# BY ORDER OF THE SECRETARY OF THE AIR FORCE

AIR FORCE INSTRUCTION 10-3504
28 OCTOBER 2024
Operations



**DIVE PROGRAM** 

### COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

**ACCESSIBILITY:** Publications and forms are available for downloading or ordering on the e-

Publishing web site at www.e-Publishing.af.mil

**RELEASABILITY:** There are no releasability restrictions on this publication

OPR: AF/A3S Certified by: AF/A3S

(Col Leland K. Cowie II)

Supersedes: AFI10-3504, 28 January 2021 Pages: 37

This instruction implements Department of the Air Force Policy Directive (DAFPD) 10-35, Air Force Special Warfare, and it establishes the Air Force (AF) Dive Program, to include Dive Program authority and administration; dive training, qualifications, and requirements; and procedures applicable to AF diving. This publication applies to Air Force Special Warfare (AFSPECWAR) Airmen at all levels in the Regular Air Force, the Air Force Reserve, Air National Guard, and civilian personnel involved in diving missions, training, support, or administration, except when noted otherwise. For the purpose of this instruction, references to major commands (MAJCOMs) will be interpreted to include the Air National Guard and the Director, Air National Guard will be interpreted to be the equivalent of a MAJCOM commander. This publication does not apply to the United States Space Force. This instruction requires the collection and maintenance of information protected by the Privacy Act of 1974, authorized by Title 5 United States Code Section 301, Departmental Regulations and E.O. 9397 (SSN). The applicable system notice N05100-1, Diving Log. https://dpcld.defense.gov/privacy/SORNS.aspx. Ensure all records generated as a result of processes prescribed in this publication adhere to Air Force Instruction (AFI) 33-322, Records Management and Information Governance Program, and are disposed in accordance with the Air Force Records Disposition Schedule, which is located in the Air Force Records Information Management System. Refer recommended changes and questions about this publication to the office of primary responsibility (OPR) using the Department of the Air Force (DAF) Form 847, Recommendation for Change of Publication; route DAF Forms 847 from the field through the appropriate functional chain of command. This publication may be supplemented at any level, but all supplements must be routed to the OPR of this publication for coordination prior to certification and approval. Send supplements to AF.A3S.Workflow@us.af.mil. The authorities to waive wing/unit level requirements in this publication are identified with a tier ("T-0, T-1, T-2, T-3") number following the compliance statement. See Department of the Air Force Manual (DAFMAN) 90-161, *Publishing Processes and Procedures*, for a description of the authorities associated with the tier numbers. Submit requests for waivers through the chain of command to the appropriate tier waiver approval authority, or alternately, to the requestor's commander for non-tiered compliance items. Submit waiver requests IAW paragraph 1.4, up the chain of command to the appropriate approval authority (AF/A3S for non-tiered items). Send approved T-2 and T-3 waivers to AF/A3S within three business days for tracking and process improvement. Operators functioning under the purview of a chartered test organization may deviate from the contents of this instruction as outlined in individually approved test plans required for test and evaluation purposes. However, when a test plan has deviations from this instruction, forward the approved test plan to the AF Dive Program Manager (AFDPM) via AF.A3S.Workflow@us.af.mil with "For AFDPM" in the subject line for awareness and tracking.

# **SUMMARY OF CHANGES**

This instruction has been completely rewritten and reorganized; therefore, it must be studied in its entirety. A significant amount of new procedural information has been incorporated. New guidance includes, but is not limited to, scope of this instruction, roles and responsibilities, mishap reporting, medical support procedures, logistics, administration, qualification, training, and currency requirements.

Chapter 1—AIR FORCE DIVE PROGRAM					
1.1.	Purpose.	5			
1.2.	Scope	5			
1.3.	General Guidance.	5			
1.4.	Waiver Authority and Deviations from Guidance.	6			
Chapter 2—ROLES AND RESPONSIBILITIES					
2.1.	Air Force Special Warfare Directorate, Deputy Chief of Staff for Operations (AF/A3S).	8			
2.2.	The Air Force Command Diver and Air Force Dive Program Manager	9			
2.3.	Air Force Chief of Safety (AF/SE).	10			
2.4.	Air Force Surgeon General (AF/SG).	10			
2.5.	Career Field Managers (CFMs).	10			
2.6.	Air Education and Training Command, (AETC/A3LS).	11			
2.7.	Air Force Materiel Command (AFMC).	11			
2.8.	MAJCOM Commanders.	11			
2.9.	MAJCOM Command Divers and MAJCOM Dive Program Managers	12			

