is left blank. For individuals who will participate in a NDC Training Course, the completed form is part of the application packet and must be submitted 60 days in advance of the class. For those who will participate in local training at the Dive Unit level, the completed form must be retained in the diver’s file.

**Dive Physical** – There are three forms required to secure medical clearance to dive, the first is a checklist describing the various tests (which are age dependent) and forms needed for a complete dive physical package. The second item is a self-report of medical history and the third is a medical professional’s report of a physical examination. **Before any physical activities are conducted (i.e., swim test, dive skills evaluation, checkout dives), the NOAA Diving Medical Officer (NDMO) must provide a medical authorization to proceed.** A diver candidate’s medical insurance normally covers the cost of the laboratory tests and physical exam, however if it does not, these costs may be covered by the government. The medical history and physical exam forms contain private medical information which the UDS is not entitled to see. However the UDS is very strongly encouraged to go over the checklist to ensure the package is complete before it is submitted to the NDMO. One of the most common delays in the diver certification process is an incomplete dive physical. The diver candidate is responsible for submitting the dive physical package to the NDMO, this should be done by fax to (206) 526-2759 or encrypted email.

**Swim Test** – Once medically cleared, diver candidates must complete the Initial Swim Test with the results documented on the Swim Test Evaluation (NF 57-03-39). There are three components to this test; an underwater swim of 25 yds (22 m), a surface swim of 550 yds (500 m), and a 30 minute period of treading water. The 550 yd swim must be completed without stopping and use the front crawl, side

stroke, or breast stroke. Goggles or a mask may be used, but no snorkels or fins. The candidate may do the three components in any order, but they should be conducted in one session with reasonable rest periods between each event. The time for the 550 yd swim and successful completion of the 25 yd underwater swim and 30 min water tread are noted on the NF 57-03-39 along with a general rating of the diver candidate's swimming ability and signed by the UDS. For individuals who will participate in a NDC Training Course, the completed form is part of the application packet submitted in advance of the class. For those who will participate in local training at the Dive Unit level, the completed form should be retained in the diver's file. **Note: Personnel attending NDC Training Courses are required to successfully perform this test again during the first day of pool work.**

**Safety Certifications** – There are several safety training certifications which are prerequisites for any NOAA Dive training; they are Adult CPR, AED, First Aid and Oxygen Administration. These certifications must be valid at the time training begins and must remain valid throughout the entire training period. Copies must be on file at the training facility (NDC or Unit) prior to the beginning of NOAA Dive Training. Dive Units are authorized to use government funds to pay for this safety training.

**Dividing Certifications** – Pre-existing dive certifications are strongly recommended for NOAA Diver candidates participating in NDC Training Courses and required for NOAA Dive Training conducted at the Dive Unit level. Copies should be submitted to NDC prior to the beginning of the NDC Training Course the diver candidate will participate in. Divers participating in NOAA Dive Training at the Dive Unit level must have certifications from a nationally recognized diver training organization in Basic Openwater, Advanced Openwater and Rescue. Copies must be on file prior to the beginning of NOAA Dive Training conducted at the Dive Unit level. Dive Units are authorized to use government funds to pay for this training if needed.

**Standardized Equipment Program (SEP) Forms** – Divers who will participate in the SEP (required of all FTEs, strongly recommended for contractors) will need to complete two forms before they will be supplied with SEP gear; the Standardized Equipment Program Measurement Form (NF 57-03-65) and the Standardized Equipment Program User Agreement (NF 57-03-67). Copies must be submitted to the SEP Coordinator at least sixty (60) days prior to the beginning of the NDC Training Course the diver candidate will participate in. A similar amount of lead time is desired for divers participating in NOAA Dive Training at the Dive Unit level. A UDS may request SEP gear before a diver begins NOAA Dive Training at the Dive Unit level, however the annual SEP fees will be assessed from the date the gear is supplied, not when the diver is given a Letter of Authorization to Dive.

**Liability Release** – All diver candidates must complete and sign the Liability Release and Assumption of Risk Form (NF 57-03-09) prior to participation in NOAA Diving Program training. Additionally, all contractors must complete and a company representative must sign the Verification of Liability Coverage (NF 57-03-07) prior to participation in NOAA Diving Program training. Copies must be on file at the training facility (NDC or Unit) prior to the beginning of NOAA Dive Training conducted at the Dive Unit level.

**Diving Resume** – All diver candidates must complete, and the candidate and UDS must sign, the Diving Activity Resume (NF 57-03-41) prior to participation in NOAA Diving Program training. Diver candidates participating in NOAA Dive Training at NDC (starting with Module 2) must complete and submit the Diving Activity Resume to NDC at least sixty (60) days prior to the beginning of the NDC Training Course. Copies must be on file prior to the beginning of NOAA Dive Training conducted at the Dive Unit level. If Divers are attending Module 2 of the NDC training, it is strongly recommended that the UDS conduct an in-water skills assessment to confirm the Diving Activity Resume.

**Depth Limitations** – All newly certified NOAA Divers are approved to dive to 60 fsw. Depth limits may progress to a maximum of 130 fsw with approval by the UDS. The standard progression is 60 fsw, 100 fsw, 130 fsw. The UDS or designee must accompany a NOAA Diver on dives deeper than the initial or interim maximum depth limit for the purpose of advancing to the next greater depth limit. These dives do not need to be to the exact depth of the next level, for example a 60 fsw diver wishing to progress to the 100 fsw level can make a dive or series of dives to 90-95 fsw.

**For Diver Candidates participating in NOAA Dive Training at the Dive Unit level, the following are required:**

**Classroom Training** – There are several training modules available on the NDP website; all of them should be utilized. These may be reviewed individually by the Volunteer Diver candidate, or a more formal classroom session may be organized by the UDS. Some modules contain short exams, but all of them contain material which is included in the NOAA Diver Examination.

**In-Water Training** – The UDS should conduct or designate a qualified person to conduct in-water skills training. NOAA Diver candidates will have completed dive certification prior to applying as a NOAA Diver. You are not teaching them how to dive, you are teaching them the NOAA way to dive. Use the NOAA Diver Skills Checkout Checklist (NF 57-03-36) as a guide for the skills you should cover. The videos available on the NDP website are extremely useful instructional materials. Your goal should be to have the NOAA Diver candidate(s) execute the skills exactly as shown in the videos.

**Specialized Training** – If the NOAA Diver will participate in dives using the RASS or Line Tending, the relevant classroom and in-water training must be conducted. These modules are also available on the NDP website.

**Written Examination** – There is a test which must be completed at the end of the classroom instruction. The test contains 125 questions, 100 are multiple choice and cover physics, physiology, rescue, equipment, etc. and 25 decompression calculation problems. There is no time limit on the test, but use your judgement on how long you should allow (2 hours is a reasonable amount of time). The NOAA Diver candidate must score at least 80% on each section of the Exam.

**NOAA Dive Trainer** – All of the above training may be conducted by the UDS (or designee), however the Checkout Dive and Student Evaluation must be conducted by a NOAA Dive Trainer. These individuals

have undergone specialized instructor training provided by NDC and are the only ones authorized to conduct the skills checkout dives. A list of NOAA Dive Trainers is available on the NDP website.

**Checkout Dive Report** – At the completion of the classroom component of NOAA Dive Training, the NOAA Dive Trainer will conduct a series of checkout dives with the diver candidate. The results of these dives are recorded on the NOAA Diver Skills Checkout Checklist (NF 57-03-36). This form must be submitted to the LODO or SODO who will forward it to [support.ndc@noaa.gov](mailto:support.ndc@noaa.gov) as part of the package requesting a Letter of Authorization to Dive.

**Student Evaluation** – At the completion of training, the NOAA Dive Trainer will fill out the NOAA Diver Training Course Student Evaluation (NF 57-03-37). This form must be submitted to the LODO or SODO who will forward it to [support.ndc@noaa.gov](mailto:support.ndc@noaa.gov) as part of the package requesting a Letter of Authorization to Dive.

**Diving Experience** – The prospective NOAA Diver’s Diving Resume should indicate a minimum of 25 logged dives. This number does not include dives conducted during previous training courses.

**Depth Limitations** – All newly certified NOAA Divers are approved to dive to 60 fsw. Depth limits may progress to a maximum of 130 fsw with approval by the UDS. The standard progression is 60 fsw, 100 fsw, 130 fsw. The UDS or designee may accompany a NOAA Diver on dives deeper than the initial or interim maximum depth limit for the purpose of advancing to the next greater depth limit. These dives do not need to be to the exact depth of the next level, for example a 60 fsw diver wishing to progress to the 100 fsw level may make a dive or series of dives to 90-95 fsw.

## Reciprocity Divers

The use of Reciprocity Divers can significantly improve the effectiveness of NOAA Diving operations. Reciprocity Divers allow for increased staffing on high intensity missions and/or the employment of divers with specialized skills. Reciprocity Agreements signify the Diving Control Boards of the participating organizations find their programs to be equivalent (not identical) with respect to training, equipment, medical standards, and operational procedures. Reciprocity Agreements expire on 31 December of every year. They are normally renewed without review unless significant changes are made in the operations of one of the partners. A list of current Reciprocity Agreements can be found on the NDP website.

### Incoming Reciprocity Divers

**Letter of Reciprocity (LOR)** – All incoming reciprocity divers must present the UDS with a Letter of Reciprocity from their home organization. This LOR should state:

- the diver's name
- certification level
- date of last dive
- number of dives in the previous year
- depth limitations
- expiration dates of safety training (CPR, AED, First Aid Oxygen Administration)
- expiration date of dive physical

Additional information may be included, but varies from organization to organization. After reviewing the visiting diver's LOR and ensuring that all dates are current and will remain current through the end of the planned mission, the UDS should inspect their dive gear to ensure it appears to be in good working condition and is generally configured according to NOAA standards (regulator second stage coming over right shoulder, knife reachable with both hands, gauge console controlled and not dangling, etc.). If a visiting diver is not proficient according to NOAA standards, the UDS may conduct, or designate another NOAA Diver to conduct proficiency dives to bring the visiting diver into compliance. If a visiting diver is not known to the UDS, it is strongly encouraged that a skills checkout dive be conducted to evaluate the visiting diver's competence. If a visiting diver will participate in NOAA dives which require NOAA-specific procedures (i.e., use of the RASS), the UDS or designee must conduct this training prior to any operational dives.

**Liability Coverage** – The UDS should also ensure the visiting diver and their employer's representative have completed the Verification of Liability Coverage form (NF 57-03-07).

**Dive Plans and DEAPs** – Reciprocity divers should be included on all Dive Operations Plans (NF 57-03-20) for missions in which they will participate. It is advisable to indicate they are reciprocity divers on the plan by including a notation after their names (e.g., T. Nugent [recip] or T. Nugent [Univ. Detroit]).



Emergency contact information for reciprocity divers should be included with the Diving Emergency Assistance Plan (NF 57-03-21) for the mission. All reciprocity divers must comply with all requirements contained in the NOAA Diving Standards and Safety Manual when diving with NOAA. They may exceed the NOAA standards, but they must comply with the NOAA standards at a minimum.

**Gear Inspection** – While the Reciprocity Agreement indicates annual servicing of life-supporting diving equipment, the UDS (or designee) should thoroughly inspect all diving gear to be used by Reciprocity Divers before allowing them to participate in NOAA operations. Many dive accidents can be prevented by a thorough gear inspection before divers enter the water.

**Obtaining Reciprocity Agreements with other Diving Organizations** – If a UDS wishes to establish a new reciprocity agreement with another diving organization, the Review for Scientific Diver Reciprocity form (NF 57-03-05) should be completed and submitted, along with a copy of the proposed partner's Diving Operations Manual, to the UDS' LODO or SODO. The form is a checklist for requirements in the proposed partner's program, including initial dive certification, proficiency requirements, dive equipment maintenance, and required safety equipment.

### **Outgoing Reciprocity Divers**

**LORs** – All UDS's are authorized to sign LORs for NOAA Divers in their Diving Unit who plan to participate in operations with reciprocity partner organizations. These LORs should contain contact information on the NOAA Diver, the dates of planned reciprocity diving operations, the certification level of the NOAA Diver (i.e., open circuit, CCR, air, nitrox, trimix, deco, no-deco, 130 fsw), the date of last dive, the service date of dive gear, and the expiration dates of CPR, First Aid and Oxygen Administration training, the dive physical and the annual medical history report. Completed LORs should be provided to the diver or sent directly to the Dive Safety Officer of the reciprocity organization. Copies should also be submitted to NDC via the NDP.LOR@noaa.gov email address. Requests for LORs may also be submitted to NDC using the Letter of Reciprocity Request form (NF 57-03-06). Please submit LOR requests no less than one (1) week prior to the beginning of diving operations. Requests for NDC-produced LORs should be submitted to the [Support.NDC@noaa.gov](mailto:Support.NDC@noaa.gov) email address. All LORs are valid through 31 December of the year they are issued. If a safety certification or medical requirement expires, or the NOAA Diver's gear passes the service date during the period covered under the LOR, it is the NOAA Diver's responsibility to provide the reciprocity organization with updated certificates or documentation showing they are currently authorized to dive by the NOAA Diving Program. All NOAA Divers must comply with all requirements contained in the NOAA Diving Standards and Safety Manual when diving with reciprocity organizations. They may exceed the NOAA standards, but they must comply with the NOAA standards at a minimum.

## Observer Divers

The Observer Diver status is used to allow non-NOAA divers to dive as part of a NOAA Diving operations under limited circumstances. Most often Observer Divers are VIPs who wish to observe a NOAA Diving operation while in the water. As the name implies, Observer Divers may only observe, they may not actively participate in any diving tasks, although limited photography of operations may occur with the UDS' approval. They must be accompanied at all times by a minimum of two (2) NOAA Divers. Observer Divers may participate in no more than six (6) NOAA dives per year. In certain situations, the six (6) dives per year maximum may be waived by the LODO or SODO. There are a few requirements which must be completed prior to any dives by an Observer Diver and a few requirements that must be completed afterwards. Observer Divers are authorized by the LODO or SODO; the pre-dive information should be forwarded to the LODO or SODO to receive this authorization.

**Dive Certification** – Prospective Observer Divers must show proof of diving certification from a nationally recognized diver certifying organization (NAUI, PADI, US military). They must present evidence of at least ten (10) logged dives including one conducted in the preceding three (3) months.

**Dive Physical** – Any potential Observer Diver must complete a Report of Medical History – Observer Diver (NF 57-03-53) before participation in NOAA Diving Program operations. This form is to be completed by the prospective Observer Diver and signed by a medical practitioner (i.e., MD, DO, NP, or PA). This is not a dive physical, but rather a self-reported medical history that is attested to by a medical practitioner familiar with the prospective Observer Diver. The medical consultation must take place no more than a year prior to the NOAA dives the Observer Diver will participate in. The NF 57-03-53 should be sent to the NOAA Diving Medical Officer (NDMO) at least thirty (30) days prior to the NOAA dives. The prospective Observer Diver should submit the form to the NDMO via fax at (206) 526-2759 or via email to [DMO@noaa.gov](mailto:DMO@noaa.gov). Any medical records sent via email should use an encrypted process such as secure zip or Accellion. The NDMO will notify the UDS of medical clearance.

**Liability Waiver** – The prospective Observer Diver must complete and sign the Observer Diver Waiver of Liability form (NF 57-03-08) before any participation in NOAA Diving Program operations. A copy of this form should be retained at the Dive Unit for six (6) months after the completion of all Observer Diver participation in NOAA Diving operations.

**Pre- and Post-Dive Reporting** – The UDS should use the Observer Diver Report form (NF 57-03-26) to document the prospective Observer Diver meets the requirements for medical reporting, diving certification and proficiency, and understands the NOAA Diving Program standards which will apply during any diving activities. The form also contains an abbreviated dive log which is filled out by the UDS after the conclusion of the NOAA Diving operations. Once the pre- and post-dive sections are completed, the UDS should submit this form to NDC through the [support.ndc@noaa.gov](mailto:support.ndc@noaa.gov) email account.

**Dive Gear** – The Observer Diver may provide their own gear, however they must provide evidence it has been serviced within the last year and it must be inspected by the UDS prior to use on any NOAA dive.

The LODO or SODO may approve the use of NOAA-issued gear. Contact your LODO or SODO if you desire to use this option.

**Limit on Dives** – There is a limit of six (6) dives per year for any Observer Diver. This limit can be waived by the LODO or SODO if there is sufficient justification.

**Manning Levels** – Observer Divers must be accompanied by a minimum of two (2) NOAA Divers whose sole responsibility is to serve as Escorts for the Observer Diver. The minimum number of Escort Divers is two and the minimum ratio of Escort Divers to Observer Divers is 1:1. Additionally there must be standby divers and topside support for all Observer dives. All Escort Divers will carry a RASS. An example of the manning levels is as follows:

Observer Divers	Escort Divers	Standby Divers <sup>1</sup>	DPIC
1	2	1 or 2	1
2	2	1 or 2	1
3	3	1 or 2	1
4	4	1 or 2	1

<sup>1</sup> Standby divers consist of a pair of free swimming divers or a single line-tended diver.

## Volunteer Divers

Volunteer Divers offer an excellent solution for insufficient manning levels at a NOAA Dive Unit or for needed expertise not available within the Unit. There are two requirements which must be met to bring someone on as a Volunteer Diver; the diving operations must support activities described in Fish and Wildlife Improvement Act of 1978 (16 USC 742f) or the National Marine Sanctuary Act (16 USC 1442). In addition the Volunteer Diver must not be paid (by anyone) for participating in the NOAA Diving operation. The prohibition on receiving payment for diving does not include individuals with scholarships, fellowships, or other academic awards; these divers may dive for NOAA as Volunteer Divers.

Under the Volunteer Diver provisions, the volunteer effectively becomes a NOAA employee for the purposes of coverage for liability claims under the Federal Tort Claims Act (FTCA), 28 USC 2671, and for injury claims under the Federal Employees Compensation Act (FECA) 5 USC 8101. There are administrative requirements which must be met for someone to become a volunteer diver, in addition to the diving requirements outlined below. At the Diving Program level, there is a single administrative form to complete; the NOAA Volunteer Diver Service Agreement (NF 57-03-11). This form should be completed and signed by the prospective Volunteer Diver before it is reviewed and signed by a NOAA representative with hiring authority. Individual Line Offices, Program Offices or facilities may have additional requirements and you should check with your local human resources or administrative officer to ensure all requirements have been met.

The diving requirements for training a Volunteer Diver are essentially the same as outlined in the “Creating a New NOAA Diver” section above for FTEs or NOAA contractors. Volunteer Divers are eligible to attend NOAA Diver Training courses conducted by NDC.

The following describe the diving requirements for Volunteer Divers:

**Dive Physical** – There are three forms required to secure medical clearance to dive. The first document is a checklist describing the various tests (which are age dependent) and forms needed for a complete dive physical package. The second item is a self-report of medical history and the third is a medical professional’s report of a physical examination. **Before any physical activities are conducted (i.e., swim test, dive skills evaluation, checkout dives), the NOAA Diving Medical Officer (NDMO) must provide a medical authorization to proceed.** A Volunteer Diver candidate’s medical insurance normally covers the cost of the laboratory tests and physical exam, however if it does not, these costs may be covered by the government. The medical history and physical exam forms contain private medical information which the UDS is not entitled to see. However the UDS is strongly encouraged to go over the checklist to ensure the package is complete before it is submitted to the NDMO. This is particularly important for Volunteer Divers who may not be as familiar with NDP forms as FTE or NOAA contractors. One of the most common delays in the diver certification process is an incomplete dive physical. The Volunteer

Diver candidate is responsible for submitting the dive physical package to the NDMO. This should be done by fax to (206) 526-2759 or encrypted email.

**Swim Test** – Once medically cleared, Volunteer Diver candidates should complete the Initial Swim Test with the results documented on the Swim Test Evaluation (NF 57-03-39). There are three components to this test; an underwater swim of 25 yds (22 m), a surface swim of 550 yds (500 m), and a 30 minute period of treading water. The 550 yd swim must be completed without stopping and use the front crawl, side stroke, or breast stroke. Goggles or a mask may be used, but no snorkels or fins. The candidate may do the three components in any order, but they should be conducted in one session with reasonable rest periods between each event. The time for the 550 yd swim and successful completion of the 25 yd underwater swim and 30 min water tread are noted on the NF 57-03-39 along with a general rating of the Volunteer Diver candidate's swimming ability and signed by the UDS. For individuals who will participate in a NDC Training Course, the completed form is part of the application packet submitted in advance of the class. For those who will participate in local training at the Dive Unit level, the completed form should be retained in the Volunteer Diver's file. **Note: Personnel attending NDC Training Courses are required to successfully perform this test again during the first day of pool work.**

**Safety Certifications** – There are several safety training certifications which are prerequisites for any NOAA Dive training; Adult CPR, AED, First Aid and Oxygen Administration. These certifications must be valid at the time training begins and must remain valid throughout the entire training period. Copies must be submitted to NDC prior to the beginning of the NDC Training Course the diver candidate will participate in. Copies must be on file prior to the beginning of NOAA Dive Training conducted at the Dive Unit level. Dive Units are authorized to use government funds to pay for this safety training if needed.

**Diving Certifications** – Pre-existing dive certifications are strongly recommended for NOAA Diver candidates participating in NDC Training Courses and required for NOAA Dive Training conducted at the Dive Unit level. Copies should be submitted to NDC prior to the beginning of the NDC Training Course the diver candidate will participate in. If starting an NDC Training with Module 2, then copies should be submitted to NDC at least sixty (60) days prior to the scheduled start date. Divers participating in NOAA Dive Training at the Dive Unit level must have certifications from a nationally recognized diver training organization in Basic Openwater, Advanced Openwater and Rescue. Copies must be on file prior to the beginning of NOAA Dive Training conducted at the Dive Unit level. Dive Units are authorized to use government funds to pay for this safety training if needed.

**Standardized Equipment Program (SEP) Forms** – Divers who will participate in the SEP (required of all FTEs, strongly recommended for contractors, available to Volunteer Divers) will need to complete two forms before they will be supplied with SEP gear; the Standardized Equipment Program Measurement Form (NF 57-03-65) Standardized Equipment Program User Agreement (NF 57-03-67). Copies should be submitted to the SEP Coordinator at least sixty (60) days prior to the beginning of the NDC Training Course the diver candidate will participate in. A similar amount of lead time is desired for divers participating in NOAA Dive Training at the Dive Unit level. A UDS may request SEP gear before a diver

begins NOAA Dive Training at the Dive Unit level, however the annual SEP fees will be assessed from the date the gear is supplied, not when the diver is given a Letter of Authorization to Dive.

**Liability Release** – All diver candidates must complete and sign the Liability Release and Assumption of Risk Form (NF 57-03-09) prior to participation in and NOAA Diving Program training. Additionally, all contractors must complete and a company representative must sign the Verification of Liability Coverage (NF 57-03-07) prior to participation in and NOAA Diving Program training. Copies must be submitted to NDC prior to the beginning of the NDC Training Course the diver candidate will participate in. Copies must be on file prior to the beginning of NOAA Dive Training conducted at the Dive Unit level.

**Diving Resume** - All diver candidates must complete and the candidate and UDS must sign the Diving Activity Resume (NF 57-03-41) prior to participation in and NOAA Diving Program training. If beginning NDC Training with Module 2 copies must be submitted to NDC at least sixty (60) days prior to the beginning of the NDC Training Course the diver candidate will participate in. Copies must be on file prior to the beginning of NOAA Dive Training conducted at the Dive Unit level.

**Depth Limitations** – All newly certified NOAA Divers are approved to dive to 60 fsw. Depth limits may progress to a maximum of 130 fsw with approval by the UDS. The standard progression is 60 fsw, 100 fsw, 130 fsw. The UDS or designee must accompany a NOAA Diver on dives deeper than the initial or interim maximum depth limit for the purpose of advancing to the next greater depth limit. These dives do not need to be to the exact depth of the next level, for example a 60 fsw diver wishing to progress to the 100 fsw level can make a dive or series of dives to 90-95 fsw.

**For Volunteer Diver candidates participating in NOAA Dive Training at the Dive Unit level, the following are also required:**

**Classroom Training** – There are several training modules available on the NDP website, all of them should be utilized. These may be reviewed individually by the Volunteer Diver candidate, or a more formal classroom session may be organized by the UDS. Some modules contain short exams, but all of them contain material which is included in the NOAA Diver Examination.

**In-Water Training** – The UDS should conduct or designate a qualified person to conduct in-water skills training. Volunteer Diver candidates will have completed dive certification prior to applying as a NOAA Volunteer Diver. You are not teaching them how to dive, you are teaching them the NOAA way to dive. Use the NOAA Diver Skills Checkout Checklist (NF 57-03-36) as a guide for the skills you should cover. The videos available on the NDP website are extremely useful instructional materials. Your goal should be to have the Volunteer Diver candidate(s) execute the skills exactly the same way as is shown on the videos.

**Specialized Training** – If the Volunteer Diver will participate in dives using the RASS or Line Tending, the relevant classroom and in-water training should be conducted. These modules are available on the NDP website.

**Written Examination** – There is a test which must be completed at the end of the classroom instruction. The test contains 125 questions, 100 are multiple choice and cover physics, physiology, rescue, equipment, etc. and 25 decompression calculation problems. There is no time limit on the test, but use your judgement on how long you should allow (2 hours is a reasonable amount of time). The Volunteer Diver candidate must score at least 80% on each section of the Exam.

**NOAA Dive Trainer** – All of the above training may be conducted by the UDS (or designee), however the Checkout Dive and Student Evaluation must be conducted by a NOAA Dive Trainer. These individuals have undergone instructor training at NDC and are the only ones authorized to conduct the skills checkout dives. A list of NOAA Dive Trainers is available on the NDP website.

**Checkout Dive Report** – At the completion of the classroom component of NOAA Dive Training and clearance from the NDP DMO, the NOAA Dive Trainer will conduct a series of checkout dives with the diver candidate. The results of these dives are recorded on the NOAA Diver Skills Checkout Checklist (NF 57-03-36). This form must be submitted to the LODO or SODO who will forward it to [support.ndc@noaa.gov](mailto:support.ndc@noaa.gov) as part of the package requesting a Letter of Authorization to Dive.

**Student Evaluation** – At the completion of NOAA Dive Training, the NOAA Dive Trainer will fill out the Scientific Diver Training Course Student Evaluation (NF 57-03-37). This form must be submitted to the LODO or SODO who will forward it to [support.ndc@noaa.gov](mailto:support.ndc@noaa.gov) as part of the package requesting a Letter of Authorization to Dive from the NOAA Dive Program Manager (NDPM).

**Diving Experience** – The prospective Volunteer Diver’s Diving Resume should indicate a minimum of 25 logged dives if the diver wishes to only participate in Scientific (OSHA-exempt) Dives and 100 logged dives if the diver wishes to participate in Scientific and Working (OSHA-compliant) Dives. These numbers do not include dives conducted during previous training courses.

**Depth Limitations** – All newly certified NOAA Divers are approved to dive to 60 fsw. Depth limits may progress to a maximum of 130 fsw with approval by the UDS. The standard progression is 60 fsw, 100 fsw, 130 fsw. The UDS or designee must accompany a NOAA Diver on dives deeper than the initial or interim maximum depth limit for the purpose of advancing to the next greater depth limit. These dives do not need to be to the exact depth of the next level, for example a 60 fsw diver wishing to progress to the 100 fsw level can make a dive or series of dives to 90-95 fsw.

## Safe Manning Levels

There is no set number of personnel required for safe manning levels, however there are minimum requirements. These vary with the type of dive and the platform. As UDS, it is entirely within your discretion to exceed the minimum requirements if you feel additional personnel are needed. The minimum requirements are outlined below, based upon the type of dive and platform.

### Scientific (OSHA-exempt) Dives

From Shore or Platform (Pier, Dock, etc.) – This mode requires the fewest personnel, however the UDS should consider the implications of an emergency in which one diver is incapacitated before waiving the topside support requirement.

Divers	Standby Divers	Topside Support (DPIC)	TOTAL
2	0	0* or 1	2 or 3

\*With UDS approval, the topside support may be waived.

From a Vessel – Topside support is required, however the vessel operator may serve in this role as long as they are able to devote their full attention to the diving operation.

Divers	Standby Divers	Topside Support (DPIC)	TOTAL
2	0	1	3

**Working (OSHA-compliant) Dives** – Regardless of platform, all Working Dives require at least four personnel, however the use of five is more common.

Divers	Standby Divers	Topside Support (DPIC)	TOTAL
2	1* or 2	1	4 or 5

\*If using a single standby diver, they must be line-tended from the surface.

**Tethered with Communications** – This mode requires specialized training. It allows the deployment of a single diver as long as they are tethered to the surface with voice communications, have a tender, and there is a standby diver who is also tethered and equipped with communication gear. If at any point in the dive, voice communications are lost, the dive must be terminated.

Divers	Standby Divers	Topside Support (DPIC)	TOTAL
1	1	1	3



**Technical Dives** – There are several options for this diving mode. Standby divers, equipped to reach the maximum depth of the bottom divers, may be used. Alternatively, a single on-bottom safety diver may be employed. The on-bottom safety diver accompanies the bottom divers during the dive, however their only task must be the monitoring of the bottom divers. Support divers are equipped to meet the bottom divers (and on-bottom safety diver, if used) during the decompression phase of the dive. They can carry additional decompression gases to the bottom team and ferry equipment to the surface.

Divers	Safety Divers	Standby Divers	Support Divers	Topside Support	TOTAL
2	1	0	2	1	6
2	0	2	2	1	7

## Choosing Divemasters and Lead Divers

The selection of Divemasters and Lead Divers requires careful consideration of the mission at hand and the available personnel. If possible, a Divemaster should be present at all dive sites, if a Divemaster is not available, the UDS should designate a Lead Diver. A detailed description of the duties, requirements, and responsibilities of these positions is provided in the NOAA Diving Standards and Safety Manual and will not be duplicated here.

Match your personnel to your mission. Mixing personnel to manage a dive site is certainly acceptable, the goal is to maximize safety. For example, your unit will conduct a dive using a hydraulic drill to create a mooring attachment in a large boulder at the site of a historical shipwreck. Your team includes a NOAA Corps officer who has attended NOAA Divemaster training, but was assigned to your unit two months ago. You also have a Volunteer Diver with extensive military and commercial diving experience who is skilled with hydraulic tools. The rest of your divers include an archaeologist who is nearing retirement and two survey technicians who are in their 30's but have been with the unit for ten years. How would you assign the roles for this operation? A good solution would be to assign the Corps officer as the Divemaster, since they have the required training and will be able to provide effective pre- and post-dive briefings and conduct good pre-dive gear checks. Since this is a historic site, a reconnaissance dive would be reasonable. The best buddy team for this short dive would be the Volunteer Diver, who you have assigned to operate the drill, and the archaeologist, who can point out sensitive spots on the wreck to prevent damage from the tools and hydraulic lines. Once back on the surface, the entire team would discuss the best way to safely and effectively install the anchoring point. The installation dive would be conducted by the Volunteer Diver and one of the survey techs. This would include someone with good local knowledge of subsurface conditions on the buddy team who could also assist with the physical demands of operating the equipment. Since this is a working dive, the archaeologist and second survey tech would serve as Standby Divers. There are obviously many combinations of buddy teams which could be used for this mission, but the take home message is to evaluate the task and your available assets and match the personnel to the tasks. It is always better to match an experienced diver with a new person than to assign two new people to dive together. You may be a very experienced diver in your environment but always seek local knowledge when you travel to a different geography. Also remember to brief new people to your area about the local hazards that you might take for granted (e.g. low visibility, high currents, hazardous marine life).

## Reporting Dive Incidents

In the event of a diving incident the first priority is rendering first aid and evacuating the victim to the next level of care. Once the medical situation is under control, there are two administrative processes which must be initiated; notification and investigation.

Again, dealing with the medical emergency is your first priority, but once that is under control your first call should be to the NOAA Diving Medical Officer (NDMO). The phone number will be on your DEAP. If you do not get an answer and have to leave a voicemail, do not wait more than five (5) minutes before calling the secondary NOAA medical contact. You can also call Divers Alert Network (DAN) for medical advice. The next person to contact is the immediate supervisor of the injured diver. After that, call your LODO or SODO and then the NOAA Diving Program Manager. If those calls do not go through, work your way down the list (e.g., branch chief, superintendent, lab director are secondary contacts for the injured diver's immediate supervisor. The Deputy Diving Officer in your line office or the LODO, SODO, DLODO or DSODO from another line office are secondary contacts for the NDPM and LODO). Keep calling until you speak with a person on both the medical and administrative sides.

Once notifications are made, and assuming the medical situation is still under control, the next steps are securing the relevant gear for completion of the initial reports. Securing the gear is simple, but is also invaluable for an investigation. **Do not disassemble the gear**, but secure the tank valve while carefully noting the number of turns it takes to close. Secure the gear in a location where it will not be damaged or tampered with during the medical evacuation. Several reports may be required and your involvement will vary with each one. For the NDP, you will use the Diving Incident Report (NF 57-03-01) and its completion will be your responsibility. There is also a SECO report to be filed by the injured diver's supervisor and, if on a ship, an OMAO form (MOC 137) which will be filed by the command. The NDP form is comprehensive and you will not be able to complete it immediately, but do not wait to get started. The form has sections on the diver, equipment, dive details, dive profiles (for the entire day, not only the incident dive), emergency procedures used, immediate medical treatment, and follow-up treatment. Do not wait until the medical situation is completely resolved before starting the form; record what you can while the information is fresh in your mind. This form must be completed and submitted to your LODO or SODO within ten (10) days of the diving incident. Your LODO or SODO will also ask for a narrative description of the incident from you and all witnesses. These are typically a page or two in length and are extremely valuable as different people's recollections vary and understanding the incident is easier with a range of perspectives.

It cannot be stressed enough that the first response to a diving incident should be addressing any medical emergencies. After that, there are two similar paths which must be taken, notification and investigation. Notification should be done first. Do not wait for complete details to begin this process. You can always provide updates as more information becomes available. Tables and flowcharts with the timelines and procedures for incident notification and investigation can be found below.

## NOAA Diving Incident Reporting Matrix

### Notification Chain and Timelines – Property Damage

*NOTE: If you cannot reach the person you are instructed to contact within a reasonable amount of time, you must inform the next person up the chain. Leaving a voicemail is not a positive notification. **TALK TO A PERSON***

Incident/Diver Type	Property Damage <\$1000	Property Damage \$1000-\$20,000	Property Damage >\$20,000
<b>NOAA Diver - FTE</b>	Diver must report incident to DM/LD <b>immediately</b> . DM/LD must report to UDS <b>within 24 hrs.</b>	Diver must report incident to DM/LD <b>immediately</b> . DM/LD must report to UDS and Work Supervisor <b>within 8 hrs.</b>	Diver must report incident to DM/LD <b>immediately</b> . DM/LD must report to UDS and Work Supervisor <b>immediately</b> .
<b>NOAA Diver - Contractor</b>	Diver must report incident to DM/LD <b>immediately</b> . DM/LD must report to UDS <b>within 24 hrs.</b>	Diver must report incident to DM/LD <b>immediately</b> . DM/LD must report to UDS, Work Supervisor, and Contract Supervisor <b>within 8 hrs.</b>	Diver must report incident to DM/LD <b>immediately</b> . DM/LD must report to UDS, Work Supervisor, and Contract Supervisor <b>immediately</b> .
<b>Reciprocity Diver</b>	Diver must report incident to DM/LD <b>immediately</b> . DM/LD must report to UDS within 24 hours. UDS must inform DSO of reciprocity partner <b>within 24 hrs.</b>	Diver must report incident to DM/LD <b>immediately</b> . DM/LD must report to UDS and Work Supervisor <b>within 8 hrs.</b> UDS must inform DSO of reciprocity partner <b>within 24 hrs.</b>	Diver must report incident to DM/LD <b>immediately</b> . DM/LD must report to UDS and work supervisor <b>immediately</b> . UDS must inform DSO of reciprocity partner <b>within 24 hrs.</b>
<b>Observer Diver</b>	Diver must report incident to DM/LD <b>immediately</b> . DM/LD must report to UDS <b>within 24 hrs.</b>	Diver must report incident to DM/LD <b>immediately</b> . DM/LD must report to UDS and Work Supervisor <b>within 8 hrs.</b>	Diver must report incident to DM/LD <b>immediately</b> . DM/LD must report to UDS and Work Supervisor <b>immediately</b> .
<b>Volunteer Diver</b>	Diver must report incident to DM/LD <b>immediately</b> . DM/LD must report to UDS <b>within 24 hrs.</b>	Diver must report incident to DM/LD <b>immediately</b> . DM/LD must report to UDS and Work Supervisor <b>within 8 hrs.</b>	Diver must report incident to DM/LD <b>immediately</b> . DM/LD must report to UDS and Work Supervisor <b>immediately</b> .
<b>No NOAA relationship</b>	Diver must report incident to DM/LD <b>immediately</b> . DM/LD must report to UDS <b>within 24 hrs.</b>	Diver must report incident to DM/LD <b>immediately</b> . DM/LD must report to UDS <b>within 24 hrs.</b>	Diver must report incident to DM/LD <b>immediately</b> . DM/LD must report to UDS <b>within 24 hrs.</b>

## NOAA Diving Incident Reporting Matrix

### Notification Chain and Timelines – Near Miss and First Aid

*NOTE: If you cannot reach the person you are instructed to contact within a reasonable amount of time, you must inform the next person up the chain. Leaving a voicemail is not a positive notification. **TALK TO A PERSON***

Incident/Diver Type	Near Miss	Injury First Aid
<b>NOAA Diver - FTE</b>	Diver must report incident to DM/LD <b>immediately</b> . DM/LD must report to UDS <b>within 24 hrs.</b>	Diver must report injury to DM/LD <b>immediately</b> and DM/LD must report to UDS <b>within 24 hrs.</b>
<b>NOAA Diver - Contractor</b>	Diver must report incident to DM/LD <b>immediately</b> . DM/LD must report to UDS <b>within 24 hrs.</b>	Diver must report injury to DM/LD <b>immediately</b> and DM/LD must report to UDS <b>within 24 hrs.</b>
<b>Reciprocity Diver</b>	Diver must report incident to DM/LD <b>immediately</b> . DM/LD must report to UDS <b>within 24 hrs.</b>	Diver must report injury to DM/LD <b>immediately</b> and DM/LD must report to UDS <b>within 24 hours</b> . UDS must inform DSO of reciprocity partner <b>within 24 hrs.</b>
<b>Observer Diver</b>	Diver must report incident to DM/LD <b>immediately</b> . DM/LD must report to UDS <b>within 24 hours.</b>	Diver must report injury to DM/LD <b>immediately</b> and DM/LD must report to UDS <b>within 24 hours.</b>
<b>Volunteer Diver</b>	Diver must report incident to DM/LD <b>immediately</b> . DM/LD must report to UDS <b>within 24 hrs.</b>	Diver must report injury to DM/LD <b>immediately</b> and DM/LD must report to UDS <b>within 24 hrs.</b>
<b>No NOAA relationship</b>	No action required	No action required

## NOAA Diving Incident Reporting Matrix

### Notification Chain and Timelines – Injuries Beyond First Aid & Fatalities

*NOTE: If you cannot reach the person you are instructed to contact within a reasonable amount of time, you must inform the next person up the chain. Leaving a voicemail is not a positive notification. **TALK TO A PERSON***

Incident/Diver Type	Injury – Beyond First Aid, but <24 hrs in hospital	Injury - >24 hrs in hospital	Fatality
<b>NOAA Diver - FTE</b>	DM/LD must inform UDS and Work Supervisor <b>immediately</b> . UDS must inform LODO/SODO <b>immediately</b> . LODO/SODO must inform, DPM, Chair of NDCSB, DSO and respective DAA <b>immediately</b> . Process must be completed <b>within 8 hrs.</b>	DM/LD must inform UDS and Work Supervisor <b>immediately</b> . UDS must inform LODO/SODO <b>immediately</b> . LODO/SODO must inform, DPM, Chair of NDCSB, DSO and respective DAA <b>immediately</b> . Process must be completed <b>within 8 hrs.</b>	DM/LD must inform UDS and Work Supervisor <b>immediately</b> . UDS must inform LODO/SODO <b>immediately</b> . LODO/SODO must inform, DPM, Chair of NDCSB, DSO and respective DAA <b>immediately</b> . Process must be completed <b>within 8 hrs.</b>
<b>NOAA Diver - Contractor</b>	DM/LD must inform UDS, Work Supervisor and Contract Supervisor <b>immediately</b> . UDS must inform LODO/SODO <b>immediately</b> . LODO/SODO must inform, DPM, Chair of NDCSB, DSO and respective DAA <b>immediately</b> . Process must be completed <b>within 8 hrs.</b>	DM/LD must inform UDS, Work Supervisor and Contract Supervisor <b>immediately</b> . UDS must inform LODO/SODO <b>immediately</b> . LODO/SODO must inform, DPM, Chair of NDCSB, DSO and respective DAA <b>immediately</b> . Process must be completed <b>within 8 hrs.</b>	DM/LD must inform UDS, Work Supervisor and Contract Supervisor <b>immediately</b> . UDS must inform LODO/SODO <b>immediately</b> . LODO/SODO must inform, DPM, Chair of NDCSB, DSO and respective DAA <b>immediately</b> . Process must be completed <b>within 8 hrs.</b>
<b>Reciprocity Diver</b>	DM/LD must inform UDS and Work Supervisor <b>immediately</b> . UDS must inform LODO/SODO and DSO of reciprocity partner <b>immediately</b> . LODO/SODO must inform, DPM, Chair of NDCSB, DSO and respective DAA <b>immediately</b> . Process must be completed <b>within 8 hrs.</b>	DM/LD must inform UDS and Work Supervisor <b>immediately</b> . UDS must inform LODO/SODO and DSO of reciprocity partner <b>immediately</b> . LODO/SODO must inform, DPM, Chair of NDCSB, DSO and respective DAA <b>immediately</b> . Process must be completed <b>within 8 hrs.</b>	DM/LD must inform UDS and Work Supervisor <b>immediately</b> . UDS must inform LODO/SODO and DSO of reciprocity partner <b>immediately</b> . LODO/SODO must inform, DPM, Chair of NDCSB, DSO and respective DAA <b>immediately</b> . Process must be completed <b>within 8 hrs.</b>

Incident/Diver Type	Injury – Beyond First Aid, but <24 hrs in hospital	Injury - >24 hrs in hospital	Fatality
<b>Observer Diver</b>	DM/LD must inform UDS and Work Supervisor <b>immediately</b> . UDS must inform LODO/SODO <b>immediately</b> . LODO/SODO must inform, DPM, Chair of NDCSB, DSO and respective DAA <b>immediately</b> . Process must be completed <b>within 8 hrs.</b>	DM/LD must inform UDS and Work Supervisor <b>immediately</b> . UDS must inform LODO/SODO <b>immediately</b> . LODO/SODO must inform, DPM, Chair of NDCSB, DSO and respective DAA <b>immediately</b> . Process must be completed <b>within 8 hrs.</b>	DM/LD must inform UDS and Work Supervisor <b>immediately</b> . UDS must inform LODO/SODO <b>immediately</b> . LODO/SODO must inform, DPM, Chair of NDCSB, DSO and respective DAA <b>immediately</b> . Process must be completed <b>within 8 hrs.</b>
<b>Volunteer Diver</b>	DM/LD must inform UDS and Work Supervisor <b>immediately</b> . UDS must inform LODO/SODO <b>immediately</b> . LODO/SODO must inform, DPM, Chair of NDCSB, DSO and respective DAA <b>immediately</b> . Process must be completed <b>within 8 hrs.</b>	DM/LD must inform UDS and Work Supervisor <b>immediately</b> . UDS must inform LODO/SODO <b>immediately</b> . LODO/SODO must inform, DPM, Chair of NDCSB, DSO and respective DAA <b>immediately</b> . Process must be completed <b>within 8 hrs.</b>	DM/LD must inform UDS and Work Supervisor <b>immediately</b> . UDS must inform LODO/SODO <b>immediately</b> . LODO/SODO must inform, DPM, Chair of NDCSB, DSO and respective DAA <b>immediately</b> . Process must be completed <b>within 8 hrs.</b>
<b>No NOAA relationship</b>	DM/LD must inform UDS <b>immediately</b> . UDS must inform LODO/SODO <b>immediately</b> . LODO/SODO must inform, DPM, Chair of NDCSB and DSO <b>immediately</b> . Process must be completed <b>within 24 hrs.</b>	DM/LD must inform UDS <b>immediately</b> . UDS must inform LODO/SODO <b>immediately</b> . LODO/SODO must inform, DPM, Chair of NDCSB, DSO and respective DAA <b>immediately</b> . Process must be completed <b>within 24 hrs.</b>	DM/LD must inform UDS <b>immediately</b> . UDS must inform LODO/SODO <b>immediately</b> . LODO/SODO must inform, DPM, Chair of NDCSB, DSO and respective DAA <b>immediately</b> . Process must be completed <b>within 24 hrs.</b>

## **NOAA Diving Incident Reporting Matrix**

### **Notification Chain Contact Information Above Dive Unit Level**

*NOTE: If you cannot reach the person you are instructed to contact within a reasonable amount of time, you must inform the next person up the chain. Leaving a voicemail is not a positive notification. **TALK TO A PERSON***

#### **Line and Staff Office Diving Officers and Deputies**

##### **OMAO**

SODO Bill Gordon, (office) 206-526-6450, (cell) 206-890-2568  
DSODO LT Justin Keese, (office) 206-526-6460, (cell) 562-522-5616

##### **NOS**

LODO Kim Roberson, (office) 301-713-3028 x229, (cell) 240-997-8040  
DLODO Tane Casserley, (office) 757-591-7333, (cell) 757-284-1115

##### **NMFS**

LODO Andy David, (office) 850-234-6541 x208, (cell) 850-819-4067  
DLODO Ray Boland, (office) 808-725-5716, (cell) 808-225-4716

#### **NOAA Diving Program Manager and NOAA Diving Center**

DPM Greg McFall, (office) 206-526-6705, (cell) 912-596-2462  
DCM CAPT Mark Pickett, (office) 206-526-6476, (cell) 206-794-9738  
DSO Roger Mays, (Seattle office) 206-526-6223, (NC office) 252-728-8798,  
(cell) 252-723-1612  
XO LT Justin Keese, (office) 206-526-6460, (cell) 562-522-5616

#### **NOAA Diving Control and Safety Board**

Chair Kim Roberson, (office) 301-713-3028 x229, (cell) 240-997-8040

#### **OMAO Staff Office Director**

Dir RADM David Score, (office) 301-713-7600  
CoS CDR Nancy Hann, (office) 301-713-7658, (cell) 301-357-0261

#### **Line Office Deputy Assistant Administrators and Staff**

##### **NOS**

AA Russell Calender, (office) 301-713-3074, (cell) 301-525-6562  
COS David Holst, (office) 301-713-3074 x148, (cell) 240-429-4106

##### **NMFS**

DAA Paul Doremus, (office) 301-427-8000, (cell) 202-680-9701  
XO CAPT Carl Newman, (office) 301-427-8060, (cell) 301-325-7930



**NOAA Diving Incident Reporting Matrix**  
**Investigation Chain and Timelines – Property Damage**

Incident/Diver Type	Property Damage <\$1000	Property Damage \$1000-\$20,000	Property Damage >\$20,000
<b>NOAA Diver - FTE</b>	Investigation scope and timeline at the discretion of the UDS and Work Supervisor.	Investigation scope and timeline at the discretion of the UDS and Work Supervisor. SECO report must be filed <b>within 24 hrs.</b> Incidents on OMAO vessels require MOC-137 form.	Investigation scope and timeline at the discretion of the UDS and Work Supervisor. SECO report must be filed <b>within 24 hrs.</b> Incidents on OMAO vessels require MOC-137 form.
<b>NOAA Diver - Contractor</b>	Investigation scope and timeline at the discretion of the UDS, Work Supervisor and Contract Supervisor.	Investigation scope and timeline at the discretion of the UDS, Work Supervisor and Contract Supervisor. SECO report must be filed <b>within 24 hrs.</b> Incidents on OMAO vessels require MOC-137 form.	Investigation scope and timeline at the discretion of the UDS, Work Supervisor and Contract Supervisor. SECO report must be filed <b>within 24 hrs.</b> Incidents on OMAO vessels require MOC-137 form.
<b>Reciprocity Diver</b>	Investigation scope and timeline at the discretion of the UDS, Work Supervisor and DSO of reciprocity partner.	Investigation scope and timeline at the discretion of the UDS, Work Supervisor and DSO of reciprocity partner. SECO report must be filed <b>within 24 hrs.</b> Incidents on OMAO vessels require MOC-137 form.	Investigation scope and timeline at the discretion of the UDS, Work Supervisor and DSO of reciprocity partner. SECO report must be filed <b>within 24 hrs.</b> Incidents on OMAO vessels require MOC-137 form.
<b>Observer Diver</b>	Investigation scope and timeline at the discretion of the UDS and Work Supervisor.	Investigation scope and timeline at the discretion of the UDS and Work Supervisor. SECO report must be filed <b>within 24 hrs.</b> Incidents on OMAO vessels require MOC-137 form.	Investigation scope and timeline at the discretion of the UDS and Work Supervisor. SECO report must be filed <b>within 24 hrs.</b> Incidents on OMAO vessels require MOC-137 form.
<b>Volunteer Diver</b>	Investigation scope and timeline at the discretion of the UDS and Work Supervisor.	Investigation scope and timeline at the discretion of the UDS and Work Supervisor. SECO report must be filed <b>within 24 hrs.</b> Incidents on OMAO vessels require MOC-137 form.	Investigation scope and timeline at the discretion of the UDS and Work Supervisor. SECO report must be filed <b>within 24 hrs.</b> Incidents on OMAO vessels require MOC-137 form.
<b>No NOAA relationship</b>	Investigation scope and timeline at the discretion of the UDS and Work Supervisor.	Investigation scope and timeline at the discretion of the UDS and Work Supervisor.	Investigation scope and timeline at the discretion of the UDS and Work Supervisor.

**NOAA Diving Incident Reporting Matrix**  
**Investigation Chain and Timelines – Near Miss and First Aid**

Incident/Diver Type	Near Miss	Injury First Aid
<b>NOAA Diver - FTE</b>	Investigation scope and timeline at the discretion of the UDS and Work Supervisor. SECO report must be filed <b>within 24 hrs.</b> Incidents on OMAO vessels require MOC-137 form.	Diver must report injury to DM/LD immediately and DM/LD must report to UDS <b>within 24 hrs.</b>
<b>NOAA Diver - Contractor</b>	Investigation scope and timeline at the discretion of the UDS, Work Supervisor and Contract Supervisor. SECO report must be filed <b>within 24 hrs.</b> Incidents on OMAO vessels require MOC-137 form.	Diver must report injury to DM/LD immediately and DM/LD must report to UDS <b>within 24 hrs.</b>
<b>Reciprocity Diver</b>	Investigation scope and timeline at the discretion of the UDS, Work Supervisor and DSO of reciprocity partner. SECO report must be filed <b>within 24 hrs.</b> Incidents on OMAO vessels require MOC-137 form.	Diver must report injury to DM/LD immediately and DM/LD must report to UDS <b>within 24 hours.</b> UDS must inform DSO of reciprocity partner <b>within 24 hrs.</b>
<b>Observer Diver</b>	Investigation scope and timeline at the discretion of the UDS and Work Supervisor. SECO report must be filed <b>within 24 hrs.</b> Incidents on OMAO vessels require MOC-137 form.	Diver must report injury to DM/LD immediately and DM/LD must report to UDS <b>within 24 hours.</b>
<b>Volunteer Diver</b>	Investigation scope and timeline at the discretion of the UDS and Work Supervisor. SECO report must be filed <b>within 24 hrs.</b> Incidents on OMAO vessels require MOC-137 form.	Diver must report injury to DM/LD immediately and DM/LD must report to UDS <b>within 24 hrs.</b>
<b>No NOAA relationship</b>	Investigation scope and timeline at the discretion of the UDS.	No action required

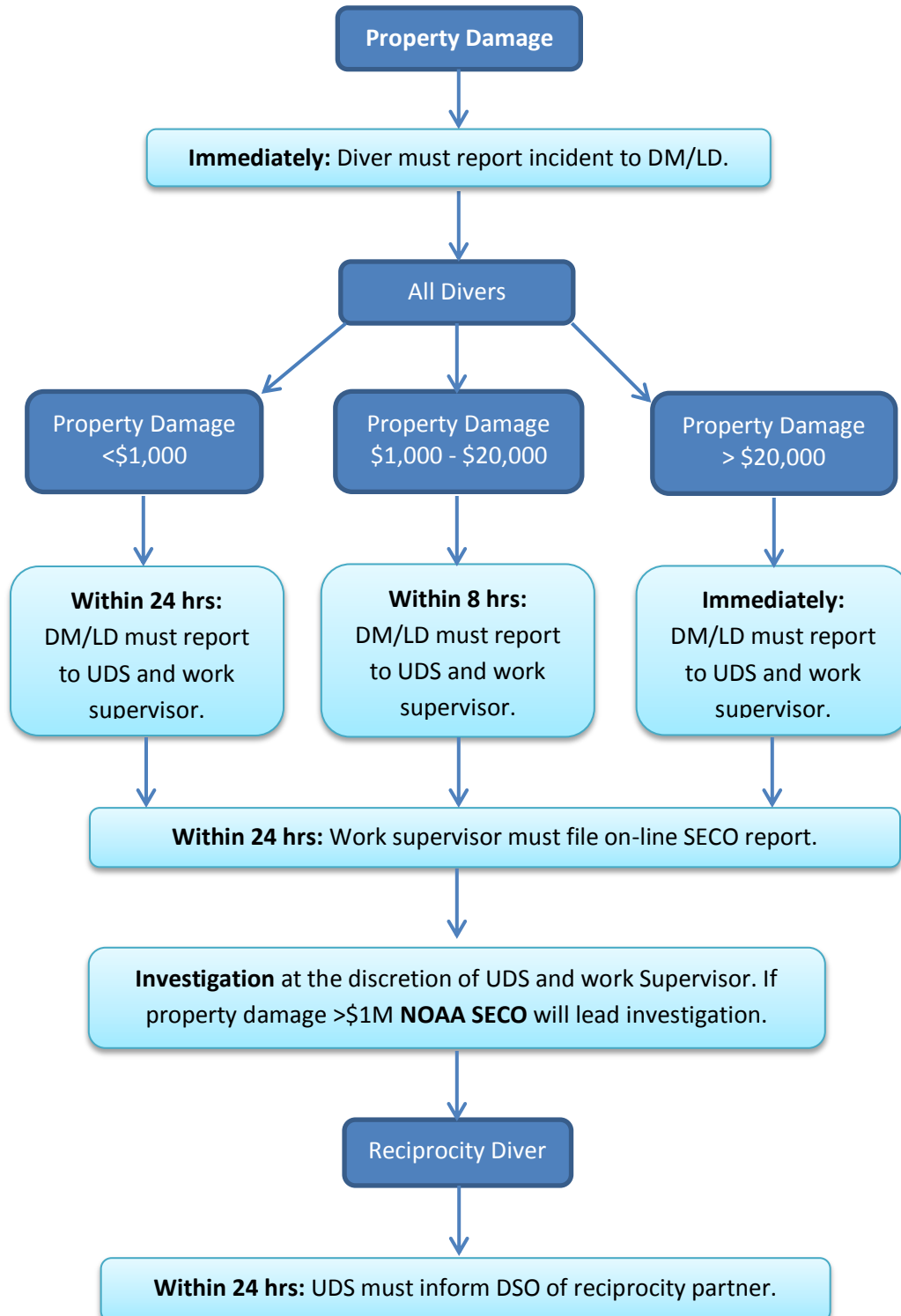
**NOAA Diving Incident Reporting Matrix**  
**Investigation Chain and Timelines – Injuries Beyond First Aid & Fatalities**  
**Actions at the Dive Unit Level**

Incident/Diver Type	Injury – Beyond First Aid, but <24 hrs in hospital	Injury - >24 hrs in hospital	Fatality
NOAA Diver - FTE	<p><i>In the event of a fatality and/or property exceeding \$1,000,000, SECO shall have the lead investigative role, however subject matter experts from the NDP shall be participants in the SECO Class A incident investigation. All NDP injury investigations shall use the following procedures:</i></p> <p><b>Divers shall:</b></p>		
NOAA Diver - Contractor	<p>a) Notify the DM or LD <b>immediately</b> at the first sign or symptom of any injuries sustained during diving operations;</p> <p>b) Notify immediate work supervisor; and</p> <p>c) Complete the employee section of the Office of Worker’s Compensation Programs (OWCP) Form CA-1 (Federal employees only) and forward to immediate work supervisor <b>within 24 hours</b> of being released from medical care. Note: NOAA Corps Officers who suffer an injury are not required to submit an OWCP CA-1 form.</p>		
Reciprocity Diver	<p><b>Immediate work supervisors shall:</b></p> <p>a) Report incident via the on-line NOAA Accident/Incident Reporting Form (<a href="http://www.seco.noaa.gov">www.seco.noaa.gov</a>) or the MOC-137 when occurring on an OMAO vessel, <b>within 24 hours</b> of the incident; and</p> <p>b) Complete the supervisors section of the Form CA-1 (For NOAA employees, with the exception of NOAA Corps Officers, and where medical costs were incurred) and forward all original documents to Managed Care Advisors (MCA) for processing.</p>		
Observer Diver	<p><b>DMs and LDs shall:</b></p> <p><b>Immediately</b> notify their respective UDS of the reportable injury; and b) Submit a written incident report to their UDS <b>within 7 calendar days</b> of the reportable injury.</p>		
Volunteer Diver	<p><b>UDSs shall:</b></p> <p>a) <b>Immediately</b> notify their respective LODO/SODO of the reportable injury;</p> <p>b) Submit a detailed analysis and report of the reportable injury to the respective LODO/SODO <b>within 7 calendar days</b> of receipt of report; and</p> <p>c) The reports shall include, but not be limited to, the following: nature of the operations; existing environmental conditions; dive profiles; dive plans; personnel involved; type of equipment used; nature of any equipment failures; causal analyses that indicates both immediate and basic (root) causes; recommendations for prevention of future injuries; a copy of the DM’s or LD’s incident narrative; a copy of any relevant medical records from treatment received from the treated diver; a copy of the NDP Dive Incident Report; and a copy of the SECO on-line incident report.</p>		
No NOAA relationship	<p>a) <b>Immediately</b> notify their respective LODO/SODO of the reportable injury;</p> <p>b) Submit a detailed analysis and report of the reportable injury to the respective LODO/SODO <b>within 7 calendar days</b> of receipt of report; and</p> <p>c) The reports shall include, but not be limited to, the following: nature of the operations; existing environmental conditions; dive profiles; dive plans; personnel involved; type of equipment used; nature of any equipment failures; causal analyses that indicates both immediate and basic (root) causes; recommendations for prevention of future injuries; a copy of the DM’s or LD’s incident narrative; a copy of any relevant medical records from treatment received from the treated diver; a copy of the NDP Dive Incident Report; and a copy of the SECO on-line incident report.</p>		

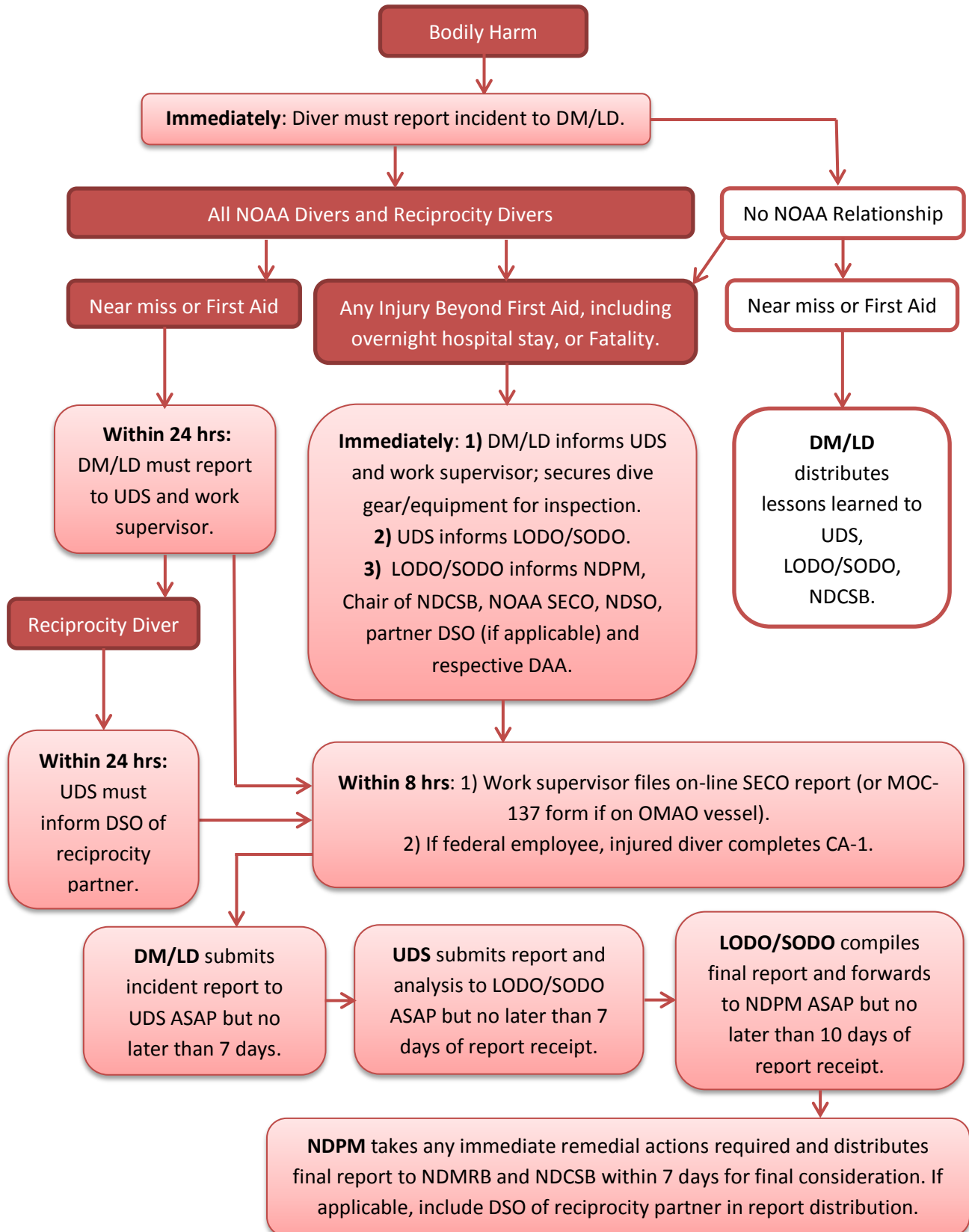
**NOAA Diving Incident Reporting Matrix**  
**Investigation Chain and Timelines – Injuries Beyond First Aid & Fatalities**  
**Actions at the Dive Program Level**

Incident/Diver Type	Injury – Beyond First Aid, but <24 hrs in hospital	Injury - >24 hrs in hospital	Fatality
<b>NOAA Diver - FTE</b>	<p><i>In the event of a fatality and/or property exceeding \$1,000,000, SECO shall have the lead investigative role, however subject matter experts from the NDP shall be participants in the SECO Class A incident investigation. All NDP injury investigations shall use the following procedures:</i></p>		
<b>NOAA Diver - Contractor</b>	<p><b>LODOs/SODO shall:</b></p> <ul style="list-style-type: none"> <li>a) <b>Immediately</b> notify the NDPM of the reportable injury;</li> <li>b) Conduct a fact-finding investigation into the incident and forward final report to the NDPM <b>within 10 calendar days</b> of receipt of report from UDS; and</li> <li>c) Include a copy and an analysis of the report submitted by the UDS; a conclusion as to the cause of the incident; and a corrective action plan (if deemed appropriate).</li> </ul>		
<b>Reciprocity Diver</b>	<p><b>NDPM shall:</b></p> <ul style="list-style-type: none"> <li>a) Review the report for completeness and any immediate mitigation actions required to prevent a similar event from occurring; and</li> <li>b) Forward copy of report to the Chair of the NDCSB, the Chair of the NOAA Diving Medical Review Board (NDRMB) and NDSO for review <b>within 7 calendar days</b> of receipt of report from LODO/SODO.</li> </ul>		
<b>Observer Diver</b>	<p><b>Chair of the NDRMB shall:</b></p> <ul style="list-style-type: none"> <li>a) Forward copies of the report to the members of the NDRMB <b>within 7 calendar days</b> of receipt of report from NDPM;</li> <li>b) Consolidate comments received from NDRMB members; and</li> <li>c) Forward comments to the NDPM and Chair, NDCSB.</li> </ul>		
<b>Volunteer Diver</b>	<p><b>Chair of the NDCSB shall:</b></p> <ul style="list-style-type: none"> <li>a) Forward copies of the report to the members of the NDCSB <b>within 7 calendar days</b> of receipt of report from NDPM;</li> <li>b) Consolidate comments received from the NDCSB members;</li> <li>c) Obtain consensus from the NDCSB of any corrective actions required;</li> <li>d) Discuss incident and corrective actions and direct the NDPM to develop and track corrective actions determined by the NDCSB.</li> <li>e) The NDCSB will ensure that appropriate individuals or offices are assigned responsibility for completion of the corrective actions; and</li> <li>f) NDPM will report status of corrective actions to the NDCSB.</li> </ul>		
<b>No NOAA relationship</b>	<p><b>Chair of the NDCSB shall:</b></p> <ul style="list-style-type: none"> <li>a) Forward copies of the report to the members of the NDCSB <b>within 7 calendar days</b> of receipt of report from NDPM;</li> <li>b) Consolidate comments received from the NDCSB members;</li> <li>c) Obtain consensus from the NDCSB of any corrective actions required;</li> <li>d) Discuss incident and corrective actions and direct the NDPM to develop and track corrective actions determined by the NDCSB.</li> <li>e) The NDCSB will ensure that appropriate individuals or offices are assigned responsibility for completion of the corrective actions; and</li> <li>f) NDPM will report status of corrective actions to the NDCSB.</li> </ul>		

# NOAA Diving Program Incident Response Involving Property Damage



# NOAA Diving Program Incident Response Involving Bodily Harm



## Annual Report

The NOAA Diving Program Annual Report (NF 57-03-02) is one of only two documents UDSs are required to submit on a fixed time table. This report is submitted to your LODO or SODO and is due no later than **15 October** each year. The LODO or SODO is required to submit all Annual Reports from their respective Dive Units along with a Line Office Annual Report by 30 October.

This report is your opportunity to showcase your Unit's activities during the preceding year. Information from these reports goes directly into the NDP Annual Report which is disseminated to NOAA leadership in Silver Spring and around the country. We have a good story to tell, when the leadership hears it they are universally supportive. But we cannot put together a good product without good information at the start. Please spend some time on this report, tout your successes, show how your diving projects have influenced your research, local community, the nation and big NOAA, point out things that are holding you back and please **INCLUDE PHOTOS**.

The Annual Report is a two-page form, there are only five sections requesting specific information plus a section for other comments. These sections are:

1. Primary Mission of the Unit;
2. Specific Projects of Operations Completed During the Year;
3. Specific Diving Tasks Conducted at the Unit to Complete the Mission;
4. Significance of Diving Operations; and
5. Diving Projects or Operations Completed Outside of NOAA.

Please also include two items of great importance for telling the story of the NOAA Diving Program: 1) the number of dives conducted at your Unit by Reciprocity Divers during NOAA operations and 2) a list of peer-reviewed publications, technical memoranda, and reports which were made possible by the diving conducted at your unit. If you wish to include the number of dives your divers conducted as Reciprocity Divers for other organizations, please do so.

## Annual Inspections

The Diving Unit Safety Assessment (DUSA) Checklist (NF 57-03-03) is the second of the two reports which have a fixed time table for submission. This report must be submitted to your LODO or SODO by **15 January** of every year.

The DUSA is a comprehensive review of five areas in your Unit; administration, training, diving gear, compressors and related equipment, and support equipment. This form is used annually by the UDS and triennially by the DUSA Inspectors from NDC. If you have addressed all the items on the checklist, you will have no surprises during your triennial DUSA inspection.

In addition to the DUSA checklist, there are several items you will need to address annually:

**Servicing of Life Supporting Dive Gear** – If using SEP gear, all regulator sets and BCD inflators must be returned once per year for maintenance. The timing of this should be arranged with the SEP Coordinator to minimize impact on your Unit's activities. The turnaround is usually 7-10 days. The annual servicing requirements also apply to non-SEP regulator sets and BCD inflators, however the maintenance is performed locally. Make sure the records of this servicing are kept in the Unit files and noted in the Unit Log.

**Compressor Servicing** – All compressors and related components have annual service requirements. Refer to the manufacturer's Operating Manual for the specific requirements of your equipment. Among the items to make sure you keep within service dates are the compressor relief valves and the critical pressure gauges of the gas charging system. All of the gauges do not need to be in current certification, but at least one does (typically this is the charging gauge used to monitor pressure in SCUBA cylinders as they are filled). The other gauges should be compared to one that is certified.

**Air tests** – The compressor air tests are included in this section, however they are to be conducted every six (6) months. The NDP has a contract with Texas Research International (TRI) to test the products from NOAA dive compressors. Every six months TRI will ship a test kit to the UDS. Please complete the test quickly (within a few days) and return the kit to TRI. There are a limited number of test kits in use for the NOAA contract and a delay on your end will cause problems for other Dive Units.

**VIPs and Hydros** – Every scuba cylinder in use in the NDP must be visually inspected annually and hydrostatically tested every five years by a nationally certified inspector. Any cylinders which are out of date should be tagged and kept in a separate location away from useable cylinders. The Visual Cylinder Inspection Summary (NF 57-03-82) is an easy way to track the certification dates, but an alternate format may be used. Cylinder inspections should be noted in the Unit Log.

**Annual Medical History Report** – Every NOAA Diver (including Volunteer Divers) is required to submit the Report of Medical History – Annual Update (NF 57-03-54) to the NDMO during the anniversary



month of their current dive physical. This is a one page update of any CHANGES in medical conditions or medications from those listed in the current dive physical. The UDS should track the dates of when these reports are due and remind their divers to submit them on time. Divers with out of date Annual Medical History Reports are not authorized to dive.

**SEP Gear Inventory** – All NOAA Divers participating in the SEP must inventory their gear annually. One way to conduct this inventory is by using the Standardized Equipment Program Transaction Form (NF 57-03-66). This form should accompany any gear received from or returned to the SEP Coordinator. You are looking for two things during the annual inventory – the serial numbers match between what SEP thinks you have and what you actually have and that all gear is in good operating condition. If gear is lost or missing, use the Standardized Equipment Program Review of Property Form (NF 57-03-72) to report this to the SEP Coordinator. In most cases the gear will be replaced at no charge, but for flagrant or repeated loss of gear due to gross negligence, the Dive Unit may be charged for the replacement. This is also your opportunity to clean out your dive locker. If there is gear that is no longer needed or serviceable, this is the time to contact the SEP Coordinator to see if you should send it back or dispose of it.

**Unit or Personally Owned Gear** – The use of Dive Unit or personally owned gear is allowed under several conditions. All FTEs are required to participate in the SEP. Contractors and Volunteer Divers may participate if approved by the UDS and the facility. FTEs may use non-SEP gear if a waiver is provided by the LODO or SODO. All non-SEP gear requires the same level of annual maintenance as SEP gear, this includes regulator sets (including gauges) and BCD inflators. Service must be performed by a manufacturer's certified technician and records need to be maintained of this service. These records will need to be shown to the DUSA Inspector during the triennial inspection.

**Dive Computers** – The SEP does not currently issue dive computers, however they are in widespread use throughout the NDP. It is the UDS' responsibility to ensure dive computers are tested according to the manufacturer's recommended schedule and serviced by certified technicians. If there is no manufacturer's recommendation, dive computer batteries should be replaced annually. Dive computer batteries may be replaced by competent personnel; a certified technician is not required.

## Monthly Inspections

There are several inspections the UDS should conduct monthly as well as several items which expire at various times during the year and should be monitored monthly to prevent avoidable diver suspensions.

**Safety Certifications and Annual Medical Forms** – CPR, AED, First Aid, and Oxygen Administration certificates must be current for a NOAA Diver to remain authorized. Additionally the Report of Medical History – Annual Update (NF 57-03-54), must be current. The expiration dates for these items is available on the DMS website. The dates can be found under each NOAA Diver’s profile or by running the UDS Report feature.

**Oxygen Kits** – The emergency oxygen kits should be checked monthly and before every diving operation (if no diving will be conducting during a month, the monthly check may be omitted). The Emergency Oxygen Kit – Order, Issue, and Maintenance Form (NF 57-03-84) provides an excellent way to track the monthly checks and lists all the inspection items the UDS should include. If any items are found to be defective in an NDC provided oxygen kit, this form may also be used to request replacements from the NDC (requests should be sent via the [SEP.ndc@noaa.gov](mailto:SEP.ndc@noaa.gov) email account). Every three months the UDS should test the Elder (demand) valves on oxygen kits. The procedure is outlined in the Emergency Oxygen Kit Demand Valve Test (NF 57-03-85) form. Any NDC provided Elder valves which fail the test should be returned to NDC for replacement (using the NF 57-03-84 described above).

**First Aid Kits** – All medications and most expendable supplies in First Aid Kits have expiration dates. While it may not be necessary to check these monthly, the UDS should not keep expired items in the kit. Replacement items for first aid kits can be supplied by NDC. The UDS should include a list of required First Aid items with regulator sets and BCD inflators when they are sent to the SEP Coordinator every year for servicing.

**AED** – The Automated External Defibrillator (AED) has three items which the UDS should monitor. The AED pads and the primary battery have expiration dates. Replacements for NDC-provided AEDs can be ordered from the SEP Coordinator via the [SEP.NDC@noaa.gov](mailto:SEP.NDC@noaa.gov) email address. Make sure to include the make and model when ordering AED pads and batteries. Most AEDs also have a small (usually 9V) battery which powers the voice commands and display lights on the unit. These should be replaced annually or more frequently if needed. The AED unit should be tested monthly to ensure proper function. There should also be a small accessory bag with the AED unit containing a razor, gloves, and a pocket CPR mask or barrier. These should also be checked regularly to ensure they are in good condition.

**Divemaster Kits** – There are several items which are required contents of a Divemaster Kit used on NOAA operations; o-rings, fin and mask straps, regulator mouth pieces and cable ties, regulator first stage port plugs, scuba tools (allen wrenches, adjustable end wrench, etc.), snorkel keepers, and a HP spool for pressure gauges. The UDS should ensure these items are present and in good working

condition. A monthly check is a good way to ensure everything is present. The above list is the minimum; UDSs are encouraged to augment their kits with items specific to their needs. Additional items to consider include mask anti-fog solution, drysuit wax and talc, dive computer batteries, larger cable ties, silicone grease for o-rings, HP and LP hoses, and dive light batteries and bulbs.

## Annual Refreshers and Drills

All NOAA Divers are required to conduct annual topside and in-water training. There are universal requirements, but UDSs are strongly encouraged to conduct training specific to their Dive Unit's needs as well. Additionally when new tasks are to be conducted at depths greater than 60 fsw, there should be training dives conducted in shallow water to allow divers to gain proficiency in the new operations.

The universal requirements for topside training include several online presentations available on the NDC website:

1. **NDP Standards, Policies and Procedures**
2. **Oxygen Administration**
3. **Recognition and Treatment of Diving Injuries**
4. **Rescue Techniques**
5. **NOAA No Decompression Tables (2008)**
6. **Dive Accident Management (only required for Divemasters and Lead Divers)**
7. **Field Neurological Exam (only required for Divemasters and Lead Divers)**

The in-water component includes:

**Annual Swim Test** – A 550 yd (500 m) swim using one of six (6) options found on the NDP Annual Watermanship Assessment (NF 57-03-40);

**Rescue Drills** – To include surfacing an unconscious diver, extraction to dive platform, and administration of emergency oxygen; and

**Skills Checkout Dive** – One or more dives in a pool or confined water during which a series of skills must be demonstrated to the UDS. Procedures for correctly executing the skills must emulate those demonstrated in the training videos found on the NDP website. The Rescue Drills noted above may be conducted as part of the Skills Checkout Dive. The results are reported on the Annual Diver Training Record (NF 57-03-34).

## Dive Unit Logbook

Every NOAA Dive Unit must maintain a logbook of ongoing activities. While there is no required format for this logbook, it should contain information on equipment maintenance, training, operational dives and the dates of each activity. During the triennial DUSA Inspection, the inspector will want to review the logbook. The easier it is for them to comprehend, the easier it will be for you. An example of the format and level of detail in an acceptable logbook is below.

DATE	DIVER	ACTIVITY TYPE	ACTIVITY
4/16/2015	Gardner, Moe	Training	Annual refresher training in Decompression Theory & Physiology, Diving Physiology & Maladies, Field Neurological Exam, Rescue, Diving Accident Management & Reporting, and Dive Regulations & Policies
4/29/2015		Equipment	Replaced and leak tested compressor relief valves
4/30/2015	David, Moe	Scientific Dive	Observation of u/w facilities in PC Lab boat basin, 2 dives
5/5/2015		Equipment	Kit #3 O2 cylinders hydro tested (Swanick – NDSTC)
5/12/2015	David, Keesee, Matthews	Working Dive	Film anchor strike and recover Navy items from bottom after trawl testing, 2 dives
5/20/2015		Equipment	Replaced soon-to-expire meds in four First Aid Kits
6/8/2015	Davenport	Medical	Submitted periodic dive physical to NDMO
6/12/2015	Davenport	Medical	Dive physical clearance received from NDMO

The goal is to provide a chronological record of all dive-related activities. You do not need to go into great detail in the descriptions (details can be found in dive plans, DMS divelog entries, gear maintenance records). Using a spreadsheet program allows easy sorting by date, activity type, diver, etc.

## **NOAA Diving Program Documentation**

NOTE: The forms included in this document were current at the time of publication, however forms are revised periodically and these may not be current at the time you need to use them. Please go to the NDP website to download the most current version of each form you need.

### **Administration**

- Diving Incident Report Form, NF 57-03-01
- Diving Unit Annual Report, NF 57-03-02
- Diving Unit Inspection Checklist, NF 57-03-03
- Diving Unit Change Form, NF 57-03-04
- Review for NOAA Diver Reciprocity, NF 57-03-05
- Letter of Reciprocity Request Form, NF 57-03-06
- Verification of Liability Coverage, NF 57-03-07
- Observer Diver Waiver of Liability, NF 57-03-08
- NDP Liability Release and Assumption of Risk, NF 57-03-09
- Agreement Approving Diving Operations from NOAA Owned or Contracted Vessel, NF 57-03-10
- NOAA Volunteer Diver Service Agreement, NF 57-03-11
- NOAA Corps Officer Diving Authorization Request, NF 56-30

### **Dive Operations and Logs**

- Dive Operations Plan, NF 57-03-20
- Diving Emergency Assistance Plan (DEAP), NF 57-03-21
- Dive Operations Plan – Safe Ship, NF 57-03-22
- Pre-Dive and Post-Dive Checklist, NF 57-03-23
- Monthly Dive Log, NF 57-03-24
- Supervisor Dive Log, NF 57-03-25
- Observer Diver Report, NF 57-03-26
- Decompression Diving Request, NF 57-03-28
- Closed Circuit Rebreather (CCR) Decompression Diving Request, NF 57-03-29

### **Certification and Training**

- Annual Diver Training Record, NF 57-03-34
- Report of NOAA Skills Evaluation Checkout Dive, NF 57-03-35
- NOAA Diver Skills Checkout Checklist, NF 57-03-36
- NOAA Diver Training Course, Student Evaluation Record, NF 57-03-37
- Training Request and Authorization Form, NF 57-03-38
- Swim Test Evaluation, NF 57-03-39
- Annual Watermanship Assessment, NF 57-03-40
- Diving Activity Resume, NF 57-03-41

**Medical and Diving Physical**

- Report of Physical Examination, NF 57-03-50, NF 57-03-51, NF 57-03-52
- Report of Medical History – Observer Diver, NF 57-03-53
- Report of Medical History – Annual Update, NF 57-03-54

**Standardized Equipment**

- SEP Measurement Form, NF 57-03-65
- SEP Transaction Form, NF 57-03-66
- SEP User Agreement, NF 57-03-67
- Dive Computer User Agreement, NF 57-03-68
- SEP Off-Duty User Agreement, NF 57-03-69, NF 57-03-70
- SEP Review of Property, NF 57-03-72

**Cylinder Inspection, O2 Kit Maintenance**

- NOAA Visual Cylinder Inspection Report, NF 57-03-81
- NOAA Visual Cylinder Inspection Summary, NF 57-03-82
- Emergency Oxygen Kit Issue and Maintenance Checklist, NF 57-03-84
- Emergency Oxygen Kit Valve Test, NF 57-03-85

## **Diving Incident Report Form, NF 57-03-01**

**What:** This form is to be used to report diving injuries to the Diving Program. It is not for non-diving injuries which may happen during a diving operation.

**When:** The UDS will submit this form to their Line or Staff Office Diving Officer (LODO/SODO) within ten (10) days of the incident.

**Record keeping:** A digital or printed copy should be retained in the unit files, however as this form contains medical information, all copies should be secured (e.g., locked filing cabinet, locked desk drawer).

**Other considerations:** This form is an internal document for the Diving Program detailing the incident dive, other dives on the same day, first aid and other medical treatment. It requires a separate narrative description from all witnesses and copies of any relevant medical records from treatment facilities.

The NDCSB has provided matrices and flowcharts to assist with determining the notification and investigation procedures and timelines for diving incidents. These are provided in the previous section on UDS responsibilities. In the event of an incident involving injuries requiring treatment beyond basic first aid or significant damage to property, the injured employee's supervisor should be notified immediately. They will be required to file a report with NOAA's Safety and Environmental Compliance Office (SECO), with the timetable dependent upon the severity of the injury or property damage. The UDS, Divemaster or Lead Diver should immediately notify their LODO/SODO, the NOAA Diving Medical Officer and the NOAA Diving Program Manager in the event of a diving injury requiring treatment beyond basic first aid. Do not end the notification process by leaving a voice mail, continue calling until you reach at least one of these individuals directly.



## DIVING INCIDENT REPORT

**NOTE:** The Unit Diving Supervisor (UDS) shall use this form to report serious diving related injuries, including near-drowning, arterial gas embolism (AGE), decompression sickness (DCS), pulmonary barotrauma, or any diving injury that requires hospitalization. An additional narrative and detailed analysis of the incident must be attached. Contact the NOAA Diving Center (NDC) to determine whether an event or minor injury requires an incident report.

### SECTION I. DIVING ACCIDENT VICTIM GENERAL INFORMATION

DIVER NAME		TIME of INCIDENT	DATE of INCIDENT
DIVER CERTIFICATION	DIVE UNIT	LOCATION of INCIDENT	
DIVER CURRENT MEDICATIONS		DIVER CURRENT HEALTH PROBLEMS	

**For NOAA observer divers and non-NOAA divers, complete the remaining blocks in Section I. For NOAA divers, proceed to Section II.**

AGE	SEX (M/F)	HIGHEST DIVE CERTIFICATION LEVEL	CERTIFYING DIVING ASSOCIATION
TOTAL # of YEARS DIVING	TOTAL # of DIVES	TOTAL # of DIVES in the PAST 6 MONTHS	PREVIOUS DIVE INCIDENTS and DATES

### SECTION II. EQUIPMENT USED BY THE DIVING ACCIDENT VICTIM

<b>BREATHING LOOP</b> <input type="checkbox"/> Open Circuit <input type="checkbox"/> Semi Closed / Closed Circuit <input type="checkbox"/> Surface Supplied <input type="checkbox"/> Snorkel	<b>DIVER DRESS</b> <input type="checkbox"/> None / Dive Skin <input type="checkbox"/> Wet Suit Thickness _____ <input type="checkbox"/> Dry Suit	DIVE CYLINDER TYPE and SIZE	CYLINDER PRESSURE IN	SEP ISSUED EQUIPMENT? <input type="checkbox"/> YES <input type="checkbox"/> NO
		BREATHING GAS	CYLINDER PRESSURE OUT	DIVER FAMILIAR WITH EQUIPMENT? <input type="checkbox"/> YES <input type="checkbox"/> NO

### SECTION III. DIVE INFORMATION – Incident Dive

NAME of ON-SITE DIVING SUPERVISOR / LEAD DIVER		AIR TEMP (°F)	WATER TEMP (°F)	U/W VISIBILITY (FT)	CURRENT SPEED (KTS)
NAME of DIVE BUDDY		DIVE PURPOSE		DIVE LOCATION	
DIVE BUDDY AFFILIATION		DIVE PLATFORM		SURFACE CONDITIONS	
# of DIVES on DAY of INCIDENT	# of DIVES on PREVIOUS DAY	TYPE of DIVE <input type="checkbox"/> DUTY <input type="checkbox"/> non-DUTY		DIVES CONDUCTED WITH <input type="checkbox"/> Dive Tables <input type="checkbox"/> Dive Computer (Model _____)	
Was this dive typical of the diver's normal type of diving? <input type="checkbox"/> YES <input type="checkbox"/> NO			If NO, explain:		
Describe any problems encountered during the incident dive or previous dives:					

### SECTION IV. DIVE PROFILES – Day of Incident (Additional dive profiles for the day of the diving incident can be attached to this form.)

Dive #	Start Time	Max Depth (Feet)	Bottom Time (Minutes)	End Time	Surface Interval (HH:MM)	Deco Stop? (Y/N)	Safety Stop? (Y/N)	Stop Profile (Depth / Time)	Cold or Arduous? (Y/N)	Fast Ascent? (Y/N)	Incident Dive? (Y/N)
1.											
2.											
3.											
4.											
5.											
6.											

## DIVING INCIDENT REPORT FORM

### SECTION V. EMERGENCY PROCEDURES

<b>YES</b>	<b>NO</b>	<b>YES</b>	<b>NO</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was emergency oxygen available on-site?		Was there a dive accident management plan in place for dive site?	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were emergency scenarios discussed with all divers prior to diving operations, such as low air, out of air, lost buddy, etc.?		Was the dive accident management plan reviewed by all divers and support personnel prior to diving operations?	

### SECTION VI. SYMPTOMS, PRE-DIVE HEALTH, and ON-SITE MEDICAL TREATMENT

DATE of SYMPTOM ONSET	DESCRIPTION of SYMPTOMS and LOCATION on BODY		
TIME of SYMPTOM ONSET			
DESCRIPTION of PRE-DIVE HEALTH		DESCRIPTION of PRE-DIVE ALCOHOL CONSUMPTION (previous 24 hours)	
DESCRIPTION of PRE-DIVE REST or FATIGUE LEVELS		DESCRIPTION of STRENUOUS EXERCISE (6 hours prior and 12 hours post-dive)	
SUSPECTED INJURIES or ILLNESSES <input type="checkbox"/> AGE <input type="checkbox"/> DCS <input type="checkbox"/> Pulmonary Barotrauma <input type="checkbox"/> Other Barotrauma <input type="checkbox"/> None <input type="checkbox"/> Other _____	ON-SITE OXYGEN ADMINISTRATION Delivery Method	ON-SITE FIRST-AID TREATMENT PROVIDED	
	Time Started	INITIAL EMERGENCY CONTACT (name of person or agency)	
	Time Stopped	TIME of INITIAL EMERGENCY CONTACT	TIME TRANSPORTATION STARTED
FIRST-AID TREATMENT PROVIDED DURING TRANSPORT		EMERGENCY TRANSPORT METHOD(S)	

### SECTION VII. MEDICAL INFORMATION – Hospital (Attach all Emergency Room, Hyperbaric Unit, and follow-up medical records.)