	2.10.	Diving Unit or Activity Commanders
	2.11.	Unit Dive Program Manager (UDPM).
	2.12.	Divers
Chap	ter 3—A	DMINISTRATION
	3.1.	Dive Duty Authorization.
	3.2.	Diving Position Validation.
	3.3.	Funding for Diving Requirements.
	3.4.	Diving Duty Orders.
	3.5.	Diving Duty Requalification.
	3.6.	Removal from Diving Duty.
	3.7.	Dive Qualification Badges.
Chap	ter 4—D	DIVING QUALIFICATION, TRAINING, & CURRENCY REQUIREMENTS
	4.1.	General Training Requirements.
	4.2.	AF Basic SCUBA Diver Qualification.
	4.3.	AF Combat Diver Qualification
	4.4.	AF Diving Medical Technician (DMT) (diving).
	4.5.	AF Hyperbaric Medical Technician (HMT) (non-diving)
	4.6.	AF Diving Medical Officer (DMO) (diving qualification)
	4.7.	AF Hyperbaric Medical Officer (HMO) (non-diving qualification)
	4.8.	AF SCUBA Dive Supervisor.
	4.9.	AF Combat Dive Supervisor.
	4.10.	Currency and Refresher Requirements.
	4.11.	AF Diver Recurrency
Chap	ter 5—R	RESTRICTIONS & PROCEDURES
	5.1.	Ascent to Altitude After Diving or Flying After Diving.
	5.2.	Dive Profile Limitations.
	5.3.	Corrective Lenses.
	5.4.	Nitrogen-Oxygen (NITROX) Diving.
	5.5.	Closed Circuit Underwater Breathing Apparatus (CC-UBA) Diving
	5.6.	Enclosed Space SCUBA Diving (ESSD) Operations
	5.7.	Cold Water Diving Operations.
	5.8.	Breath-hold Diving Operations.

	5.9.	Swift Water SCUBA Diving Operations.	24
	5.10.	Mishap and Incident Reporting and Investigation.	24
	5.11.	Medical Support Procedures.	25
Chapt	er 6—D	IVING SUPPORT EQUIPMENT AND LOGISTICS	27
	6.1.	General Logistics.	27
	6.2.	Diving Equipment, Tools, and Accessories.	27
	6.3.	Maintenance and Material Management (3M) "Dive Locker."	27
	6.4.	Safety Boat Requirements	28
	6.5.	Divers' Breathing Gas.	29
Attachment 1—GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION			30
Attack	ment 2	SAMPLE MEMORANDUM FOR DIVING DUTY ORDERS	37

#### AIR FORCE DIVE PROGRAM

- **1.1. Purpose.** This instruction establishes AF/A3S as the AF proponent for diving matters. It provides broad guidance for AF diving programs to standardize dive qualification and requalification standards, increase mission effectiveness and safety, and ensure compliance with Department of Defense (DoD) reporting requirements.
  - 1.1.1. The Secretary of the Navy serves as the DoD Executive Manager for Joint Military Diving Technology and Training (MDT&T), is the DoD military diving proponent, and has primary responsibility for developing dive procedures and equipment that are of common interest to the DoD. Per Office of the Chief of Naval Operations Instruction (OPNAVINST) 3150.27D, *Navy Diving Policy and Joint Military Diving Technology and Training Program*, the Secretary of the Navy delegates the responsibilities for the Single Manager of Joint MDT&T to the Director of the Undersea Warfare Division, who further delegates the technical authority for Joint MDT&T to Naval Sea Systems Command, Office of the Director of Ocean Engineering, Supervisor of Salvage and Diving (NAVSEA 00C). The primary guidance for military dive operations is contained in the SS521-AG-PRO-010 / 0910-LP-115-1921, *U.S. Navy Diving Manual* "(US Navy Diving Manual)"; United States Special Operations Command (USSOCOM) Manual 350-25, *Special Operations Forces Baseline Interoperable Training Standards, Combat Diving* (USSOCOM 350-25 contact Headquarters, Air Force Special Operations Command Standards & Evaluations office for access); and OPNAVINST 3150.27D.
  - 1.1.2. This instruction implements how and when the AF uses the proponent's guidance and when the AF deviates from it.
- **1.2. Scope.** This instruction applies to uniformed members and civilian employees of the Regular Air Force, Air Force Reserve, Air National Guard, and those with a contractual obligation to abide by DAF issuances, who are involved in training, operational, or administrative aspects of AF diving. This instruction does not apply to the United States Space Force or Air Force Fire and Emergency Services Specialized Dive Teams. This instruction does not address off-duty diving by AF military or civilian personnel, students attending emergency underwater egress training utilizing helicopter emergency egress devices, or medical hyperbaric treatment facilities.
- **1.3. General Guidance.** Only formally trained, qualified, and current AF divers, IAW **paragraph 4.4**, using DoD approved or certified procedures, and equipment listed as Authorized for Navy Use (ANU) (see **paragraph 6.2**), will conduct AF diving operations. (**T-2**)
  - 1.3.1. External Publications. This publication references outside publications, to include the *U.S. Navy Diving Manual*, USSOCOM 350-25, and OPNAVINST 3150.27D. When this instruction directs AF divers and dive supervisors to reference one of these, the member will ensure they consult the most current published version. (**T-1**)
  - 1.3.2. Research, Development, Test, and Evaluation (RDT&E). MAJCOMs must approve all dive equipment RDT&E. (**T-2**) Guidance for dive equipment RDT&E is provided in Department of Defense Instruction (DoDI) 3224.04, *Single Manager Responsibility for Joint Military Diving Technology and Training (MDT&T)*, and OPNAVINST 3150.27D.
  - 1.3.3. Diving with Joint or Foreign Units.