HOSPITAL NAME and ADDRESS	HOSPITAL TREATMENT	DATE of ARRIVAL
		TIME of ARRIVAL
HYPERBARIC UNIT NAME and ADDRESS	CHAMBER TYPE	CHAMBER TREATMENT
	<input type="checkbox"/> Monoplace <input type="checkbox"/> Multiplace	Treatment #1 Time Started _____ Time Stopped _____ Treatment #2 Time Started _____ Time Stopped _____ Treatment #3 Time Started _____ Time Stopped _____
TREATMENT TABLE / DESCRIPTION	TABLE EXTENSIONS	RETREATMENT TABLE / DESCRIPTION
DESCRIBE WHEN RELIEF FROM SYMPTOMS OCCURED	DESCRIBE ANY RESIDUAL SYMPTOMS AFTER TREATMENT	DAYS of RESIDUAL SYMPTOMS
		FINAL DIAGNOSIS
		<input type="checkbox"/> DCS I <input type="checkbox"/> AGE <input type="checkbox"/> Pulmonary Barotrauma <input type="checkbox"/> DCS II <input type="checkbox"/> Other _____

### SECTION VIII. CERTIFICATION

UDS NAME	UDS SIGNATURE	DATE
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**NOTE:** A Diving Incident Report shall be completed by the UDS and submitted to their Line Office Diving Officer (LODO) within 10 days of the diving incident. A full report includes the following items:

1. Diving Incident Report Form (NOAA Form 57-03-01)
2. Cover memorandum providing a narrative of the diving incident, including causal analysis and recommendations for prevention of future injuries.
3. Medical records associated with any medical treatment of injuries resulting from this incident.

The LODO shall submit the UDS report, along with their own causal analysis and recommendations for prevention of future injuries to the Director, NOAA Diving Program within 30 days of the diving incident.

## **Diving Unit Annual Report, NF 57-03-02**

**What:** This form is to be used to report diving activities at each unit on an annual basis. It is one of only two reports which have a set deliverable date each year.

**When:** The UDS will submit this form to their Line or Staff Office Diving Officer (LODO/SODO) by 15 October each year.

**Record keeping:** A digital or printed copy should be retained at the unit.

**Other considerations:** This report forms the basis on the Line of Staff Office Report which becomes a part of the NOAA Diving Program Annual Report. UDSs are strongly urged to include photographs with their Annual Report which illustrate operational or training activities. A key statistic to highlight diving's importance to NOAA's mission is to include citations for any peer-reviewed journal articles, technical memoranda or other scientific publications which were made possible by diving activities. Additionally, we request each UDS indicate the number of dives made at their unit by reciprocity divers.

The NOAA Diving Program Annual Report will only be as good as the material supplied from each Diving Unit, help us showcase the excellent work being done in the field by submitting a detailed and informative Diving Unit Annual Report.

## NOAA DIVING PROGRAM ANNUAL REPORT

**Instructions:**

The Unit Dive Supervisor (UDS) must submit this report to the Line Office Dive Officer (LODO) no later than October 15<sup>th</sup>. The LODO must submit this report to the NOAA Diving Program no later than October 30<sup>th</sup>.

UNIT NAME	LINE or STAFF OFFICE	PERIOD of REPORT From October 1, _____ through September 30, _____		
UNIT ADDRESS		CITY	STATE	ZIP
DIVER COMPLETING REPORT		DIVER COMPLETING REPORT SIGNATURE		DATE
UNIT DIVE SUPERVISOR		UNIT DIVE SUPERVISOR SIGNATURE		DATE
LINE OFFICE DIVE OFFICER		LINE OFFICE DIVE OFFICER SIGNATURE		DATE

1. PRIMARY DIVING MISSION of UNIT

2. SPECIFIC PROJECTS or OPERATIONS COMPLETED DURING THE YEAR

3. SPECIFIC DIVING TASKS CONDUCTED AT THE UNIT TO COMPLETE THE MISSION (List and describe the type of diving tasks accomplished, e.g. fish surveys, hull inspections, equipment installation or removal, reef assessments, types of tools used etc.)

## NOAA DIVING PROGRAM ANNUAL REPORT

UNIT NAME

LINE or STAFF OFFICE

PERIOD of REPORT

From October 1, \_\_\_\_\_ through September 30, \_\_\_\_\_

4. SIGNIFICANCE of DIVING OPERATIONS (List the direct benefits of your diving operation such as scientific reports or publications, completion of national mandated programs, significant cost savings, etc.)

5. DIVING PROJECTS or OPERATIONS COMPLETED OUTSIDE of NOAA (List and describe projects completed in support of community programs, emergency assistance, cooperative projects with other government agencies or non-governmental organizations, special education, or public relations, etc.)

6. OTHER REMARKS or COMMENTS

## **Diving Unit Inspection Checklist, NF 57-03-03**

**What:** This form is to be used to report the results of a self-inspection of five areas of the Diving Unit; Administration, Training, Diving Equipment & Storage, Breathing Gas Compressors & System Components, and Support Equipment. It is the second of two reports which have a set deliverable date each year.

**When:** The UDS will submit this form to their Line or Staff Office Diving Officer (LODO/SODO) by 15 January each year.

**Record keeping:** A digital or printed copy should be retained in the unit files.

**Other considerations:** This checklist requires 'yes/no' responses to a series of questions. References to the relevant sections in the NOAA Diving Standards and Safety Manual are provided for each question. If any questions require a 'no' answer, a space is provided for explanation. The UDS and LODO/SODO will devise and execute a plan to remediate any 'no' answers.

During the triennial on-site DUSA inspection, this Checklist will form the basis of the documentation, equipment and skills demonstrations which will be evaluated by the inspectors.

## DIVING UNIT INSPECTION CHECKLIST

### DIVING UNIT INFORMATION

DIVING UNIT NAME	LINE or STAFF OFFICE	DATE of LAST INSPECTION	DATE of CURRENT INSPECTION	
DIVING UNIT ADDRESS	CITY	STATE	ZIP CODE	

**DUSI** DIVING UNIT SELF INSPECTION - Conducted annually by UDS or designee, not required if DUSA conducted within previous or following six (6) months.

**DUSA** DIVING UNIT SAFETY ASSESSMENT - Conducted triennially by DSO or designee.

INSPECTOR NAME	INSPECTOR SIGNATURE	DATE of SIGNATURE
UNIT DIVING SUPERVISOR (UDS) NAME	UDS SIGNATURE	DATE of SIGNATURE
LINE or STAFF OFFICE DIVING OFFICER (LODO/SODO) NAME	LODO/SODO SIGNATURE	DATE of SIGNATURE
DIVING SAFETY OFFICER (DSO) NAME	DSO SIGNATURE	DATE of SIGNATURE

### Ships Only

SHIP DIVING OFFICER NAME	SHIP DIVING OFFICER E-MAIL ADDRESS	COMMANDING OFFICER NAME
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### INSTRUCTIONS

This checklist is used for all NOAA Diving Unit Inspections. The UDS or designee will conduct the annual DUSI (Diving Unit Self Assessment) while the DSO or designee will conduct the triennial DUSA (Diving Unit Safety Assessment). There are five (5) sections of questions on different Diving Unit components and a comment area which must be completed for a DUSI, there are seven (7) sections and a comment area for a DUSA.

**Components of Inspection:**

- |                                |  |
|--------------------------------|--|
| A. Administration              | E. Breathing Gas Compressors and System Components |
| B. Training                    | F. Dive Briefing (DUSA only)                       |
| C. Scuba Equipment and Storage | G. Dive Rescue (DUSA only)                         |
| D. Support Equipment           | H. Inspection Comments and Recommendations         |

After a DUSI has been completed, the UDS must send a signed copy to their LODO/SODO by 15 January. The LODO/SODO will review and sign the checklist and forward a copy to the DSO. The UDS must retain a copy of the most recent DUSI checklist in the Unit files (it is advisable to keep copies of all DUSI checklists, but only the most recent is required).

There is one circumstance in which a Diving Unit is not required to conduct and submit an annual DUSI by the 15 January deadline. If a triennial DUSA inspection has been conducted after 15 July of one year or is scheduled for before 15 July of the following year, a DUSI is not needed during the intervening January. An inspection must occur no more than 18 months after the preceding one, the above dates ensure this schedule is met. Assuming DUSAs are scheduled for the same month every three years, the sequence of inspections would be DUSA - DUSI - DUSI - DUSA . . .

The questions below should be answered 'Yes', 'No' or 'n/a' as appropriate. An explanation should be provided for any question which receives a 'No' answer. These explanations should be sufficiently detailed to relate the cause of the 'No' answer. For example, question A7 is, 'Is a Dive Computer User Agreement (NF 57-03-68) on file for each diver that uses a dive computer?', a sufficient explanation for a 'No' answer would be, 'Two divers have recently purchased dive computers and have not signed the forms yet.' The final section of the checklist provides an expanded area to provide comments on the inspection in general or any question(s) specifically. Corrective actions to resolve deficiencies will be determined by the UDS and LODO/SODO. The comment box in Sec H may be used to describe corrective actions proposed by the UDS.

## DIVING UNIT INSPECTION CHECKLIST

### SECTION A: ADMINISTRATION

<p><b>A1</b> Does the Diving Unit have a sufficient number of qualified divers to complete its required operations? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a</p>
<p><b>A2</b> Does the Diving Unit have a sufficient number of qualified Divemasters and/or Lead Divers? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a</p>
<p><b>A3</b> Are all Diving Unit divers authorized to dive? This question and all subsequent questions which refer to 'divers' do not pertain to personnel who are medically unauthorized or who are on a TDY assignment which prevents required training, proficiency, etc. Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a</p>
<p><b>A4</b> Does the Diving Unit maintain a Unit Log which includes operational diving information, training accomplished, drills, equipment service/testing, etc.? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a</p>
<p><b>A5</b> Has the UDS filed an up-to-date Diving Emergency Assistance Plan (DEAP, NF 57-03-21), with the NDC for the current year? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a</p>
<p><b>A6</b> Is the latest edition of the NOAA Diving Standards and Safety Manual (NDSSM) at the Diving Unit in electronic or hard copy format? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a</p>
<p><b>A7</b> Is a Dive Computer User Agreement (NF 57-03-68) on file for each diver who uses a dive computer? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a</p>
<p><b>A8</b> Does the UDS have off-duty use of SEP gear forms (NF 57-03-69 and NF 57-03-70) filed for each diver who uses SEP gear for off-duty diving? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a</p>



## DIVING UNIT INSPECTION CHECKLIST

### SECTION A: ADMINISTRATION (continued)

<p><b>A9</b> Have all DUSI or DUSA findings from the previous inspection been corrected or have a corrective action plan (CAP) in progress? Reference: DUSA Standards and Procedures 6.4 Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
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### SECTION B: TRAINING

<p><b>B1</b> Has each diver completed the annual refresher training provided on the NDC website in the past 12 months and have the completion dates been documented? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
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<p><b>B2</b> Is each diver currently certified in cardio-pulmonary resuscitation (CPR), automated external defibrillator (AED), oxygen administration, and First Aid? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
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<p><b>B3</b> Has each diver completed the annual watermanship swim test with completion time documented? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
---	--

<p><b>B4</b> Has each diver conducted at least one in-water rescue and basic skills checkout dive with a UDS or designee in the past 12 months with results documented on form NF 57-03-35? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
--	--

<p><b>B5</b> Has each diver who may be required to use the Reserve Air Supply System (RASS) been trained in its use? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
---	--

<p><b>B6</b> Has each diver who may be required to use line-tending techniques for stand-by divers been trained in these procedures? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
---	--

<p><b>B7</b> Has each SCUBA cylinder filling station operator been trained for the specific compressor and/or fill stations operating procedures and has the training been documented? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
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## DIVING UNIT INSPECTION CHECKLIST

**SECTION B: TRAINING (continued)**

<p><b>B8</b> Have rebreather divers completed a minimum of one Open Circuit Bail Out from 100 fsw in the last 12 months? The OCBO should include gas switches and simulated decompression stops, if applicable. Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
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<p><b>B9</b> If decompression, mixed gas or rebreather dives have been conducted in the last 12 months, were the current checklists used? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
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**SECTION C: SCUBA EQUIPMENT and STORAGE**

<p><b>C1</b> Is diving equipment stored in a secure, properly ventilated space free of pervasive noxious fumes and/or severely corrosive elements? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
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<p><b>C2</b> Is space available to allow for proper equipment maintenance and organization of diving equipment? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
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<p><b>C3</b> Are all divers wearing equipment in accordance with NDP policy, either in the standard configuration or as authorized under a LODO/SODO waiver? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
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<p><b>C4</b> Has each diver performed an inventory of SEP issued gear within the last 12 months? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
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<p><b>C5</b> Has each SCUBA cylinder (including RASS cylinders) been visually inspected in the last 12 months and labeled accordingly or tagged out and removed from service? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
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## DIVING UNIT INSPECTION CHECKLIST

**SECTION C: SCUBA EQUIPMENT and STORAGE (continued)**

<b>C6</b>	Has each SCUBA cylinder (including RASS cylinders) been hydrostatically tested within the last five (5) years and marked accordingly or tagged out and removed from service? Reference: NDSSM TBD Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<b>C7</b>	Is each SCUBA cylinder used with gas mixtures other than air (e.g., Nitrox) labeled accordingly? Reference: NDSSM TBD Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<b>C8</b>	Is all equipment used with gas mixtures containing oxygen concentrations of 40% or greater cleaned, approved for oxygen service and labeled accordingly? Reference: NDSSM TBD Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<b>C9</b>	Have all non-SEP SCUBA regulators, full face masks, BCD inflators, depth/time gauges and submersible pressure gauges been serviced in the last 12 months and documented? Reference: NDSSM TBD Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<b>C10</b>	Are all dry suits and ancillary equipment (hoods, ankle weights, inflator hoses, boots, etc.) functional or tagged out and removed from service? If equipment is tagged out, please indicate this in the question comment section below. Reference: NDSSM TBD Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<b>C11</b>	Have all dry suit inflator and dump valves been tested for proper function in the last two (2) years and documented or tagged out and removed from service? If equipment is tagged out, please indicate this in the question comment section below. Reference: NDSSM TBD Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<b>C12</b>	Has all tethered SCUBA equipment been serviced in the last 12 months and documented or tagged out and removed from service? If equipment is tagged out, please indicate this in the question comment section below. Reference: NDSSM TBD Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a


## DIVING UNIT INSPECTION CHECKLIST

### SECTION C: SCUBA EQUIPMENT and STORAGE (continued)

<p><b>C13</b> Has decompression, mixed gas, and/or rebreather equipment been serviced according to the manufacturer's recommendations and documented or tagged out and removed from service? If equipment is tagged out, please indicate this in the question comment section below. Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<p><b>C14</b> Have DUI weight harness pockets been detached from the harness in the last 12 months? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<p><b>C15</b> Is all non-life supporting diving equipment (wetsuits, masks, fins, snorkels, gloves, hoods, knives) functional? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a

### SECTION D: SUPPORT EQUIPMENT

<p><b>D1</b> Is a Divemaster Kit, with the NDP-required components at a minimum, available at the Diving Unit? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<p><b>D2</b> Is a NDP/NDMO-approved First Aid Kit available at the Diving Unit? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<p><b>D3</b> Are all medications in the First Aid Kit within listed expiration dates? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<p><b>D4</b> Is a portable oxygen kit with a bag-type manual resuscitator, in good working order and capable of ventilating an unconscious patient, available for use at each dive site? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<p><b>D5</b> Have all oxygen kit positive pressure demand valves been tested according to the manufacturer's recommendations and documented or tagged out and removed from service? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a

## DIVING UNIT INSPECTION CHECKLIST

SECTION D: SUPPORT EQUIPMENT (continued)	
<p><b>D6</b> Has each oxygen kit cylinders been hydrostatically tested within the last five (5) years and marked accordingly or tagged out and removed from service? (Steel cylinders with a current '*' stamp indicate ten (10) year hydrostatic test requirement). Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes   <input type="checkbox"/> No  <input type="checkbox"/> n/a</p>
<p><b>D7</b> Are all oxygen kits stored in a clean, protected, properly labeled and readily available space? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes   <input type="checkbox"/> No  <input type="checkbox"/> n/a</p>
<p><b>D8</b> Is a sufficient quantity of oxygen available to provide oxygen to two (2) injured divers during transport from the dive site to the next higher level of care or 12 hours, whichever is less? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes   <input type="checkbox"/> No  <input type="checkbox"/> n/a</p>
<p><b>D9</b> Is a backboard in good condition, available for diving emergencies? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes   <input type="checkbox"/> No  <input type="checkbox"/> n/a</p>
<p><b>D10</b> Is a system for recalling divers available at each dive site? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes   <input type="checkbox"/> No  <input type="checkbox"/> n/a</p>
<p><b>D11</b> Is an International Code of Signals flag 'Alpha' and/or sport diver flag that meets local size requirements available at each dive site? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes   <input type="checkbox"/> No  <input type="checkbox"/> n/a</p>
<p><b>D12</b> Does the Diving Unit have a functioning AED readily available and at dive sites when feasible? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes   <input type="checkbox"/> No  <input type="checkbox"/> n/a</p>
<p><b>D13</b> If an oxygen analyzer is in use, have the sensors been replaced annually or according to the manufacturer's recommendations and the replacement date documented? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes   <input type="checkbox"/> No  <input type="checkbox"/> n/a</p>

## DIVING UNIT INSPECTION CHECKLIST

### SECTION E: BREATHING GAS COMPRESSORS and SYSTEM COMPONENTS

<p><b>E1</b> Is a SCUBA cylinder fill system located at the Diving Unit? If 'No', your inspection is complete. Please proceed to Section H and enter any additional comments. Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a</p>
<p><b>E2</b> Are the operating procedures for the compressor and/or fill system(s) posted? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a</p>
<p><b>E3</b> Is the operational and maintenance history of the compressor and breathing gas system documented in a Compressor Logbook? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a</p>
<p><b>E4</b> Is the compressor manufacturer's maintenance and repair manual available for reference and are these guidelines followed at the Diving Unit? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a</p>
<p><b>E5</b> Is the compressor room clean, free of flammable materials and sufficiently ventilated to prevent overheating? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a</p>
<p><b>E6</b> Is hearing protection available to be used by the compressor and filling station operator? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a</p>
<p><b>E7</b> Is each line and valve in the compressor and cylinder filling system labeled or depicted in a system schematic according to its function? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a</p>
<p><b>E8</b> Has a breathing gas sample from the system been analyzed in the past six (6) months with results on file at the Diving Unit? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a</p>

## DIVING UNIT INSPECTION CHECKLIST

**SECTION E: BREATHING GAS COMPRESSORS and SYSTEM COMPONENTS (continued)**

<p><b>E9</b> Have compressor oil and filter(s) been changed in the last 12 months or in accordance with the manufacturer's specifications, using the manufacturer's recommended oil and filters and documented in the Compressor Logbook? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<p><b>E10</b> Are compressor filter canisters inspected for corrosion and pitting before inserting new filter cartridges? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<p><b>E11</b> Is the compressor intake clearly labeled and located in an area free of direct contaminants to the air supply? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<p><b>E12</b> Has the compressor final stage relief valve been calibrated by a certifying authority within the last three (3) years? Reference: NAVSEA 00C3-PI-005, NAVSEA 00C4-PI-004 Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<p><b>E13</b> Are the compressor cooling fans and belts in good condition? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<p><b>E14</b> Are the compressor inter-stage and crankcase cooling fins clean and in good condition? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<p><b>E15</b> For RIX Industries compressors only: Are compressor rod end bearings and thrust bearings greased and in good condition? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<p><b>E16</b> Is a gauge which can directly measure the compressor discharge, storage bank, and charging whip pressures calibrated by a certifying agency and within the calibration service date? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a

## DIVING UNIT INSPECTION CHECKLIST

### SECTION E: BREATHING GAS COMPRESSORS and SYSTEM COMPONENTS (continued)

<p><b>E17</b> Are all valve fittings and gauges rated for the working pressure of the system in which they are installed? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes   <input type="checkbox"/> No  <input type="checkbox"/> n/a</p>
<p><b>E18</b> Are all high pressure (HP) and low pressure (LP) gas lines secured with attachment points no more than 36 inches apart? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes   <input type="checkbox"/> No  <input type="checkbox"/> n/a</p>
<p><b>E19</b> Has the SCUBA charging whip been visually inspected for damage or deterioration in the last 12 months? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes   <input type="checkbox"/> No  <input type="checkbox"/> n/a</p>
<p><b>E20</b> Is the charging whip properly secured to prevent injury to personnel during cylinder filling operations? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes   <input type="checkbox"/> No  <input type="checkbox"/> n/a</p>
<p><b>E21</b> Are charging whips, compressor intake hoses, and ports capped when not in use? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes   <input type="checkbox"/> No  <input type="checkbox"/> n/a</p>
<p><b>E22</b> Have all HP DOT cylinders assembled in a bank or cascade system been hydrostatically tested within the last five (5) years, including those with a star (*) stamped in the codes? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes   <input type="checkbox"/> No  <input type="checkbox"/> n/a</p>
<p><b>E23</b> Are fire hazard and compressed gas warning signs posted in the vicinity of stored oxygen and compressed gases? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes   <input type="checkbox"/> No  <input type="checkbox"/> n/a</p>



## DIVING UNIT INSPECTION CHECKLIST

The following section pertains to low pressure (LP) volume tanks (part of a LP breathing gas system) and high pressure (HP) compressed gas storage flasks (part of a HP breathing gas system) other than SCUBA cylinders or standard 'K' cylinders covered in the requirements listed above. If your system does not contain LP volume tanks or non-standard HP storage flasks, your inspection is complete. Please proceed to Section H and enter any additional comments.

<p><b>E24</b> Are LP volume tanks / HP compressed gas storage flasks equipped with an inlet side check valve (exception for shared inlet/outlets)? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<p><b>E25</b> Is each LP volume tank / HP compressed gas storage flask equipped with a pressure gauge unless assembled in a bank that requires one pressure gauge on the final flask? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<p><b>E26</b> Are all LP volume tanks / HP compressed gas storage flasks equipped with a condensate drain valve located at the lowest point? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<p><b>E27</b> Are all LP volume tanks / HP compressed gas storage flasks equipped with slow opening valves when used with design pressures exceeding 500 psi? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<p><b>E28</b> Are all LP volume tanks / HP compressed gas storage flasks used in systems containing greater than 40% oxygen cleaned for oxygen service and do they have slow opening valves? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<p><b>E29</b> Are all LP volume tanks / HP compressed gas storage flasks labeled appropriately? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<p><b>E30</b> Have all LP volume tanks / HP compressed gas storage flasks been either hydrostatically or non-destructively tested within accepted standards, with test date(s) marked on the tanks / flasks and recorded in the maintenance log, or if not, are they tagged out and removed from service? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a

## DIVING UNIT INSPECTION CHECKLIST

### SECTION E: BREATHING GAS COMPRESSORS and SYSTEM COMPONENTS (continued)

<p><b>E31</b> Are LP volume tanks / HP compressed gas storage flasks visually examined externally and internally for damage or corrosion annually by a certified inspector? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a</p>
<p><b>E32</b> Do all LP volume tanks / HP compressed gas storage flasks have a serial number or other unique identifier which allows referencing of test results in the maintenance log? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a</p>
<p><b>E33</b> Are all LP volume tanks / HP compressed gas storage flasks equipped with an overpressure relief device and an isolating valve on the pressure side of the relief valve? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a</p>
<p><b>E34</b> If rack mounted into banks of LP volume tanks / HP compressed gas storage flasks, have valves and regulators been protected from damage caused by impact from falling objects? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a</p>
<p><b>E35</b> Are all LP volume tanks / HP compressed gas storage flasks stored in a well-ventilated area, protected from overheating, and secured from falling? Reference: NDSSM TBD Comments:</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a</p>

## DIVING UNIT INSPECTION CHECKLIST

**SECTION F: DIVE BRIEFING (only used during triennial DUSA)**

<b>F1</b>	Have all appropriate pre-dive forms been completed? Reference: NDSSM TBD Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<b>F2</b>	Have the appropriate water entry/exit methods and locations been discussed and are they adequate? Reference: NDSSM TBD Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<b>F3</b>	Do topside support personnel use a dive log to document (at a minimum) the divers' names, date, time in, time out, pressure in, pressure out, depth and breathing gas? Reference: NDSSM TBD Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<b>F4</b>	Is a set of dive tables, appropriate for the gas mixture being used, at the dive location? Reference: NDSSM TBD Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<b>F5</b>	If divers are required to carry a reserve breathing gas supply, does it have sufficient pressure and volume to reach the surface at a safe ascent rate from the maximum planned depth? Reference: NDSSM TBD Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<b>F6</b>	Has each diver verified they have sufficient gas in their cylinder to complete the assigned task(s) and arrive at the exit point of the dive with at least 500 psi? Reference: NDSSM TBD Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<b>F7</b>	Is appropriate topside support available at the dive location? Reference: NDSSM TBD Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<b>F8</b>	If needed, are standby divers available? Reference: NDSSM TBD Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a

## DIVING UNIT INSPECTION CHECKLIST

**SECTION F: DIVE BRIEFING (only used during triennial DUSA - continued)**

<p><b>F9</b> Do divers understand the situations under which they should terminate their dive (i.e., low cylinder pressure, lost buddy, failure of any life support equipment, conditions become unsafe, use of any alternate air source, other than during a drill)? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<p><b>F10</b> Are pre- and post-dive briefings performed, including assessments of divers' physical condition? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<p><b>F11</b> Did each diver inspect and test their equipment prior to the dive in the presence of their dive buddy or tender? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<p><b>F12</b> Did the Divemaster or Lead Diver conduct a final safety check of each diver's gear before allowing divers into the water? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a

**SECTION G: DIVE RESCUE (only used during triennial DUSA)**

<p><b>G1</b> Did the Divemaster or Lead Diver brief divers on the Diving Emergency Action Plan (DEAP) and is the location of the DEAP known to all personnel responsible for the diving and any emergency response? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<p><b>G2</b> Are the first aid kit, oxygen kit, AED, diver recall, and backboard on site and readily accessible? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a
<p><b>G3</b> Does the diver or rescuer signal for help upon surfacing? Reference: NDSSM TBD Comments:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> n/a

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## DIVING UNIT INSPECTION CHECKLIST

### SECTION G: DIVE RESCUE (only used during triennial DUSA - continued)

<b>G4</b> Does the Divemaster or Lead Diver adequately address the problem of an unconscious diver on the bottom? Reference: NDSSM TBD Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a
<b>G5</b> If needed, were standby divers launched? Reference: NDSSM TBD Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a
<b>G6</b> Was the victim located and brought to the surface in a safe but expeditious manner? Reference: NDSSM TBD Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a
<b>G7</b> Once on the surface, did the rescuer report the victim's condition, establish buoyancy, and if needed, provide rescue breaths? Reference: NDSSM TBD Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a
<b>G8</b> Was EMS called? Reference: NDSSM TBD Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a
<b>G9</b> Was an appropriate extraction performed? Reference: NDSSM TBD Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a
<b>G10</b> Once on the platform, was appropriate care given to the victim? Reference: NDSSM TBD Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a
<b>G11</b> Were all divers accounted for before departing the dive site? Reference: NDSSM TBD Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a

## DIVING UNIT INSPECTION CHECKLIST

### SECTION H: INSPECTION COMMENTS and RECOMMENDATIONS (continued)

## **Diving Unit Change Form, NF 57-03-04**

**What:** This document is used when a NOAA Diver relocates to a new Diving Unit. It allows the NDC to update its files and ensure the diver appears on the correct roster in the Diver Management System and SEP fees are billed to the appropriate unit.

**When:** Divers should submit this form to the UDS prior to their departure. The UDS will submit this form to [Support.NCD@noaa.gov](mailto:Support.NCD@noaa.gov). When a NOAA Diver from a different unit joins their unit the UDS should verify that this form has been submitted and all information is correct in the DMS.

**Record keeping:** A digital or printed copy should be retained at the unit.

**Other considerations:** NOAA Corps officers should complete this form as well as the NOAA Corps Officer Diving Authorization Request, NF 56-30 when they relocate to a new Diving Unit.

## DIVING UNIT CHANGE FORM

### DIVER INFORMATION

NAME (Last, First MI)	DATE OF TRANSFER	Check one of the following: <input type="radio"/> NOAA Employee <input type="radio"/> Contractor <input type="radio"/> NOAA Corps
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### PRIOR DIVING UNIT INFORMATION

WORK ADDRESS	CITY	STATE	ZIP
E-MAIL ADDRESS	PHONE NUMBER	FAX NUMBER	
UNIT DIVING SUPERVISOR NAME	DIVING UNIT	LINE or STAFF OFFICE	

### NEW DIVING UNIT INFORMATION

WORK ADDRESS	CITY	STATE	ZIP
E-MAIL ADDRESS	PHONE NUMBER	FAX NUMBER	
UNIT DIVING SUPERVISOR NAME	DIVING UNIT	LINE or STAFF OFFICE	

### SUBMISSION INSTRUCTIONS

Submit this form to the NOAA Diving Center (NDC) via facsimile or e-mail. The NDC fax number is (206) 526-6506. The NDC support desk e-mail address is Support.NDC@noaa.gov.

### NOTES

In addition, NOAA Corps officers must submit a revised NOAA Form 56-30, Officer Diving Authorization Request, upon reporting to a new assignment.

If needed, contact the NOAA Diving Center Executive Officer for help identifying the new Unit Diving Supervisor.



## **Review for NOAA Diver Reciprocity, NF 57-03-05**

**What:** This document is used to establish reciprocity with another agency. It is a checklist of items NOAA requires for another diving entity to include in their program in order to be considered 'equivalent to NOAA standards'.

**When:** The UDS will submit this form to the LODO/SODO. The LODO/SODO will review and forward it to the NDCSB with an endorsement.

**Record keeping:** A digital or printed copy should be retained at the unit.

**Other considerations:** The NDCSB may wish to review a copy of the Reciprocity Applicant's Diving Operations Manual. A thorough review takes time, please submit reciprocity requests at least 30 days before any planned dives with the diving partner.

### REVIEW FOR SCIENTIFIC DIVER RECIPROCIITY

NAME of DIVER	AGENCY	DATE
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NOAA DIVING PROGRAM REQUIREMENTS	YES	NO
<b>DIVING CERTIFICATION: Initial</b>		
Certification issued by a recognized SCUBA diving association	<input type="checkbox"/>	<input type="checkbox"/>
Additional certification or training is required above entry level dive certification	<input type="checkbox"/>	<input type="checkbox"/>
Pass a written examination	<input type="checkbox"/>	<input type="checkbox"/>
Pass an open-water skills check-out dive	<input type="checkbox"/>	<input type="checkbox"/>
Complete a minimum of at least 25 open-water dives	<input type="checkbox"/>	<input type="checkbox"/>
Pass initial and regularly schedule dive physicals	<input type="checkbox"/>	<input type="checkbox"/>
<b>DIVING CERTIFICATION: Maintenance</b>		
Complete a minimum of at least 12 dives in the past year	<input type="checkbox"/>	<input type="checkbox"/>
Complete periodic training in CPR, first-aid, and oxygen administration	<input type="checkbox"/>	<input type="checkbox"/>
<b>DIVING EQUIPMENT:</b>		
Regulators tested annually	<input type="checkbox"/>	<input type="checkbox"/>
Depth gauges tested annually	<input type="checkbox"/>	<input type="checkbox"/>
Submersible pressure gauges tested annually	<input type="checkbox"/>	<input type="checkbox"/>
SCUBA cylinders visually inspected annually	<input type="checkbox"/>	<input type="checkbox"/>
Minimum diving equipment includes:		
• Primary and alternate air source	<input type="checkbox"/>	<input type="checkbox"/>
• Flotation device	<input type="checkbox"/>	<input type="checkbox"/>
• Timing device	<input type="checkbox"/>	<input type="checkbox"/>
• Depth gauge	<input type="checkbox"/>	<input type="checkbox"/>
• Submersible pressure gauge	<input type="checkbox"/>	<input type="checkbox"/>
<b>SUPPORT EQUIPMENT</b>		
Air compressors are tested for air quality every six months	<input type="checkbox"/>	<input type="checkbox"/>
Minimum diving support equipment includes:		
• First-aid kit	<input type="checkbox"/>	<input type="checkbox"/>
• Oxygen resuscitator	<input type="checkbox"/>	<input type="checkbox"/>

## Letter of Reciprocity Request Form, NF 57-03-06

**What:** This document is submitted to the UDS by a NOAA diver requesting a Letter of Reciprocity (LOR) to dive with an agency whom NOAA has established reciprocity. This form has the reciprocity agency's information, as well as the diver who is requesting the letter.

**When:** After confirming the diver is currently authorized (proficiency, medical, CPR, AED, First Aid, O<sub>2</sub> Administration and gear serviced within last year), the UDS will fill out the LOR template and submit the LOR to the Diving Safety Officer of the reciprocity agency and cc: [NDP.LOR@noaa.gov](mailto:NDP.LOR@noaa.gov). Contact [XO.NDC@noaa.gov](mailto:XO.NDC@noaa.gov) if you need the LOR template.

**Record keeping:** A digital or printed copy should be retained at the unit.

**Other considerations:** Agencies and Organizations with whom NOAA has reciprocity with are listed on the NDP website. AAUS members should be confirmed online from the AAUS website.

This LOR is valid through 31 December of the year it is issued, however there is a chance the diver may have a lapse in NOAA authorization before the expiration of the LOR. A common cause would be the expiration of a safety training certification. In this case, it is the diver's responsibility to provide updated certifications to the DSO of the Reciprocity organization. The diver or the reciprocity agency may ask for an updated letter once lapsed certifications are addressed.

## LETTER OF RECIPROCITY REQUEST

Requests for a Letter of Reciprocity (LOR) should be submitted to your Unit Diving Supervisor or NDC Support Desk at least a week prior to the start of planned dive operations. Assuming certifications and medical requirements do not expire and the diver's gear does not pass the service date then the diver will be authorized to dive through December 31st of the year the LOR is issued. If a certification or medical requirement expires, or the diver's gear passes the service date during the period of reciprocity, it is the diver's responsibility to provide the reciprocity organization with updated certificates or documentation showing they are authorized to dive under the NOAA Diving Program or request an updated LOR.

### RECIPROCITY ORGANIZATION DIVE SAFETY OFFICER (DSO) INFORMATION

NAME (LAST, FIRST, MI)	RECIPROCITY ORGANIZATION		
MAILING ADDRESS	CITY	STATE	ZIP
E-MAIL ADDRESS	PHONE NUMBER		

### APPLICANT INFORMATION

NAME (LAST, FIRST, MI)	Check one of the following. <input type="radio"/> NOAA EMPLOYEE <input type="radio"/> NOAA CORPS <input type="radio"/> CONTRACTOR		
WORK ADDRESS	CITY	STATE	ZIP
E-MAIL ADDRESS	PHONE NUMBER		
UNIT DIVING SUPERVISOR	DIVE OPERATIONS START AND END DATES TO		

### CURRENT DIVING AUTHORIZATION

CERTIFICATION Open Circuit Scuba      No-Deco      Air	LAST LOGGED DIVE DATE
CPR EXPIRATION DATE	PHYSICAL EXAM EXPIRATION DATE
FIRST-AID EXPIRATION DATE	ANNUAL MEDICAL HISTORY EXPIRATION DATE
OXYGEN ADMINISTRATION EXPIRATION DATE	EQUIPMENT SERVICE DUE DATE

### SUBMISSION INSTRUCTIONS

Submit this form to your Unit Diving Supervisor or NDC Support Desk via E-Mail. NDC Support Desk E-Mail address is Support.NDC@noaa.gov

## **Verification of Liability Coverage, NF 57-03-07**

**What:** This document is used to confirm coverage for medical care and liability on a Non-NOAA diver who wishes to dive on a NOAA mission. The form should be completed by the visiting diver and must be signed by an authorized representative of the visiting diver's employer.

**When:** The UDS will ensure this form is completed before allowing a visiting diver to participate on a NOAA dive.

**Record keeping:** A digital or printed copy should be retained at the unit.

**Other considerations:** This is not a Letter of Reciprocity, this only confirms that a visiting diver is covered for medical and personal liability. An LOR must also be received from the visiting diver's organization before they may participate on a NOAA dive.

## VERIFICATION OF LIABILITY COVERAGE

### APPLICANT INFORMATION

CONTRACT DIVER NAME (Last, First MI)	NAME of EMPLOYER / CONTRACTOR		
WORK ADDRESS	CITY	STATE	ZIP
E-MAIL ADDRESS	PHONE NUMBER	FAX NUMBER	
NOAA LINE or STAFF OFFICE and UNIT ASSIGNED	DIVE OPERATIONS START DATE	DIVE OPERATIONS END DATE	

The information below verifies that the above named individual is covered for costs associated with any dive accident or other medical emergency that may occur during the course of his/her work at or with NOAA.

**Instructions:** Indicate below the type and extent of coverage, including, but not limited to; emergency transportation (e.g. MEDEVAC), hyperbaric treatments, other medical treatments, hospitalization, and compensation for lost wages associated with extended absence due to work-related medical emergencies (e.g. worker's compensation). Attach supporting information and documentation as necessary.

### LIABILITY COVERAGE

TYPE and EXTENT of COVERAGE		POLICY START DATE	POLICY END DATE
INSURANCE COMPANY	PHONE NUMBER	POLICY NUMBER	

TYPE and EXTENT of COVERAGE		POLICY START DATE	POLICY END DATE
INSURANCE COMPANY	PHONE NUMBER	POLICY NUMBER	

TYPE and EXTENT of COVERAGE		POLICY START DATE	POLICY END DATE
INSURANCE COMPANY	PHONE NUMBER	POLICY NUMBER	

### COMMENTS


### LIABILITY COVERAGE VERIFICATION

NAME and TITLE of COMPANY REPRESENTATIVE	COMPANY REPRESENTATIVE SIGNATURE	DATE
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**RESET**

## **Observer Diver Waiver of Liability, NF 57-03-08**

**What:** This document is used when an Observer Diver is requesting authorization to participate on a NOAA dive. It affirms the Observer Diver is a certified diver, is aware of the dangers associated with diving, and agrees to follow the Standards of the NOAA Diving Program.

**When:** The UDS will submit this form to NDC through the [support.ndc@noaa.gov](mailto:support.ndc@noaa.gov) email account after receiving medical clearance from the NOAA Diving Medical Officer.

**Record keeping:** A digital or printed copy should be retained at the unit.

**Other considerations:** This is not the only document required for Observer Divers. The Report of Medical History - Observer Diver (NF 57-03-53) must be completed by the diver and approved by the NOAA Diving Medical Officer before participating in any NOAA dive. Before dives are conducted in the field, the prospective Observer Diver must complete a skills checkout dive with the UDS or designee. Results of this dive are recorded in the Checkout Dive Skills Evaluation form (NF 57-03-35). After diving is concluded, the UDS will complete the Observer Diver Report (NF 57-03-26) and submit it to NDC through the [support.ndc@noaa.gov](mailto:support.ndc@noaa.gov) email account. The Observer Diver Waiver of Liability is good for three (3) months after it is signed.

## OBSERVER DIVER WAIVER OF LIABILITY

In consideration of the National Oceanic and Atmospheric Administration (NOAA) permitting me to visit, observe and dive as a guest/observer diver, I, \_\_\_\_\_, for myself and on behalf of all my personal representatives, heirs and next of kin do execute and certify the following:

I am a certified diver, trained in safe diving practices, and I am fully informed of, aware of, and thoroughly understand the inherent hazards and risks associated with scuba diving.

I understand that these risks can lead to severe injury and even loss of life, as well as property damage and liability to others. I understand hazards include, but are not limited to, decompression sickness, arterial gas embolism, or other barotrauma injuries which may require treatment in a recompression chamber; drowning, equipment failure, and other perils of the sea.

By signing this Release, I acknowledge that scuba diving is a physically strenuous activity and that I will be exerting myself during this activity. I understand and agree that scuba diving involves certain risks whether engaged in depths above or below the recommended 130 foot limitation for sport/recreational diving activities. I further acknowledge and agree that injuries received may be compounded or increased by negligent rescue operations or procedures.

By signing this release, I certify that I am making full and honest representations of my skills and dive certifications, and that I am fully aware of and expressly assume all risks involved in making the visiting guest/observer dives covered by this waiver.

By signing this release, I acknowledge that past or present medical conditions may disqualify me for scuba diving. I declare that I am in good mental and physical fitness for scuba diving, that I am not and will not be under the influence of alcohol on this visiting dive, that I am not and will not be under the influence of any drugs that are contraindicated for scuba diving. If I am taking medication, I declare that I have seen a physician who has approved me to scuba dive while under the influence of medications or drugs I am taking.

By signing this Release, I agree that if I use my own dive equipment I will not hold NOAA responsible for any failure with respect to my dive equipment, including my failure to inspect my equipment or air supply prior to diving, or for my use of faulty equipment.

By signing this Release, I agree to adhere to NOAA policies and procedures delineated for this visiting dive and all other instructions related to use of NOAA dive equipment and gear and the NOAA dive platform.

By signing this release, I hereby assume full responsibility for any and assume all risk of bodily injury, wrongful death, property loss or damage, and liability to myself or any third party, now and forever, arising out of my diving with NOAA as a guest, whether foreseen or unforeseen, and whether caused by the negligence of myself, third parties, or NOAA.

By signing this Release, I hereby release, waive, discharge and give up any and all claims against NOAA and the U.S. Government, and all its employees, agents and representatives, for any and all liability, claims and demands by me or made by my personal representative, heirs, agents, assigns and next of kin, for any and all loss or damage, and any claim or demands therefore on account of injury, death or loss arising out of or related to my participating as a guest on any NOAA dives conducted during the period this waiver is valid.



### OBSERVER DIVER WAIVER OF LIABILITY

By signing this Release, I further agree separately to indemnify, save, and hold harmless NOAA and the U.S. Government from any loss, liability, damage or cost that they may incur, now and forever, arising out of or related to my participation as a guest diver, whether caused by the negligence of NOAA or the U.S. Government, or by me.

By signing this Release, I affirm that I am not relying on any oral or written representation or statements made by NOAA or the U.S. Government, other than what is set forth in this document. I further agree this document shall be interpreted in accordance with the laws of the United States.

By signing this Release, I agree that if any provision of this Release is found to be unenforceable or invalid, that provision shall be severed from this release. The remainder of the Release will then be construed as though the unenforceable provision had never been contained in this release. All other provisions shall survive.

ACCORDINGLY, WITH FULL UNDERSTANDING, BEING OF RIGHT MIND AND DULY TRAINED, I, \_\_\_\_\_, BY THIS INSTRUMENT, EXEMPT AND RELEASE NOAA AND THE U.S. GOVERNMENT, ITS OFFICERS, AGENTS, REPRESENTATIVES AND ASSIGNS FROM ALL LIABILITY AND RESPONSIBILITY FOR PERSONAL INJURY, PROPERTY DAMAGE OR WRONGFUL DEATH, HOWEVER CAUSED, INCLUDING BUT NOT LIMITED TO EQUIPMENT FAILURE AND NEGLIGENCE, WHETHER PASSIVE OR ACTIVE. I ACKNOWLEDGE THAT I HAVE READ AND FULLY UNDERSTAND THE POTENTIAL DANGERS INCIDENTAL TO MY PARTICIPATION AS A GUEST DIVER, AM FULLY AWARE OF THE LEGAL CONSEQUENCES OF SIGNING THIS INSTRUMENT, AND I HEREBY ASSUME ALL RISKS FOR THIS DIVE AS AN INDIVIDUAL RESPONSIBLE FOR MY OWN DIVE SAFETY.

I HAVE SIGNED THIS DOCUMENT FREELY AND VOLUNTARILY WITHOUT ANY INDUCEMENT, ASSURANCE OR GUARANTEE BEING MADE TO ME. I INTEND MY SIGNATURE TO BE A COMPLETE AND UNCONDITIONAL RELEASE OF ALL LIABILITY TO THE GREATEST EXTENT ALLOWED BY LAW.

I UNDERSTAND THAT THIS WAIVER SHALL BE VALID FOR THREE (3) MONTHS FROM THE DATE OF MY SIGNATURE.

**I HAVE READ THIS DOCUMENT, I UNDERSTAND IT, AND I AGREE TO BE BOUND BY IT.**

OBSERVER DIVER NAME (PRINTED)		OBSERVER DIVER SIGNATURE	DATE
CONTACT PHONE NUMBER	ALTERNATE CONTACT PHONE NUMBER	EMERGENCY CONTACT PHONE NUMBER	

## **NDP Liability Release and Assumption of Risk, NF 57-03-09**

**What:** This document waives any liability claims against NOAA by a person participating in NOAA Dive Training.

**When:** The UDS will submit this form to NDC through the [support.ndc@noaa.gov](mailto:support.ndc@noaa.gov) email account as part of the Diver Training Request package.

**Record keeping:** A digital or printed copy should be retained at the unit.

## LIABILITY RELEASE and ASSUMPTION of RISK

I, \_\_\_\_\_, am about to participate in a training program sponsored by the National Oceanic and Atmospheric Administration (NOAA) Diving Program described as follows: \_\_\_\_\_, entirely upon my own initiative, risk, and responsibility.

- I am aware of the inherent risks and hazards associated with diving, including, but not limited to, barotrauma, lung over-expansion injuries, decompression sickness, and drowning.
- I understand that diving exposes my body to increased pressure and that I may be injured as a result of participation in such activities despite following appropriate practices and adhering to established decompression tables and procedures.
- I also understand that diving is a physically strenuous activity and that I will be exerting myself during this activity and that if I am injured as a direct or indirect result of exposure to hyperbaric pressures that I assume the risk of said injuries and that I will not hold the released parties responsible for the same.
- I declare that I am in good mental and physical condition for diving, and that I am not under the influence of any drugs that are contradictory to diving. If I am taking medication, I declare that I have consulted with a physician and have approval to dive while under the influence of such medication/drugs.
- In consideration of being allowed to participate in this activity, I hereby personally assume all risks in connection with any dive(s) for any harm, injury, damage or death that may befall me, including all risks connected therewith, whether foreseen or unforeseen. I further save and hold harmless said activity and NOAA, and any of its employees, from any demand, claim or lawsuit for personal injury, property damage, or wrongful death, by me, my family, heirs, executors, representatives, administrators and assigns, arising out of my participation in this activity.
- I further declare that I am of lawful age and legally competent to sign this liability release. I hereby affirm that I have read this liability release and that I fully understand its contents.

TRAINEE DIVER NAME (PRINTED)

TRAINEE DIVER SIGNATURE

DATE

## **Agreement Approving Diving Operations from NOAA Owned or Contracted Vessel, NF 57-03-10**

**What:** This document is used when a non-NOAA organization wishes to conduct dive operations from a vessel owned or contracted by NOAA. The visiting organization may dive under their standards provided they are comparable to NOAA. The NDCSB will review the dive plan and DEAP for safety and make a recommendation to the NOAA representative approving the agreement. The agreement has checkboxes indicating the applicability of OSHA diving standards, and whether the visiting organization has current reciprocity with the NDP. The vessel captain is also required to review and approve the operation.

**When:** The UDS will submit this form to the NDCSB through their LODO for approval. Due to the number of people who must review and approve this agreement, please SUBMIT THIS AGREEMENT AT LEAST SIX (6) WEEKS IN ADVANCE OF DIVING OPERATIONS.

**Record keeping:** A digital or printed copy should be retained at the unit.

**Other considerations:** This agreement must also be signed by an authorized representative of the non-NOAA diving organization, this most often is a University DSO or someone in a similar position. While this form specifically references vessels, it may be used to allow use of other NOAA facilities (e.g., pools, docks, boat basins) by non-NOAA organizations. In these cases, the facility director should be substituted for the vessel captain in the approval process.

## Agreement Approving Diving Operations From NOAA Owned or Contracted Vessels Under Non-NOAA Diving Standards

This agreement codifies the roles and responsibilities for non-NOAA divers, topside diving support personnel, and NOAA vessel operators involved in a non-NOAA diving operation conducted from a NOAA owned or contracted vessel. The non-NOAA diving party shall hereinafter be referred to as the "diving partner." The diving partner has a diving program with comparable standards to NOAA as described in the NOAA Scientific and Working Diving Standards and Safety Manuals. Diving program comparability is assured by a current reciprocity agreement or a review by the NOAA Diving Control and Safety Board (NDCSB). The NOAA owned or contracted vessel operator will review and approve the components of the operational plan related to vessel manning, provisioning, operations of the vessel and other non-diving activities. The diving partner will be responsible for submitting a Dive Plan and Diving Emergency Assistance Plan (DEAP) to the NDCSB at least six (6) weeks in advance of the diving operation. NOAA agrees to provide the vessel to transport the dive team to the dive location, assess environmental and traffic conditions at the dive location, and provide the partner diving supervisor permission to commence diving operations. The diving partner agrees to provide all divers, topside diving support personnel, diving and emergency equipment and be responsible for all aspects of the diving operation. In the event of a diving incident, the diving partner will be responsible for execution of the DEAP while NOAA will assist to the extent possible. The diving partner shall comply with all applicable laws and regulations governing the dive mission. It is the responsibility of the dive partner to assure the safety of all divers during dive operations. The dive partner shall indemnify, defend and hold harmless the government, its officers, directors, agents, employees and other related parties harmless from and against any and all liabilities, damages, losses, expenses, claims, demands, suits, fines, or judgments including reasonable attorneys' fees, costs and expenses, incidental thereto, which may be suffered by, accrued against or charged to the Government arising out of or relating to any act or error or omission, negligence, or misconduct of the diving partner, its officers, directors, agents, employees or subcontractors.

Diving Partner \_\_\_\_\_

NOAA Vessel (owned or contracted) \_\_\_\_\_

If NOAA contracted vessel, name of owner \_\_\_\_\_

Dates of operation \_\_\_\_\_

Location of operation \_\_\_\_\_

Description of operation

--

### Applicability of OSHA Commercial Diving Standards

This operation is subject to 29 CFR 1910, Subpart T This operation is exempt from 29 CFR 1910, Subpart T 

If exempt, indicate exemption status

Qualifies for Scientific Exemption Qualifies for Instructional Exemption Organization not subject to OSHA 

### Review by NDCSB / Vessel Operator

Current Reciprocity Agreement exists Diving partner program reviewed for comparability Dive Plan reviewed (NDCSB)  Date \_\_\_\_\_DEAP reviewed (NDCSB)  Date \_\_\_\_\_Operational Plan reviewed  
(Vessel Captain)  Date \_\_\_\_\_

Duly Authorized Representative for NOAA Vessel

Name \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

Duly Authorized Representative for Diving Partner

Name \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

## **NOAA Volunteer Diver Service Agreement, NF 57-03-11**

**What:** This form is completed by prospective Volunteer Divers to document their status as unpaid federal employees for the purpose of providing Workman's Compensation coverage and to extend liability protection. The UDS should complete the section on 'Description of service to be performed.' This does not need to be extremely specific, it is sufficient to generally describe the diving operations the Volunteer Diver will participate in. For example, 'The Volunteer Diver will participate in NOAA Diving operations at Gray's Reef National Marine Sanctuary to collect scientific data on fishes, invertebrates and habitat.'

**When:** The UDS will submit this form to the NDPM through the [support.ndc@noaa.gov](mailto:support.ndc@noaa.gov) account as part of the Volunteer Diver request package.

**Record keeping:** A digital or printed copy should be retained at the unit for the duration of the Volunteer Diver's tenure.

**Other considerations:** This agreement must be reviewed and signed by a NOAA representative who has hiring authority.

## NOAA VOLUNTEER DIVER SERVICE AGREEMENT

1. NAME OF AGENCY		2. AGREEMENT NUMBER	
3. NAME OF VOLUNTEER (Last, First)		4. U.S. CITIZEN OR PERMANENT RESIDENT <input type="checkbox"/> Yes <input type="checkbox"/> No, list visa type	
5. STREET ADDRESS		6. CITY, STATE, ZIP CODE	
7. EMAIL ADDRESS	8. PHONE Home _____ Mobile _____	9. AGE <input type="checkbox"/> 18-39 <input type="checkbox"/> 40-49 <input type="checkbox"/> 50-59 <input type="checkbox"/> 60 and Older	

10. **ETHNICITY & RACE (Optional):** Please report both ethnicity and race and tell us if you are a veteran or have a disability. Multiracial respondents may select two or more races. This information will inform our understanding of diversity among the volunteer force in the NOAA Diving Program.

10a. ETHNICITY <input type="checkbox"/> Hispanic or Latino <input type="checkbox"/> Not Hispanic or Latino	10b. RACE <input type="checkbox"/> American Indian or Alaskan Native <input type="checkbox"/> Asian <input type="checkbox"/> Black or African American <input type="checkbox"/> White <input type="checkbox"/> Native Hawaiian or Other Pacific Islander	10c. Are you a Veteran? <input type="checkbox"/> Yes <input type="checkbox"/> No  10d. Do you have a disability? <input type="checkbox"/> Yes <input type="checkbox"/> No
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**EMERGENCY CONTACT INFORMATION**

11. NAME (Last, First)	12. PHONE Home _____ Mobile _____	13. EMAIL ADDRESS
14. STREET ADDRESS	15. CITY, STATE, ZIP CODE	16. RELATIONSHIP TO VOLUNTEER

**GOVERNMENT OFFICIAL COMPLETES THIS SECTION**

17. AGENCY CONTACT NAME (Last, First)	18. PHONE Office _____ Mobile _____	19. EMAIL ADDRESS
---------------------------------------	---	-------------------

20. REIMBURSEMENTS APPROVED?  Yes  No      Type and Rate of Reimbursement: \_\_\_\_\_

21. **Description of service to be performed.** Provide a brief description of volunteer activity and the location of the volunteer activity to be performed. Description should include details such as time and schedule commitment, use of government vehicle, use of personal diving equipment and/or vehicle, skills required (include diving and safety certifications required), level of physical activity required, etc.

22. Check all that apply:

<input type="checkbox"/> Additional description of service attached	<input type="checkbox"/> Diving and safety certifications verified
<input type="checkbox"/> Job Hazard Analysis	<input type="checkbox"/> Driver's License Verified (if required)

**VOLUNTEER AFFIRMATION**

23. I understand that I will not receive any compensation for the above service and that volunteers are **NOT** considered Federal employees for any purpose other than tort claims and injury compensation. I understand that volunteer service is not creditable for leave accrual or any other employee benefits. I also understand that either the government or I may cancel this agreement at any time by notifying the other party. I understand that my volunteer position may require a reference check, background investigation, and/or a criminal history inquiry in order for me to perform my duties. I understand that all publications, films, slides, videos, artistic or similar endeavors, resulting from my volunteer services as specifically stated in the attached job description, will become the property of the United States, and as such, will be in the public domain and not subject to copyright laws. I understand the health and physical condition requirements for doing the work as described in the job description and at the project location, and certify that the statements I have checked below are true:

- I know of no medical condition or physical limitation that may adversely affect my ability to provide this service.
- I have a medical condition or physical limitation that may adversely affect my ability to provide this service and have informed the Government Representative.
- I do not consent to being photographed or to the release of my photographic image.

**I do hereby volunteer my services as described above, to assist in authorized activities at and I agree to follow all applicable safety guidelines.**

(NAME OF NOAA FACILITY)

\_\_\_\_\_  
24. Signature of Volunteer

\_\_\_\_\_  
Date

The above-named NOAA facility agrees, while this arrangement is in effect, to provide such materials, specialized equipment, and facilities that are available and needed to perform the service described above, and to consider you as a Federal employee only for the purposes of tort claims, liability and injury compensation to the extent not covered by you, if any.

\_\_\_\_\_  
25. Signature of Government Representative

\_\_\_\_\_  
Date

**TERMINATION OF AGREEMENT**

26. Agreement Terminated Date:

Total Hours Completed:

\_\_\_\_\_  
26. Signature of Government Representative

**PUBLIC BURDEN STATEMENT**

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0596-0080. The time required to complete this information collection is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. USDA, DOI, DOC and DOD prohibit discrimination in all programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. Not all prohibited bases apply to all programs.

**PRIVACY ACT STATEMENT**

Collection and use is covered by Privacy Act System of Records OPM/GOVT-1 and USDA/OP-1, and is consistent with the provisions of 5 USC 552a (Privacy Act of 1974), which authorizes acceptance of the information requested on this form. The data will be used to maintain official records of volunteers of the USDA and USDI for the purposes of tort claims and injury compensation. Furnishing this data is voluntary, however if this form is incomplete, enrollment in the program cannot proceed.  
NOAA Diving Program, UDS Manual, Page 83



## **NOAA Corps Officer Diving Authorization Request, NF 56-30**

**What:** This document is used by NOAA Corps officers who wish to remain on or receive initial authorization for diving status. The request requires the officer, the officer's Commanding Officer or immediate supervisor and the Diving Program Manager to complete respective sections. Electronic signatures are acceptable.

**When:** The officer will initiate completion of this form whenever they report to a new diving unit and at the beginning of every fiscal year (01 October). The form, with sections 1 and 2 completed, should be submitted to NDC via the [support.ndc@noaa.gov](mailto:support.ndc@noaa.gov) email account.

**Record keeping:** A digital or printed copy should be provided to the UDS and retained at the unit.

## OFFICER DIVING AUTHORIZATION REQUEST

### Instructions for completing the form

Section 1 shall be completed by the NOAA Corps officer.

Section 2 shall be completed by the NOAA Corps officer's immediate supervisor or Commanding Officer.

Section 3 shall be completed by the NOAA Diving Program (NDP) Manager.

A new diving authorization is required for NOAA Corps officers;

- 1) Upon completion of NOAA Diving Program certification requirements,
- 2) Upon reporting to a new assignment, or
- 3) Upon the beginning of a new fiscal year.

Diving authorizations are valid for a maximum of one fiscal year. Diving authorizations are invalid on the date of detachment or September 30th.

### SECTION 1

LAST NAME	FIRST NAME	MIDDLE NAME	RANK
EMPLOYEE ID NUMBER	LINE or STAFF OFFICE	DIVISION / UNIT / SHIP	
DIVING AUTHORIZATION START DATE		DIVING AUTHORIZATION END DATE	
OFFICER SIGNATURE			DATE

### SECTION 2

I certify the NOAA Corps officer named above will engage in official diving duties in support of NOAA's mission during the indicated period.

NAME of SUPERVISOR	TITLE
SUPERVISOR SIGNATURE	DATE

### Instructions for submitting the form

This form must be submitted to NDC electronically or via hard copy. Signatures are not required if the form is filed electronically; however, the form must be forwarded to NDC directly from the e-mail account of the officer's immediate supervisor or Commanding Officer to the NOAA Diving Program. Signatures are required if the form is filed via hard copy.

E-mail the form to: Support.NDC@noaa.gov	or	Mail the form to: NOAA Diving Center 7600 Sand Point Way NE, Bldg 8 Seattle, WA 98115-0070
Subject Line: Officer Diving Authorization		Fax the form to: (206) 526-6506

### SECTION 3

The NOAA Corps officer named above is hereby authorized to engage in official diving duties involving the breathing of compressed gas in hyperbaric environments in accordance with NAO 209-123 during the indicated period and receive monthly dive pay when dives are reported.

NAME of NOAA DIVING PROGRAM MANAGER	
NOAA DIVING PROGRAM MANAGER SIGNATURE	DATE

NOAA Diving Program, UDS Manual, Page 85

## Dive Operations Plan, NF 57-03-20

**What:** This is one of the most frequently used documents in the Diving Program, it is used to describe all the components of a diving operation.

**When:** The UDS will ensure this form is completed and submitted to NDC via the [NDP.Diveplans@noaa.gov](mailto:NDP.Diveplans@noaa.gov) email account prior to the any diving operation. A copy should be present at the dive site during the dive.

**Record keeping:** A digital or printed copy should be retained at the unit for twenty four (24) hours after completion of the diving operation.

**Other considerations:** Two signatures are required on this form. While the form describes the first signature as the 'submitting' diver and the other as the 'approving' diver, it is acceptable for a UDS to sign in either line and another experienced diver to sign in the other line. The important thing is for two different divers to review and approve the plan. The 'number of consecutive dive days' does not include the first day of diving – if the operation will start and finish on the same day, it should be listed as zero (0) consecutive dive days. If it will take three days in a row to complete the operation, it should be listed as two (2) consecutive dive days. Please include mitigation measures taken to minimize any unique hazards for the planned dive. It is not necessary to include hazards present on every dive such as drowning, DCS, AGE or hypothermia.

## DIVE OPERATIONS PLAN

### DIVE OPERATIONS

DATE(S) of DIVE OPERATIONS		DIVE OPS START TIME		DIVE OPS STOP TIME	
LOCATION of DIVE OPERATIONS		DISTANCE FROM SHORE		EVAC TIME to CHAMBER	
PLATFORM or FACILITY		DEPTH RANGE		NUMBER of DIVERS	
PLANNED NUMBER of DIVE EVOLUTIONS PER DAY		MAXIMUM NUMBER of DIVES to be LOGGED PER DAY		NUMBER of CONSECUTIVE DIVE DAYS	
SAFE SHIP CHECKLIST REQUIRED	YES <input type="checkbox"/> NO <input type="checkbox"/>	DIVE MODE	OPEN CIRCUIT SCUBA <input type="checkbox"/> REBREATHER <input type="checkbox"/>	DIVE PURPOSE	SCIENTIFIC DIVE <input type="checkbox"/> WORKING DIVE <input type="checkbox"/>
FLOAT PLAN REQUIRED	YES <input type="checkbox"/> NO <input type="checkbox"/>	DECOMPRESSION CALCULATION	DIVE COMPUTER <input type="checkbox"/> DECOMPRESSION TABLES <input type="checkbox"/>	DIVE DUTY	ON-DUTY DIVE <input type="checkbox"/> OFF-DUTY DIVE w/SEP GEAR <input type="checkbox"/>

### DIVERS (Attach additional sheets if more than 12 divers participate in the dive)

DIVEMASTER / LEAD DIVER	DIVER	DIVER
DIVER	DIVER	DIVER
DIVER	DIVER	DIVER
DIVER	DIVER	DIVER

### DESCRIPTION

PURPOSE of DIVES and TASKS to be PERFORMED
PRINCIPAL DIVER WORN EQUIPMENT and BREATHING MEDIA
TOOLS and SPECIALIZED EQUIPMENT to be USED <span style="float: right;">Tethered comms dive? YES <input type="checkbox"/> NO <input type="checkbox"/></span>
POTENTIAL HAZARDS and MITIGATIONS (Certain hazards are present on all dives (AGE, DCS, drowning, etc.). The hazards listed below are unique to this operation.)
PRIMARY MEANS of EVACUATION for EMERGENCIES

### AUTHORIZATION

SUBMITTED BY (DIVEMASTER/LEAD DIVER)	SIGNATURE	DATE
APPROVED BY (UNIT DIVING SUPERVISOR/DESIGNEE)	SIGNATURE	DATE

## **Diving Emergency Assistance Plan (DEAP), NF 57-03-21**

**What:** This document is used to list emergency contacts, hospitals, recompression chambers, and other EMS entities for a specific diving location. It also includes general instructions for treatment of diving casualties.

**When:** The UDS will ensure a version of this form is completed for every location or activity in which any of the information is different from the version of the DEAP currently on file at NDC. A copy should also be submitted with the first Dive Operations Plan (NF 57-03-20) of each calendar year. Completed DEAPs are submitted to NDC via the [NDP.Diveplans@noaa.gov](mailto:NDP.Diveplans@noaa.gov) email account. A copy must be present at the dive site during the dive.

**Record keeping:** During a dive at this location, a printed copy of the DEAP should be at the dive site. A digital or printed copy should be retained at the unit until the form is updated with more current information.

**Other considerations:** It is strongly advised to add unit-specific information to this form. For example, a list of emergency contact information for all divers is important information to have available in the event of an accident. Other information which would be useful includes work, cell and home numbers of the Laboratory Director, Superintendent, Branch/Division/Program Manager. An actual dive accident will be a stressful event, you can avoid leaving out important information by including a prepared script to use when contacting EMS or the Coast Guard. In the event of an accident, make sure you continue calling people on the DEAP until you speak to a person (leaving a voice mail is not sufficient). Do not delay administering first aid in order to notify supervisors, but notification should be made as quickly as possible.

## DIVING EMERGENCY ASSISTANCE PLAN

NOAA DIVING UNIT	DIVE LOCATION	CALENDAR YEAR
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### INSTRUCTIONS:

Complete a Diving Emergency Assistance Plan (DEAP) for each unique diving location and submit the plan to [NDP.Diveplans@noaa.gov](mailto:NDP.Diveplans@noaa.gov) with the initial dive plan of each calendar year and every time any information on the DEAP changes.

### GENERAL PROCEDURES:

- A. Evaluate the victim's Circulation, Airway, and Breathing (CABs). If necessary, begin cardiopulmonary resuscitation (CPR) using a manually triggered ventilator (MTV) or bag-type oxygen resuscitator.
- B. If the victim is breathing, but unconscious, place the victim in the recovery position and administer oxygen using a non-rebreather type mask.
- C. If the victim is awake and alert, place the victim in a position of comfort and administer 100% oxygen using an MTV/demand oxygen resuscitator or non-rebreather type mask. If the victim is not nauseated, give clear non-alcoholic/non-caffeinated fluids to drink.
- D. If the victim's condition is life threatening or urgent, call the local Emergency Medical Services (EMS) or U. S. Coast Guard (USCG) for transport to the nearest medical treatment facility.
- E. If the victim's condition is not urgent, contact the NOAA Dive Medical Officer (DMO) for guidance. If unable to reach the NOAA DMO with 15 minutes, contact the Divers' Alert Network (DAN).
- F. Use the Dive Accident Management Field Reference Guide to document a neurological exam and dive history information.
- G. Gather additional information about the incident and prepare the victim for transport.
- H. Secure the diver's gear for inspection. **DO NOT DISASSEMBLE GEAR OR EXHAUST AIR FROM THE SYSTEM.** Close the cylinder valve **ONLY**. Count and record number of turns required to secure the valve.
- I. Call and speak to the NOAA DMO, (855) 822-DIVE (3483), to report the incident.
- J. Call the Line Office Diving Officer (LODO) to report incident. If unable to reach the LODO, call the Deputy LODO. Continue calling until positive contact is made. Speak to a person, don't just leave a message.

### EMERGENCY TRANSPORTATION CONTACTS:

Primary Shore Based Emergency Transportation
NAME of TRANSPORTATION PROVIDER
POINT of CONTACT
PHONE NUMBER

Secondary Shore Based Emergency Transportation
NAME of TRANSPORTATION PROVIDER
POINT of CONTACT
PHONE NUMBER

At Sea Vessel Emergency Transportation
NAME of TRANSPORTATION PROVIDER
POINT of CONTACT
PHONE NUMBER

At Sea Aviation Emergency Transportation
NAME of TRANSPORTATION PROVIDER
POINT of CONTACT
PHONE NUMBER

## DIVING EMERGENCY ASSISTANCE PLAN

NOAA DIVING UNIT	DIVE LOCATION	CALENDAR YEAR
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**EMERGENCY CONTACTS:**

<b>Primary Operational Hyperbaric Chamber</b>
NAME of FACILITY
ADDRESS of FACILITY
POINT of CONTACT
PHONE NUMBER

<b>Secondary Operational Hyperbaric Chamber</b>
NAME of FACILITY
ADDRESS of FACILITY
POINT of CONTACT
PHONE NUMBER

<b>Primary Hospital Emergency Room</b>
NAME of FACILITY
ADDRESS of FACILITY
POINT of CONTACT
PHONE NUMBER

<b>Secondary Hospital Emergency Room</b>
NAME of FACILITY
ADDRESS of FACILITY
POINT of CONTACT
PHONE NUMBER

<b>USCG, Area Search and Rescue (SAR) Coordinator</b>
NAME of FACILITY
PHONE NUMBER

<b>USCG, Rescue Coordination Center (RCC)</b>
NAME of FACILITY
PHONE NUMBER

**NOAA DIVING PROGRAM CONTACTS:**

<b>Unit Diving Supervisor</b>
NAME
EMERGENCY CELL PHONE NUMBER

<b>Divers Alert Network (DAN)</b>
EMERGENCY PHONE NUMBER <b>(919) 684-9111</b>

<b>Line Office Diving Officer</b>
NAME
EMERGENCY CELL PHONE NUMBER
OFFICE PHONE NUMBER

<b>Deputy Line Office Diving Officer</b>
NAME
EMERGENCY CELL PHONE NUMBER
OFFICE PHONE NUMBER

<b>NOAA Diving Safety Officer</b>
EMERGENCY CELL PHONE NUMBER
OFFICE PHONE NUMBER <b>(206) 526-6223</b>

<b>NOAA Diving Medical Officer</b>
EMERGENCY CELL PHONE NUMBER <b>(855) 822-3483</b>
OFFICE PHONE NUMBER <b>(206) 526-6474</b>

## **Dive Operations Plan – Safe Ship, NF 57-03-22**

**What:** This document is used to notify the bridge and department heads of diving operations and to provide an administrative control on activities which may cause a hazard to divers. Signatures of department heads shall only be placed on the document once all required lock-out, tag-out procedures have been completed. The Officer of the Deck is responsible for making the included announcements over the ship's public address system before diving operations begin, every fifteen (15) minutes during the diving operations, and at the conclusion of diving operations.

**When:** The Ship Diving Officer or Divemaster will ensure this form accurately describes the diving activities to be conducted before submitting it to the OOD for routing and signatures. A copy should be present at the dive site during the dive.

**Record keeping:** A digital or printed copy should be retained at the unit until twenty four (24) hours after completion of the diving operation.

**Other considerations:** This is not a Dive Operations Plan (NF 57-03-20), although the Dive Operations Plan does have a checkbox to indicate if the Safe Ship form (NF 57-03-22) is required. This form is only used to coordinate administrative controls on shipboard activities which may imperil divers conducting hull surveys or ship husbandry dives. Each ship may have unique requirements which can be added to this form, these should be noted in the 'Remarks' section.



### DIVE OPERATIONS PLAN – SAFE SHIP

NOAA Ship	DATE of DIVE OPERATIONS
OFFICER OF THE DECK	COMMENCEMENT TIME
DIVEMASTER	COMPLETION TIME

Prior to commencement of dive operations under or alongside the ship and every 15 minutes thereafter until completion of dive operations, the following announcement shall be made over the ship's public address system:

“ATTENTION ALL HANDS: DIVERS ARE WORKING UNDER OR ALONGSIDE THE SHIP AT THIS TIME. DO NOT OPERATE ANY EQUIPMENT OVER THE SIDE, ROTATE SCREWS, CYCLE RUDDER, TAKE SUCTION FROM OR DISCHARGE TO SEA, ACTIVATE SONAR OR UNDERWATER ELECTRICAL EQUIPMENT, OR OPEN OR CLOSE ANY VALVES WITHOUT AUTHORIZATION FROM THE DIVEMASTER AND THE CHIEF MARINE ENGINEER.”

Upon completion of dive operations under or alongside the ship, the following announcement shall be made over the ship's public address system:

“DIVE OPERATIONS ARE NOW COMPLETE. NORMAL AND ROUTINE WORK MAY BE CARRIED OUT IN ACCORDANCE WITH PREVIOUS INSTRUCTIONS.”

#### DESCRIPTION OF DIVE OPERATIONS PLAN

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## DIVE OPERATIONS PLAN – SAFE SHIP

Before dive operations may commence, the persons listed below shall sign in the “Pre Dive” column to indicate they have been notified of dive operations or required pre-dive actions have been completed. This signature indicates that all necessary precautions have been taken to ensure the safety of all divers. After dive operations have been completed, the same persons shall sign in the “Post Dive” column to indicate they have been notified that dive operations are complete and equipment may be reactivated or other scheduled activities may resume.

Dive operations shall not commence until all required signatures are recorded and approved by the Officer of the Deck and the Divemaster.

EQUIPMENT SECURED	PRE-DIVE	TIME	POST-DIVE	TIME
RUDDER CME				
SHAFT(S) CME				
SEA SUCTIONS CME				
SEA DISCHARGES CME				
A-FRAMES / J-FRAMES CB				
WINCHES CB				
TRANSDUCERS ET				
SONARS ET				
<b>SUPPORT EQUIPMENT</b>				
CODE FLAG “ALPHA” HOISTED				
CODE FLAG “ALPHA” LOWERED				
SUPPORT LAUNCH DEPLOYED				
SUPPORT LAUNCH RECOVERED				
<b>VICINITY VESSELS NOTIFIED</b>				
SHIP #1 OOD				
SHIP #2 OOD				
SHIP #3 OOD				
<b>SHIP REPAIR ACTIVITIES – Ship repair activities will not affect the Dive Operations Plan</b>				
NAME CME				
NAME CB				
NAME ET				
NAME XO				
NAME CO				
<b>REMARKS</b>				
<hr/> <hr/> <hr/> <hr/>				
OFFICER OF THE DECK SIGNATURE			DIVEMASTER SIGNATURE	

## **Pre-Dive and Post-Dive Checklist, NF 57-03-23**

**What:** This is a checklist to be used at the dive site before divers enter the water and after they exit. Some items on the checklist should be completed in advance of arriving at the dive site (divers are currently authorized, the Safe Ship form (NF 57-03-22) has been completed – if needed, safety equipment is tested and in good working order, etc.). Other items are completed immediately before divers enter and after they exit the water (recording of cylinder pressures, indication of entry and exit points, monitoring diver's post-dive physical condition, etc.).

**When:** The UDS will ensure the assigned Divemaster or Lead Diver completes this form for every diving operation. For repetitive dives, a single copy is sufficient for each day's diving operations, however each repetitive dive should include a briefing on planned depths, times and objectives. A copy should be present at the dive site during the dive.

**Record keeping:** A digital or printed copy should be retained at the unit until twenty four (24) hours after completion of the diving operation.

**Other considerations:** While all the items on the checklist are important and should be addressed for every dive, do not allow Divemasters and Lead Divers to get tunnel vision and focus on the form while neglecting the divers. Good buddy checks and 'eyeballing' the divers as they prepare to enter the water is very important for detecting and correcting situations which could result in a diving incident.

## DIVE OPERATIONS PLAN PRE and POST-DIVE CHECKLIST

### DIVE OPERATIONS

DATE of DIVE OPERATIONS		PLANNED START TIME		PLANNED STOP TIME	
DIVE OPERATIONS LOCATION					

### PRE-DIVE CHECKLIST

#### 1. MISSION SAFETY

<input type="checkbox"/>	Dive objectives and goals are defined, reviewed, and understood by all the divers and support personnel.
<input type="checkbox"/>	The Diving Accident Management Plan (DAMP) is posted, coordinated, and reviewed (i.e. chamber availability, evacuation route, etc.).
<input type="checkbox"/>	All personnel have been informed of their assigned diving duties.
<input type="checkbox"/>	A Pre-Dive safety briefing has been conducted.

#### 2. EVALUATE AND PREPARE FOR POTENTIAL HAZARDS

<input type="checkbox"/>	Dive site entry and exit point(s) have been identified and recognized by all divers and support personnel.
<input type="checkbox"/>	Maximum depth and bottom time, and minimum cylinder ending pressure limits have been defined for the planned dive.
<input type="checkbox"/>	Shifting currents, dangerous marine life, bottom obstructions, entrapment, entanglement, and other physical hazards have been evaluated and discussed.
<input type="checkbox"/>	Marine traffic, gear malfunctions, and other mechanical hazards have been evaluated and discussed.
<input type="checkbox"/>	The Pre-Dive portion of the Dive Operations Plan - Safe Ship (NOAA Form 57-03-22) has been completed (if applicable).

#### 3. DIVING AND SUPPORT PERSONNEL

<input type="checkbox"/>	Each diver is authorized to perform assigned diving duties according to their certification level (e.g. Working Diver, Scientific Diver, Trainee Diver, or Observational Diver).
<input type="checkbox"/>	Each diver is qualified to complete their assigned underwater tasks safely.
<input type="checkbox"/>	Support personnel understand all emergency recall and diver hand signals, and can offer immediate assistance in case of an emergency.
<input type="checkbox"/>	A repetitive dive designation has been determined for each diver for any dive made within the previous 12 hours.

#### 4. EQUIPMENT

<input type="checkbox"/>	All support equipment (boats, compressors, oxygen kits, tools, etc.) to be used will be operated by trained personnel.
<input type="checkbox"/>	All dive techniques to be used are safe, authorized, and appropriate for the task.
<input type="checkbox"/>	All tools to be used are appropriate for the task.
<input type="checkbox"/>	A complete diving first-aid kit, first-aid handbook, oxygen resuscitator, divemaster kit, "Alpha" flag, Diver Down flag, and a complete set of no-decompression dive tables for air and Nitrox are on site.

DIVEMASTER NAME	DIVEMASTER SIGNATURE	DATE	TIME
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### POST-DIVE CHECKLIST

<input type="checkbox"/>	Dive team buddies have remained together for a minimum of 30 minutes after each dive and have monitored each other's condition during that time.
<input type="checkbox"/>	Post dive portion of the Dive Operations Plan - Safe Ship (NOAA Form 57-03-22) has been completed (if applicable).
<input type="checkbox"/>	All personal dive and support equipment is thoroughly cleaned and properly stowed.
<input type="checkbox"/>	A Post-Dive debriefing and critique of operations has been conducted, including procedures for flying after diving (if applicable).

DIVEMASTER NAME	DIVEMASTER SIGNATURE	DATE	TIME
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## **Monthly Dive Log, NF 57-03-24**

**What:** The Monthly Dive Log is not a required form, but is useful for individual divers to track their activities while in the field and unable to enter information through the Dive Management System website.

**When:** As needed.

**Record keeping:** Not required.

**Other considerations:** The NDP benefits from having data on all dives conducted in support of the NOAA mission. Use of this form by reciprocity divers allows many dives which otherwise would go unreported to be tracked for statistical purposes.

NAME (Last, First MI)

CERTIFICATION (see note 1)

DATE (mm/yy)

# MONTHLY DIVE LOG

LINE or STAFF OFFICE (Check one)

NMFS   
  NOS   
  OAR   
  OMAO   
  non-NOAA

UNIT / SUB-UNIT

UNIT DIVING SUPERVISOR

**INSTRUCTIONS:**

- NOAA Form 57-03-24 (1-12) may be used to log dives in lieu of using the on-line, electronic form available through the NOAA Diving Program website.
- Submit this form directly to the NOAA Diving Center, 7600 Sand Point Way NE, Seattle, WA, 98115 by the 5<sup>th</sup> of the month for the preceding month.
- Use a separate line for each dive. Print all information legibly.
- Log repetitive dives using the date, a decimal point, and consecutive numbers (i.e. three dives conducted on the 15<sup>th</sup> would be listed as 15.1, 15.2, and 15.3).
- Use the codes in the NOTES section below to encode the dive log information.
- For saturation missions, log all excursions as separate dives and time of excursions as bottom time.

**7. DIVE LOCATION**

- NAC North Atlantic Coastal (Maine – Rhode Island)
- MAC Mid-Atlantic Coastal (Connecticut – Virginia)
- SAC South Atlantic Coastal (North Carolina – SE Florida)
- KEY Florida Keys
- GMC Gulf of Mexico Coastal (SW Florida – Texas)
- PVC Puerto Rico/U.S. Virgin Islands
- AKC Alaska Coastal
- NPC North Pacific Coastal (Washington – Oregon)
- MPC Mid-Pacific Coastal (north and central California)
- SPS South Pacific Coastal (southern California)
- GLW Great Lakes Waters
- OIW Other Inland Waters (indicate location)
- HIC Hawaii Coastal
- PTT Pacific Territories Trustees
- FCW Foreign Coastal Waters (indicate location)
- DOW Deep Ocean Waters (indicate location – Lat/Long)
- OTH Other (indicate location)

**NOTES:**

- |                        |                        |  |  |  |                           |
|------------------------|------------------------|--|--|--|---------------------------|
| 1. CERTIFICATION       | 1 - Trainee            | 2 - Scientific Diver                   | 3 - Working Diver                      | 4 - Advanced Working                   | 5 - Master Diver          |
| 2. DIVE TYPE           | 1 - Non-Saturation     | 2 - Saturation                         |  |  |                           |
| 3. DIVE PURPOSE        | 1 - Observe/Monitor    | 2 - Collect samples/data               | 3 - Install/Construction               | 4 - Search/Recovery                    | 5 - Maintenance/Repair    |
|                        | 6 - Inspection/Survey  | 7 - Test/Evaluation                    | 8 - Photography/Video                  | 9 - Dive Support                       | 10 - Training/Proficiency |
|                        | 11 - Non-Duty          | 12 - Other (specify)                   |  |  |                           |
| 4. DIVE PLATFORM       | 1 - Shore              | 2 - Small Boat                         | 3 - Ship                               | 4 - Pier/Dock                          | 5 - Habitat               |
|                        | 6 - Chamber            | 7 - Pool/Tank                          |  |  |                           |
|                        |                        |  |  |  |                           |
| 5. BREATHING EQUIPMENT | 1 - Open-circuit scuba | 2 - Closed circuit scuba               | 3 - Surface supplied                   | 4 - Snorkel/Skin-diving                |                           |
| 6. BREATHING GAS       | 1 - Air                | 2 - Nitrox (indicate O <sub>2</sub> %) | 3 - Trimix (indicate O <sub>2</sub> %) | 4 - Heliox (indicate O <sub>2</sub> %) | 5 - Oxygen                |

DAY	DIVE TYPE (Note 2)	DIVE PURPOSE (Note 3)	DIVE PLATFORM (Note 4)	BREATHING EQUIPMENT (Note 5)	BREATHING GAS (Note 6)	MAXIMUM DEPTH (Feet)	BOTTOM TIME (Minutes)	DECO TIME (Minutes)	DIVE LOCATION (Note 7)	U/W VISIBILITY (Feet)	WATER TEMP (°F)	CURRENT SPEED (Knots)	DIVEMASTER / LEAD DIVER
													DIVE BUDDY

## **Supervisor Dive Log, NF 57-03-25**

**What:** The Supervisor's Dive Log is not a required form, but is useful for Divemasters and Lead Divers for tracking diving activities while in the field.

**When:** Pertinent diving data must be recorded during diving operations, whether this form is used or an alternate is up to the discretion of the diving unit.

**Record keeping:** Not required.

**Other considerations:** The NDP benefits from having data on all dives conducted in support of the NOAA mission. Use of this form by reciprocity divers allows many dives which otherwise would go unreported to be tracked for statistical purposes. Additional information not included on this form which may be useful includes the breathing gas, tank number, water temperature, current, and visibility.





## Observer Diver Report, NF 57-03-26

**What:** This is a two part form which the UDS completes before authorization of an Observer Diver and after completion of diving activities by an Observer Diver.

**When:** Before an Observer Diver may participate on a NOAA dive, the UDS must complete the top half of this form (checklist). After the Observer Diver has completed their diving operations with NOAA, the UDS will complete the lower half of this form (dive log) and submit the entire form to NDC via the [Support.NDC@noaa.gov](mailto:Support.NDC@noaa.gov) email address.

**Record keeping:** A digital or printed copy should be retained at the unit until the Observer Diver has completed their diving operations with NOAA. The dives should be recorded in the Unit Log

**Other considerations:** There are specific manning requirements for dives in which an Observer Diver participates. A minimum of two NOAA Divers are required to accompany a single Observer Diver or a pair of Observer Divers. Additional Observer Divers require additional NOAA Divers in a one to one (1:1) ratio (one [1] Obs. Diver and two [2] NOAA Divers, two [2] Obs. Divers and two [2] NOAA Divers, three [3] Obs. Divers and three [3] NOAA Divers, four [4] Obs. Divers and four [4] NOAA Divers, etc.). The NOAA Diver escorts must have no tasks during the dive other than to provide buddy support for the Observer Diver(s). The NOAA Diver escorts must include a RASS in their Scuba unit.

Observer Divers are authorized to complete six (6) per year. In special circumstances, the NDCSB may authorize an Observer Diver to conduct additional dives within one calendar year.

## OBSERVER DIVER REPORT

**NOTE:** The Observer Diver and Unit Diving Supervisor (UDS) shall complete and submit this form to the NOAA Diving Center in order to document Observer Diver activities. This form shall be submitted to the NOAA Diving Center immediately following the diving activities described below.

*I am aware of the inherent risks and hazards associated with diving, and declare that I am in good mental and physical condition for diving. In consideration of being allowed to participate in this activity, I hereby personally assume all risks in connection with any dive(s) for any harm, injury, damage or death unforeseen. I further save and hold harmless said activity and NOAA, and any of its employees, from any demand, claim or lawsuit for personal injury, property damage or wrongful death, by me, my family, heirs, executors, representatives, administrators and assigns, arising out of my participation in this activity. I have read and understand all requirements of the NOAA Diving Safety Rules (NAO 209-123, Exhibit 1) and agree to abide by them while diving as a NOAA Observer Diver.*

*My signature indicates I have read the above liability release and the NOAA Diving Safety Rules and fully understand their content.*

OBSERVER DIVER NAME	SIGNATURE	DATE
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Prior to conducting diving operations, the UDS shall ensure all items listed below have been completed with regard to the participating Observer Diver. Mark each item as it is completed. Reference the NOAA Diving Regulations for questions regarding Observer Diver certification requirements.

- NOAA Form 57-03-53, Observer Diver Medical History Report, has been completed, reviewed, and approved by a licensed Health Care Provider within the past 12 months of the planned dive(s).
- Observer Diver presented evidence of dive experience, minimum of 10 dives, 1 of which was completed within the past 3 months.
- Observer Diver presented evidence of diving certification from a recognized certifying organization.
- Observer Diver has not completed 6 or more dives as a NOAA Observer Diver within the past 12 months.
- Observer Diver has reviewed and understands the NOAA Diving Safety Rules (Exhibit 1 of the NOAA Diving Regulations).
- Observer Diver's gear has been inspected by the UDS for current maintenance and proper operating condition. (Diver must supply equipment)
- Observer Diver is familiar with the diving equipment to be used.
- Planned dives and dive conditions are within the apparent abilities and skill level of the Observer Diver.
- Lost buddy, low air, out of air, and other emergency scenarios have been discussed with the Observer Diver.
- The Dive Accident Management Plan for the dive site has been discussed with the Observer Diver.
- Observer Diver will be limited to visual observations and/or photography during the dive.
- Observer Diver will be accompanied by a fully certified NOAA Scientific or Working Diver, who will not be performing work, but whose sole task is to monitor the Observer Diver.

*My signature signifies that all of the above items have been completed prior to the planned diving operations, and that the diving activities and expected diving conditions are within the apparent abilities and skill level of this Observer Diver.*

UDS SIGNATURE	LINE OFFICE	UNIT and LOCATION
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Log all dives for the Observer Diver below.

	Date	Dive Location	Maximum Depth (ft)	Bottom Time (hr:mm)	NOAA Dive Buddy	Dive Purpose / Remarks
1.						
2.						
3.						
4.						
5.						
6.						