- 1.3.3.1. When conducting training or operations with foreign forces, divers may use partner nation procedures if they do not conflict with written guidance prescribed by this instruction.
- 1.3.3.2. Foreign equipment will only be used if it is listed on the ANU. (**T-2**) If requesting a waiver to this requirement, the officer in charge (OIC) and senior dive supervisor must complete a comprehensive inspection of the foreign military equipment for which the waiver is sought and must complete training on basic familiarization and emergency procedures with the equipment. (**T-2**) All of the inspection and training information will be documented in the waiver request. (**T-2**)
- **1.4. Waiver Authority and Deviations from Guidance.** MAJCOM commanders have authority and responsibility for diving operations under their control. MAJCOMs will coordinate with AF/A3S any requests for waivers of system certifications; safety and operational procedures; personnel qualification requirements (except physical standards, see **paragraph 1.4.3**); and materials related to AF diving. Procedures, checklists, and record traffic published at the MAJCOM level and on record with AF/A3S constitute authorization to deviate from general guidance in **paragraph 1.3**.
  - 1.4.1. For waivers to exceed operational limits or deviate from established procedures specified in this instruction and associated inter-service references during contingencies, waiver authority is the Air Component A3, the Joint Special Operations Task Force J3, equivalent Major Military Command Director of Operations, or their designated representatives, as applicable.
  - 1.4.2. For exercises and training, waiver authority will be retained at the MAJCOM Directorate of Air and Space Operations (MAJCOM/A3), or their designated representative unless specifically identified in this instruction.
  - 1.4.3. Guidance on physical standards and waivers is provided in DAFMAN 48-123, *Medical Examinations and Standards*.
  - 1.4.4. Operational or procedural waiver requests must substantiate the urgent or unusual circumstances that justify their approval. Requestors will submit waiver requests on DAF Form 679, *DAF Publication Compliance Item Waiver Request/Approval*. (**T-1**)
  - 1.4.5. Do not deviate from the guidance in this AFI except when the situation demands immediate action to prevent loss of life or serious injury, or an otherwise urgent requirement exists. (**T-1**) In this case, the divers' OIC or senior dive supervisor evaluates all options and takes the appropriate action to ensure the safety of the divers.
    - 1.4.5.1. Units will report all deviations without an approved waiver to the appropriate waiver authority (include AF/A3S as informational addressees) within 24 hours or when tactically or operationally feasible. **(T-1)**

- 1.4.5.2. Units will report deviations occurring during operational mission execution, to include contingencies, to the MAJCOM Dive Program Manager (MDPM) (include AF/A3S as informational addressee). (**T-2**) Reports should be submitted within 24 hours or as soon as tactically or operationally feasible.
- 1.4.6. When it is necessary to protect those under their control from a situation not covered by this AFI, and immediate action is required, the divers' OIC or senior dive supervisor has authority and responsibility for the course of action taken.