SUPERSEDES NOAA Form 56-62 (6-02)

## **Decompression Diving Request, NF 57-03-28**

**What:** This document is the principle form used by the NDCSB to review and approve open circuit decompression dives. It is prepared by a UDS (or designee) and submitted to the respective LODO or SODO who brings it to the NDCSB. There is a lengthy checklist outlining equipment, training, and operational requirements, a section for describing any negative responses to the checklist items, a section for narrative descriptions of the dive team and planned operations and concludes with a section on emergency procedures.

**When:** This document should be submitted to the LODO / SODO at least one (1) month prior to the beginning of the requested operation. This lead time is required to allow the NDCSB sufficient time to thoroughly review the plan and request clarification of any component which the Board has concerns about.

**Record keeping:** This document should be retained by the UDS until the completion of the requested dive(s).

**Other considerations:** This document should be accompanied by a standard NOAA Dive Operations Plan (NF 57-03-20) and a Diving Emergency Assistance Plan (NF 57-03-21).

## DECOMPRESSION DIVING REQUEST

PROJECT TITLE and DESCRIPTION	
DIVER SUBMITTING REQUEST	DATE
E-MAIL ADDRESS	PHONE NUMBER

### 1.0 QUALIFICATIONS

#### 1.1 Certification and Authorization

		Yes	No
A.	Will all divers be trained and certified by an accredited diving association (e.g. TDI, IANTD) recognized by NOAA for the equipment, depth and gas mixtures to be used on this project?	<input type="checkbox"/>	<input type="checkbox"/>
B.	Will all divers be currently authorized to dive by the NOAA Diving Program (NDP) or another NOAA-approved reciprocity partner?	<input type="checkbox"/>	<input type="checkbox"/>
C.	Are all training certifications for NOAA divers on file at the NOAA Diving Center (NDC) and are reciprocity partner Letters of Reciprocity (LORs) attached to the dive plan?	<input type="checkbox"/>	<input type="checkbox"/>

#### 1.2 Proficiency Requirements

		Yes	No
A.	Will all divers have logged a minimum of 12 dives within a six month period prior to the project start date?	<input type="checkbox"/>	<input type="checkbox"/>
B.	Will all divers log a minimum of one (1) dive within the previous 30-day period prior to the project start date in the equipment configuration to be used (e.g. perform work-up dives)?	<input type="checkbox"/>	<input type="checkbox"/>

### 2.0 EQUIPMENT

#### 2.1 General

		Yes	No
A.	Will all valve and regulator systems for primary (bottom) gas supplies be configured in a redundant manner that allows continuous gas delivery in the event of failure of any one component?	<input type="checkbox"/>	<input type="checkbox"/>
B.	In addition to a mask and fins, will all divers carry or wear the following equipment:	<input type="checkbox"/>	<input type="checkbox"/>
	1. Exposure suit?	<input type="checkbox"/>	<input type="checkbox"/>
	2. Buoyancy Compensator Device (BCD) (e.g. dual bladder wings or single bladder and dry suit)?	<input type="checkbox"/>	<input type="checkbox"/>
	3. Redundant lift bags and line reels?	<input type="checkbox"/>	<input type="checkbox"/>
	4. Sufficient deco gases to complete decompression?	<input type="checkbox"/>	<input type="checkbox"/>
	5. Decompression tables specific for the mix being used?	<input type="checkbox"/>	<input type="checkbox"/>
	6. Redundant NOAA-approved decompression computers using the Buhlmann 16 or the ZH-L16 GF algorithm?	<input type="checkbox"/>	<input type="checkbox"/>
	7. Cutting Devices?	<input type="checkbox"/>	<input type="checkbox"/>
	8. Signaling Devices?	<input type="checkbox"/>	<input type="checkbox"/>

## DECOMPRESSION DIVING REQUEST

	Yes	No
<b>2.2 SCUBA Cylinders</b>		
A. Will all scuba cylinders used for dives > 130 feet be outfitted with DIN valves?	<input type="checkbox"/>	<input type="checkbox"/>
B. Will single cylinders be used for bottom gas? (If 'Yes', go to 2.2 C; if 'No', go to 2.2 D)	<input type="checkbox"/>	<input type="checkbox"/>
C. Will an auxiliary gas supply, with adequate volume to reach the next gas supply, be available?	<input type="checkbox"/>	<input type="checkbox"/>
D. Will all dual cylinders be connected by a dual manifold with an adjustable isolation valve on the backpack/harness assembly so divers can reach each cylinder and isolation valve?	<input type="checkbox"/>	<input type="checkbox"/>
E. Will all SCUBA cylinders used for decompression be color-coded?	<input type="checkbox"/>	<input type="checkbox"/>
F. Will the maximum operating depth (MOD), based on a maximum partial pressure of oxygen (PO <sub>2</sub> ) of 1.6 ATA of each breathing gas/cylinder (other than air) be displayed on the cylinder with marking tape or lettering facing both inward towards the diver and outwards so other divers can identify the cylinder contents?	<input type="checkbox"/>	<input type="checkbox"/>
<b>2.3 SCUBA Regulators</b>		
A. Will all dual cylinders be outfitted with redundant scuba regulators?	<input type="checkbox"/>	<input type="checkbox"/>
B. Will all regulators used with oxygen supplies be secured in a way (e.g., pouch or bungee) that reduces the possibility of inadvertent use at depths that would result in a hyperoxic exposure?	<input type="checkbox"/>	<input type="checkbox"/>
C. Will the primary supply regulator be configured with a hose of adequate length to facilitate effective emergency gas sharing in the anticipated environment?	<input type="checkbox"/>	<input type="checkbox"/>
<b>2.4 Buoyancy Control</b>		
A. Will all divers have the capability to achieve positive buoyancy at all depths?	<input type="checkbox"/>	<input type="checkbox"/>
B. Will all divers use dual-bladder BCDs with separate inflator hoses, or single-bladder BCDs with a variable volume drysuit, each with separate inflator hoses?	<input type="checkbox"/>	<input type="checkbox"/>
C. When wearing dual cylinders, will top and bottom dump valves be provided for the primary bladder, with a top dump valve standard for the redundant backup bladder?	<input type="checkbox"/>	<input type="checkbox"/>
D. Will each bladder be capable of achieving positive buoyancy at all depths and be outfitted with an over pressurization relief valve?	<input type="checkbox"/>	<input type="checkbox"/>
<b>2.5 Depth and Cylinder Pressure Gauges</b>		
A. Will each diver have a redundant means of monitoring depth?	<input type="checkbox"/>	<input type="checkbox"/>
B. Will at least one (1) of the depth monitoring devices be capable of recording the maximum depth obtained during dives for display once at the surface?	<input type="checkbox"/>	<input type="checkbox"/>
C. Will each gas supply have its own dedicated submersible pressure gauge?	<input type="checkbox"/>	<input type="checkbox"/>
<b>2.6 Dive Timing Devices</b>		
A. Will each diver have a redundant means of tracking dive time?	<input type="checkbox"/>	<input type="checkbox"/>

## DECOMPRESSION DIVING REQUEST

<b>2.7 Signaling Devices</b>	<b>Yes</b>	<b>No</b>
A. Will each diver carry the following surface signaling devices:	<input type="checkbox"/>	<input type="checkbox"/>
1. Surface Marker Buoy (SMB)?	<input type="checkbox"/>	<input type="checkbox"/>
2. Signal mirror?	<input type="checkbox"/>	<input type="checkbox"/>
3. Whistles or other audible signaling devices?	<input type="checkbox"/>	<input type="checkbox"/>
B. Will dives be conducted within two (2) hours of sunset? (If 'Yes', go to 2.7 C; if 'No', go to 2.8)	<input type="checkbox"/>	<input type="checkbox"/>
C. Will each diver also carry a flashlight and/or strobe light?	<input type="checkbox"/>	<input type="checkbox"/>
<b>2.8 Lift Bag and Line Reel</b>	<b>Yes</b>	<b>No</b>
A. Will each diver carry a lift bag (minimum of 50 pounds buoyancy) and a line reel with line equal to 1.5 times the maximum depth anticipated during a dive?	<input type="checkbox"/>	<input type="checkbox"/>
B. Is it understood that redundant lift bags and line reels may be required at the discretion of the on-site Diving Supervisor?	<input type="checkbox"/>	<input type="checkbox"/>
<b>2.9 Support Boats</b>	<b>Yes</b>	<b>No</b>
A. Will there be a means of extracting an unconscious victim from the water in a timely manner at all times during decompression diving operations?	<input type="checkbox"/>	<input type="checkbox"/>
B. In addition to any NOAA small boat requirements, will each boat carry an oxygen resuscitator capable of ventilating an unconscious victim and a minimum of one (1) SCUBA cylinder of each type of decompression gas used on the dive?	<input type="checkbox"/>	<input type="checkbox"/>
<b>2.10 Hyperbaric Chamber</b>	<b>Yes</b>	<b>No</b>
A. Will a hyperbaric chamber be accessible within two (2) hours of the dive site?	<input type="checkbox"/>	<input type="checkbox"/>
B. Will a plan be prepared and verified to transport an injured diver to a hyperbaric chamber within the required time frame?	<input type="checkbox"/>	<input type="checkbox"/>
C. Does the hyperbaric chamber meet American Society of Mechanical Engineers (ASME), American Bureau of Shipping (ABS), or equivalent standards??	<input type="checkbox"/>	<input type="checkbox"/>
D. If a portable hyperbaric stretcher will be used, will evacuation scenarios be demonstrated/practiced with a local Emergency Medical System (EMS)?	<input type="checkbox"/>	<input type="checkbox"/>
<b>3.0 EQUIPMENT</b>		
<b>3.1 General</b>	<b>Yes</b>	<b>No</b>
A. Will all gases used for diving be of breathing quality?	<input type="checkbox"/>	<input type="checkbox"/>
B. Will all breathing mixtures to be used for diving be analyzed for oxygen content using an oxygen analyzer?	<input type="checkbox"/>	<input type="checkbox"/>
C. Is it understood that all breathing gases must test within acceptable parameters as specified in the dive tables or computers used?	<input type="checkbox"/>	<input type="checkbox"/>
D. Will each diver confirm the following information prior to commencing diving:	<input type="checkbox"/>	<input type="checkbox"/>

## DECOMPRESSION DIVING REQUEST

<b>3.1 General (continued)</b>	<b>Yes</b>	<b>No</b>
1. Fraction of oxygen (FO <sub>2</sub> ) of his/her scuba cylinder(s)?	<input type="checkbox"/>	<input type="checkbox"/>
2. PO <sub>2</sub> cut off depth (MOD) and appropriate gas mixture(s) to be used for each phase of the dive?	<input type="checkbox"/>	<input type="checkbox"/>
3. Planned maximum depth and bottom time for the dive?	<input type="checkbox"/>	<input type="checkbox"/>
4. Availability of adequate volumes of gas as determined by review of cylinder pressures?	<input type="checkbox"/>	<input type="checkbox"/>
E. Will nitrox and/or 100% oxygen be used during ascent and/or decompression stops?	<input type="checkbox"/>	<input type="checkbox"/>
F. Will all divers calculate and carrying the required volume of breathing gases needed for each phase of the dive, plus reserves?	<input type="checkbox"/>	<input type="checkbox"/>
G. Will the "rule-of-thirds" (one third to get to the dive site, one-third to reach the first decompression stop, and one-third reserve) be followed on all decompression dives?	<input type="checkbox"/>	<input type="checkbox"/>
H. Will all divers carry sufficient gas to complete all phases of the dive including descent, on-the-bottom, ascent, and decompression independent of surface support?	<input type="checkbox"/>	<input type="checkbox"/>
I. Will all divers carry sufficient gas to complete in-water decompression for the next deeper depth and bottom time planned?	<input type="checkbox"/>	<input type="checkbox"/>
<b>3.2 Oxygen</b>	<b>Yes</b>	<b>No</b>
A. Will there be a means of extracting an unconscious victim from the water in a timely manner at all times during decompression diving operations?	<input type="checkbox"/>	<input type="checkbox"/>
B. Will all breathing gases used while performing in-water decompression contain the same or greater oxygen content as that used during the bottom phase of the dive?	<input type="checkbox"/>	<input type="checkbox"/>
C. Will all gas systems, components, and storage containers used with oxygen mixtures above 40% by volume, be formally cleaned in accordance with the NOAA Diving Manual (current edition)?	<input type="checkbox"/>	<input type="checkbox"/>
<b>3.3 Air</b>	<b>Yes</b>	<b>No</b>
A. Will compressed air used with oxygen concentrations greater than 40% or when used in the preparation of nitrox breathing mixtures with greater than 40% oxygen as the enriching agent, meet or exceed CGA Grade E standards?	<input type="checkbox"/>	<input type="checkbox"/>
<b>4.0 MANNING REQUIREMENTS</b>		
<b>4.1 Minimum Personnel and Capabilities</b>	<b>Yes</b>	<b>No</b>
<b>A. Bottom Divers</b>		
1. Will there be a minimum of two (2) divers functioning as a buddy team?	<input type="checkbox"/>	<input type="checkbox"/>
2. Will divers remain in such proximity to each other to render immediate assistance if necessary at all times during the dive; and if separated, initiate the standard separated buddy procedure?	<input type="checkbox"/>	<input type="checkbox"/>
<b>B. Support Divers</b>		
1. Will there be two (2) standby divers, each of which is capable of reaching the bottom or one (1) dedicated safety diver with the bottom team?	<input type="checkbox"/>	<input type="checkbox"/>
2. Will all divers required to dive to the bottom be appropriately trained, experienced, and outfitted to perform such dives?	<input type="checkbox"/>	<input type="checkbox"/>

## DECOMPRESSION DIVING REQUEST

4.2 Minimum Topside Personnel	Yes	No
A. Diving Supervisor		
1. Will the on-site Diving Supervisor remain at the surface at all times during diving operations?	<input type="checkbox"/>	<input type="checkbox"/>
2. Has the on-site Diving Supervisor been approved by the NDCSB?	<input type="checkbox"/>	<input type="checkbox"/>
B. Vessel Captain		
1. Will the vessel captain remain on the vessel at all times during diving operations?	<input type="checkbox"/>	<input type="checkbox"/>
2. Is it understood that the vessel captain will all divers calculate and carrying the required volume of breathing gases needed for each phase of the dive, plus reserves?	<input type="checkbox"/>	<input type="checkbox"/>
<b>5.0 MINIMUM OPERATIONAL REQUIREMENTS</b>		
5.1 Dive Planning	Yes	No
A. Dive condition limits: Is it understood that the on-site Diving Supervisor and the vessel captain shall assess current and predicted weather conditions, sea state, and current speed and direction, then decide whether or not diving can be safely initiated?	<input type="checkbox"/>	<input type="checkbox"/>
B. Diver Communications		
1. Will all bottom divers be able to signal topside personnel at all times during the dive?	<input type="checkbox"/>	<input type="checkbox"/>
2. Will there be a signaling protocol established that allows the differentiation between routine and emergency situations?	<input type="checkbox"/>	<input type="checkbox"/>
5.2 Decompression Calculation	Yes	No
A. Are the decompression tables to be used on the dives approved by the NDCSB?	<input type="checkbox"/>	<input type="checkbox"/>
B. Is it understood that the use of dive computers and/or computer based decompression generating software programs must be approved by the NDCSB?	<input type="checkbox"/>	<input type="checkbox"/>
C. Will each diver carry a set of decompression dive tables, including one (1) over and one (1) under contingency time schedules?	<input type="checkbox"/>	<input type="checkbox"/>
5.3 Maximum Depth and Bottom Time	Yes	No
A. Is it understood that the maximum depth for decompression diving using open-circuit SCUBA equipment and breathing air is 170 feet?	<input type="checkbox"/>	<input type="checkbox"/>
B. Will the maximum oxygen partial pressure of all decompression gases be 1.6 ATA or less and bottom mixes be 1.4 ATA or less?	<input type="checkbox"/>	<input type="checkbox"/>
C. Will all bottom times be within the maximum allowable exposure time for a given partial pressure of oxygen as listed in Table 15.2, Appendix D NOAA Diving Manual (4th Edition)?	<input type="checkbox"/>	<input type="checkbox"/>
D. Is it understood that all repetitive dives must be approved by the on-site Diving Supervisor?	<input type="checkbox"/>	<input type="checkbox"/>
5.4 Diving Procedures	Yes	No
A. Descent		
1. Is it understood that the on-site Diving Supervisor will determine the procedure for descending to the bottom (i.e., use of down-line versus 'free dropping')?	<input type="checkbox"/>	<input type="checkbox"/>
2. Is it understood that should any member of the bottom team get separated during descent and cannot locate another diver within five (5) minutes of reaching the bottom, he/she shall terminate the dive and begin ascent/decompression?	<input type="checkbox"/>	<input type="checkbox"/>



## DECOMPRESSION DIVING REQUEST

5.4 Diving Procedures (continued)	Yes	No
B. On-bottom: Is it understood that the on-site Diving Supervisor must approve any decision to remove and stage decompression cylinders once on the bottom?	<input type="checkbox"/>	<input type="checkbox"/>
C. Ascent: Is it understood that the on-site Diving Supervisor must approve the procedure for ascending to the surface (i.e., use of ascent-line versus 'drift decompression')?	<input type="checkbox"/>	<input type="checkbox"/>
D. Surface Interval: Is it understood that no additional dives will be made until all members of the dive team have completed their in-water decompression and have been on the surface for a minimum of 30 minutes?	<input type="checkbox"/>	<input type="checkbox"/>
5.5 Contingency Protocols	Yes	No
A. Will all the dive team members know and follow the technical diver contingency protocols outlined in Section 9.0 of this document?	<input type="checkbox"/>	<input type="checkbox"/>
B. Is it understood that following the occurrence of any contingency scenarios, a post-dive 'stand down' will be initiated to thoroughly review the incident and establish corrective actions?	<input type="checkbox"/>	<input type="checkbox"/>
C. Is it understood that if the contingency scenario is deemed a "near-miss", a Diving Incident Report, NOAA Form 57-03-01, must be completed and submitted in accordance with NAO 209-123, Section 5.02b.1 (b)?	<input type="checkbox"/>	<input type="checkbox"/>
6.0 DIVE PLAN		
6.1 Submission and Review Requirements	Yes	No
A. Is it understood that in accordance with NOAA Scientific Diver Standards and Safety Manual (NSDSSM), diving projects involving non-standard open circuit scuba diving equipment and techniques must be approved by the NOAA Diving Control and Safety Board (NDCSB) before diving activities begin?	<input type="checkbox"/>	<input type="checkbox"/>
B. Is it understood that in order to evaluate the proposed diving activities, this dive plan must be submitted to the NDCSB through the Line Office Diving Officer indicated in Section 8.0 for review a minimum of 45 days prior to the commencement of diving operations?	<input type="checkbox"/>	<input type="checkbox"/>
C. Will all decompression diving activities conducted in association with this plan meet the criteria specified in the NSDSSM to qualify for the scientific exemption?	<input type="checkbox"/>	<input type="checkbox"/>
7.0 EXPLANATIONS		
7.1 Explain all 'No' responses indicated above on this request.		

## DECOMPRESSION DIVING REQUEST

**7.2** Provide a brief overview of the diving activities to be conducted.

**7.3** What are the goals, objectives, and tasks to be completed?

**7.4** Provide the location and a description of where the dives will be conducted.

**7.5** Provide names, affiliations, roles/responsibilities, and qualifications of participants.

**7.6** What are the scheduled dates for the operation?

**7.7** Provide the name and contact information for the primary and secondary hyperbaric chambers to be indicated on the DEAP.

## DECOMPRESSION DIVING REQUEST

### 8.0 APPROVALS and ENDORSEMENTS

UNIT DIVING SUPERVISOR NAME

UNIT DIVING SUPERVISOR SIGNATURE

DATE

LINE/STAFF OFFICE DIVING OFFICER NAME

LINE/STAFF OFFICE DIVING OFFICER SIGNATURE

DATE

### 9.0 TECHNICAL DIVER CONTINGENCY PROTOCOLS

In order to increase safety during decompression dives, the following protocols have been developed as the primary responses to the identified emergencies.

#### 9.1 Out of gas - Bottom mix

Begin gas sharing with dive buddy and abort the dive, observing deco schedule during ascent.

#### 9.2 Out of gas - Deco cylinder

At the beginning of decompression, the support divers shall bring one spare staging mix cylinder for each group of bottom divers, in accordance with normal operational protocols. Any further stage gas failure will warrant gas sharing of stage mix. Divers shall communicate any problem to the in-water support diver who shall retrieve and deliver additional spare stage mix cylinder(s) to divers as needed.

#### 9.3 Out of gas - Deco oxygen

The support divers will carry extra deco gas and will be with bottom divers during the first gas switch during decompression. Any deco oxygen failure from bottom diver's supply will require a support diver to transport a deco oxygen cylinder for attachment to the bottom diver's harness for use as the gas source during the completion of decompression. Any further stage gas failure would warrant gas sharing of stage mix if necessary. Bottom divers shall communicate the problem to in-water support divers whom shall then retrieve and deliver spare stage mix cylinder to the bottom divers.

#### 9.4 Gas failure - Source of problem unknown

Bottom divers with an unknown gas failure shall reach back and close the isolation valve then determine the cause of failure. The diver shall notify their dive buddy of the problem and abort the dive.

#### 9.5 Aborted dive procedures

The bottom divers may abort any planned decompression dive and return directly to the surface if a depth of 150 FSW and an elapsed time of five (5) minutes has not been exceeded (U.S. Navy Standard Air Compression Tables/1999). If a depth of 150 FSW or an elapsed time of five (5) minutes has been exceeded during a planned decompression dive, bottom time divers must complete all decompression stops as scheduled. Bottom divers may elect to deploy a lift bag to signal to the surface support team and dive vessels. At such time the bottom divers shall be recovered by the primary support vessel. Upon review of the bottom divers dive profile, the dive team may elect to make a second drop. On a repetitive dive, the abort procedure will require an additional in-water decompression stop and the bottom divers must follow the dive computer or contingency table.

#### 9.6 Omitted decompression

If a bottom diver is on air and asymptomatic, the diver must repeat all stops deeper than and including the 40 FSW stop. The diver shall multiply the 30 FSW, 20 FSW, and 10 FSW stop times by 1.5. The bottom diver shall maximize PO<sub>2</sub>. Use the most hyperoxic gas appropriate for the depth without exceeding oxygen toxicity limits. If a bottom diver is symptomatic, the diver must be placed on oxygen, hydrated, and placed in the Hyperlite or evacuated to the nearest recompression facility.

## DECOMPRESSION DIVING REQUEST

### 9.7 Diver pair separated during deployment

If a buddy team finds themselves separated from their buddy (ies) during deployment, then the divers should abort the dive after 5 minutes and return to the surface. Divers will deploy a lift bag to signal to the surface support team and dive vessels. At such time the divers will be recovered to the primary support vessel and may elect to make a second drop.

### 9.8 Diver pair unable to reach down-line

If a buddy team is unable to reach the down-line during deployment, the divers shall abort the dive and return to the surface. Divers shall deploy a lift bag to signal to the surface support team and dive vessels. The divers shall then be recovered to the primary support vessel and may elect to make a second drop.

### 9.9 Diver pair unable to locate ascent-line

Remain mindful of bottom time (BT). Divers can either shoot a lift bag on a reel to the surface and begin decompression ascent on the bag line, or, if adequate gas supply is available, take an additional 5 minutes to search and extend to the next bottom time group. Divers must be on a line beginning ascent by 5 minutes past original plan. Divers shall carry printed copies of planned decompression schedules. Decompress according to the appropriate schedule or according to the dive computer. If divers come up on the bag line, surface support will shift to the divers' location, be they drifting or stationary. In the event of loss of ascent line, divers will shoot a lift bag and commence a drifting ascent under the bag. Surface vessel will dispatch the Small Boat with surface supplied oxygen delivery system. In the event of decompression where the bottles were planned to have been staged on/at the ascent line, the Small Boat will maintain station near the surface bag, and deploy the second stage regulators to reach the bottom team at the twenty (20) foot stop.

### 9.10 Diver pair ascends on ascent-line, but dive support vessel is gone

Research (bottom) divers stay together upon reaching surface. Use appropriate signaling device to signal surface craft.

### 9.11 Dives separated on dive site

The Research (bottom) Divers will remain in constant contact (visual site) at all times during the dive. At no time during the dive (regardless of visibility), will the Bottom Divers be separated by more than 15 feet. Separated divers will perform a visual search for each other for one minute before returning to the base of the down-line. Once at the down-line separated divers will allow no more than four minutes to reunite. If the divers have not found one another within five minutes they will abort the dive and head to the surface using appropriate ascent techniques and decompression tables or dive computer.

### 9.12 Divers separated, swept off dive site

Upon separation of buddy pair, unable to locate each other, the divers should independently shoot a bag to the surface and commence their own decompression. Divers shall exercise normal decompression profile, and expect to see Support diver in the water above them.

### 9.13 Diver pair swept off dive site

Divers stay together; attempt to regain position on dive site and work to ascent line to abort if necessary. If unable to return to the dive site, abort the dive and commence ascent on an inflated lift bag. Commence appropriate decompression schedule.

## DECOMPRESSION DIVING REQUEST

### 9.14 Diver entanglement on bottom

Divers shall carry at least two knives and an additional cutting tool, either EMT scissors or a seatbelt cutter. Notify other diver(s) of problem. Evaluate the nature of entanglement and attempt to free self or signal buddy for assistance. If separated from buddy and entangled without remedy, inflate bag to surface with penciled distress message on slate attached by snap hook to the bag. The standby diver from primary support vessel shall then enter the water and search for the entangled diver. The other diver, if separated and successfully decompressing on a lift bag, shall be accompanied by the Small Boat. Both vessels will maintain radio contact with each other, but the primary support vessel will remain with the entangled diver and the designated Diving Supervisor will monitor the situation topside.

Given this contingency, or similar difficulties in which a pair of divers will need to assist the expedition team at the bottom, the second dive team of the day, if planned will not commence operations until the problem has been resolved and it has been deemed appropriate to make the second dive.

### 9.15 Oxygen toxicity hit

PPO<sub>2</sub> during all evolutions except decompression stops remains significantly below 1.6 ATA. In the unlikely event of any Con-VENTID symptoms, the asymptomatic diver shall immediately gain control of the symptomatic diver and begin ascent.

### 9.16 Buoy or down-line breakaway

Divers shall shoot bags to the surface on a line reel then decompress on the line in the same manner as if unable to locate the down-line.

### 9.17 Change of environmental conditions during dive

In the time interval between the beginning of a dive and the completion of decompression, it is possible for environmental conditions to change sufficiently to require adjustment to the dive plan.

- A. Current Strength - A significant increase in current strength during a dive will make it more difficult for the divers to decompress because the down-line is fixed, subjecting the decompressing divers to the full strength of the current. Divers should consider "drift decompression" to be the preferred method in strong currents.
- B. Surface Waves or Swell Height - A significant deterioration of sea conditions will make it more difficult for the divers to decompress because the down-line will rise and fall, sometimes violently, as the dive vessel strains on the line, if at anchor. Therefore, decompressing divers must take care not to hold to the down-line too tightly, especially on the shallower stops where the effect is most pronounced. In instances where there is significant movement of the down-line, divers should employ one or more lengths of "Jon line" to dampen the motion. One end of the Jon line is looped around the down-line and the other is clipped to the diver's "scooter ring." Otherwise the dive team should choose to use drifting decompression.
- C. Visibility - A significant decrease in visibility on the bottom will make it more difficult for the divers to work, but also might decrease the safety of the divers. Therefore, if the visibility decreases to less than 10 feet, the divers should consider terminating the dive.
- D. Water Temperature - Water temperatures at the dive site during the planned expedition dates are usually quite warm, with bottom temperature rarely falling below 65-70 °F. However, a decrease in water temperature, due to a deep-layer thermocline or to an alteration of current patterns, will affect diver comfort and, if significant, could affect safety. Divers should wear adequate thermal protection-a well-fitting wet suit and hood, or a dry suit. If water temperature decreases significantly, the dive should be terminated. The water temperature between 70 FSW and the surface is almost always above 70 °F, thus making the longer decompression stops quite comfortable.

## **Closed Circuit Rebreather (CCR) Decompression Diving Request, NF 57-03-29**

**What:** This document is the principle form used by the NDCSB to review and approve closed circuit rebreather (CCR) decompression dives. It is prepared by a UDS (or designee) and submitted to the respective LODO or SODO who brings it to the NDCSB. There is a lengthy checklist outlining equipment, training, and operational requirements, a section for describing any negative responses to the checklist items, a section for narrative descriptions of the dive team and planned operations and concludes with a section on emergency procedures.

**When:** This document should be submitted to the LODO / SODO at least one (1) month prior to the beginning of the requested operation. This lead time is required to allow the NDCSB sufficient time to thoroughly review the plan and request clarification of any component which the Board has concerns about.

**Record keeping:** This document should be retained by the UDS until the completion of the requested dive(s).

**Other considerations:** This document should be accompanied by a standard NOAA Dive Operations Plan (NF 57-03-20) and a Diving Emergency Assistance Plan (NF 57-03-21).

## CLOSED CIRCUIT REBREATHER (CCR) DECOMPRESSION DIVING REQUEST

PROJECT TITLE

DIVER SUBMITTING REQUEST

DATE

E-MAIL ADDRESS

PHONE NUMBER

For **Decompression** or **Mixed Gas** dives complete entire form and submit to NDCSB through LODO/SODO  
Air Diluent, No Decompression CCR Dives should use the standard dive plan (NOAA Form 57-03-20) and submit to [ndp.diveplans@noaa.gov](mailto:ndp.diveplans@noaa.gov).

### 1.0 QUALIFICATIONS

#### 1.1 Certification and Authorization

**Yes**      **No**

A. Will all divers be trained and certified by an accredited diving association (e.g. TDI, IANTD) recognized by NOAA for the equipment, depth and gas mixtures to be used on this project?

B. Will all divers be currently authorized to dive by the NOAA Diving Program (NDP) or another NOAA-approved reciprocity partner?

C. Are all training certifications for NOAA divers on file at the NOAA Diving Center (NDC) and have reciprocity partner Letters of Reciprocity (LORs) been reviewed and approved by the UDS?

#### 1.2 Proficiency Requirements

**Yes**      **No**

A. Will all divers have logged a minimum of 12 dives within a six month period prior to the project start date?

B. Will all divers log a minimum of one (1) dive within the previous 30-day period prior to the project start date in the equipment configuration to be used (e.g. perform work-up dives)?

### 2.0 EQUIPMENT

#### 2.1 General

**Yes**      **No**

A. In addition to a mask and fins, will all divers carry or wear the following equipment:

1. Exposure suit?

2. Buoyancy Compensator Device (BCD) (e.g. dual bladder wings or single bladder and dry suit)?

3. Redundant lift bags and line reels?

4. Sufficient bailout gases to complete decompression?

5. Redundant NOAA-approved decompression computers using the Buhlmann 16 or the ZHL-16 GF algorithm?

6. Cutting Devices?

7. Signaling Devices?

## CLOSED CIRCUIT REBREATHER (CCR) DECOMPRESSION DIVING REQUEST

<b>3.0 BREATHING GASES and GAS MANAGEMENT</b>		
<b>3.1 Breathing Gases and Gas Management</b>	<b>Yes</b>	<b>No</b>
A. Will all breathing gases used be medical (USP) or aviator's grade?	<input type="checkbox"/>	<input type="checkbox"/>
B. Will all breathing mixtures to be used for diving be analyzed for oxygen and helium content using a mixed gas analyzer?	<input type="checkbox"/>	<input type="checkbox"/>
C. Is it understood that all breathing gases must test within acceptable parameters as specified in the dive tables or computers used?	<input type="checkbox"/>	<input type="checkbox"/>
D. Will all divers confirm the following information prior to commencing dive operations?		
1. FO <sub>2</sub> of his/her SCUBA cylinder(s).	<input type="checkbox"/>	<input type="checkbox"/>
2. PO <sub>2</sub> cut off depth (MOD) and appropriate gas mixture(s) to be used for each phase of the dive.	<input type="checkbox"/>	<input type="checkbox"/>
3. Planned maximum depth and bottom time for the dive.	<input type="checkbox"/>	<input type="checkbox"/>
4. Availability of adequate volumes of bailout gas as calculated by using the diver's independent Respiratory Minute Volume (RMV) rate and by review of cylinder pressures.	<input type="checkbox"/>	<input type="checkbox"/>
E. Will the diver's primary bailout cylinder contain a gas that can be breathed at any depth for the planned dive?	<input type="checkbox"/>	<input type="checkbox"/>
F. Will all divers calculate and carry the required volume of breathing gases needed for each phase of the dive, plus reserves?	<input type="checkbox"/>	<input type="checkbox"/>
G. Will all gas systems, components, and storage containers used with oxygen mixtures above 40% by volume, be formally cleaned in accordance with the NOAA Diving Manual (most current Edition)?	<input type="checkbox"/>	<input type="checkbox"/>
H. Will compressed air used with oxygen concentrations greater than 40% or when used in the preparation of nitrox breathing mixtures with greater than 40% oxygen as the enriching agent, meet or exceed CGA Grade E standards?	<input type="checkbox"/>	<input type="checkbox"/>
<b>4.0 MANNING REQUIREMENTS</b>		
<b>4.1 Bottom Divers</b>	<b>Yes</b>	<b>No</b>
A. Will there be a minimum of two (2) divers functioning as a buddy team?	<input type="checkbox"/>	<input type="checkbox"/>
B. If any members of the dive buddy team are open circuit divers, will they be trained how to respond to emergency procedures which include at a minimum how to read the CCR diver's PO <sub>2</sub> (handsets and HUD), location and operation of O <sub>2</sub> and diluent tank valves, location of pressure gauges, locations and operation of isolator valves, how to perform an open loop diluent flush, how to open/close the DSV, how to open the ORV and how to recover an unconscious CCR diver?	<input type="checkbox"/>	<input type="checkbox"/>
C. Will divers remain in such proximity to each other to render immediate assistance if necessary at all times during the dive - and if separated, initiate the standard separated buddy procedure?	<input type="checkbox"/>	<input type="checkbox"/>
D. Is it understood that the best practice is for two CCR divers to be paired together whenever possible and that if a CCR diver pairs with an open-circuit diver, the OC diver will at a minimum know how to read the CCR divers PO <sub>2</sub> (on handsets and HUD), know how to perform an Open Loop Diluent Flush, how to recover an unconscious CCR diver and how to pipe in offboard gases?	<input type="checkbox"/>	<input type="checkbox"/>



## CLOSED CIRCUIT REBREATHER (CCR) DECOMPRESSION DIVING REQUEST

<b>5.0 CCR SPECIFIC CONSIDERATIONS</b>			
<b>5.1</b>	<b>CCR Specific Considerations</b>	<b>Yes</b>	<b>No</b>
A.	Will all divers complete a new pre-dive checklist with two signatures in the following situations?		
1.	Prior to diving after any time that the unit has been disassembled.	<input type="checkbox"/>	<input type="checkbox"/>
2.	Prior to diving any time after the sorbent, batteries or O2 cells have been changed.	<input type="checkbox"/>	<input type="checkbox"/>
3.	Prior to all mixed gas or decompression dives	<input type="checkbox"/>	<input type="checkbox"/>
4.	Any time it is suspected that the system integrity of the unit has been compromised.	<input type="checkbox"/>	<input type="checkbox"/>
B.	Is it understood that a post-dive checklist will be completed in the following situations?		
1.	Any time the unit is to be disassembled.	<input type="checkbox"/>	<input type="checkbox"/>
2.	When the sorbent is expired and needs to be changed.	<input type="checkbox"/>	<input type="checkbox"/>
3.	After all mixed gas or decompression dives.	<input type="checkbox"/>	<input type="checkbox"/>
C.	Is it understood that if a pre-dive checklist was not completed (in the case of multiple no-decompression dives on the same day) prior to diving the diver will at a minimum conduct a positive/negative pressure test of the loop and a positive pressure check of the BCD?	<input type="checkbox"/>	<input type="checkbox"/>
D.	Is it understood that the diver will turn the gases on before they put the unit on and that they will turn the gases off prior to taking it off?	<input type="checkbox"/>	<input type="checkbox"/>
E.	Is it understood that the diver will pre-breathe the unit for at least five minutes on the surface with their mask on/nose plugged prior to entering the water?	<input type="checkbox"/>	<input type="checkbox"/>
F.	Is it understood that the diver will complete a "deck check" checklist prior to entering the water if a Diving Supervisor is not present to conduct final checks?	<input type="checkbox"/>	<input type="checkbox"/>
<b>6.0 DECOMPRESSION or MIXED GAS DIVING</b>			
<b>6.1</b>	<b>Science Support Divers</b>	<b>Yes</b>	<b>No</b>
A.	Will Science Support divers be on site to support operations?	<input type="checkbox"/>	<input type="checkbox"/>
B.	Will all Science Support divers be trained on how to respond to a CCR diver in an emergency and how to pipe gases into the CCR diver's rig?	<input type="checkbox"/>	<input type="checkbox"/>
C.	Will the Science Support buddy team carry at least one cylinder of all bail out bottles being carried by the CCR divers?	<input type="checkbox"/>	<input type="checkbox"/>
<b>6.2</b>	<b>Bailout Cylinders</b>	<b>Yes</b>	<b>No</b>
A.	Will all bailout bottles carried by the Science Support divers be configured with an open circuit regulator which has an isolation valve on the LP hose next to the second stage and which has a LP ORV on the first stage?	<input type="checkbox"/>	<input type="checkbox"/>
B.	Will all first stages be configured with an LP inflator hose which can be attached to either the mixed gas bypass valve or the O2 manual addition valve?	<input type="checkbox"/>	<input type="checkbox"/>

## CLOSED CIRCUIT REBREATHER (CCR) DECOMPRESSION DIVING REQUEST

	6.3 Operational Considerations	Yes	No
A.	Will there be a chase boat with a qualified coxswain onboard who is current in CPR, First Aid, Oxygen Administration and AED (when applicable)?	<input type="checkbox"/>	<input type="checkbox"/>
B.	Will all operations be conducted within two hours of a chamber if there is not a chamber or Hyperlite on site?	<input type="checkbox"/>	<input type="checkbox"/>
C.	Does the hyperbaric chamber meet American Society of Mechanical Engineers (ASME), American Bureau of Shipping (ABS), or equivalent standards?	<input type="checkbox"/>	<input type="checkbox"/>
D.	If a portable hyperbaric stretcher will be used, will evacuation scenarios be demonstrated/practiced with a local Emergency Medical System (EMS)?	<input type="checkbox"/>	<input type="checkbox"/>
E.	Will there be two standby divers, each of which is capable of reaching the bottom or one dedicated safety diver in the water?	<input type="checkbox"/>	<input type="checkbox"/>
F.	Will all divers required to dive to the bottom for decompression dives be appropriately trained, experienced and outfitted to perform such dives?	<input type="checkbox"/>	<input type="checkbox"/>
G.	Is it understood that the maximum depth for decompression using AIR diluent is 150 fsw?	<input type="checkbox"/>	<input type="checkbox"/>
H.	Is it understood that the use of dive computers and/or computer-based decompression generating software program must be approved by the NDP?	<input type="checkbox"/>	<input type="checkbox"/>
I.	Will all bailout gases used while performing in-water decompression contain the same or greater oxygen content than the bottom bailout mix?	<input type="checkbox"/>	<input type="checkbox"/>
J.	Is it understood that at no time will the diver "stage" or otherwise remove their bailout bottles from their harness during a dive except in an emergency?	<input type="checkbox"/>	<input type="checkbox"/>
	6.4 Topside Considerations	Yes	No
A.	Is it understood that the on-site Diving Supervisor will determine the procedure for descending to the bottom (i.e., use of down-line versus 'free dropping')?	<input type="checkbox"/>	<input type="checkbox"/>
B.	Will the Diving Supervisor remain at the surface at all times during diving operations?	<input type="checkbox"/>	<input type="checkbox"/>
C.	Will the vessel/boat captain remain on the vessel/boat at all times during decompression operations?	<input type="checkbox"/>	<input type="checkbox"/>
D.	Is it understood that the vessel/boat captain must concur with the Diving Supervisor on the commencement of diving operations and can terminate diving due to weather, vessel-related operational problems, or any other factors that may affect safety?	<input type="checkbox"/>	<input type="checkbox"/>
E.	Is it understood that the Diving Supervisor and the Vessel Captain shall assess current and predicted weather conditions, sea state and current speed and direction and decide whether or not diving can be safely initiated?	<input type="checkbox"/>	<input type="checkbox"/>
F.	Is it understood that the Diving Supervisor must approve any repetitive dives?	<input type="checkbox"/>	<input type="checkbox"/>
G.	Is it understood that the procedures involved with ascending to the surface, i.e., use of ascent-line versus "drift decompression," must be approved by the Diving Supervisor?	<input type="checkbox"/>	<input type="checkbox"/>
	6.5 Diver Considerations	Yes	No
A.	Is it understood that should any member of the bottom team get separated during descent and cannot locate each other within five (5) minutes of reaching the bottom, he/she will terminate the dive and begin ascent/decompression?	<input type="checkbox"/>	<input type="checkbox"/>
B.	Will all bottom divers be able to signal topside personnel at all times during the dive?	<input type="checkbox"/>	<input type="checkbox"/>

## CLOSED CIRCUIT REBREATHER (CCR) DECOMPRESSION DIVING REQUEST

6.5 Diver Considerations (continued)	Yes	No
C. Will there be a signaling protocol established that allows the differentiation between routine and emergency situations?	<input type="checkbox"/>	<input type="checkbox"/>
D. Is it understood that no additional dives will be made until all members of the dive team have completed their in-water decompression and have been on the surface for a minimum of 30-minutes?	<input type="checkbox"/>	<input type="checkbox"/>

### 7.0 EXPLANATIONS

7.1 Explain all 'No' responses indicated above on this request.

7.2 Provide a brief overview of the diving activities to be conducted.

## CLOSED CIRCUIT REBREATHER (CCR) DECOMPRESSION DIVING REQUEST

**7.3** What are the goals, objectives, and tasks to be completed?

**7.4** Provide the location and a description of where the dives will be conducted.

**7.5** Provide names, affiliations, roles/responsibilities, and qualifications of participants.

**7.6** What are the scheduled dates for the operation?

**7.7** Provide the name and contact information for the primary and secondary hyperbaric chambers to be indicated on the DEAP.

## CLOSED CIRCUIT REBREATHER (CCR) DECOMPRESSION DIVING REQUEST

### 8.0 APPROVALS and ENDORSEMENTS

UNIT DIVING SUPERVISOR NAME	UNIT DIVING SUPERVISOR SIGNATURE	DATE
LINE/STAFF OFFICE DIVING OFFICER NAME	LINE/STAFF OFFICE DIVING OFFICER SIGNATURE	DATE

### 9.0 CLOSED CIRCUIT REBREATHER / TECHNICAL DIVER CONTINGENCY PROTOCOLS

#### 9.1 Out of Gas, Onboard diluent cylinder

Bail out to depth-appropriate offboard gas by un-isolating the isolator valve, purge the second stage and breathe, or pipe in offboard gas from the depth-appropriate bailout cylinder using the LP hose attached to the mixed-gas bypass valve. Abort the dive and begin ascent conducting all decompression stops (if a deco ceiling is present) while monitoring the gas supply of the bailout.

#### 9.2 Out of Gas, Onboard oxygen cylinder

If conducting no-D dives and the onboard supply of O<sub>2</sub> is lost, bail out to offboard gas by un-isolating the isolator, purge the second stage and breathe. Notify the buddy and abort the dive. If conducting deco operations, pipe in the offboard O<sub>2</sub> bailout with the LP whip attached to either the mixed-gas bypass valve or the O<sub>2</sub> manual addition valve, manually add O<sub>2</sub> and monitor the PO<sub>2</sub>. Abort the dive and begin the ascent conducting all necessary decompression stops while monitoring the gas supply of the bailout.

#### 9.3 Out of Gas, Lost bailout

In the case of an out of gas scenario or lost bailout, the CCR diver should go to a Support diver (for decompression ops) or a buddy with bailout gas properly configured for CCR response. Any failure from diver's onboard O<sub>2</sub> or bailout supply would require a Support diver (deco ops) to transport an O<sub>2</sub> cylinder for attachment on the diver's harness and remain as gas source during completion of decompression or until such time as additional bailout can be delivered. Any further bailout gas failure would warrant gas sharing of bailout mix through the LP hose of a CCR buddy's bailout. Divers shall communicate problem to in-water Support diver who shall acquire and deliver spare bailout to diver.

#### 9.4 Gas Failure, Source of problem obvious (BOOM scenario - diluent oxygen)

If the diver can see where the leak is occurring disrupt the flow of the affected gas supply by either isolating the ADV, or disconnect the hose to the O<sub>2</sub> manual addition valve or the BC inflator. If the problem is not resolved, the diver will reach back and close the valve on the affected side. Either bail out or pipe in appropriate offboard gas by connecting the bailout bottle to the mixed gas bypass valve (unless the problem is the mixed gas bypass valve). Immediately perform an open loop diluent flush if the O<sub>2</sub> spikes. Notify buddy of problem and abort the dive.

#### 9.5 Gas Failure, Source of problem not obvious (BOOM scenario - diluent oxygen)

If the diver cannot see where the leak is occurring, reach back and turn off both the diluent and oxygen valves. Immediately look at both pressure gauges and note on which gauge the pressure is falling. Leave the affected side closed and open the unaffected side and check the handset for the PO<sub>2</sub>. If the gas loss occurred on the diluent side, pipe in offboard gas via the mixed-gas bypass valve or bail out. If the gas loss occurred on the oxygen side bail out immediately as hypoxia will ensue. In either case, notify buddy of problem and abort the dive. If there is concern over the amount of bailout gas available to reach the surface including decompression, pipe in O<sub>2</sub> from CCR buddy's O<sub>2</sub> bottle to either the mixed-gas bypass valve or the O<sub>2</sub> manual addition valve.

## CLOSED CIRCUIT REBREATHER (CCR) DECOMPRESSION DIVING REQUEST

### 9.0 CLOSED CIRCUIT REBREATHER / TECHNICAL DIVER CONTINGENCY PROTOCOLS (continued)

#### 9.6 Oxygen solenoid stuck open

If the oxygen solenoid is stuck open, as evidenced by the sound of O<sub>2</sub> being continuously injected into the head, immediately close the oxygen valve, followed by an open loop diluent flush to bring down the PO<sub>2</sub> and check the handset for the PO<sub>2</sub>. Feather (slowly open and close) the oxygen valve to maintain an appropriate PO<sub>2</sub>. If an offboard cylinder of O<sub>2</sub> is available, it can be piped in via the O<sub>2</sub> manual addition valve or the mixed-gas bypass valve and O<sub>2</sub> can be manually added to the loop. If an appropriate PO<sub>2</sub> cannot be maintained, bail out to an appropriate offboard gas. In either case, notify the buddy of the problem and abort the dive.

#### 9.7 Oxygen solenoid stuck closed

If the oxygen solenoid is stuck closed, as evidenced by no sound of O<sub>2</sub> being injected into the head, first ensure that the oxygen valve is indeed open. If it is, leave the oxygen valve open and manually add O<sub>2</sub> to maintain an appropriate PO<sub>2</sub>. If the oxygen valve is not open, turn it one at least one full turn and check to see if the solenoid is properly injecting oxygen. If an offboard cylinder of O<sub>2</sub> is available, it can be piped in via the O<sub>2</sub> manual addition valve or the mixed-gas bypass valve and O<sub>2</sub> can be manually added to the loop. If an appropriate PO<sub>2</sub> cannot be maintained, bail out to an appropriate offboard gas. In either case, notify the buddy of the problem and abort the dive.

#### 9.8 Partially flooded loop

If the Dive Surface Valve (DSV) is removed from the mouth while in the open position, the loop may partially flood. If this happens, either grab the loop overhead with a hand or use both hands to find the loop from the "T" pieces. Once located, put the DSV in the mouth, open the Over-Pressurization Relief Valve (OPRV) on the exhalation counterlung (left side), blow into the DSV and simultaneously perform a diluent flush but do not breathe out through the nose. If this does not resolve the problem, bail out to an appropriate offboard gas, notify the buddy and abort the dive.

#### 9.9 Totally flooded loop

A totally flooded loop is non-recoverable and if the diver continues to attempt to breathe off the loop they risk a "caustic cocktail." Anytime a gurgling sound is heard coming from the inhalation side (right side) of the loop, the diver tastes or smells sorbent, experiences sudden increased breathing resistance, or experiences a sudden loss of buoyancy, suspect a flooded scrubber canister. If any of these scenarios occurs, immediately bail out to an appropriate offboard gas, notify the buddy and abort the dive.

#### 9.10 Total electronics failure

While a total failure of electronics is possible it is not very likely. In the event that a diver experiences total electronics failure of a CCR, immediately bail out, switch the fixed point diving computer to open circuit and ascend according to the computer if a decompression ceiling exists. Notify the buddy and abort the dive.

#### 9.11 Hypoxia

Hypoxia can occur at a PO<sub>2</sub> of  $\leq 0.21$ . ***If the diver notices that the PO<sub>2</sub> is low, DO NOT ASCEND until the situation has been corrected or unconsciousness will occur.*** Immediately perform an Open Loop Diluent Flush by un-isolating the isolator on the ADV, make sure the OPRV is open, take both hands and push on ADV, and simultaneously crush the exhale counterlung forcing the gas through the loop. Exhale out your mouth/nose and gas will also vent out the OPRV. Check the handsets and the O<sub>2</sub> cylinder pressure and ensure that the O<sub>2</sub> valve is open. Consider the possibility that the solenoid may be stuck in the closed position and attempt to add O<sub>2</sub> manually. Consider also that the wrong gas may be in the O<sub>2</sub> cylinder. If the problem is correctable continue in CCR mode otherwise bail out, notify the buddy and abort the dive.

## CLOSED CIRCUIT REBREATHER (CCR) DECOMPRESSION DIVING REQUEST

### 9.0 CLOSED CIRCUIT REBREATHER / TECHNICAL DIVER CONTINGENCY PROTOCOLS (continued)

#### 9.12 Hyperoxia

Hyperoxia can occur at a  $PO_2$  of  $\geq 1.4$ . ***If the diver notices that the  $PO_2$  is too high, do not descend any further until the situation is corrected or unconsciousness can occur.*** Immediately perform an Open Loop Diluent Flush as described above to reduce the  $PO_2$ . Check the handsets and if the  $PO_2$  continues to climb, consider that the solenoid may be stuck in the open position or that the  $O_2$  manual addition valve may be stuck; if the  $O_2$  manual addition valve is stuck, remove the low pressure hose from the valve. Close the  $O_2$  valve and turn it off and on (feathering) to maintain a  $PO_2$  of 1.3. If a constant  $PO_2$  cannot be maintained, bail out to the appropriate gas, notify the buddy and abort the dive. Hyperoxic oxygen convulsions will present themselves in two phases. Phase 1 will place the diver in a state of convulsions, with no respiration and they are likely to clench their teeth which may serve to keep the DSV in their mouth. In Phase 2 the diver will be relaxed and will start to hyperventilate (breathe fast). It is in the second phase that the diver will drown if the DSV is allowed to fall out of their mouth.

#### 9.13 Hypercapnia

Hypercapnia can occur if the  $CO_2$  is not being properly scrubbed (breakthrough or pushing sorbent past its capacity to remove carbon dioxide) or if there is no scrubber canister in the rig. ***If the diver notices that they "do not feel right"  $CO_2$  may be too high and if the situation is not corrected unconsciousness will occur.*** Immediately perform an Open Loop Diluent Flush, bail out to an appropriate gas and do not go back on the loop. Notify the buddy and abort the dive.

#### 9.14 Unconscious CCR diver

A CCR diver should constantly be moving; if not, it could be an indication that they are unconscious and may have succumbed to hypercapnia, hyperoxia or hypoxia. If you suspect that the diver is unconscious, shake the diver to make sure. If no response is seen, approach the diver from the back, reach around with the right hand and keep the DSV in the mouth. Check the  $PO_2$  to see what partial pressure is currently being displayed. With the left hand, open the OPRV on the left counterlung, un-isolate the ADV and perform a vigorous open loop diluent flush. Get the diver to the surface as soon as safely possible. Once on the surface, ***close the DSV or the diver will immediately lose buoyancy if water enters the loop.*** If the diver regains consciousness, and a decompression obligation exists, consider lowering the setpoint and extending decompression time. If the DSV is not in the diver's mouth, close the DSV and get the diver to the surface as fast as is safely possible. If the diver is unconscious, and a decompression obligation exists, get the diver to the surface and return to the last missed stop and continue decompression with a buddy. Consider extending the time of each stop remaining.

#### 9.15 "Caustic cocktail"

While the MEGALODON can tolerate a large amount of water in the system, depending on the location of the leak, the water trapping capacity of the system may be overwhelmed. Signs of a flood include: gurgling in the RIGHT hose (inhalation hose); sorbent smell or taste; increased breathing resistance; and; loss of buoyancy. If any of these signs are present, immediately bail out to an appropriate gas. If the caustic cocktail entered mouth, rinse the mouth with surrounding water immediately. If the caustic cocktail was swallowed, drink fresh water, DO NOT attempt to neutralize with vinegar or other acids. If inhaled and/or burns are present, consider supplemental  $O_2$ , and seek immediate medical treatment. If a caustic cocktail is not present, but the diver suspects some water has entered the loop (gurgling **on exhalation**) the diver can follow the procedures for a partially flooded loop.

#### 9.16 Vent valve failure (OPRV)

If the OPRV fails and will not vent gas from the counterlungs on ascent, vent excess gas through the mouth around the mouthpiece or through the nose.

## CLOSED CIRCUIT REBREATHER (CCR) DECOMPRESSION DIVING REQUEST

### 9.0 CLOSED CIRCUIT REBREATHER / TECHNICAL DIVER CONTINGENCY PROTOCOLS (continued)

#### 9.17 Omitted decompression

If a bottom diver is on air and asymptomatic, the diver must repeat all stops deeper than and including the 40 FSW stop. The diver shall multiply the 30 FSW, 20 FSW, and 10 FSW stop times by 1.5. The bottom diver shall maximize  $PO_2$ . Use the most hyperoxic gas appropriate for the depth without exceeding oxygen toxicity limits. If a bottom diver is symptomatic, the diver must be placed on oxygen, hydrated, and placed in the Hyperlite or evacuated to the nearest recompression facility.

#### 9.18 Diver pair separated during deployment

If a buddy team finds themselves separated from their buddy (ies) during deployment, then the divers should abort the dive after 5 minutes and return to the surface. Divers will deploy a lift bag to signal to the surface support team and dive vessels. At such time the divers will be recovered to the primary support vessel and may elect to make a second drop.

#### 9.19 Diver pair unable to reach down-line

If a buddy team is unable to reach the down-line during deployment, the divers shall abort the dive and return to the surface. Divers shall deploy a lift bag to signal to the surface support team and dive vessels. The divers shall then be recovered to the primary support vessel and may elect to make a second drop.

#### 9.20 Diver pair unable to locate ascent-line

Remain mindful of bottom time (BT). Divers can either shoot a lift bag on a reel to the surface and begin decompression ascent on the bag line, or, if adequate gas supply is available, take an additional 5 minutes to search and extend to the next bottom time group. Divers must be on a line beginning ascent by 5 minutes past original plan. Divers shall carry printed copies of planned decompression schedules. Decompress according to the appropriate schedule or according to the dive computer. If divers come up on the bag line, surface support will shift to the divers' location, be they drifting or stationary. In the event of loss of ascent line, divers will shoot a lift bag and commence a drifting ascent under the bag. Surface vessel will dispatch the Small Boat with surface supplied oxygen delivery system. In the event of decompression where the bottles were planned to have been staged on/at the ascent line, the Small Boat will maintain station near the surface bag, and deploy the second stage regulators to reach the bottom team at the twenty (20) foot stop.

#### 9.21 Diver pair ascends on ascent-line, but dive support vessel is gone

Research (bottom) divers stay together upon reaching surface. Use appropriate signaling device to signal surface craft.

#### 9.22 Dives separated on dive site

The Research (bottom) Divers will remain in constant contact (visual site) at all times during the dive. At no time during the dive (regardless of visibility), will the Bottom Divers be separated by more than 15 feet. Separated divers will perform a visual search for each other for one minute before returning to the base of the down-line. Once at the down-line separated divers will allow no more than four minutes to reunite. If the divers have not found one another within five minutes they will abort the dive and head to the surface using appropriate ascent techniques and decompression tables or dive computer.

#### 9.23 Divers separated, swept off dive site

Upon separation of buddy pair, unable to locate each other, the divers should independently shoot a bag to the surface and commence their own decompression. Divers shall exercise normal decompression profile, and expect to see Support diver in the water above them.

#### 9.24 Diver pair swept off dive site

Divers stay together; attempt to regain position on dive site and work to ascent line to abort if necessary. If unable to return to the dive site, abort the dive and commence ascent on an inflated lift bag. Commence appropriate decompression schedule.



## CLOSED CIRCUIT REBREATHER (CCR) DECOMPRESSION DIVING REQUEST

### 9.0 CLOSED CIRCUIT REBREATHER / TECHNICAL DIVER CONTINGENCY PROTOCOLS (continued)

#### 9.25 Diver entanglement on bottom

Divers shall carry at least two knives and an additional cutting tool, either EMT scissors or a seatbelt cutter. Notify other diver(s) of problem. Evaluate the nature of entanglement and attempt to free self or signal buddy for assistance. If separated from buddy and entangled without remedy, inflate bag to surface with penciled distress message on slate attached by snap hook to the bag. The standby diver from primary support vessel shall then enter the water and search for the entangled diver. The other diver, if separated and successfully decompressing on a lift bag, shall be accompanied by the Small Boat. Both vessels will maintain radio contact with each other, but the primary support vessel will remain with the entangled diver and the designated Diving Supervisor will monitor the situation topside.

Given this contingency, or similar difficulties in which a pair of divers will need to assist the expedition team at the bottom, the second dive team of the day, if planned will not commence operations until the problem has been resolved and it has been deemed appropriate to make the second dive.

#### 9.26 Oxygen toxicity hit

PPO<sub>2</sub> during all evolutions except decompression stops remains significantly below 1.6 ATA. In the unlikely event of any Con-VENTID symptoms, the asymptomatic diver shall immediately gain control of the symptomatic diver and begin ascent.

#### 9.27 Buoy or down-line breakaway

Divers shall shoot bags to the surface on a line reel then decompress on the line in the same manner as if unable to locate the down-line.

#### 9.28 Change of environmental conditions during dive

In the time interval between the beginning of a dive and the completion of decompression, it is possible for environmental conditions to change sufficiently to require adjustment to the dive plan.

- A. Current Strength - A significant increase in current strength during a dive will make it more difficult for the divers to decompress because the down-line is fixed, subjecting the decompressing divers to the full strength of the current. Divers should consider "drift decompression" to be the preferred method in strong currents.
- B. Surface Waves or Swell Height - A significant deterioration of sea conditions will make it more difficult for the divers to decompress because the down-line will rise and fall, sometimes violently, as the dive vessel strains on the line, if at anchor. Therefore, decompressing divers must take care not to hold to the down-line too tightly, especially on the shallower stops where the effect is most pronounced. In instances where there is significant movement of the down-line, divers should employ one or more lengths of "Jon line" to dampen the motion. One end of the Jon line is looped around the down-line and the other is clipped to the diver's "scooter ring." Otherwise the dive team should choose to use drifting decompression.
- C. Visibility - A significant decrease in visibility on the bottom will make it more difficult for the divers to work, but also might decrease the safety of the divers. Therefore, if the visibility decreases to less than 10 feet, the divers should consider terminating the dive.
- D. Water Temperature - Water temperatures at the dive site during the planned expedition dates are usually quite warm, with bottom temperature rarely falling below 65-70 °F. However, a decrease in water temperature, due to a deep-layer thermocline or to an alteration of current patterns, will affect diver comfort and, if significant, could affect safety. Divers should wear adequate thermal protection—a well-fitting wet suit and hood, or a dry suit. If water temperature decreases significantly, the dive should be terminated. The water temperature between 70 FSW and the surface is almost always above 70 °F, thus making the longer decompression stops quite comfortable.

## **Annual Diver Training Record, NF 57-03-34**

**What:** This form is used to record the completion of the annual training required for every NOAA Diver. The activities do not need to occur on the same day, but they must be completed once every twelve (12) months. When all activities are completed the form should be signed by the diver and the UDS.

**When:** This form is used to record training and other annual requirements for NOAA Divers at the unit. Items should be entered as they occur. This will avoid confusion from trying to remember the dates of activities weeks or perhaps months after the fact when the last item is completed each year.

**Record keeping:** A digital or printed copy should be retained in the Unit files until the following year's training record replaces it.

**Other considerations:** This form is designed to allow the UDS to more easily track each unit diver's progress towards completion of the annual training requirements. There is no requirement to transmit this form to NDC, but it is very useful during triennial DUSA inspections to document that all training has occurred and the dates of completion.

# ANNUAL DIVER TRAINING RECORD

This form is used to record the completion of the annual training required for every NOAA Diver. The activities do not need to occur on the same day, but they must be completed once every twelve (12) months. When all activities are completed the form should be signed by the diver and the UDS. A digital or printed copy should be retained in the Unit files until the following year's training record replaces it.

DIVER LAST NAME	DIVER FIRST NAME	MI	FINAL COMPLETION DATE
DIVING UNIT NAME / LOCATION	UNIT DIVING SUPERVISOR NAME	UNIT DIVING SUPERVISOR SIGNATURE	

<p><b>TOPSIDE TRAINING</b> (COMPLETE APPLICABLE ITEMS)</p> <p style="text-align: right;">COMPLETION DATES</p> <p><input type="checkbox"/> NDP Standards, Policies &amp; Procedures</p> <p><input type="checkbox"/> Oxygen Administration</p> <p><input type="checkbox"/> Recognition &amp; Treatment of Diving Injuries</p> <p><input type="checkbox"/> Rescue Techniques</p> <p><input type="checkbox"/> NOAA No-Decompression Tables</p> <p><input type="checkbox"/> Dive Accident Management (DM/LD only)</p> <p><input type="checkbox"/> Field Neurological Exam (DM/LD only)</p>	<p><b>ANNUAL REQUIREMENTS</b> (COMPLETE APPLICABLE ITEMS)</p> <p style="text-align: right;">COMPLETION DATES</p> <p><input type="checkbox"/> Annual Medical History</p> <p><input type="checkbox"/> SEP Gear Inventory</p> <p><input type="checkbox"/> Regulator &amp; BCD Service</p> <p><input type="checkbox"/> Verification of Liability Coverage (contractors only)</p>
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**WATERMANSHIP ASSESSMENT** (COMPLETE ONE, ALL ARE 500 m / 550 yd TIMED SWIMS)

<input type="checkbox"/> Bathing suit with mask/goggles, any stroke (except backstroke) in 15 min.	<input type="checkbox"/> Bathing suit with mask, snorkel & fins in 10 min.
<input type="checkbox"/> Wetsuit with mask, snorkel & fins in 12 min.	<input type="checkbox"/> Drysuit with mask, snorkel & fins in 15 min.
<input type="checkbox"/> Underwater in scuba gear and wetsuit in 16 min.	<input type="checkbox"/> Underwater in scuba gear and drysuit in 22 min.

TIME TAKEN TO COMPLETE SWIM	COMPLETION DATE
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**DIVE SKILLS CHECKOUT** (COMPLETE ALL. Note as U = Unsatisfactory, N =Needs Improvement, S = Satisfactory, E = Excellent)

Pre-dive buddy check _____	Disconnect / reconnect inflators (BCD & Drysuit) _____
Properly weighted _____	Ditch and don Scuba unit (surface & bottom) _____
Buoyancy control _____	Buddy breathing to surface (as donor & recipient) _____
Controlled descent / ascent rate _____	Air sharing to surface (as donor & recipient) _____
U/W navigation and orientation _____	Weight belt remove / replace (surface & bottom) _____
U/W communication (hand signals) _____	Drysuit roll outs & venting (if drysuit certified) _____
Mask removal, replace and clear _____	Deploy and use RASS _____
Regulator recovery (3 methods) _____	Buddy contact and awareness during dive _____

DIVER OBSERVING IN-WATER SKILLSCOMPLETION DATE OF IN-WATER SKILLS

**RESCUE DRILLS** (COMPLETE ALL. Note as U = Unsatisfactory, N =Needs Improvement, S = Satisfactory, E = Excellent)

Assist panicked diver (surface & bottom) _____	Emergency Oxygen & AED administration _____
Assist unconscious diver (surface & bottom) _____	In-water rescue breathing on unconscious diver _____
Tow diver to exit point (3 methods) _____	Extricate unconscious diver from water _____

DIVER OBSERVING RESCUE DRILLSCOMPLETION DATE OF RESCUE DRILLS

## Report of NOAA Skills Evaluation Checkout Dive, NF 57-03-35

**What:** This form is used to record the results of checkout dives for several levels of NOAA Divers. There are sections describing the participants in the dive, location, conditions, equipment, pre-dive, skills demonstrated during the dive, post-dive, and a subjective assessment of the diver being evaluated. The UDS recommends recertification level (including an option for no certification), any restrictions and/or training requirements needed.

**When:** This form is used to record the activities of any checkout dive conducted at the unit.

**Record keeping:** A copy is submitted to NDC via the [support.ndc@noaa.gov](mailto:support.ndc@noaa.gov) email address and a digital or printed copy should be retained at the unit for at least one (1) year. For current divers, it should be recorded in the Unit Log.

**Other considerations:** Certain skills may not be required, depending on the level of training of the diver being evaluated. For example, a diver in a tropical location who has never received dry suit training is not required to demonstrate dry suit skills. The alternate air source to the surface skill should be completed with an alternate second stage regulator and repeated with the RASS, if the diver has received RASS training.

## CHECKOUT DIVE SKILLS EVALUATION

DIVER LAST NAME	DIVER FIRST NAME	MI	DATE
DIVING UNIT NAME	DIVING UNIT LOCATION	UNIT DIVING SUPERVISOR	
DIVE PLAN			
DIVE LOCATION		DIVE PLATFORM	
WATER TEMPERATURE (°F)	SURFACE CONDITIONS		
BOTTOM DEPTH (FT)	BOTTOM TIME (MINUTES)	VISIBILITY (FT)	CURRENT (KNOTS)

### PRELIMINARY OBSERVATIONS

Prior to commencing the checkout dive, the equipment used by the individual shall be inspected to ensure that it is in a safe/operable condition. The individual should be diving with equipment that will be used during the project or operation. The dive plan and dive emergency assistance plan shall be reviewed with diver prior to dive.

Diving Equipment Condition: Check that all diving equipment has been properly maintained. Verify gear chosen is adequate and diver is trained and authorized for use. (i.e. A diver must have attended an approved training course in the use of dry suits in order to use a dry suit on a checkout dive.)

(Note Condition as either; P = Poor, S = Satisfactory, or E = Excellent)

EQUIPMENT ITEM	MANUFACTURER / MODEL	CONDITION	LAST SERVICE	NOAA (N) or PERSONAL (P)
Regulator				
Alternate Air Source				
Pressure gauge				
Depth gauge				
Bottom timer				
Cylinder				
Buoyancy Compensator				
Wet suit / Dry suit				
Knife				
Fins				
Mask / Snorkel				

#### Pre-Dive Assessment

- \_\_\_\_\_ Diving physical completed, reviewed and approved by NDC
- \_\_\_\_\_ Observe set-up of equipment, note any fumbling or improper set-up
- \_\_\_\_\_ Evaluate knowledge of equipment operation
- \_\_\_\_\_ Is the individual physically fit and able to carry own equipment topside?
- \_\_\_\_\_ Anxiety level (observe for unusual or questionable behavior)
- \_\_\_\_\_ Determine if any deficiencies exist prior to commencing dive
- \_\_\_\_\_ Evaluate judgment, motivation, and professional attitude
- \_\_\_\_\_ Review safety protocols with diver (in water and topside)
- \_\_\_\_\_ Select and discuss the characteristics of appropriate dive sites
- \_\_\_\_\_ Review evaluation skills on surface prior to dive
- \_\_\_\_\_ Verify that diving gear chosen and diving technique are adequate and authorized for use

#### Pre-Dive Evaluation and Review

- \_\_\_\_\_ Dive Planning
- \_\_\_\_\_ Dive Table Knowledge
- \_\_\_\_\_ Dive Emergency Assistance Plan
- \_\_\_\_\_ Diving from a Small Boat
- \_\_\_\_\_ Ascent/Descent Rates
- \_\_\_\_\_ Environmental Conditions
- \_\_\_\_\_ Assessment at Dive Site

## CHECKOUT DIVE SKILLS EVALUATION

### DIVER SKILL EVALUATION

Assess diver ability on execution of skills relative to performance of tasks required for project/diving operations. Make objective observations. (Note Skill as either; U = Unsatisfactory, N = Needs Improvement, S = Satisfactory, or E = Excellent)

- |   |  |
|---|--|
| <p>_____ Physical condition</p> <p>_____ Swimming ability</p> <p>_____ Equipment knowledge / set-up</p> <p>_____ Water entry</p> <p>_____ Weighted properly</p> <p>_____ Free dive with mask and snorkel</p> <p>_____ Buoyancy control at surface</p> <p>_____ Buoyancy control at mid-water depth</p> <p>_____ Buoyancy control at bottom depth</p> <p>_____ Controlled ascent / descent rate</p> <p>_____ Underwater communication (hand signals)</p> <p>_____ Underwater navigation / orientation</p> <p>_____ Buddy check</p> | <p>_____ Surface kick (flutter / scissors)</p> <p>_____ Snorkeling skills (clearing at surface)</p> <p>_____ Ditch and don buoyancy compensator (surface &amp; bottom)</p> <p>_____ Regulator recovery</p> <p>_____ Clearing flooded mask</p> <p>_____ Mask removal, replacement, and clearing</p> <p>_____ Buddy breathing to the surface</p> <p>_____ Alternate air source to the surface</p> <p>_____ Weight belt removal / replacement (surface &amp; bottom)</p> <p>_____ Dry suit roll out and venting</p> <p>_____ Disconnect / reconnect inflators (BC / Dry suit)</p> <p>_____ Knowledge of systems gas mixtures used during the dive</p> <p>_____ Buddy contact and awareness during the dive</p> <p>_____ Break down of equipment and site clean-up</p> |
|---|--|

Awareness / anxiety assessment: (apprehensive, cautious, comfortable) \_\_\_\_\_

Critique of ability and skills: \_\_\_\_\_

\_\_\_\_\_

Remarks or problems encountered: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### POST DIVE ASSESSMENT

Critique judgment, motivation, professional attitude, and proper use of diving tables. \_\_\_\_\_

\_\_\_\_\_

Indicate deficiency areas: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### RECOMMENDATIONS

Should the diver be recertified?     YES (at same level)     YES (at lower level)     NO (requires refresher training)

Certification level of:     TRAINEE     OBSERVER     SCIENTIFIC  
 WORKING     ADVANCED WORKING     DIVEMASTER

Certification Restrictions: \_\_\_\_\_

Training requirements: \_\_\_\_\_

EVALUATED BY	TITLE
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SIGNATURE	DATE
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Submit this form and the last six Monthly Dive Logs (NOAA Form 57-03-24) or a Diving Activity Resume (NOAA Form 57-03-41) to the NOAA Diving Center for diver recertification.

## NOAA Diver Skills Checkout Checklist, NF 57-03-36

**What:** This form is used by a UDS or other NOAA Diver who has received NOAA Dive Trainer training and is authorized to conduct initial training for a certified diver entering the NOAA Diving Program. This initial skills checklist should be completed over four separate sessions in a pool or confined water area. It includes the initial swim test, a series of individual and buddy skills, and dive rescues.

**When:** A copy is submitted to NDC via the [support.ndc@noaa.gov](mailto:support.ndc@noaa.gov) email address along with supporting documents when a prospective NOAA Diver has completed all required training and a request for a Letter of Authorization to Dive is submitted to the Diving Program Manager.

**Record keeping:** A digital or printed copy should be retained at the unit.

**Other considerations:** There are many ways to perform several of these skills, however UDSs must ensure prospective divers perform these skills in accordance with the preferred NOAA method as demonstrated in the training videos provided to all UDSs and NOAA Dive Trainer.

There are several other documents which must be included with requests for a Letter of Authorization to Dive. These include: a letter from the NDMO affirming fitness to dive; copies of recreational or educational diving certifications; copies of current CPR, First Aid, AED and Oxygen Administration certificates; NDP Liability Release and Assumption of Risk (NF 57-03-09); the NOAA Diver Training Course Student Evaluation Record (NF 57-03-37); the Swim Test Evaluation (NF 57-03-39); the Diving Activity Resume (NF 57-03-41); and the SEP Measurement Form (NF 57-03-65).

### SCIENTIFIC DIVER SKILLS CHECKLIST

STUDENT NAME	LINE OFFICE	UNIT
INSTRUCTOR NAME	LINE OFFICE	UNIT

TRAINING SESSION - 1 (Demonstrate skills in pool)	PASS	DATE
1. Swim 550 yards <sup>1</sup>	<input type="checkbox"/>	
2. Swim 25 yards underwater <sup>2</sup>	<input type="checkbox"/>	
3. Tread water for 30 minutes on surface <sup>3</sup>	<input type="checkbox"/>	

TRAINING SESSION - 2 (Demonstrate skills on pool deck or in pool)	PASS	DATE
1. Equipment setup and donning with buddy <sup>4</sup>	<input type="checkbox"/>	
2. Pre-dive safety check <sup>4</sup>	<input type="checkbox"/>	
3. Giant stride entry <sup>3</sup>	<input type="checkbox"/>	
4. Forward roll entry <sup>3</sup>	<input type="checkbox"/>	
5. Backward roll entry <sup>3</sup>	<input type="checkbox"/>	
6. Controlled seated entry <sup>1</sup>	<input type="checkbox"/>	
7. Buoyancy check and weight adjustment <sup>5</sup>	<input type="checkbox"/>	
8. Regulator – snorkel exchange while swimming <sup>1</sup>	<input type="checkbox"/>	
9. Descent <sup>6</sup>	<input type="checkbox"/>	
10. Maintain neutral buoyancy at depth <sup>6</sup>	<input type="checkbox"/>	
11. Ascent <sup>6</sup>	<input type="checkbox"/>	
12. Remove, replace and clear mask <sup>6</sup>	<input type="checkbox"/>	
13. Remove, recover and replace regulator using sweep method <sup>6</sup>	<input type="checkbox"/>	
14. Remove, recover and replace regulator using tank lift method <sup>6</sup>	<input type="checkbox"/>	
15. Remove and replace weight belt at surface <sup>1</sup>	<input type="checkbox"/>	
16. Remove and replace scuba unit at surface <sup>3</sup>	<input type="checkbox"/>	
17. Remove and replace weight belt underwater <sup>6</sup>	<input type="checkbox"/>	
18. Remove and replace scuba unit underwater <sup>6</sup>	<input type="checkbox"/>	
19. Share air with alternate air source inflator as donor <sup>6</sup>	<input type="checkbox"/>	
20. Share air with alternate air source inflator as receiver <sup>6</sup>	<input type="checkbox"/>	
21. Buddy breathe as donor <sup>6</sup>	<input type="checkbox"/>	
22. Buddy breathe as receiver <sup>6</sup>	<input type="checkbox"/>	
23. Controlled emergency swimming ascent (diagonal) <sup>6</sup>	<input type="checkbox"/>	
24. Controlled emergency swimming ascent (vertical) <sup>6</sup>	<input type="checkbox"/>	
25. Buoyant emergency swimming ascent simulation (vertical) <sup>6</sup>	<input type="checkbox"/>	
26. Self rescue using the Reserve Air Supply System (RASS) <sup>6</sup>	<input type="checkbox"/>	
27. Runaway buoyancy compensator device/drysuit inflator response <sup>5</sup>	<input type="checkbox"/>	
28. No mask drills <sup>2</sup>	<input type="checkbox"/>	
29. Breathing from freeflow regulator <sup>5</sup>	<input type="checkbox"/>	
30. Air turned off drill <sup>5</sup>	<input type="checkbox"/>	
31. Water exit <sup>1</sup>	<input type="checkbox"/>	
32. Equipment shutdown, disassembly and maintenance <sup>1</sup>	<input type="checkbox"/>	



### SCIENTIFIC DIVER SKILLS CHECKLIST

TRAINING SESSION - 3 (Demonstrate skills in confined/open water)	PASS	DATE
1. Equipment setup and donning with buddy <sup>4</sup>	<input type="checkbox"/>	
2. Pre-dive safety check <sup>4</sup>	<input type="checkbox"/>	
3. Water entry <sup>5</sup>	<input type="checkbox"/>	
4. Buoyancy check and weight adjustment <sup>6</sup>	<input type="checkbox"/>	
5. Regulator – snorkel exchange while swimming <sup>1</sup>	<input type="checkbox"/>	
6. Descent <sup>6</sup>	<input type="checkbox"/>	
7. Neutral buoyancy at depth <sup>6</sup>	<input type="checkbox"/>	
8. Ascent <sup>6</sup>	<input type="checkbox"/>	
9. Remove, replace and clear mask <sup>6</sup>	<input type="checkbox"/>	
10. Remove, recover and replace regulator <sup>6</sup>	<input type="checkbox"/>	
11. Remove and replace weight belt underwater <sup>6</sup>	<input type="checkbox"/>	
12. Remove and replace scuba unit underwater <sup>6</sup>	<input type="checkbox"/>	
13. Share air with alternate air source inflator as donor <sup>6</sup>	<input type="checkbox"/>	
14. Share air with alternate air source inflator as receiver <sup>6</sup>	<input type="checkbox"/>	
15. Buddy breathe as donor <sup>6</sup>	<input type="checkbox"/>	
16. Buddy breathe as receiver <sup>6</sup>	<input type="checkbox"/>	
17. Controlled emergency swimming ascent from <30 feet	<input type="checkbox"/>	
18. Self rescue using RASS <sup>6</sup>	<input type="checkbox"/>	
19. Water exit <sup>1</sup>	<input type="checkbox"/>	
20. Equipment shutdown, disassembly and maintenance <sup>4</sup>	<input type="checkbox"/>	

TRAINING SESSION - 4 (Demonstrate skills in confined/open water)	PASS	DATE
1. Equipment setup and donning with buddy <sup>1</sup>	<input type="checkbox"/>	
2. Pre-dive safety check <sup>1</sup>	<input type="checkbox"/>	
3. Water entry <sup>6</sup>	<input type="checkbox"/>	
4. Assist a tired diver <sup>3</sup>	<input type="checkbox"/>	
5. Assist a panicked diver <sup>3</sup>	<input type="checkbox"/>	
6. Assist a panicked diver <sup>6</sup>	<input type="checkbox"/>	
7. Assist unconscious diver <sup>3</sup>	<input type="checkbox"/>	
8. Assist unconscious diver <sup>6</sup>	<input type="checkbox"/>	
9. Tow and perform in-water rescue breathing for unconscious diver <sup>3</sup>	<input type="checkbox"/>	
10. Extricate an unconscious diver from the water <sup>3</sup>	<input type="checkbox"/>	

**KEY**

<sup>1</sup> Skill performed at the surface

<sup>2</sup> Skill performed underwater at any depth

<sup>3</sup> Skill performed at surface in water depth too deep to stand in

<sup>4</sup> Skill performed out of water (e.g. pool deck, pier, or vessel)

<sup>5</sup> Skill performed in water depth shallow enough to stand in

<sup>6</sup> Skill performed underwater in depth too deep to stand in

**AUTHORIZATION**

The student named above has satisfactorily demonstrated all the skills listed per criteria outlined in the NOAA Scientific Diver Instructor Guide.

INSTRUCTOR NAME	INSTRUCTOR SIGNATURE	DATE

## **NOAA Diver Training Course, Student Evaluation Record, NF 57-03-37**

**What:** This is a checklist for all of the requirements needed for a diver to become a NOAA Diver. It covers the prerequisites, the exam scores, and the in-water skills.

**When:** This document is submitted to the Dive Program Manager, along with supporting documentation, when all requirements have been met. It should be submitted via the [support.ndc@noaa.gov](mailto:support.ndc@noaa.gov) email address.

**Record keeping:** A digital or printed copy should be retained at the unit.

**Other considerations:** The other documents which must be included with requests for a Letter of Authorization to Dive. These include: a letter from the NDMO affirming fitness to dive; copies of recreational or educational diving certifications; copies of current CPR, First Aid, AED and Oxygen Administration certificates; the NDP Liability Release and Assumption of Risk (NF 57-03-09); the NOAA Diver Skills Checkout Checklist (NF 57-03-36); the Swim Test Evaluation (NF 57-03-39); the Diving Activity Resume (NF 57-03-41); and the SEP Measurement Form (NF 57-03-65). The SEP Measurement Form (NF 57-03-65) is not needed if the diver candidate is a contractor and does not wish to participate in the Standardized Equipment Program. If Divers will be participating in the SEP program indicate in the Comments section the type of exposure suit they will need; 3mm, 5mm, or 7mm full wetsuit, and/or drysuit.

## SCIENTIFIC DIVER TRAINING COURSE STUDENT EVALUATION RECORD

STUDENT NAME	LINE OFFICE	UNIT
INSTRUCTOR NAME	LINE OFFICE	UNIT

### PREREQUISITES

Requirements	✓
1. Training request approved by supervisor	
2. Diving physical approved by NOAA Diving Medical Officer	
3. Copies of scuba certification	
4. Copies of current CPR, First-Aid, AED and oxygen delivery training	
5. Copy of diver resume verifying minimum logged dives	

### FINAL WRITTEN EXAMINATIONS (Minimum passing score is 80%)

Subject	Exam A / B	Score	Date
1. Physics		%	
2. Physiology		%	
3. Hazardous Aquatic Life		%	
4. Equipment		%	
5. Standards and Regulations		%	
6. Diving Skills and Techniques		%	
7. Dive Planning and U.S. Navy Dive Tables		%	

### WATER SKILLS

Skill	Pass	Date
1. Swim Eval		
2. Basic SCUBA Skills (Pool)		
3. Basic SCUBA Skills (Open Water)		
4. Rescue Skills (Pool)		
5. Rescue Skills (Open Water)		

### AUTHORIZATION

The student named above has satisfactorily demonstrated all the skills and knowledge required by the NOAA Diving Program for certification as a NOAA Scientific Diver.		
INSTRUCTOR NAME	INSTRUCTOR SIGNATURE	DATE

## Training Request and Authorization Form, NF 57-03-38

**What:** This form is the initial request for a prospective diver to attend a NDC training class. It includes applicant information, course selection, and approvals from the applicant's direct supervisor and UDS. The accounting codes used to charge the unit for the training are also required.

**When:** This form should be submitted via the [support.ndc@noaa.gov](mailto:support.ndc@noaa.gov) email address no less than sixty (60) days prior to the beginning of the Module 1 training class.

**Record keeping:** A digital or printed copy should be retained at the unit.

**Other considerations:** The costs of the various classes occasionally fluctuate, therefore the form does not list costs. Current costs may be obtained from NDC via the [support.ndc@noaa.gov](mailto:support.ndc@noaa.gov) email address.

This form requires the applicant to include copies of certifications for CPR, AED, and First Aid. These must be current through the end of the training class(es).

There are other documents which must be submitted before a prospective diver will be admitted to training classes. These include: a letter from the NDMO affirming fitness to dive; copies of recreational or educational diving certifications (not a prerequisite, but include if applicant has prior dive training); copies of current safety training certifications (CPR, AED, First Aid and Oxygen Administration); NDP Liability Release and Assumption of Risk (NF 57-03-09); the Swim Test Evaluation (NF 57-03-39); the Diving Activity Resume (NF 57-03-41) if beginning class with Module 2 or 3; and the SEP Measurement Form (NF 57-03-65). If Divers will be participating in the SEP program indicate in the Comments section the type of exposure suit they will need; 3mm, 5mm, or 7mm full wetsuit, and/or drysuit.

## NOAA DIVING PROGRAM TRAINING REQUEST AND AUTHORIZATION

This form will be used to identify prospective students for NOAA Diving Program classes. Submission of this form does not guarantee acceptance into a particular course. Incomplete forms may be returned to the applicant.

### APPLICANT INFORMATION

NAME (Last, First MI)			STUDENT TYPE (Check one)
NAME of AGENCY / EMPLOYER			<input type="radio"/> NOAA EMPLOYEE  <input type="radio"/> NOAA CONTRACTOR  <input type="radio"/> Non-NOAA EMPLOYEE
WORK ADDRESS			
PHONE NUMBER	FAX NUMBER	E-MAIL ADDRESS	

### TRAINING JUSTIFICATION (Non-NOAA personnel only)

### COURSE and PAYMENT INFORMATION

COURSE NAME	COURSE START DATE	COURSE END DATE	COURSE FEE
<input type="radio"/> NOAA Diver (Select Module)			\$
<input type="radio"/> Module 1 <input type="radio"/> Module 2 <input type="radio"/> Module 3 <input type="radio"/> Module 1 & 3 <input type="radio"/> Module 2 & 3			
<input type="radio"/> Divemaster			\$
<input type="radio"/> Dive Medical Technician			\$
<input type="radio"/> NOAA Diver Refresher (Module 2)			\$
<input type="radio"/> Tethered Communications			\$
<input type="radio"/>			\$
NOAA ORGANIZATION ACCOUNTING CODE		NOAA PROJECT-TASK CODES	
		TOTAL COST >>>	\$ 0

NOTES: Travel costs are the responsibility of the student or their employer. Payment is required for all students and is due prior to the course start date. Payments for Non-NOAA students may be made by check made out to NOAA Diving Center. NOAA students will be billed directly.

**CPR and FIRST-AID** Include a copy of your certifications with this form. Certifications must be valid through Course End Date.

### AUTHORIZATION

APPLICANT NAME	APPLICANT SIGNATURE	DATE
SUPERVISOR NAME	SUPERVISOR SIGNATURE	DATE
UNIT DIVING SUPERVISOR NAME	UNIT DIVING SUPERVISOR SIGNATURE	DATE

### SUBMISSION INSTRUCTIONS

Submit this form to NDC electronically or via hard copy. Signatures are not required if the form is filed electronically; however, the form shall be forwarded to NDC directly from the e-mail account of the employee's Unit Dive Supervisor to the NOAA Diving Program Manager. Signatures are required if the form is filed via hard copy.

**E-mail the form to:**  
Support.NDC@noaa.gov  
**Subject line:**  
Training Request

or

**Mail the form to:**  
NOAA Diving Center  
7600 Sand Point Way NE, Bldg 8  
Seattle, WA 98115-0070

or

**Fax the form to:**  
(206) 526 - 6506

## Swim Test Evaluation, NF 57-03-39

**What:** This form documents one of the prerequisites for participating in any NOAA dive training, the initial swim test. It is required whether the applicant is enrolling in NDC Dive Training classes or training is being conducted locally by a UDS who has completed the NOAA Dive Trainer program.

**When:** If enrolling in a NDC Dive Training class, the form is submitted as part of the application. If participating in local training, the form is submitted as part of request for a Letter of Authorization to Dive after the completion of training. In both cases the form is submitted to NDC via the [support.ndc@noaa.gov](mailto:support.ndc@noaa.gov) email address.

**Record keeping:** A digital or printed copy should be retained at the unit.

**Other considerations:** The prospective diver must complete the diving physical or receive clearance from a physician before attempting the Swim Test. When administering this swim test an AED, O2 kit and First Aid kit must be on site or available at the testing location.