#### **ROLES AND RESPONSIBILITIES**

- **2.1.** Air Force Special Warfare Directorate, Deputy Chief of Staff for Operations (AF/A3S). The Director of AFSPECWAR executes the responsibilities assigned to the Secretary of the Air Force under DoDI 3224.04.
  - 2.1.1. Provide a minimum of one O-6 level representative and subject matter expert to the Joint MDT&T Program Board. Joint MDT&T guidance is provided in DoDI 3224.04.
  - 2.1.2. Designate military or civilian personnel to represent the AF as members of the Military Technical Acceptance Board and the Technical Training Acceptance Board. Guidance on the Military Technical Acceptance Board and the Technical Training Acceptance Board is provided in DoDI 3224.04.
  - 2.1.3. Appoint an AF Command Diver and Air Force Dive Program Manager (AFDPM) to oversee the AF Dive Program and function on behalf of A3S when delegated.
  - 2.1.4. Be the final authority on all requests for waivers of system certification; safety and operational procedures; personnel qualifications (except physical standards); and materials related to AF diving.
  - 2.1.5. Develop and promulgate individual physical standard requirements for AF divers in coordination with MAJCOMs and the Air Force Surgeon General (AF/SG).
  - 2.1.6. Establish qualification and requalification criteria for AF divers.
  - 2.1.7. Brief and coordinate with Headquarters Air Force directorates and other officials or organizations on dive operations, equipment, and training matters.
  - 2.1.8. Assist Air Education and Training Command (AETC) in formulating, implementing, and evaluating formal training programs for AF divers.
  - 2.1.9. Participate in or send a representative to joint and sister service dive program conferences, as required. Coordinate review of mishap reports across applicable headquarters offices.
  - 2.1.10. Assist AETC Operations (AETC/A3) and AETC Communications (AETC/A6) in the allocation of formal dive program training quotas.
  - 2.1.11. Assess and certify service and civilian curricula; programs of instruction; and blocks of training for basic and advanced skills that meet AF dive mission requirements.
  - 2.1.12. Ensure all Category I (see **paragraph 6.2.1.1**) diver life support systems (DLSS), recompression chambers, and critical diving equipment are certified by Naval Sea Systems Command, Office of the Director of Ocean Engineering, Supervisor of Salvage and Diving, Diving Systems Safety Certification Division (NAVSEA 00C4).

- **2.2.** The Air Force Command Diver and Air Force Dive Program Manager. These positions reside in AF/A3S and manage the entire AF Dive program. These positions serve as the principal dive subject matter experts responsible for dive program standardization, evaluation, and diverelated activities to include logistics. **Note:** These duties should be separated but may be performed by a single individual meeting the AF Command Diver qualifications based on manning and workload.
  - 2.2.1. AF Command Diver. The AF Command Diver is the principal operational diving subject matter expert responsible for diving evaluation and operational employment. The AF Command Diver will be from a dive-inherent Air Force specialty (AFS) and must be a graduate of a dive supervisor course that meets the requirements of **paragraph 4.9**. The AF Command Diver will:
    - 2.2.1.1. Establish direct access to the Air Force Safety Automated System (AFSAS) (<a href="https://afsas.safety.af.mil">https://afsas.safety.af.mil</a>) and establish Dive/Jump Reporting System (DJRS) Manager roles, and review all reported diving mishaps, incidents, near-mishaps, hazards, and deviations.
    - 2.2.1.2. Coordinate with MAJCOMs to identify and investigate new equipment, ensure functional interoperability, and reduce the multiplicity of equipment currently in use.
    - 2.2.1.3. Develop, publish, and distribute applicable safety messages, equipment bulletins and quality deficiency reports as required.
    - 2.2.1.4. Act as the primary MAJCOM interface with other service agencies to coordinate, publish, and distribute all applicable joint publications and periodicals pertaining to AF dive operations, TTPs, and authorized equipment.
  - 2.2.2. AFDPM. The AFDPM is the principal diving programmatic subject matter expert responsible for dive program standardization and dive-related activities to include logistics. The AFDPM must have a minimum of 10 years operational diving experience as a military diver and self-contained underwater breathing apparatus (SCUBA) dive supervisor in a dive-inherent military specialty or rate and must be a graduate of a dive supervisor course that meets the requirements of paragraph 4.9. The AFDPM will:
    - 2.2.2.1. Establish administrative procedures for diving documentation in training records. Training record requirements are provided in DAFMAN 36-2689, *Training Program*.
    - 2.2.2.2. Establish administrative procedures for diving logs for AF divers in coordination with MAJCOMs.
    - 2.2.2.3. Maintain a total force Command Diver and MAJCOM Dive Program Manager (MDPM) contact roster and disseminate information periodically to promote communication.
    - 2.2.2.4. Review periodic safety inspections of MAJCOMs with diving systems and consolidated mission reports and other sources regarding AF diving statistics for continuous process improvement opportunities.