There are other documents which must be submitted before a prospective diver will be admitted to NDC Dive Training classes. These include: a letter from the NDMO affirming fitness to dive; copies of recreational or educational diving certifications (not a prerequisite, but include if applicant has prior dive training); copies of current safety training certifications (CPR, AED, First Aid and Oxygen Administration); NDP Liability Release and Assumption of Risk (NF 57-03-09); the Training Request and Authorization Form (NF 57-03-38); the Diving Activity Resume (NF 57-03-41); and the SEP Measurement Form (NF 57-03-65).

### SWIM TEST EVALUATION

DIVING CANDIDATE LAST NAME	FIRST NAME	MIDDLE INITIAL	DATE OF TEST
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**INSTRUCTIONS:** Rate the diving candidate's performance of the NOAA swim test as per the NOAA Standards and Safety Manual. Watermanship of the diving candidate, which shows a noticeable degree of confidence, must be verified prior to arrival at the NOAA Diving Center (NDC) for upcoming training or as part of review for certification requirements. Personnel attending training are required to successfully perform this test during the first day of pool work.

#### Watermanship Criteria

1. UNINTERRUPTED SURFACE SWIM – The diving candidate must swim a distance of 550 yards (500 meters) without stopping, using the front crawl, side stroke, or breast stroke in less than 15 minutes.

Time (mm:ss) required to complete the 550 yard swim:	
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2. UNDERWATER SWIM – The diving candidate must swim a distance of 25 yards (22 meters) without surfacing and without the use of fins.

25 yard underwater swim completed successfully:	
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3. THIRTY (30) MINUTE FLOAT – The diving candidate must tread water for 30 minutes without the use of any flotation aids.

30 minute float completed successfully:	
---	--

All skills must be successfully demonstrated during a single pool session. It is suggested that the underwater swim be completed first, followed by the uninterrupted surface swim then the 30 minute float. A 10-15 minute rest period is recommended between each element.

The above candidate has satisfactorily completed the required swimming evaluation criteria.

The diving candidate's swimming ability is:	<input type="radio"/> Poor	<input type="radio"/> Satisfactory	<input type="radio"/> Excellent
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UNIT DIVE SUPERVISOR / DIVEMASTER NAME	ORGANIZATION / DIVE UNIT	
UNIT DIVE SUPERVISOR / DIVEMASTER SIGNATURE	PHONE NUMBER	DATE

Return the evaluation to NDC upon completion of the test or include this form with certification packet.

Submit forms via Email to [Support.NDC@noaa.gov](mailto:Support.NDC@noaa.gov)

NOAA Diving Center, 7600 Sand Point Way N.E., Seattle, WA, 98115

FAX: (206) 526-6506 Phone: (206) 526-6196

## **Annual Watermanship Assessment, NF 57-03-40**

**What:** This form should be completed annually for all divers in the Diving Unit. It documents the annual watermanship test, which consists of a timed swim. There are six options for the swim, they are all 500 m (550 yds), but the equipment worn and the allowed times vary.

**When:** This form should be completed at the completion of the timed swim.

**Record keeping:** A digital or printed copy should be retained at the unit for one (1) year and recorded in the Unit Log.

**Other considerations:** When administering the assessment an AED, O2 kit and First Aid kit must be on site or at the testing location.



# NOAA Diving Program Annual Watermanship Assessment

Name of Diver \_\_\_\_\_

Date of Test \_\_\_\_\_

Please rate the above individual's execution of the NOAA Diving Program Annual Watermanship Assessment. As described in the NOAA Scientific and Working Diving Standards and Safety Manuals, all NOAA divers must pass this assessment on an annual basis to maintain active dive status. This form shall be completed, signed and filed on site at the diver's unit.

Please indicate which swim test option was completed:

- 500 m in bathing suit and mask/goggles using any stroke (except backstroke) in 15 minutes.
- 500 m in bathing suit with mask, snorkel & fins in 10 minutes.
- 500 m in wetsuit with mask, snorkel & fins in 12 minutes.
- 500 m in drysuit with mask, snorkel & fins in 15 minutes.
- 500 m underwater in scuba gear and wetsuit in 16 minutes.
- 500 m underwater in scuba gear and drysuit in 22 minutes.

Time Allowed to Complete Swim \_\_\_\_\_

Time Taken to Complete Swim \_\_\_\_\_

Signature of Diver \_\_\_\_\_

Name of Witness (UDS or Designee) \_\_\_\_\_

Signature of Witness (UDS or Designee) \_\_\_\_\_

Organization / Diving Unit \_\_\_\_\_

## **Diving Activity Resume, NF 57-03-41**

**What:** This form documents previous diving activity by a diver wishing to join the NOAA Diving Program. It may also be used to summarize NOAA dives for reciprocity purposes or requesting Advanced NOAA Diver or Master Diver designations. It contains information on the diver, diving certifications, safety certifications, breakdowns of dives by year, depth, and conditions, questions about diving incidents, references, and areas for comments.

**When:** If enrolling in NDC Dive Training Module 2 or 3, the form is submitted as part of the application. If participating in local training, the form is submitted as part of request for a Letter of Authorization to Dive after the completion of training. In both cases the form is submitted to NDC via the [support.ndc@noaa.gov](mailto:support.ndc@noaa.gov) email address.

**Record keeping:** A digital or printed copy should be retained at the unit.

**Other considerations:** There are other documents which must be submitted before a prospective diver will be admitted to NDC Dive Training or local Dive Unit classes. These include: a letter from the NDMO affirming fitness to dive; copies of recreational or educational diving certifications (not a prerequisite for NDC Dive Training, but include if applicant has prior dive training); copies of current safety training certifications (CPR, AED, First Aid and Oxygen Administration); NDP Liability Release and Assumption of Risk (NF 57-03-09); the Training Request and Authorization Form (NF 57-03-38); the Swim Test Evaluation (NF 57-03-39); and the SEP Measurement Form (NF 57-03-65).

## DIVING ACTIVITY RESUME

### DIVER INFORMATION

APPLICANT NAME (Last, First MI)			DATE	
ORGANIZATION		POSITION HELD		
MAILING ADDRESS		CITY	STATE	ZIP
E-MAIL ADDRESS	WORK PHONE	WORK FAX		
NAME of SUPERVISOR / CONTACT			PHONE	

### DIVING CERTIFICATIONS – Attach copies of all certifications listed below.

Organization	Certification Level / Depth	Date	Location	Diving Instructor

### MEDICAL CERTIFICATIONS – Attach copies of all certifications listed below.

	Agency	Level	Date (initial)	Date (current)
CPR				
First-Aid				
O <sub>2</sub> Admin				
EMT				
DMT				
Other				

### DIVING ACTIVITY

Number of years diving		Date of last dive	
Total number of dives		Total hours under water	
Greatest depth of any dive		Greatest depth in the past 12 months	
Number of dives in the past 6 months		Number of dives in the past 12 months	
Date of last Dry-Suit dive		Date of last Nitrox / Trimix dive	

### DIVING DEPTHS – Indicate cumulative number of dives by depth, by year. Indicate most recent year first.

YEAR	0 – 30' fsw	31 – 60' fsw	61 – 100' fsw	101 – 130' fsw	Deeper than 130' fsw

## DIVING ACTIVITY RESUME

**EXPERIENCE – Indicate the number of dives for each type of diving experience listed below. If zero, leave blank.**

	Fresh Water	Visibility > 20'	Decompression	Search & Recovery
	Salt Water	Visibility = 5 – 20'	Saturation	Photography / Video
	Blue Water	Visibility = 1 – 5'	Closed Circuit	Navigation
	Rivers	Visibility < 1'	Surface Supplied	Salvage / Lift Bag
	Dive Chamber	Visibility = 0	Dry Suit	Ship Husbandry
	Dive Habitat	Water Temp < 50°	Nitrox	From Small Boat
	Lockout	Water Temp = 51 - 70°	Heliox	Shore / Beach Entry
	Night Diving	Water Temp > 71°	Trimix	Heavy Surf Entry
	Coral Reef	Current < 1 knot	Dive Computer	Pier / Dock Entry
	Kelp	Current = 1 – 3 knots	Altitude (> 1000')	Underwater Assembly
	Ice Diving / Polar	Current > 3 knots	Research / Survey	Recreational Sport
	Under Ice	Depths > 130'	Coring / Collecting	Instructional
	Wreck Penetration	Drift Diving	Commercial Diving	Observational
	Cave Penetration	Skin / Free Diving	Military Diving	Life Saving

Additional diving experience

Geographical locations of diving experience

**SELF ASSESSMENT – State objectives and intent for NOAA Diving Program certification.**

Have you ever run out of air during a dive?	<input type="radio"/> YES	<input type="radio"/> NO
Have you ever been treated in a hyperbaric chamber for diving related accident?	<input type="radio"/> YES	<input type="radio"/> NO
Have you ever experienced symptoms of de-compression sickness (DCS)?	<input type="radio"/> YES	<input type="radio"/> NO
Have you ever experienced a pulmonary barotrauma, gas embolism or near drowning?	<input type="radio"/> YES	<input type="radio"/> NO
Applicable incident or accident reports are attached for the "Yes" responses listed above.	<input type="radio"/> YES	<input type="radio"/> NO

**DIVER REFERENCES – Provide at least two references familiar with your diving experience and abilities.**

NAME	ORGANIZATION	LOCATION	PHONE
NAME	ORGANIZATION	LOCATION	PHONE
NAME	ORGANIZATION	LOCATION	PHONE

**VERIFICATION – I have reviewed and found this resume to be a thorough and honest representation of my diving history.**

APPLICANT NAME	APPLICANT SIGNATURE	DATE
UNIT DIVING SUPERVISOR NAME	UNIT DIVING SUPERVISOR SIGNATURE	DATE

## **Report of Physical Examination, NF 57-03-50, NF 57-03-51, NF 57-03-52**

**What:** These three forms are used to report a diver's health status to the NDMO. One form (NF 57-03-50) is a checklist to ensure all the required tests have been conducted and the reports included in the submission packet. The second form (NF 57-03-51) is a self-reported medical history consisting of a series of yes/no responses concerning numerous medical conditions (explanations required for affirmative responses). The third form (NF 57-03-52) is to be completed by the medical professional conducting the physical examination. It consists of basic vital signs, a general clinical exam, a neurological exam, laboratory exams and explanations of any abnormalities.

**When:** These forms are submitted to the NDMO by diver candidates before participating in any NOAA Diving Program training and by current NOAA Divers on a periodic basis based upon age (every five [5] years for divers under forty [40], at age fifty [50] and every two [2] years until the age of sixty [60], and annually after reaching age sixty [60]). These forms contain Personally Identifiable Information (PII) and are covered under the Health Insurance Portability and Accountability Act (HIPAA), transmittal to the NDMO should be done using a secure file transfer via the [DMO@noaa.gov](mailto:DMO@noaa.gov) email address or through the NDMO fax line, (206) 526-2759.

**Record keeping:** None at the Dive Unit level.

**Other considerations:** These forms contain medical information protected under HIPAA and as such are confidential. The UDS is encouraged to consult with diver candidates and divers to ensure the forms are filled out correctly and all required supplemental information is included before they submit the forms to the NDMO. The checklist (NF 57-03-50) is particularly helpful in ensuring completeness. The transmission of HIPAA covered information should be done via encrypted file transfer protocol or by fax.

## MEDICAL EVALUATION CHECKLIST AND AUTHORIZATION TO DIVE

LAST NAME	FIRST NAME	MIDDLE NAME	DATE of BIRTH
UNIT DIVE SUPERVISOR NAME		UNIT DIVE SUPERVISOR E-MAIL ADDRESS	
DIVE UNIT		DUTY STATION LOCATION	

TYPE of EXAMINATION – Cross out non-applicable sections

- |  |   |   |  |
|--|---|---|--|
| <input type="checkbox"/> INITIAL (39 and younger)<br>Complete Sections 1 and 2 | <input type="checkbox"/> INITIAL (40 and older)<br>Complete Sections 1, 2 and 3 | <input type="checkbox"/> PERIODIC (39 and younger)<br>Complete Sections 1 and 4 | <input type="checkbox"/> PERIODIC (40 and older)<br>Complete Sections 1, 3 and 4 |
|--|---|---|--|

Diver shall fill in all information above and complete all fields on Form 57-03-52 Report of Medical History - Diver (attached). Print all forms and take to the examination. Submit all of the documents and test results as indicated for the type of your diving physical examination and diving certification. Submit packet via secure file transfer to DMO@noaa.gov or FAX: 206-529-2759.

**Section 1. All INITIAL and PERIODIC EXAMINATIONS must include the following reports and test results**

<input type="checkbox"/>	NOAA Form 57-03-51 Report of Physical Examination – Diver
<input type="checkbox"/>	NOAA Form 57-03-52 Report of Medical History – Diver
<input type="checkbox"/>	Complete Blood Count (CBC)
<input type="checkbox"/>	Complete urinalysis
<input type="checkbox"/>	Near and distant vision tests – results

**Section 2. All INITIAL EXAMINATIONS must include these additional test results**

<input type="checkbox"/>	Spirometry test – results and interpretation
<input type="checkbox"/>	Audiogram – results and interpretation
<input type="checkbox"/>	Chest X-ray interpretation within the past 24 months (no films)

**Section 3. All 40 and OLDER EXAMINATIONS must include these additional test results**

<input type="checkbox"/>	12-Lead resting EKG – results and interpretation
<input type="checkbox"/>	Lipid screening – total cholesterol, HDL, LDL, and triglycerides
<input type="checkbox"/>	Hemoglobin (HgA1c) or fasting glucose screening

**Section 4. All PERIODIC EXAMINATIONS must include this additional test (SMOKERS ONLY)**

<input type="checkbox"/>	Spirometry test – results and interpretation (SMOKERS ONLY)
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**APPLICANT CERTIFICATION:**

I have reviewed the attached medical information and consider the application package to be complete.

APPLICANT NAME	APPLICANT SIGNATURE	DATE
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**NOAA DIVING MEDICAL OFFICER APPROVAL:**

I have reviewed the attached medical information and have found the applicant named above to be:

- Medically cleared for NOAA diving duty
  Not medically cleared for NOAA diving duty

DIVING MEDICAL OFFICER NAME	DIVING MEDICAL OFFICER SIGNATURE	DATE
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## REPORT OF PHYSICAL EXAMINATION - DIVER

APPLICANT INFORMATION: This section must be completed by the dive applicant.							
1a. LAST NAME	1b. FIRST NAME	1c. MIDDLE NAME	2. DATE of BIRTH	3. DATE of EXAM			
4a. WORK ADDRESS			4b. BEST CONTACT PHONE NUMBER				
			4c. WORK E-MAIL ADDRESS				
			4d. ALETERNATE PHONE NUMBER				
PHYSICAL EXAMINATION: This section must be fully completed by the examining medical provided (MD/DO/NP/PA only).							
5. EXAM TYPE <input type="checkbox"/> Initial <input type="checkbox"/> Periodic	6. AGE	7. GENDER		8. HEIGHT (inches)		9. WEIGHT (pounds)	
10. TEMP. (°F)	11. PULSE	12. BLOOD PRESSURE	/	2 <sup>nd</sup> BP (if needed)	/	3 <sup>rd</sup> BP (if needed)	/
13. VISION CORRECTABLE TO 20/20? Right eye Distant ____ (Y/N) Near ____ (Y/N) Left eye Distant ____ (Y/N) Near ____ (Y/N)		14. CONTACT LENS USE WHILE DIVING OR PRESCRIPTION MASK? <input type="checkbox"/> YES <input type="checkbox"/> NO		15. NEAR VISION Right eye 20 / ____ Corrected to 20 / ____ Left eye 20 / ____ Corrected to 20 / ____			
GENERAL CLINICAL EVALUATION: Check each item.		Normal	Abnormal	Description of abnormality			
16. Head, face and scalp							
17. Neck							
18. Eyes							
19. Fundus							
20. Ears (internal / external canals)							
21. Eustachian tube function, can perform Val Salva							
22. Tympanic membranes							
23. Nose (septal alignment)							
24. Sinuses							
25. Mouth and throat							
26. Dental (loose or decayed teeth)							
27. Lungs and chest (including breasts)							
28. Heart (thrust, size, rhythm, sounds)							
29. Pulses (equality, etc.)							
30. Vascular system (varicosities, etc.)							
31. Abdomen and viscera							
32. Hernia (all types)							
33. Feet (arch, pes cavus / planus)							
34. Spine							
35. Skin, lymphatics							

SUPERSEDES NOAA Form 57-03-51 (10-14)



## REPORT OF PHYSICAL EXAMINATION - DIVER

1a. LAST NAME	1b. FIRST NAME	1c. MIDDLE NAME	3. DATE of EXAM
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**NEUROLOGIC EXAMINATION: Check each item**

36. Sensorium (Consciousness, intellectual, cognitive function) Normal \_\_\_\_\_ Abnormal \_\_\_\_\_

37. Cranial Nerves: (normal/abnormal)

I. Olfactory _____	V. Trigeminal _____	IX. Glossopharyngeal _____
II. Optic _____	VI. Abducent _____	X. Vagus _____
III. Oculomotor _____	VII. Facial _____	XI. Spinal Accessory _____
IV. Trochlear _____	VIII. Auditory _____	XII. Hypoglossal _____

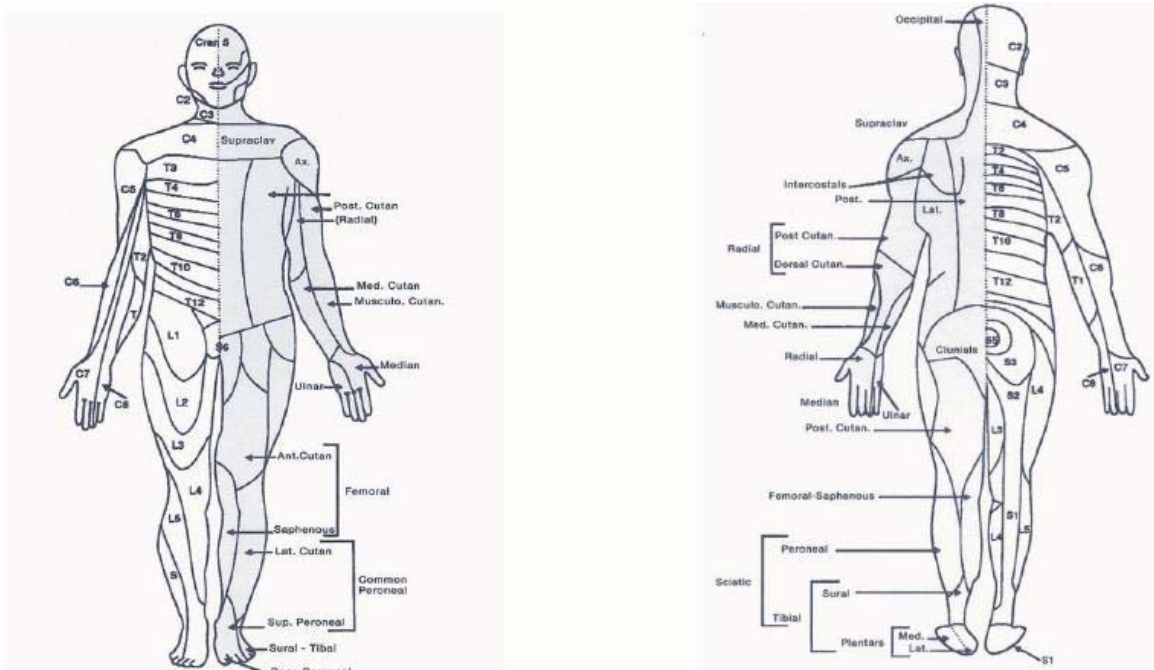
38. Reflexes:	Deep Tendon (grade 0 – 3+, 2+ = normal)				Pathological (+/- = presence/absence)			
	Left		Right		Left		Right	
Brachioradialis	_____	_____	Patella	_____	_____	Hoffman	_____	_____
Biceps	_____	_____	Achilles	_____	_____	Ankle clonus	_____	_____

39. Cerebellar Function	Normal		Abnormal		40. Proprioception (+/- = presence/absence)	Left		Right		41. Nystagmus (+/- = presence/absence)	
Gate	_____	_____	_____	_____	Joint position sense	_____	_____	_____	_____	End point (physiologic)	_____
Tremor (intention)	_____	_____	_____	_____	Vibratory sensations	_____	_____	_____	_____	Pathological	_____
Finger to nose	_____	_____	_____	_____	Stereognosis	_____	_____	_____	_____		
Heel to shin slide	_____	_____	_____	_____	(ability to recognize objects by touch)	_____	_____	_____	_____		
Romberg sign	_____	_____	_____	_____							

42. Muscle Strength (grade 0 – 5, 5 = normal)									
	Left		Right			Left		Right	
Deltoids	_____	_____	Hips: Flexion	_____	_____	Knees: Flexion	_____	_____	
Latissimus	_____	_____	Extension	_____	_____	Extension	_____	_____	
Triceps	_____	_____	Abduction	_____	_____		_____	_____	
Biceps	_____	_____	Adduction	_____	_____	Ankles: Dorsiflexion	_____	_____	
Forearms	_____	_____				Plantarflexion	_____	_____	
Hands	_____	_____				Inversion	_____	_____	
Fingers	_____	_____				Eversion	_____	_____	

43. Range of Motion (+/- = normal/abnormal)									
	Left		Right			Left		Right	
Shoulders	_____	_____	Hips	_____	_____	Knees	_____	_____	
Elbows	_____	_____	Wrist	_____	_____	Ankles	_____	_____	

44. Sensation (sharp dull, two-point discrimination) Diagram and label areas of altered sensations, and surgical and traumatic scars.





## REPORT OF MEDICAL HISTORY – DIVER

### Instructions to the Applicant:

The purpose of completing NOAA Form 57-03-52, Report of Medical History – Diver, is to obtain medical data for determination of medical fitness for diving with the NOAA Diving Program (NDP). Disclosure of any and all information is purely voluntary; however, failure to provide the requested information will result in a delay or possible rejection of your application to dive or continuation to dive with the NDP.

Provide all information requested in blocks 1-9. If you do not have a middle name, leave block 1c blank. Please provide all phone numbers and e-mail addresses requested in block 5. At least one phone number must be provided. Provide complete and detailed information in blocks 10 and 11. If you do not take any medications or you do not have any allergies, indicate "None" in the appropriate block. Check either "Yes" or "No" for blocks 12 through 81 and 83, except men shall leave block 81 unchecked. Provide complete and detailed information in blocks 82a through 82c and blocks 84 through 86 as indicated.

Certify your responses as true and complete in block 87 then provide the form to the medical provider or examiner. The examiner must complete blocks 88 through 89 as part of the Physical Examination.

The examiner that provides the physical examination must be a Medical Doctor (MD), a Doctor of Osteopathy (DO), a Nurse Practitioner (NP), or a Physician's Assistant (PA). In addition to the Report of Medical History – Diver, provide the examiner a NOAA Form 57-03-51, Report of Physical Examination – Diver.

Use NOAA Form 57-03-50, Medical Evaluation Checklist, to ensure all required laboratory tests, diagnostic studies, and required documentation are completed. It is the applicant's responsibility to make sure that the examiner provides all of the required tests and records the results as indicated on each of the forms listed above. All above laboratory tests and diagnostic studies as well as the medical history and physical examination must be performed within the previous 12 months with the exception of the chest x-ray which must be performed within the previous 24 months.

Upon compilation of all required documentation, submit the original results and forms with original signatures to the NOAA Diving Medical Officer (DMO) at the NOAA Diving Center. Final determination for fitness for diving will be made by the NOAA Diving Program.

For questions, contact the NOAA Diving Medical Officer at (206) 526-6474.

Submission of medical qualification documentation must be made by one of the following methods;

Preferred method: E-mailed to: DMO@NOAA.GOV  
Subject: Report of Physical Examination – Diver (Last name of diver)

**Please use secure file transfer such as Secure Zip or Accellion File Transfer**

Or

Second preference: Fax to: 206-529-2759  
Attn: NOAA Diving Medical Officer

Or

Third preference: Mailed to: NOAA Diving Medical Officer (DMO)  
NOAA Diving Program  
7600 Sand Point Way NE  
Seattle, WA 98115

### REPORT OF MEDICAL HISTORY - DIVER

1a. LAST NAME	1b. FIRST NAME	1c. MIDDLE NAME	2. DATE of BIRTH	3. DATE
4a. WORK ADDRESS			4b. BEST CONTACT PHONE NUMBER	
			4c. WORK E-MAIL ADDRESS	
5. STATEMENT OF PRESENT HEALTH			6. AGE	7. GENDER
			8. HEIGHT (inches)	9. WEIGHT (pounds)
10. CURRENT PRESCRIPTION and NON-PRESCRIPTION MEDICATIONS (Indicate dosage, frequency and condition being treated)			11. ALLERGIES (List all insect bites / stings, foods and medicines) Do you carry an Epi-Pen? <input type="checkbox"/> Yes <input type="checkbox"/> No	

**PAST MEDICAL HISTORY: Have you ever had the following? Check each item.**

	YES	NO		YES	NO
12. Adverse reaction to medication	<input type="checkbox"/>	<input type="checkbox"/>	24. Pain or pressure in the chest	<input type="checkbox"/>	<input type="checkbox"/>
13. Tuberculosis or positive TB test	<input type="checkbox"/>	<input type="checkbox"/>	25. Palpitation, pounding heart or abnormal heartbeat	<input type="checkbox"/>	<input type="checkbox"/>
14. Exposed to someone who had tuberculosis	<input type="checkbox"/>	<input type="checkbox"/>	26. Heart murmur or other disorder	<input type="checkbox"/>	<input type="checkbox"/>
15. Asthma or any breathing difficulty	<input type="checkbox"/>	<input type="checkbox"/>	27. Heart or blood vessel surgery	<input type="checkbox"/>	<input type="checkbox"/>
16. Used or have been prescribed an inhaler	<input type="checkbox"/>	<input type="checkbox"/>	28. Abnormal heart anatomy or patent foramen ovale	<input type="checkbox"/>	<input type="checkbox"/>
17. Plates, screws, rods or pins in any bone	<input type="checkbox"/>	<input type="checkbox"/>	29. Diabetes	<input type="checkbox"/>	<input type="checkbox"/>
18. High or low blood sugar	<input type="checkbox"/>	<input type="checkbox"/>	30. High cholesterol	<input type="checkbox"/>	<input type="checkbox"/>
19. Sugar, albumin or blood in the urine	<input type="checkbox"/>	<input type="checkbox"/>	31. Stroke	<input type="checkbox"/>	<input type="checkbox"/>
20. Tumor, growth, cyst or cancer	<input type="checkbox"/>	<input type="checkbox"/>	32. Heart disease	<input type="checkbox"/>	<input type="checkbox"/>
21. Aneurysm, frequent or severe headaches	<input type="checkbox"/>	<input type="checkbox"/>	33. Parent or sibling with condition indicated in 29-32	<input type="checkbox"/>	<input type="checkbox"/>
22. Seizures, convulsions, epilepsy or fits	<input type="checkbox"/>	<input type="checkbox"/>	34. Treated in a decompression chamber	<input type="checkbox"/>	<input type="checkbox"/>
23. Other neurologic disorder or injury	<input type="checkbox"/>	<input type="checkbox"/>	35. Medical disqualification for diving duty	<input type="checkbox"/>	<input type="checkbox"/>

**PAST MEDICAL HISTORY: Have you had the following in the last ten years? Check each item.**

	YES	NO		YES	NO
36. Thyroid trouble or goiter	<input type="checkbox"/>	<input type="checkbox"/>	51. Rectal disease, hemorrhoids, bleeding from rectum	<input type="checkbox"/>	<input type="checkbox"/>
37. Eye disorder or trouble	<input type="checkbox"/>	<input type="checkbox"/>	52. Shortness of breath or wheezing	<input type="checkbox"/>	<input type="checkbox"/>
38. Surgery to correct vision (i.e. RK, PRK, LASIK )	<input type="checkbox"/>	<input type="checkbox"/>	53. Sinusitis, bronchitis or frequent colds	<input type="checkbox"/>	<input type="checkbox"/>
39. Recurrent back pain or any back problem	<input type="checkbox"/>	<input type="checkbox"/>	54. Kidney, bladder or urination problems	<input type="checkbox"/>	<input type="checkbox"/>
40. Nerve injury, numbness, tingling or sensitive areas	<input type="checkbox"/>	<input type="checkbox"/>	55. Head injury, memory loss or amnesia	<input type="checkbox"/>	<input type="checkbox"/>
41. Loss of finger or toe	<input type="checkbox"/>	<input type="checkbox"/>	56. Concussion or period of unconsciousness	<input type="checkbox"/>	<input type="checkbox"/>
42. Knee trouble (locking, giving out, pain, injury)	<input type="checkbox"/>	<input type="checkbox"/>	57. Dizziness or fainting spells	<input type="checkbox"/>	<input type="checkbox"/>
43. Leg cramps	<input type="checkbox"/>	<input type="checkbox"/>	58. Prolonged bleeding, blood clot or embolism	<input type="checkbox"/>	<input type="checkbox"/>
44. Painfull or swollen joints	<input type="checkbox"/>	<input type="checkbox"/>	59. High or low blood pressure	<input type="checkbox"/>	<input type="checkbox"/>
45. Arthritis, rheumatism, tendonitis or bursitis	<input type="checkbox"/>	<input type="checkbox"/>	60. Depression, anxiety or claustrophobia	<input type="checkbox"/>	<input type="checkbox"/>
46. Artificial joint or other deformity	<input type="checkbox"/>	<input type="checkbox"/>	61. Received counseling of any type	<input type="checkbox"/>	<input type="checkbox"/>
47. Bone fracture or deformity	<input type="checkbox"/>	<input type="checkbox"/>	62. Been evaluated or treated for a mental condition	<input type="checkbox"/>	<input type="checkbox"/>
48. Stomach or intestinal trouble	<input type="checkbox"/>	<input type="checkbox"/>	63. Attempted or planned suicide	<input type="checkbox"/>	<input type="checkbox"/>
49. Jaundice, hepatitis or liver disease	<input type="checkbox"/>	<input type="checkbox"/>	64. Inability to focus or pay attention	<input type="checkbox"/>	<input type="checkbox"/>
50. Hernia or rupture	<input type="checkbox"/>	<input type="checkbox"/>	65. Ear infection	<input type="checkbox"/>	<input type="checkbox"/>

**CURRENT MEDICAL HISTORY: Do you currently have any of the following? Check each item.**

	YES	NO		YES	NO
66. Severe tooth or gum trouble	<input type="checkbox"/>	<input type="checkbox"/>	74. Use of prosthetic / corrective devices or braces	<input type="checkbox"/>	<input type="checkbox"/>
67. Wear glasses or contact lenses	<input type="checkbox"/>	<input type="checkbox"/>	75. Frequent indigestion or heartburn	<input type="checkbox"/>	<input type="checkbox"/>
68. Lack of vision in either eye	<input type="checkbox"/>	<input type="checkbox"/>	76. Skin disease (i.e. acne, eczema, psoriasis)	<input type="checkbox"/>	<input type="checkbox"/>
69. Hay fever or allergic rhinitis	<input type="checkbox"/>	<input type="checkbox"/>	77. Recent unexplained weight loss or gain	<input type="checkbox"/>	<input type="checkbox"/>
70. Ear, nose or throat trouble	<input type="checkbox"/>	<input type="checkbox"/>	78. Motion sickness (kinetosis)	<input type="checkbox"/>	<input type="checkbox"/>
71. Hearing loss or wear a hearing aid	<input type="checkbox"/>	<input type="checkbox"/>	79. Difficulty distinguishing colors or seeing at night	<input type="checkbox"/>	<input type="checkbox"/>
72. Impaired use of arms, hand, legs or feet	<input type="checkbox"/>	<input type="checkbox"/>	80. Difficulty performing moderate to heavy exercise	<input type="checkbox"/>	<input type="checkbox"/>
73. Foot problems	<input type="checkbox"/>	<input type="checkbox"/>	81. Currently pregnant/may be pregnant (women only)	<input type="checkbox"/>	<input type="checkbox"/>

## REPORT OF MEDICAL HISTORY - DIVER

1a. LAST NAME	b. FIRST NAME	c. MIDDLE NAME	3. DATE
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82. Indicate the type and frequency of use for the following.

a. Alcohol	b. Tobacco	c. Recreational drugs
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PAST DIVE MEDICAL HISTORY: Have you ever had the following as a result of diving? Check each item.

	YES	NO		YES	NO
83a. Ear or sinus squeeze	<input type="checkbox"/>	<input type="checkbox"/>	g. Near drowning	<input type="checkbox"/>	<input type="checkbox"/>
b. Inability to equalize middle ear pressure	<input type="checkbox"/>	<input type="checkbox"/>	h. Arterial gas embolism (AGE)	<input type="checkbox"/>	<input type="checkbox"/>
c. Ruptured ear drum	<input type="checkbox"/>	<input type="checkbox"/>	i. Oxygen (O <sub>2</sub> ) toxicity	<input type="checkbox"/>	<input type="checkbox"/>
d. Vertigo (dizziness)	<input type="checkbox"/>	<input type="checkbox"/>	j. Carbon dioxide (CO <sub>2</sub> ) toxicity	<input type="checkbox"/>	<input type="checkbox"/>
e. Loss of consciousness or asphyxia	<input type="checkbox"/>	<input type="checkbox"/>	k. Type I DCS (pain only, itching, rash, swelling)	<input type="checkbox"/>	<input type="checkbox"/>
f. Lung squeeze or collapsed lung (pneumothorax)	<input type="checkbox"/>	<input type="checkbox"/>	l. Type II DCS	<input type="checkbox"/>	<input type="checkbox"/>

84. Indicate any other medical conditions not listed above.

85. Indicate date, location and reason for each hospitalization and surgery, had or advised to have within the last ten years. Indicate reasons for any declined surgery.

86. Provide a detailed explanation for each item checked "YES" in either Medical History section. Add additional pages if necessary.

**APPLICANT CERTIFICATION:**

87. I certify that I have reviewed the medical information provided by me. It is true and complete to the best of my knowledge. I understand that falsification of information on a Government form is punishable by fine and/or imprisonment and that incomplete information may delay or prevent my qualification for dive duty.

a. APPLICANT NAME	b. APPLICANT SIGNATURE	c. DATE
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88. EXAMINER SUMMARY of DEFECTS

89a. EXAMINER NAME and TITLE	b. EXAMINER SIGNATURE	c. DATE
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## Report of Medical History – Observer Diver, NF 57-03-53

**What:** This form is used to report an Observer Diver candidate's health status to the NDMO. The form is to be completed by the Observer Diver candidate and signed by the medical professional conducting the medical review. It consists of contact information for the diver, medications, allergies, and a short medical history (yes/no list of medical conditions). There is a section for the explanation of affirmative answers in the history section.

**When:** This form is submitted to the NDMO by Observer Diver candidates before participating in any NOAA Diving Program operations. This form contains Personally Identifiable Information (PII) and is covered under the Health Insurance Portability and Accountability Act (HIPAA), transmittal to the NDMO should be done using a secure file transfer via the [DMO@noaa.gov](mailto:DMO@noaa.gov) email address or through the DNMO fax line, (206) 526-2759.

**Record keeping:** None at the Dive Unit level.

**Other considerations:** This form contains medical information protected under HIPAA and as such is confidential. The UDS is encouraged to consult with the Observer Diver candidates to ensure the form is filled out correctly and all required supplemental information is included before they submit the forms to the NDMO. The transmission of HIPAA covered information should be done via encrypted file transfer protocol or by fax.

## REPORT OF MEDICAL HISTORY – OBSERVER DIVER

LAST NAME	FIRST NAME	MIDDLE NAME	DATE of BIRTH	DATE
WORK ADDRESS			WORK PHONE NUMBER	
			WORK E-MAIL ADDRESS	
			CELL PHONE NUMBER	
STATEMENT of PRESENT HEALTH			AGE	GENDER
			HEIGHT (inches)	WEIGHT (pounds)
CURRENT PRESCRIPTION and NON-PRESCRIPTION MEDICATIONS (Indicate dosage, frequency and condition being treated)			ALLERGIES (List all insect bites / stings, foods and medicines)	

**CURRENT / PAST MEDICAL HISTORY:** Do you currently have or have you ever had the following? Check each item.

	YES	NO		YES	NO
Tuberculosis or positive TB test	<input type="checkbox"/>	<input type="checkbox"/>	Aneurysm, frequent or severe headaches	<input type="checkbox"/>	<input type="checkbox"/>
Exposed to someone who had tuberculosis	<input type="checkbox"/>	<input type="checkbox"/>	Other neurologic disorder or injury	<input type="checkbox"/>	<input type="checkbox"/>
Asthma or any breathing difficulty	<input type="checkbox"/>	<input type="checkbox"/>	Prolonged bleeding, blood clot or embolism	<input type="checkbox"/>	<input type="checkbox"/>
Lung squeeze or collapsed lung (pneumothorax)	<input type="checkbox"/>	<input type="checkbox"/>	Heart murmur or other disorder	<input type="checkbox"/>	<input type="checkbox"/>
Thyroid trouble or goiter	<input type="checkbox"/>	<input type="checkbox"/>	High or low blood pressure	<input type="checkbox"/>	<input type="checkbox"/>
Ear infection or ruptured ear drum	<input type="checkbox"/>	<input type="checkbox"/>	Abnormal heart anatomy or patent foramen ovale	<input type="checkbox"/>	<input type="checkbox"/>
Inability to equalize middle ear pressure	<input type="checkbox"/>	<input type="checkbox"/>	Depression, anxiety or claustrophobia	<input type="checkbox"/>	<input type="checkbox"/>
Bone, joint or other deformity	<input type="checkbox"/>	<input type="checkbox"/>	Been evaluated or treated for a mental condition	<input type="checkbox"/>	<input type="checkbox"/>
High or low blood sugar	<input type="checkbox"/>	<input type="checkbox"/>	Difficulty performing moderate to heavy exercise	<input type="checkbox"/>	<input type="checkbox"/>
Recent unexplained weight loss or gain	<input type="checkbox"/>	<input type="checkbox"/>	Diabetes, high cholesterol, stroke or heart disease	<input type="checkbox"/>	<input type="checkbox"/>
Head injury, memory loss or amnesia	<input type="checkbox"/>	<input type="checkbox"/>	Parent or sibling with diabetes, stroke or heart disease	<input type="checkbox"/>	<input type="checkbox"/>
Concussion or period of unconsciousness	<input type="checkbox"/>	<input type="checkbox"/>	Treated in a decompression chamber	<input type="checkbox"/>	<input type="checkbox"/>
Seizures, convulsions, epilepsy or fits	<input type="checkbox"/>	<input type="checkbox"/>	Decompression illness (symptoms of both AGE/DCS)	<input type="checkbox"/>	<input type="checkbox"/>
Dizziness or fainting spells	<input type="checkbox"/>	<input type="checkbox"/>	Currently pregnant / may be pregnant (women only)	<input type="checkbox"/>	<input type="checkbox"/>

Indicate the type and frequency of use for the following.

Alcohol	Tobacco	Recreational drugs
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Indicate date, location and reason for each hospitalization and surgery, had or advised to have. Indicate the reasons for any declined surgery.

Provide a detailed explanation for each item checked "YES" in either Medical History section. Add additional pages if necessary.

**APPLICANT CERTIFICATION:**

I certify that I have reviewed the medical information provided by me. It is true and complete to the best of my knowledge. I understand that falsification of information on a Government form is punishable by fine and/or imprisonment and that incomplete information may delay or prevent my qualification for dive duty.

APPLICANT NAME	APPLICANT SIGNATURE	DATE
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**EXAMINER CERTIFICATION:** (MD/DO/NP/PA only)

I certify that I have reviewed the medical information provide to me by the applicant listed above. (Check one)

- I have not found any medical conditions which preclude the applicant from diving certification.
- I have found medical conditions which preclude the applicant from diving certification, see summary of defects listed below.

EXAMINER SUMMARY of DEFECTS

EXAMINER NAME and TITLE	EXAMINER SIGNATURE	DATE
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## Report of Medical History – Annual Update, NF 57-03-54

**What:** This form is used to report **CHANGES** in the medical history of all NOAA Divers on an annual basis. The form is to be completed and signed by the NOAA Diver. It consists of contact information for the diver, medications, allergies, and a short medical history (yes/no list of medical conditions). There is a section for the explanation of affirmative answers in the history section. It is important to note that this form is for reporting CHANGES in medical status, not listing ongoing or past conditions. For example if the diver had an ear infection three years ago which required medical treatment and was reported to the NDMO at the time, it should not be included on the current year's form.

**When:** This form is submitted to the NDMO by NOAA Divers each year in the same month as their current Dive Physical (NF 57-03-50, NF 57-03-51, NF 57-03-52) was submitted. This form contains Personally Identifiable Information (PII) and is covered under the Health Insurance Portability and Accountability Act (HIPAA), transmittal to the NDMO should be done using a secure file transfer via the [DMO@noaa.gov](mailto:DMO@noaa.gov) email address or through the DNMO fax line, (206) 526-2759.

**Record keeping:** None at the Dive Unit level.

**Other considerations:** This form contains medical information protected under HIPAA and as such is confidential. The UDS is encouraged to consult with the Diver to ensure the form is filled out correctly and all required supplemental information is included before they submit the forms to the NDMO. The transmission of HIPAA covered information should be done via encrypted file transfer protocol or by fax.



## REPORT OF MEDICAL HISTORY – ANNUAL UPDATE

LAST NAME	FIRST NAME	MIDDLE NAME	DATE of BIRTH	DATE
WORK ADDRESS			WORK PHONE NUMBER	
			WORK E-MAIL ADDRESS	
			CELL PHONE NUMBER	
STATEMENT of PRESENT HEALTH			AGE	GENDER
			HEIGHT (inches)	WEIGHT (pounds)
CURRENT PRESCRIPTION and NON-PRESCRIPTION MEDICATIONS (Indicate dosage, frequency and condition being treated)			ALLERGIES (List all insect bites / stings, foods and medicines)	

MEDICAL HISTORY of THE PAST YEAR: Have you had any of the following in the past 12 months? Check each item. Explain any item that has changed since you last submitted a Report of Medical History form to the NOAA Diving Program. Physician signature is not required.

	YES	NO		YES	NO
Tuberculosis or positive TB test	<input type="checkbox"/>	<input type="checkbox"/>	Aneurysm, frequent or severe headaches	<input type="checkbox"/>	<input type="checkbox"/>
Exposed to someone who had tuberculosis	<input type="checkbox"/>	<input type="checkbox"/>	Other neurologic disorder or injury	<input type="checkbox"/>	<input type="checkbox"/>
Asthma or any breathing difficulty	<input type="checkbox"/>	<input type="checkbox"/>	Prolonged bleeding, blood clot or embolism	<input type="checkbox"/>	<input type="checkbox"/>
Lung squeeze or collapsed lung (pneumothorax)	<input type="checkbox"/>	<input type="checkbox"/>	Heart murmur or other disorder	<input type="checkbox"/>	<input type="checkbox"/>
Thyroid trouble or goiter	<input type="checkbox"/>	<input type="checkbox"/>	High or low blood pressure	<input type="checkbox"/>	<input type="checkbox"/>
Ear infection or ruptured ear drum	<input type="checkbox"/>	<input type="checkbox"/>	Abnormal heart anatomy or patent foramen ovale	<input type="checkbox"/>	<input type="checkbox"/>
Inability to equalize middle ear pressure	<input type="checkbox"/>	<input type="checkbox"/>	Depression, anxiety or claustrophobia	<input type="checkbox"/>	<input type="checkbox"/>
Bone, joint or other deformity	<input type="checkbox"/>	<input type="checkbox"/>	Been evaluated or treated for a mental condition	<input type="checkbox"/>	<input type="checkbox"/>
High or low blood sugar	<input type="checkbox"/>	<input type="checkbox"/>	Difficulty performing moderate to heavy exercise	<input type="checkbox"/>	<input type="checkbox"/>
Unexplained weight loss or gain	<input type="checkbox"/>	<input type="checkbox"/>	Diabetes, high cholesterol, stroke or heart disease	<input type="checkbox"/>	<input type="checkbox"/>
Head injury, memory loss or amnesia	<input type="checkbox"/>	<input type="checkbox"/>	Parent or sibling with diabetes, stroke or heart disease	<input type="checkbox"/>	<input type="checkbox"/>
Concussion or period of unconsciousness	<input type="checkbox"/>	<input type="checkbox"/>	Treated in a decompression chamber	<input type="checkbox"/>	<input type="checkbox"/>
Seizures, convulsions, epilepsy or fits	<input type="checkbox"/>	<input type="checkbox"/>	Decompression illness (symptoms of both AGE/DCS)	<input type="checkbox"/>	<input type="checkbox"/>
Dizziness or fainting spells	<input type="checkbox"/>	<input type="checkbox"/>	Currently pregnant/ may be pregnant (women only)	<input type="checkbox"/>	<input type="checkbox"/>

Indicate the type and frequency of use for the following.

Alcohol	Tobacco	Recreational drugs
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Indicate date, location and reason for each hospitalization and surgery, had or advised to have. Indicate the reasons for any declined surgery.

Provide a detailed explanation for each item checked "YES" in either Medical History section. Add additional pages if necessary.

**APPLICANT CERTIFICATION:**

I certify that I have reviewed the medical information provided by me. It is true and complete to the best of my knowledge. I understand that falsification of information on a Government form is punishable by fine and/or imprisonment and that incomplete information may delay or prevent my qualification for dive duty.

APPLICANT NAME	APPLICANT SIGNATURE	DATE
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**NOAA DIVING PROGRAM REVIEWER CERTIFICATION:**

I certify that I have reviewed the medical information provide to me by the applicant listed above. (Check one)

- I have not found any medical conditions which preclude the applicant from diving certification.
- I have found medical conditions which preclude the applicant from diving certification, see summary of defects listed below.

DIVING MEDICAL OFFICER NAME	DIVING MEDICAL OFFICER SIGNATURE	DATE
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## SEP Measurement Form, NF 57-03-65

**What:** This form is used by NOAA Diver candidates to ensure they receive the proper size gear during NOAA Diver Training classes. It is also used by locally trained NOAA Divers who wish to join the Standardized Equipment Program (SEP). It consists of contact information for the diver or diver candidate, a series of body measurements, and a comment section where specific preferences can be listed (e.g., 3 mm one-piece wetsuit, 7 mm two piece wetsuit). It is signed by the diver or diver candidate and the UDS.

**When:** The form should be submitted to the SEP Coordinator via the [SEP.ndc@noaa.gov](mailto:SEP.ndc@noaa.gov) email address or sent via fax to (205) 529-2757 at least thirty (30) days prior to the NOAA Diver Training class.

**Record keeping:** Not required, but it is suggested to keep a copy until the diver or diver candidate receives their SEP gear.

**Other considerations:** If requesting an exposure suit the UDS should indicate in the Comments section the type of exposure suit they will need; 3mm, 5mm, or 7mm full wetsuit, and/or drysuit.

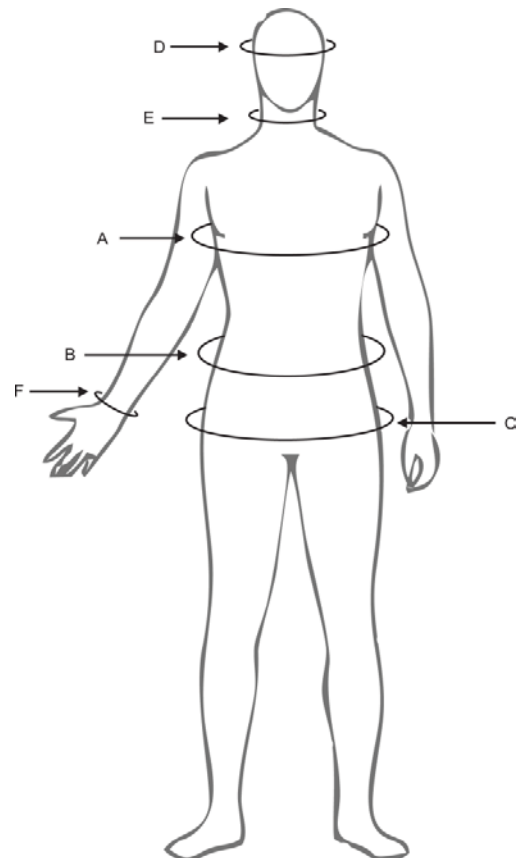
## STANDARDIZED EQUIPMENT PROGRAM MEASUREMENT FORM

### APPLICANT INFORMATION

NAME (Last, First MI)	NAME of AGENCY / UNIT	DATE	
WORK ADDRESS	CITY	STATE	ZIP
E-MAIL ADDRESS	PHONE NUMBER	Extension	

### MEASUREMENTS (use soft measuring tape, pull tape snugly)

GENDER	<input type="radio"/> FEMALE <input type="radio"/> MALE		
GLOVE SIZE	<input type="radio"/> S <input type="radio"/> M <input type="radio"/> L <input type="radio"/> XL <input type="radio"/> XXL		
HEIGHT	ft.		in.
WEIGHT			lb.
CHEST / BUST (A)			in.
WAIST (B)			in.
HIPS (C)			in.
HEAD CIRCUMFERENCE (D)			in.
NECK CIRCUMFERENCE (E)			in.
WRIST CIRCUMFERENCE (F)			in.
SHOE SIZE		<input type="radio"/> FEMALE <input type="radio"/> MALE	



### COMMENTS

### AUTHORIZATION

DIVER NAME	DIVER SIGNATURE	DATE
UNIT DIVING SUPERVISOR NAME	UNIT DIVING SUPERVISOR SIGNATURE	DATE

### SUBMISSION INSTRUCTIONS

Submit this form to the Standardized Equipment Program via [SEP.NDC@noaa.gov](mailto:SEP.NDC@noaa.gov) or FAX: 205-529-2757

## SEP Transaction Form, NF 57-03-66

**What:** This form is used by NOAA Divers and the SEP Coordinator whenever diving gear is issued, requested or returned. It consists of contact information for the diver and UDS, and a series of gear descriptions with notations for serial numbers and/or sizes. It is signed by the diver and the UDS.

**When:** The form should be submitted to the SEP Coordinator via the [SEP.ndc@noaa.gov](mailto:SEP.ndc@noaa.gov) email address or sent via fax to (205) 529-2757 whenever gear is requested or returned.

**Record keeping:** A digital or printed copy should be retained at the unit for one (1) year.

**Other considerations:** This form is useful when conducting the annual inventory of SEP gear which is a required item on the annual Tier II Dive Unit Safety Assessment (DUSA). If any discrepancies are noted in serial numbers of equipment, please inform the SEP Coordinator of the correct serial numbers.

### STANDARDIZED EQUIPMENT PROGRAM TRANSACTION FORM

DIVER NAME	UNIT NAME	UNIT PHONE NUMBER	DATE
SHIPPING ADDRESS	UNIT DIVING SUPERVISOR NAME	UNIT DIVING SUPERVISOR SIGNATURE	

**DIRECTIONS:** Use the check box to indicate the type of action performed and the item(s) being requested, issued, returned, or inventoried.

CHECK	ITEM DESCRIPTION	SERIAL NUMBER	CHECK	ITEM DESCRIPTION	CHECK	ITEM DESCRIPTION
<input type="checkbox"/>	Regulator – 1 <sup>st</sup> stage		<input type="checkbox"/>	Ankle Weights	<input type="checkbox"/>	Gear Bag
<input type="checkbox"/>	Regulator – 2 <sup>nd</sup> stage		<input type="checkbox"/>	Boots	<input type="checkbox"/>	Knife
<input type="checkbox"/>	Alternate air source		<input type="checkbox"/>	Compass	<input type="checkbox"/>	Weight belt
<input type="checkbox"/>	Pressure gauge		<input type="checkbox"/>	Dive Alert	<input type="checkbox"/>	Weight harness <input type="radio"/> S <input type="radio"/> M <input type="radio"/> L
<input type="checkbox"/>	Depth Gauge/Bottom timer		<input type="checkbox"/>	Fins <input type="radio"/> M <input type="radio"/> L <input type="radio"/> XL <input type="radio"/> T	<input type="checkbox"/>	Other:
<input type="checkbox"/>	RASS 1 <sup>st</sup> stage regulator		<input type="checkbox"/>	Gloves <input type="radio"/> Wet <input type="radio"/> Dry	<input type="checkbox"/>	Size: <input type="radio"/> 3mm <input type="radio"/> 5mm <input type="radio"/> other ____
<input type="checkbox"/>	RASS 2 <sup>nd</sup> stage regulator		<input type="checkbox"/>	Hood <input type="radio"/> Wet <input type="radio"/> Dry	<input type="checkbox"/>	Size: <input type="radio"/> 3mm <input type="radio"/> 5mm <input type="radio"/> other ____
<input type="checkbox"/>	RASS pressure gauge		<input type="checkbox"/>	Wetsuit <input type="radio"/> Full <input type="radio"/> 2-piece	<input type="checkbox"/>	Size: <input type="radio"/> 3mm <input type="radio"/> 5mm <input type="radio"/> 7mm <input type="radio"/> other ____
<input type="checkbox"/>	BCD		Comments:			
<input type="checkbox"/>	Full Face Mask					
<input type="checkbox"/>	Dry Suit					

DIVER SIGNATURE	DATE	Email requests to <a href="mailto:SEP.NDC@noaa.gov">SEP.NDC@noaa.gov</a> or FAX: 206-529-2757. Shipments include completed form with equipment: NOAA Diving Center SEP, 7600 Sand Point Way NE, BLDG 8, Seattle, WA 98115
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## **SEP User Agreement, NF 57-03-67**

**What:** This form documents that a NOAA Diver who has been issued Standardized Equipment Program (SEP) gear agrees to follow the relevant standards, policies and procedures of the NOAA Diving Program while using the SEP gear. The diver also agrees to properly maintain the gear and return it to the SEP Coordinator if the diver leaves the NOAA Diving Program.

**When:** This form should be submitted to the SEP Coordinator via the [SEP.ndc@noaa.gov](mailto:SEP.ndc@noaa.gov) email address or sent via fax to (205) 529-2757 when a diver desires to join the SEP.

**Record keeping:** A digital or printed copy should be retained at the unit.

**Other considerations:** None.

### STANDARDIZED EQUIPMENT PROGRAM USER AGREEMENT

I, \_\_\_\_\_, hereby request the issuance of diving equipment from the NOAA Diving Center (NDC) diving gear for official use pursuant to my position as a current NOAA employee or contractor.

I understand that this equipment or any future equipment sent to me, is the property of the United States Government, controlled by NDC, and that said equipment shall remain the property of the U.S. Government while in my possession.

I understand that I will be required to comply with all applicable governmental regulations, including those outlined in 29 CFR Part 1910, Subpart T and NAO 209-123, while using this equipment.

Should I be found in violation of any of these regulations or fail to keep my diving certification current, I may, at the discretion of NDC, be asked to surrender any or all of the dive gear issued to me.

I further understand that I am solely responsible for the care of this equipment.

Should I leave employment with NOAA, end my contract, or be taken off dive orders, I understand that all gear must be returned immediately to the NDC or I will be held financially responsible for any gear not received.

NAME of DIVE EQUIPMENT RECIPIENT	SIGNATURE of DIVE EQUIPMENT RECIPIENT	DATE
UNIT DIVE SUPERVISOR NAME	UNIT DIVE SUPERVISOR SIGNATURE	DATE

Submit to [SEP.NDC@noaa.gov](mailto:SEP.NDC@noaa.gov)

## **Dive Computer User Agreement, NF 57-03-68**

**What:** This form documents a NOAA Diver's agreement to a series of conditions when using a dive computer for on-duty NOAA dives. Each condition includes a blank space at the margin for the diver to signify their agreement by initialing the document. The document is signed by the NOAA Diver.

**When:** This form should be submitted to the NDC via the [support.ndc@noaa.gov](mailto:support.ndc@noaa.gov) email address prior to the use of a dive computer on any on-duty NOAA dives.

**Record keeping:** A digital or printed copy should be retained at the unit until the diver leaves the NOAA Diving Program or discontinues the use of a dive computer.

**Other considerations:** Any dive computer commercially sold in the United States is authorized for use on no-decompression, air or nitrox dives. Computers for decompression or dives with breathing gases consisting of more than nitrogen and oxygen (i.e., trimix), require approval of the NDCSB. Currently authorized decompression and/or mixed gas dive computers include the Shearwater Predator, Shearwater Petrel, VR Technologies VRX, and the Liquivision X1.



**DIVE COMPUTER USER AGREEMENT**

*Read each statement in the Agreement below and initial on each line at the end of the sentence, which indicates: 1) Your understanding of the statement, and 2) Your agreement to adhere to the terms or conditions of the Agreement while using a dive computer. Sign and date the Agreement then return it to the NOAA Diving Center (NDC). The NDC will notify you when you are cleared to begin using a dive computer for official-duty dives.*

DIVER NAME	DATE
UNIT DIVING SUPERVISOR	DIVE UNIT

**AGREEMENT**

1. I agree to limit my dive profiles to those depth-time combinations that DO NOT result in “ceilings” or mandatory decompression stops whenever using a dive computer. \_\_\_\_\_
2. I agree to terminate the dive and begin ascent whenever the first dive computer in the group reaches the no-decompression time limit. I understand that it is strongly recommended to terminate the dive when the first dive computer in the group indicates that the diver has five (5) minutes of no-decompression time remaining. \_\_\_\_\_
3. I agree to refrain from diving for 24 hours before activating and using a dive computer. \_\_\_\_\_
4. I agree to refrain from using another diver’s dive computer until the computer indicates total desaturation in all tissues. \_\_\_\_\_
5. I agree to make a safety stop between 15-20 feet for 3-5 minutes for repetitive dives or dives deeper than 60 feet in depth, unless doing so jeopardizes my safety or that of my dive buddy. \_\_\_\_\_
6. I agree to limit reverse profile dives (e.g., shallowest dive first) to those dives where the depth differential between the two dives is 40 feet or less. \_\_\_\_\_
7. I agree to refrain from flying following dives conducted with dive computers until my computer indicates that it is safe to do so. I also agree that if my dive computer fails for any reason (e.g., malfunctions, shut-down, etc.) prior to indicating clearance to fly, that I will wait a minimum of 24 hours after surfacing from my last dives before flying. \_\_\_\_\_
8. I agree to terminate a dive and immediately begin appropriate surfacing procedures if my dive computer fails at any time during a dive. After surfacing, I agree to wait a minimum of 24 hours before diving with either decompression tables or a “clean,” (e.g. totally desaturated) dive computer. \_\_\_\_\_
9. I agree that if I accidentally exceed the no-decompression limits, as indicated on my dive computer, that I will terminate the dive and immediately begin ascent to the surface following surfacing instructions (e.g., decompression requirements) displayed on my dive computer. Once on the surface, I agree to report the incident to the Divemaster, or other person-in-charge, which shall note the procedural violation. I understand that should I repeatedly exceed the no-decompression limits that I may be restricted from further diving. \_\_\_\_\_

### DIVE COMPUTER USER AGREEMENT

10. I agree that if I accidentally exceed the no-decompression limits and during decompression my dive computer fails prior to reaching the surface, that I will ascend to between 10-15 feet and decompress for 15 minutes or until reaching 300 psi in my scuba cylinder, whichever comes first. Once on the surface, I agree to breathe 100% oxygen, via tight fitting mask for 30 minutes. If I am asymptomatic following breathing oxygen for 30 minutes, I understand that I will be closely monitored for a minimum of 12 hours for signs or symptoms of decompression sickness and restricted from further diving during this observational period. If signs or symptoms of DCS occur during or after oxygen breathing, I understand that I will be transported (on oxygen) to the nearest medical facility for treatment. \_\_\_\_\_
11. I agree that if I accidentally exceed the no-decompression limit and surface without conducting the prescribed decompression indicated on my dive computer, and I am asymptomatic and can return to the water within five (5) minutes, that I may be asked to dive to the depth of the “ceiling” and remain there for the amount of time indicated on my dive computer. If I cannot be returned to the water for any reason within five (5) minutes, I agree to breathe 100% oxygen, via tight-fitting mask for 60 minutes. If asymptomatic after breathing oxygen, I understand that I will be closely observed for a minimum of 24 hours for signs or symptoms of decompression sickness and restricted from further diving during this observational period. If signs or symptoms develop during or after breathing oxygen, I understand that I will be transported (on oxygen) to the nearest medical facility for treatment. \_\_\_\_\_
12. I agree to maintain the dive computer in accordance with the manufacturer’s guidelines including yearly inspection by an authorized dealer. \_\_\_\_\_
13. I understand that prior to diving, all divers in the buddy team must decide if the dive is to be conducted using dive computers or decompression tables – and that if dive computers are to be used, all divers must have and use their own dive computers. \_\_\_\_\_
14. I understand that a backup bottom timer and depth gauge are strongly recommended in case a dive computer fails. \_\_\_\_\_
15. I have read and am thoroughly familiar with the operations manual(s) for the dive computer(s) I intend to use, and agree to conduct dives in accordance with the manufacturer’s guidelines outlined in the operations manual(s). \_\_\_\_\_

DIVER SIGNATURE	DATE
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## **SEP Off-Duty User Agreement, NF 57-03-69, NF 57-03-70**

**What:** This form has two parts. The first part confirms that the NOAA Diver agrees to follow NOAA Diving Program standards, policies, and procedures when using NOAA-issued Standardized Equipment Program (SEP) gear during off-duty dives. The second part is a liability waiver which the NOAA Diver initials and signs agreeing to hold harmless NOAA and the United States government for any injuries or damages which may occur when SEP gear is used during an off-duty dive.

**When:** This form should be initialed and signed by the NOAA Diver and signed by the UDS before the diver uses any NOAA issued SEP gear for off-duty dives.

**Record keeping:** A digital or printed copy should be retained at the Diving Unit as long as the diver wishes to use SEP gear for off-duty dives.

**Other considerations:** None.

## STANDARDIZED EQUIPMENT PROGRAM OFF-DUTY EQUIPMENT USER AGREEMENT

The NOAA Diving Control and Safety Board (NDCSB) recognizes the safety benefits of NOAA divers maintaining a high level of proficiency by diving as often as possible. Using SEP gear during dives, either on-duty or off-duty, further increases the safety margin by increasing familiarity with the gear and insuring the use of high-quality, well-maintained gear. Therefore, the use of SEP gear for off-duty dives is permitted provided the users agree to abide by the following stipulations:

### AGREEMENT

1. I agree to limit my maximum dive depth to 130 feet.
2. I agree to use the NOAA Reserve Air Supply System (RASS) on dives >100 Feet Salt Water (FSW), in overhead environments, or if visibility precludes easy reading of the pressure gauge.
3. I agree to keep my bottom times within the NOAA no-decompression limits.
4. I agree to always dive with a buddy (i.e., no solo diving) that is certified by a nationally recognized training agency and outfitted with a secondary air delivery system (e.g., octopus regulator).
5. I agree to always surface with at least 500 psi in my scuba cylinder.
6. I agree to always have access to an emergency oxygen kit within 30 minutes of the dive site.
7. I agree to submit an electronic dive plan to [ndp.diveplans@noaa.gov](mailto:ndp.diveplans@noaa.gov) (if possible). This dive plan does not require UDS approval.
8. I agree to use my SEP gear for non-commercial purposes only.
9. I understand that my use of SEP gear during off-duty hours may be revoked for violation of any of the above requirements.

DIVER NAME	DIVER SIGNATURE	DATE
UNIT DIVING SUPERVISOR NAME	UNIT DIVING SUPERVISOR SIGNATURE	DATE

This form shall be retained at the Diving Unit while the Diver is issued SEP equipment.

## STANDARDIZED EQUIPMENT PROGRAM OFF-DUTY EQUIPMENT USER RELEASE OF LIABILITY

**Assumption of risk and release of liability for NOAA employees to use NOAA dive gear for personal or recreational use during off-duty diving; hereinafter "Release".**

In consideration of NOAA permitting my use of NOAA owned and maintained dive equipment for non-work related dive activities (e.g., personal, recreational, proficiency, educational, weekend, or vacation use), I, for myself and on behalf of all my personal representatives, heirs, and next of kin do execute and certify the following:

I, \_\_\_\_\_, hereby declare that I am a NOAA employee, that I am a certified NOAA diver trained in safe diving practices, and that I am fully informed of, aware of, and thoroughly understand the inherent hazards and risks associated with snorkeling, skin diving, scuba diving, nitrox diving, and compressed air diving (hereinafter collectively referred to as diving). I understand these risks can lead to severe injury, loss of life, or property damage and liability to others. I understand hazards include, but are not limited to, decompression sickness, embolism, barotraumas or other hyperbaric/air expansion injury that may require treatment in a recompression chamber, drowning, equipment failure, and other perils of the sea. I understand and agree that diving is dangerous whether engaged in depths above or below the recommended 130 foot limitation for sport/recreational diving activities. I further acknowledge and agree that injuries received may be compounded or increased by negligent rescue operations or procedures.

By signing this Release, I certify that I am making full and honest representations of my dive skills and certifications, and I am fully aware of and expressly assume all risks involved in making dives, whether conducted recreationally, for proficiency, or as part of any organized dive endeavor (class, excursion, or trip).

By signing this Release, I further certify that I am responsible for my own actions and use of dive gear, including gear owned and maintained by NOAA, and being used by me while off-duty, and I am financially responsible for expenses, including medical expenses, arising from my off-duty use of NOAA dive gear.

By signing this Release, I acknowledge that past or present medical conditions may disqualify me for diving. I declare that I am in good mental and physical fitness for diving, and that I am not nor will I be under the influence alcohol or any drugs contraindicated for diving. If I am taking medication, I declare that I have seen a physician and have approval to dive while under the influence of medications or drugs I am taking.

By signing this Release, I acknowledge diving is a physically strenuous activity and that I will be exerting myself during this activity. I further acknowledge that if I die or am injured as a result of heart attack, panic attack, hyperventilation, drowning, or any other cause, I expressly assume the risk of said injuries or death, and neither myself, nor my representatives, heirs, agents, or assigns will hold NOAA or the U. S. Government responsible for the same.

By signing this Release, I agree that I will inspect the air supply and all equipment prior to use, and will notify NOAA if any equipment is not working properly or if I have any problems with the air supply or the equipment. I will not hold NOAA responsible for my failure to inspect the air supply or the equipment prior to diving, or for my use of such faulty equipment regardless of any inspection.

**STANDARDIZED EQUIPMENT PROGRAM  
OFF-DUTY EQUIPMENT USER RELEASE OF LIABILITY**

By signing this Release, I agree to adhere to NOAA policies and procedures regarding proper use, storage, cleaning, maintenance, operation, configuration, and all other instruction related to use of NOAA dive equipment and gear, consistent with the written instructions NOAA has provided, and which is incorporated by reference herein.

By signing this Release, I agree to replace, repair, or otherwise compensate NOAA for any loss, damage, or destruction of any NOAA dive gear in my possession and use under this Release.

By signing this Release, I hereby assume full responsibility for any and all risk of bodily injury, wrongful death, property loss or damage, and liability to myself or any third party, now and forever, arising out of my use of any NOAA dive gear or during diving related activities using NOAA dive gear, whether foreseen or unforeseen, and whether caused by the negligence of myself, third parties, or NOAA.

By signing this Release, I hereby release, waive, discharge, and give up any and all claims against NOAA, the U. S. Government, and all its employees, agents and representatives for any and all liability, claims, and demands by me or made by my personal representative, heirs, agents, assigns, and next of kin for any and all loss or damage, and any claim or demands therefore on account of injury, death, or loss arising out of or related to my use of NOAA dive equipment during off-duty hours.

By signing this Release, I understand and agree that this Release means that if I am injured or die in a diving related incident, I am giving up my rights and the rights of my heirs, representatives, executors, or successors to sue NOAA or the U. S. Government, or any of its representatives, employees, or agents for any damages or for any form of compensation.

By signing this Release, I further agree separately to indemnify, save, and hold harmless NOAA and the U. S. Government from any loss, liability, damage, or cost that they may incur, now and forever, arising out of or related to my use of NOAA dive gear off-duty, whether caused by the negligence of NOAA, the U. S. Government, or me.

By signing this Release, I certify that I am trained in diving and safe dive practices by NOAA, and my certification and qualifications are up to date.

By signing this Release I also represent that I have authority to do so and my heirs, assigns, representatives, or beneficiaries will be stopped from claiming otherwise.

By signing this Release, I affirm that I am not relying on any oral or written representation or statements made by NOAA or the U. S. Government, other than what is set forth in this document. I further agree this document shall be interpreted in accordance with the laws of the United States.

By signing this Release, I agree that if any provision of this Release is found to be unenforceable or invalid, that provision shall be severed from this release. The remainder of the Release will then be construed as though the unenforceable provision had never been contained in this release. All other provisions shall survive.

## STANDARDIZED EQUIPMENT PROGRAM OFF-DUTY EQUIPMENT USER RELEASE OF LIABILITY

ACCORDINGLY, WITH FULL UNDERSTANDING, BEING OF RIGHT MIND AND DULY TRAINED, I, \_\_\_\_\_, BY THIS INSTRUMENT, EXEMPT AND RELEASE NOAA AND THE U. S. GOVERNMENT, ITS OFFICERS, AGENTS, REPRESENTATIVES, AND ASSIGNS FROM ALL LIABILITY AND RESPONSIBILITY FOR PERSONAL INJURY, PROPERTY DAMAGE, OR WRONGFUL DEATH, HOWEVER CAUSED, INCLUDING BUT NOT LIMITED TO EQUIPMENT FAILURE AND NEGLIGENCE, WHETHER PASSIVE OR ACTIVE. I ACKNOWLEDGE THAT I HAVE READ AND INITIALED THE FOREGOING PARAGRAPHS, FULLY UNDERSTAND THE POTENTIAL DANGERS INCIDENTAL TO MY USE OF NOAA DIVE EQUIPMENT, AM FULLY AWARE OF THE LEGAL CONSEQUENCES OF SIGNING THIS INSTRUMENT, AM AN EMPLOYEE OF NOAA, AND I AM OLDER THAN 18 YEARS OF AGE.

I UNDERSTAND AND AGREE THAT THIS DOCUMENT IS LEGALLY BINDING AND WILL PRECLUDE ME FROM RECOVERING MONETARY DAMAGES FROM NOAA OR THE U. S. GOVERNMENT FOR PERSONAL INJURY, PROPERTY DAMAGE, OR WRONGFUL DEATH CAUSED BY MY USE OF NOAA GEAR AND EQUIPMENT DURING OFF-DUTY HOURS, WHETHER PASSIVE OR ACTIVE. I UNDERSTAND THAT BY SIGNING IT I AM GIVING UP SUBSTANTIAL RIGHTS.

I HAVE FULLY INFORMED MYSELF OF THE CONTENTS OF THIS RELEASE BY READING IT AND INITIALIZING IT. I ALSO UNDERSTAND I SIGN IT ON BEHALF OF MYSELF, MY HEIRS, MY REPRESENTATIVES, NEXT OF KIN, AND ASSIGNS. ACCORDINGLY, I AM BOUND BY THIS RELEASE AND ANYONE WHO SUCCEEDS TO MY RIGHTS AND RESPONSIBILITIES SUCH AS MY HEIRS OR THE EXECUTOR OF MY ESTATE IS ALSO BOUND.

I HAVE SIGNED THIS DOCUMENT FREELY AND VOLUNTARILY WITHOUT ANY INDUCEMENT, ASSURANCE, OR GUARANTEE BEING MADE TO ME. I INTEND MY SIGNATURE TO BE A COMPLETE AND UNCONDITIONAL RELEASE OF ALL LIABILITY TO THE GREATEST EXTENT ALLOWED BY LAW.

**NOAA PERSONNEL USING THE EQUIPMENT:**

**I HAVE READ THIS DOCUMENT, I UNDERSTAND IT, AND I AGREE TO BE BOUND BY IT.**

DIVER NAME		
DIVER SIGNATURE		DATE
LINE or STAFF OFFICE	WORK PHONE NUMBER	EMERGENCY CONTACT PHONE NUMBER

**NOAA PERSONNEL RELEASING THE EQUIPMENT:**

**I HAVE REVIEWED THIS DOCUMENT AND CONFIRM IT HAS BEEN PROPERLY COMPLETED.**

UNIT DIVING SUPERVISOR NAME	
UNIT DIVING SUPERVISOR SIGNATURE	DATE
DIVING UNIT NAME	PHONE NUMBER

This form shall be retained at the Diving Unit while the Diver is issued SEP equipment.

## **SEP Review of Property, NF 57-03-72**

**What:** This form is used to report to the Standardized Equipment Program (SEP) Coordinator the loss of or damage to any SEP gear. There are sections to document the serial number(s) of the lost or damaged gear and to provide a narrative description of the circumstances which led to the loss or damage. There are also sections for the UDS and NDC Property Review Board to document findings or recommendations. The form is signed by the NOAA Diver, UDS and SEP Coordinator.

**When:** This form should be submitted to the SEP Coordinator via the [SEP.ndc@noaa.gov](mailto:SEP.ndc@noaa.gov) email address.

**Record keeping:** A digital or printed copy should be retained at the Diving Unit until the end of the fiscal year in which any charges for lost or damaged SEP gear is applied.

**Other considerations:** None.



**STANDARDIZED EQUIPMENT PROGRAM REVIEW OF PROPERTY**

NAME OF DIVER	DATE OF REVIEW
UNIT NAME	UNIT DIVE SUPERVISOR NAME

QTY EACH	ITEMS REPORTED : <input type="checkbox"/> LOST <input type="checkbox"/> DAMAGED <input type="checkbox"/> STOLEN <input type="checkbox"/> DESTROYED <input type="checkbox"/> SACRIFICED	DATE OF LOSS	ACQUISITION COST	REPLACEMENT COST
	Item Description	Serial# (if applicable)	\$	\$
	Item Description	Serial# (if applicable)	\$	\$
	Item Description	Serial# (if applicable)	\$	\$
	Item Description	Serial# (if applicable)	\$	\$
	Item Description	Serial# (if applicable)	\$	\$

- Use a separate sheet of paper if reporting additional items

<b>EXPLAIN THE CIRCUMSTANCES CAUSING REPORTED LOSS OF PROPERTY</b>		
I HEREBY CERTIFY THAT THE INFORMATION GIVEN ABOVE IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF. DIVER SIGNATURE:	DATE	
<b>UNIT DIVING SUPERVISOR FINDING</b>		
UDS SIGNATURE	DATE	
<b>NDC PROPERTY REVIEW BOARD RECOMMENDATION</b>		
SEP COORDINATOR SIGNATURE	NDPM SIGNATURE	DATE

## **NOAA Visual Cylinder Inspection Report, NF 57-03-81**

**What:** This form documents the visual inspection of a single scuba cylinder. It contains detailed information from all phases of a visual inspection (e.g., cylinder specifications, external condition, internal condition, and valve type and threading). It also notes whether the cylinder passed or failed the inspection.

**When:** This form should be used every time a scuba cylinder is inspected for use in the NOAA Diving Program.

**Record keeping:** A digital or printed copy should be retained at the Diving Unit until the cylinder is visually re-inspected.

**Other considerations:** While there is no requirement to keep this document beyond the next inspection of the cylinder it applies to, it is good practice to keep these for the life of the cylinder to allow tracking of its condition over time.

## VISUAL CYLINDER INSPECTION REPORT

DIVING UNIT NAME	DIVING UNIT LOCATION
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### CYLINDER SPECIFICATIONS

Serial Number	Initial Hydro Date	Current Hydro Date
Cylinder Volume      Ft <sup>3</sup>	Cylinder Color	Cylinder Material
Working Pressure      PSI	Valve Type	Valve Cap <input type="checkbox"/> Yes <input type="checkbox"/> No
Cylinder Type: <input type="checkbox"/> SCUBA <input type="checkbox"/> SCBA <input type="checkbox"/> Other		

### EXTERNAL CONDITION

Evidence of fire or heat damage? <input type="checkbox"/> Yes <input type="checkbox"/> No	Evidence of repainting? <input type="checkbox"/> Yes <input type="checkbox"/> No	Evidence of bulges? <input type="checkbox"/> Yes <input type="checkbox"/> No
Internal odor? <input type="checkbox"/> Yes <input type="checkbox"/> No	Odor description:	
Corrosion line around boot? <input type="checkbox"/> Yes <input type="checkbox"/> No	Tone test: (steel cylinders only)	
Description of exterior surface		
Location and depth of gouges, dings or pits ≥ 0.015"		
Comparison to standards: <input type="checkbox"/> Acceptable <input type="checkbox"/> Unacceptable		

### INTERNAL CONDITION

Amount and makeup of contents	
Description of internal surface	
Location and depth of any pitting	
Comparison to standards: <input type="checkbox"/> Acceptable <input type="checkbox"/> Unacceptable	

### THREADING / VALVE

Description of threads:	Number of good threads (counting from top down)
O-Ring surface:	Other services needed:
Burst disc replaced? <input type="checkbox"/> Yes <input type="checkbox"/> No	Date valve rebuilt:
Comparison to standards: <input type="checkbox"/> Acceptable <input type="checkbox"/> Unacceptable	

### CYLINDER CERTIFICATION

<input type="checkbox"/> Cylinder PASSED	<input type="checkbox"/> NOAA Visual Cylinder Inspection Sticker affixed	Month and Year indicated on sticker	MM	YY
<input type="checkbox"/> Cylinder FAILED	Action Taken: <input type="checkbox"/> Tumbled <input type="checkbox"/> Hydro-ed <input type="checkbox"/> Discarded			

### RECOMMENDATIONS

INSPECTOR'S NAME	INSPECTOR'S SIGNATURE	DATE
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## **NOAA Visual Cylinder Inspection Summary, NF 57-03-82**

**What:** This form summarizes the inspection status of a group of scuba cylinders. It contains fields for several cylinder specifications (i.e., cylinder serial number, dates of last VIP, first and last hydrostatic tests, type, size, valve type, color, any other noteworthy observations, and the name of the inspector). This form is not a record of any individual inspection.

**When:** This form should be used every time scuba cylinders are inspected for use in the NOAA Diving Program.

**Record keeping:** A digital or printed copy should be retained at the Diving Unit until the cylinders are visually re-inspected.

**Other considerations:** While there is no requirement to keep this document beyond the next inspection of the cylinders it applies to, it is good practice to keep these for the life of the cylinders to allow tracking of their condition over time.

## VISUAL CYLINDER INSPECTION SUMMARY

FACILITY / LOCATION	UNIT DIVING SUPERVISOR NAME	Page ____ of ____
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	Date of Inspection	Cylinder Serial #	Date Last Inspected	Date First HYDRO (MM/YR)	Date Last HYDRO (MM/YR)	CYL Type	CYL Size	Valve Type	Cylinder Color and Remarks	Inspector's Name
1.										
2.										
3.										
4.										
5.										
6.										
7.										
8.										
9.										
10.										

	-		=	
Stickers Issued		Stickers Used		Stickers On Hand

INSPECTOR'S NAME	INSPECTOR'S SIGNATURE	DATE
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## Emergency Oxygen Kit Issue and Maintenance Checklist, NF 57-03-84

**What:** This form is an annual record of oxygen kit maintenance and it is used to add additional kits and parts from the Standardized Equipment Program. There are several rows consisting of specific items to inspect on the oxygen kit and columns for every month of the year. There are also blanks to note the date of demand valve tests.

**When:** Information should be added to this form every month during which diving operations are conducted. However, regular monthly inspection is recommended. This form is also submitted to the SEP Coordinator via the [SEP.ndc@noaa.gov](mailto:SEP.ndc@noaa.gov) email address when new oxygen kits or parts are ordered. When kits or parts are shipped by SEP, a copy of this form should be included in the shipment.

**Record keeping:** A digital or printed copy should be retained at the Diving Unit until two (2) years after the checklist has been completed.

**Other considerations:** While this form contains boxes for monthly checks, these are not required if diving operations are not being actively conducted. You should go through your oxygen kit prior to every dive operation. However, it would demonstrate poor leadership if a dive operation had to be cancelled at the last minute because a fault was found with on oxygen kit. A much better practice is to check the kit a week before a planned dive, while there is time to repair a fault, and then confirm cylinder pressures and regulator function immediately before commencing the dive operation. The alternative use for this form is to order additional or replacement oxygen kits and parts.

## EMERGENCY OXYGEN KIT - INVENTORY, MAINTENANCE AND ORDER FORM

O2 KIT #	DIVING UNIT NAME	DIVING UNIT LOCATION	UNIT DIVING SUPERVISOR NAME
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ITEMS ISSUED	QTY	ITEMS ISSUED	QTY
FIRST STAGE REGULATOR	SERIAL NUMBER	REUSABLE O2 MASK	NON-REBREATHER MASK (single use)
SECOND STAGE DEMAND VALVE REG with LP HOSE	SERIAL NUMBER / MANUFACTURER	BMV RESUSCITATOR BAG	SPARE WASHER
OXYGEN CYLINDER #1 **	SIZE	Steel <input type="checkbox"/> Alum <input type="checkbox"/>	HYDROSTATIC TEST DATE
OXYGEN CYLINDER #2 **	SIZE	Steel <input type="checkbox"/> Alum <input type="checkbox"/>	HYDROSTATIC TEST DATE

\*\*Cylinders must meet hydrostatic testing requirements

INSPECTION / MAINTENANCE		YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1.	Check condition of reusable O2 mask and the BMV resuscitator bag and mask. Clean or replace if necessary.													
2.	Check condition of single use non-rebreather mask. Replace if necessary.													
3.	Verify washer is seated properly. Tighten as needed.													
4.	Check cylinder condition. Valve should be clean and dry (NO OIL)													
5.	Check hydrostatic test date. Aluminum cylinders within 5 yrs; Steel cylinders within 5 yrs or 10 yrs w/ *													
6.	Verify cylinder wrench is attached to yoke and accessible to both cylinders (when applicable).													
7.	Open tank valve. Check pressure gauge. Verify tank is full (2015 psi +/- 10%).													
8.	Briefly push button on demand valve. Valve should have high flow, no whistle, and fully stop when released.													
9.	Close tank valve. Check for leaks. Pressure gauge needle should not move.													
10.	Push button on demand valve to bleed off contents.													
11.	Check for corrosion. Rinse and clean as needed.													
12.	Check general condition of watertight storage case.													
<b>INSPECTOR'S INITIALS:</b>														
<b>DEMAND VALVE TESTS:</b> PASSING PRESSURE = 32-48 mmHg	PREVIOUS 2 YEAR SERVICE DATE	JAN/FEB/MAR	APR/MAY/JUN	JUL/AUG/SEPT	OCT/NOV/DEC									
	DATE	DATE	DATE	DATE	DATE									
		mmHg	mmHg	mmHg	mmHg									

- NOTES:
- Emergency oxygen kits shall be inspected before diving operations and monthly inspections are recommended.
  - Follow the manufactures recommendations for the demand valve resuscitator or it shall be tested every three (3) months and serviced by an authorized service center every two (2) years.

For order information, questions or service needs for this kit, contact the NOAA Dive Center at 206-526-6623.	NAME of INSPECTOR	SIGNATURE of INSPECTOR	DATE
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## **Emergency Oxygen Kit Valve Test Instructions, NF 57-03-85**

**What:** This form provides instructions for testing the positive pressure demand regulator (Elder valve) in SEP provided emergency oxygen kits.

**When:** This form is for reference when conducting quarterly checks on the positive pressure demand regulator in the emergency oxygen kits.

**Record keeping:** Retention of this form is not required. Results should be recorded on NF 57-03-84.

**Other considerations:** While this form is only used quarterly to test the proper functionality of oxygen regulators and valves, operational tests should be done more frequently than this. Oxygen kits should be checked monthly and before every diving operation.



## EMERGENCY OXYGEN KIT DEMAND VALVE TEST INSTRUCTIONS

**CAUTION:** Please be careful when handling this test kit. Dropping or hitting the pressure gauge will alter the calibration.

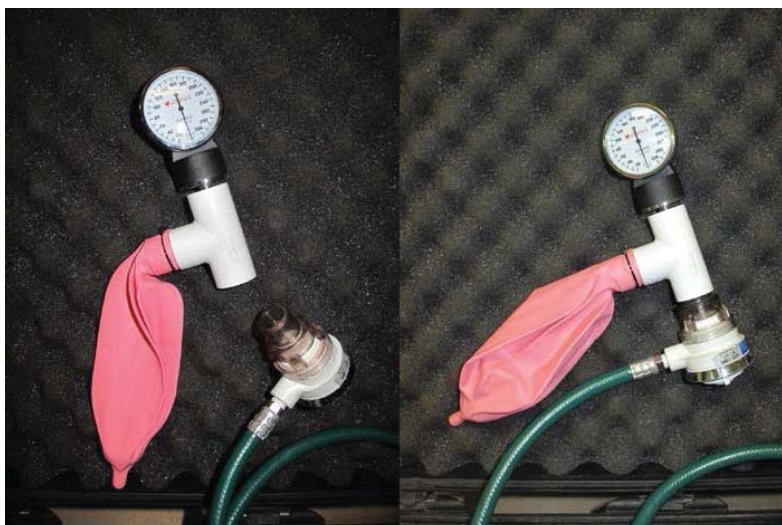
**Included:** One Sphygmomanometer pressure gauge  
PVC 'Tee' w/ attached balloon

The Demand Valve test kit comes fully assembled and ready to use. Please do not disassemble or replace/exchange parts without contacting NDC.

The purpose of this test is to verify the proper operation of your positive pressure demand valve (demand valve) in the NOAA issued diver emergency oxygen kit. Please perform this pressure test every three (3) months or in accordance with manufactures guidelines.

### Preparation:

1. Attach your oxygen 1st stage regulator onto a full or partially full oxygen cylinder.
2. Slowly open the oxygen supply all the way then back 1/4 turn. The system should pressurize and have no audible leaks. Remove the face mask from the demand valve, if attached.
3. Depress the positive pressure button on the demand valve. A flow of oxygen should be apparent from the valve and there should be no whistle sound from either the 1st stage regulator or demand valve. Oxygen flow should cease immediately when the button is released.
4. Place the demand valve fitting into/onto the open end of the 'Tee'. If it does not fit, hold the valve as flush as possible to the opening.



## EMERGENCY OXYGEN KIT DEMAND VALVE TEST INSTRUCTIONS

### Test:

1. Depress the positive pressure button fully and hold down. The balloon will inflate and the pressure gauge needle will rise. Continue to hold down the pressure button while taking note of the pressure on the gauge: it should read between **32-48 mm Hg**.
2. If the needle bounces while depressing the positive pressure button, release the button and try again. Depress the button slower while keeping the balloon from swinging as it inflates. Attempt to find a flow rate of oxygen where the needle may settle enough to obtain a pressure reading.
3. Release the positive pressure button. The balloon should deflate immediately; if it does not, check the demand valve exhalation port for improper alignment or blockage.

### Post-test:

1. Maintain records of this test at the unit for verification during the DUSA inspection. Monthly inspections and quarterly pressure tests can be recorded on NOAA Form 57-03-84 Emergency O2 Kit Inventory, Maintenance and Order Form.
2. If your demand valve fails the test by registering a pressure below or above 32-48 mm Hg, contact [DMO@noaa.gov](mailto:DMO@noaa.gov) for repair information.

NOAA Diving Center  
Attn: Diving Medical Officer O2 kit  
7600 Sand Point Way NE, Bldg 8  
Seattle, WA. 98115

3. Please do not disassemble or replace parts on the Demand Valve test kit. Using different parts other than those originally on the kit will contribute to inaccurate pressure readings. If you need to replace anything on the kit, please contact the NOAA Diving Center 206-526-6632 and ask to speak with the DMO.