- 2.2.2.5. Convene and chair the AF Executive Dive Committee meeting annually to discuss and review AF and MAJCOM dive program efforts. The AF Executive Dive Committee consists of the AFDPM; AF and MAJCOM Command Divers; MDPMs; and the Pararescue (1Z1), Combat Control (1Z2), Special Reconnaissance (1Z4), Special Tactics Officer (19ZXA), Combat Rescue Officer (19ZXC) AFS career field managers (CFMs), and a designated representative from the Air Force Combat Dive Course.
- 2.2.2.6. Conduct annual review of all active AF divers outside of primary Air Force Specialty Codes (PAFSC) 1Z1, 1Z2, 1Z4 and 19ZXA/C, their position numbers, and personnel accounting symbol code for budgeting and program oversight management.
- 2.2.2.7. Review biennial MAJCOM operational, administrative, and material inspections to verify compliance with this instruction.
- 2.2.2.8. Maintain the Dive Program Management Internal Control Toolset checklists.
- **2.3. Air Force Chief of Safety (AF/SE).** AF/SE, through the Air Force Safety Center, Occupational Safety Division will:
  - 2.3.1. Upon request, provide statistical data analysis on all dive-related mishaps or events.
  - 2.3.2. Upon request, provide technical assistance to diving related investigation boards and other safety matters.
  - 2.3.3. Coordinate with joint and sister service safety offices as appropriate.
  - 2.3.4. Manage the AFSAS to ensure the AFDPM and MDPMs are provided an opportunity to submit comments on safety investigation reports.

### **2.4. Air Force Surgeon General (AF/SG).** AF/SG will:

- 2.4.1. Review all diving mishap reports and provide medical support to mishap investigations. Guidance on diving mishaps and reporting are provided in Department of the Air Force Instruction (DAFI) 91-204, *Safety Investigations and Reports*.
- 2.4.2. Ensure DAF civil service divers have access to Air Force medical treatment facilities to accomplish the Physical Health Assessment or a dive physical examination.
- 2.4.3. With coordination of the Director of AFSPECWAR, designate an AF Diving Medical Officer or Service equivalent to provide recommendations on medical requirements and qualifications for AF divers.
- 2.4.4. Develop and promulgate individual physical standard requirements for AF divers in coordination with MAJCOMs and the Director of AFSPECWAR.
- **2.5.** Career Field Managers (CFMs). Air Force CFMs of a dive-inherent Air Force Specialty (AFS): 1Z1, and 19ZXC CFMs will update the AF Officer and Enlisted Classification Directories and AFS-specific Career Field Education and Training Plans with requirements for conducting dive operations and supporting education and training plans. CFMs coordinate these updates with the AFDPM for standardization and program oversight.

- **2.6. Air Education and Training Command, (AETC/A3LS).** AETC/A3LS, AFSPECWAR Branch will:
  - 2.6.1. Oversee the formal training aspects of the AF Dive Program.
  - 2.6.2. Manage AF quota policy for all DoD diver courses and other formal training as required.
  - 2.6.3. Provide oversight of AF instructor requirements at DoD formal diving schools.

# 2.7. Air Force Materiel Command (AFMC).

- 2.7.1. Designate a system program office (SPO) to serve as the AF lead for acquisition, certification, and coordinating ANU designation for all AF-unique DLSS and equipment not currently listed in the ANU. Units will forward documentation for AF-unique dive-related equipment to AF/A3S for addition to the ANU diving equipment list. The AFMC SPO also provides programmatic acquisition of standard diving systems for AF dive operations.
- 2.7.2. Provide an item manager for all diving-related equipment items utilized by the MAJCOMs.
- 2.7.3. Coordinate any required test and evaluation of diving equipment.
- **2.8. MAJCOM Commanders.** MAJCOM commanders have the authority and responsibility for diving operations under their control to include the development of service-unique tactics, techniques, procedures (TTP) and equipment for diving that are not provided for elsewhere. MAJCOM commanders with a diving mission will:
  - 2.8.1. Appoint a Command Diver and MDPM in writing, and forward appointment letters to AF/A3S.
  - 2.8.2. Coordinate (as required) with AF/A3S and MAJCOM functional managers to establish directives, procedures, and requirements to evaluate training programs and capability of assigned or attached AF divers to perform their assigned duties consistent with the MAJCOM mission.
  - 2.8.3. Attend or appoint personnel to attend AF, joint, sister service, and industry conferences, meetings, boards, task forces, and committees pertaining to military diving when feasible and applicable.
  - 2.8.4. Identify, prepare, or validate operational requirements, mission needs statements, and operational requirements documents as required. Additionally, participate in the MAJCOM mission area plans process.
  - 2.8.5. Coordinate with MAJCOM functional area managers and training points of contact (POCs) for formal training requirements, and submit class quota requests for initial, upgrade, and advanced training.
  - 2.8.6. Maintain copies of diving and maritime related standard operating procedures and programs of instruction or qualification training programs (QTPs) developed by activities under their purview.
  - 2.8.7. Establish the frequency and standards for program evaluations and staff assistance visits in accordance with AFSPECWAR standards and evaluations. In coordination with MAJCOM functional area managers, conduct evaluations during staff assistance visits, or as needed. Guidance for staff assistance visits is provided in DAFMAN 36-2689.

- 2.8.8. Conduct biennial operational, administrative, and material inspections of diving command and units to verify compliance with this instruction and other appropriate diving and safety regulations; forward a copy of results to the AFDPM.
- 2.8.9. Provide units with the Dive Program Management Internal Control Toolset checklist.
- 2.8.10. Review, concur or non-concur with, and submit to AF/A3S, requests for waiver of system certification; safety and operational procedures; personnel qualifications (except physical standards); use of non-ANU Category II (see **paragraph 6.2.1.2**) dive equipment; and materials related to AF diving.
- 2.8.11. Document deviations from inter-service references and this instruction and review annually. Every three years review roles and missions requiring exceptions from standard procedures and equipment and submit to AF/A3S via DAF Form 847 for inclusion in this instruction. Include as applicable:
  - 2.8.11.1. Roles and missions requiring exceptions to policy.
  - 2.8.11.2. Procedural guidance used by assigned personnel during such operations, to include checklists.
  - 2.8.11.3. Training, upgrade, and documentation requirements, and lesson plans to train personnel in such operations.
  - 2.8.11.4. Proficiency criteria and refresher training specifications for inclusion in duty Air Force specialty code specific instructions.
- 2.8.12. Approve or disapprove dive equipment RDT&E (see paragraph 1.3.2.).
- 2.8.13. Review annual validation reports of AF divers outside of PAFSCs 1Z1/2/4 and 19ZXA/C and forward the report to the AFDPM.
- **2.9. MAJCOM Command Divers and MAJCOM Dive Program Managers.** These positions will disseminate safety information, report incidents and hazards, assist commanders in requirements development, and provide leadership and oversight. **Note:** These duties should be separated but may be performed by a single individual meeting the Command Diver's qualifications based on manning and workload.
  - 2.9.1. MAJCOM Command Diver. The MAJCOM Command Diver is the principal operational diving subject matter expert responsible for diving evaluation and operational employment within the MAJCOM. The Command Diver will be qualified to the same standards as the AF Command Diver (see paragraph 2.2.1.). Command Divers will:
    - 2.9.1.1. Maintain currency in accordance with **paragraph 4.11**, when required to conduct dive-related evaluations.
    - 2.9.1.2. Oversee their respective command's dive program.
    - 2.9.1.3. Participate in the AF Executive Dive Committee.

- 2.9.2. The MAJCOM DPM (MDPM). The MDPM is the principal dive programmatic subject matter expert responsible for dive program standardization and dive-related activities to include logistics for the MAJCOM. The MDPM will be qualified to the same standards as the AFDPM (see **paragraph 2.2.2**). (T-1) The MDPM maintains subject matter expertise in dive operations and meets at least one of the following criteria: Holds a 19Z, 1Z, or 1T0 AFS and is qualified as a dive supervisor. Has previously held a 19Z, 1Z, or 1T0 AFS and was qualified as a dive supervisor. MDPMs will:
  - 2.9.2.1. Make every attempt to maintain annual dive currency and stay apprised of changing dive equipment and requirements.
  - 2.9.2.2. Establish direct access to the AFSAS (<a href="https://afsas.safety.af.mil">https://afsas.safety.af.mil</a>) and establish DJRS Manager or Unit Manager roles.
  - 2.9.2.3. Review all diving mishap, incident, near-mishap, and hazard reports, and ensure all required follow-up actions are accomplished, and manage the resulting safety recommendations. Mishap reporting guidance is provided in DAFI 91-204. Use AFSAS and forward reports of completed action to the AFDPM to ensure dissemination of lessons learned.
  - 2.9.2.4. Disseminate tactics, techniques, and procedures (TTP) up and down the chain of command.
  - 2.9.2.5. Participate in the AF Executive Dive Committee.
  - 2.9.2.6. Review and archive all operational dive consolidated mission reports, and forward copies to the AFDPM and AF Command Diver.

# 2.10. Diving Unit or Activity Commanders.

- 2.10.1. Appoint a Unit Dive Program Manager (UDPM) in writing to oversee all unit diverelated areas and forward a copy of the appointment letter to the MDPM. The UDPM will meet qualifications listed in paragraph 2.11.
- 2.10.2. Implement higher headquarters' policies and procedures.
- 2.10.3. Ensure all written guidance prescribed by this instruction as well as manuals and technical orders for unit-owned equipment is maintained and readily available to all assigned divers. Ensure unit level dive supervisors are trained, certified, and designated in writing.
- 2.10.4. Implement a diving risk management program. See Department of the Air Force Pamphlet 90-803, *Risk Management (RM) Guidelines and Tools*, for guidelines and tools and AFI 90-802, *Risk Management*, for providing framework for a RM program.
- 2.10.5. Generate, as needed, and forward operational dive consolidated mission reports through the chain of command, and to the MDPM, within seven days of mission completion or as soon as operationally feasible.

- 2.10.6. Ensure all Category I DLSS, recompression chambers, and critical diving equipment are certified by NAVSEA 00C4 or the MAJCOM/A3 (as applicable). Guidance on diving equipment is provided in NAVSEAINST 4790.8D, *Ships' Maintenance and Material Management (3-M) Manual*. Forward documentation for AF-unique diving-related equipment to AF/A3S, who will coordinate with Naval Sea Systems Command, Office of the Director of Ocean Engineering, Supervisor of Salvage and Diving, Diving Program Division (NAVSEA 00C3) for addition to the ANU diving equipment list.
- 2.10.7. Report all deviations without an approved waiver in accordance with **paragraph 1.4.5**.
- 2.10.8. Report all events, to include mishaps, incidents, hazards, and near-mishaps according to **paragraph 5.10**.
- 2.10.9. Ensure accurate submission of electronic Dive Log Reports using AFSAS and DJRS within 10 workdays of each dive.
- 2.10.10. Certify members for Diving Duty through Diving Duty Orders submission.
- 2.10.11. Validate Hazardous Duty Incentive Pay, Dive (HDIP-Dive) or Special Warfare Skill Incentive Pay (SWSIP) entitlement for all assigned AF divers.
- 2.10.12. Prepare annual validation report of AF divers outside of PAFSCs 1Z1 and 19ZXC and submit the report to the MDPM.
- 2.10.13. Establish unit specific operating instructions and utilize the AF/A3S Boat Master QTP to qualify members for boat operations and training. **Note:** The Boat Master QTP is currently located on the AFSPECWAR SharePoint at <a href="https://usaf.dps.mil/sites/A3/SitePages/AFSPECWAR.aspx">https://usaf.dps.mil/sites/A3/SitePages/AFSPECWAR.aspx</a>.
- 2.10.14. Ensure unit assigned AF flight surgeons, aeromedical physician assistants, or aeromedical nurse practitioners complete diving related physical examinations on assigned divers both annually and prior to attending diving formal training courses.
- 2.10.15. Authorize personnel to dive only when a current Department of Defense (DD) Form 2992, *Medical Recommendation for Flying or Special Operational Duty*, is on file at the host base aviation management office. Grounding from flight, special operations, or jump duties applies to diving duty unless specifically identified by the aeromedical provider in writing on the DD Form 2992.
- **2.11. Unit Dive Program Manager (UDPM).** Designated in writing by unit commander, the UDPM is responsible for the safe conduct of all diving operations within the unit. This individual is thoroughly familiar with all unit diving techniques and equipment and has a detailed knowledge of all applicable regulations and is responsible for all operational, logistical, and administrative duties associated with the unit diving program.

### **2.12. Divers.** Divers will:

- 2.12.1. Document and monitor diving qualifications to ensure proper record entries in DJRS (which meets the *U.S. Navy Diving Manual* personal dive log requirement), On the Job Training records, and Aviation Resource Management System (ARMS), or other MAJCOM-or AFS-specific formats.
- 2.12.2. Maintain dive qualification and currency in accordance with this instruction.

#### **ADMINISTRATION**

- **3.1. Dive Duty Authorization.** Dive qualification and dive status are awarded to individual members based on mission or Duty Air Force specialty code requirements and will not be used as part of an incentive or recognition program by any AF entity. **(T-1)** The following authorities may enter personnel into or withdraw personnel from dive status:
  - 3.1.1. AF/A3S for management of the AF Dive Program.
  - 3.1.2. Commanders of AF units that conduct diving activities approved by their MAJCOM in accordance with this AFI. (**T-1**)
- **3.2. Diving Position Validation.** Do not assign members to diving duty unless the member requires active dive status and is assigned to a MAJCOM-approved diving activity or holds a 1Z1 or 19ZXC PAFSC. Forward requests for new diving duty positions with diving duty justification through the owning MAJCOM to AF/A3S. AF/A3S will coordinate validated MAJCOM requirements with respective functional area managers for subject matter expert review before final review and authorization. **(T-1)**
- **3.3. Funding for Diving Requirements.** The AF budgets funds based on validated dive requirements. The number of dive positions authorized determines the incentive pay allocation. AF/A3S, through the Assistant Secretary of the Air Force for Financial Management Budget Operations and Personnel (SAF/FMBOP), is responsible for developing the dive pay budget. Only qualified members on diving duty orders (assigned to a dive-inherent AFS or MAJCOM-validated position numbers), requiring frequent and regular dives, are entitled to HDIP-Dive. **Note:** Members receiving SWSIP will not receive HDIP-Dive. (**T-0**) HDIP-Dive requirements are prescribed in DoD Financial Management Regulation 7000.14-R, Volume 7A, *Department of Defense Financial Management Regulation;* Volume 7A: "Military Pay Policy Active Duty and Reserve Pay," Chapter 11: Special Pay Diving Duty. Unit commanders will validate requirements and ensure they are in accordance with the above guidance. (**T-0**)
- **3.4. Diving Duty Orders.** AF personnel will be placed on Diving Duty Orders before engaging in diving operations (including initial AETC training and requalification training). (**T-1**) By 1 October of each calendar year, each MDPM will provide the AFDPM a list of all active AF divers outside PAFSC 1Z1, 1Z2, 1Z4, and 19ZXA/C, along with their position numbers and personnel accounting symbol code for budgeting and program oversight. (**T-1**)
  - 3.4.1. Permanent Diving Duty Orders. The unit commander's support staff will submit a memorandum for Diving Duty Orders to the unit's finance office along with a DD Form 114, *Military Pay Order* (see **Attachment 2**). **(T-1)** Commanders must recertify eligibility for diving duty, which includes verification of the following: that member has a current medical clearance; that member is current and qualified in diving operations; and that member holds a 1Z1, 1Z2, 1Z4 or 19ZXA/C PAFSC or is assigned to a position number approved for diving duty and on file with the MDPM. **(T-1)**

- 3.4.2. Permissive Diving Duty Orders. MAJCOM commanders may authorize personnel to be placed on permissive diving orders when it benefits the mission. Permissive diving duty orders are intended to facilitate dive familiarization training for medical personnel assigned to a MAJCOM-approved diving activity. Permissive diving duty orders have no pay entitlements. MAJCOM commanders must certify a member's eligibility and verify that the member has a current medical clearance prior to being placed on permissive diving duty and attending familiarization training. (T-1) No dive qualification is awarded when members complete familiarization training while on permissive diving duty orders.
- **3.5. Diving Duty Requalification.** AF divers who are disqualified for non-permanent reasons may be requalified in accordance with **paragraph 4.11** when their impediment to diving is removed. **(T-1)**
- **3.6. Removal from Diving Duty.** When a member is no longer assigned to a position that requires active diving due to permanent change of station, permanent change of assignment, or other circumstances, the unit commander will submit a DD Form 114, to stop diving duty incentive pay and remove the individual from diving duty. **(T-1)** Members from dive inherent AFSs (1Z1, , or 19ZXC) will remain on diving duty when they are moving from one assignment to another. **(T-1)**
- **3.7. Dive Qualification Badges.** AF members qualified IAW **paragraph 4.3** are authorized wear of the AF combat dive badge and AF members qualified IAW **paragraph 4.2** are authorized wear of the AF dive badge (or the qualifying course service badge) when awarded upon completion of formal training as outlined in paragraphs **4.2** and **4.3**. Foreign diver qualification badges are not authorized. Uniform guidance is provided in DAFI 36-2903, *Dress and Personal Appearance of Department of the Air Force Personnel*.

# DIVING QUALIFICATION, TRAINING, & CURRENCY REQUIREMENTS

- **4.1. General Training Requirements.** AF training dives are those conducted by qualified AF divers under the supervision of qualified military dive supervisors using only equipment approved or certified in accordance with this instruction. Dives conducted off-duty (e.g., recreational dives using personal dive equipment) do not satisfy military dive requirements for foundational or continuation training.
  - 4.1.1. All AF diving will be conducted in accordance with the *U.S. Navy Diving Manual* as implemented by this instruction. (**T-0**) **Exception:** Air Force Special Operations Command-assigned AF divers will adhere to USSOCOM 350-25 for combat dive training under USSOCOM authority. (**T-0**) Only qualified AF divers who are current or regaining currency will use AF diving equipment for dive activities. (**T-2**)
  - 4.1.2. Upon graduation from a formal DoD approved diving course, AF divers are authorized to use those types of systems on which they have been qualified (e.g., SCUBA, MK-20, MK-25, etc.).
  - 4.1.3. DAF personnel are governed by both the provisions of this AFI and Occupational Safety and Health Administration diving standards, delineated in Title 29 Code of Federal Regulations Part 1910, *Occupational Safety and Health Standards*, Subpart T, *Commercial Diving Operations*. DAF civilian divers are identified as permanent AF employees who have been formally trained at a DoD approved diving school. AF civilian divers will possess the same qualifications as those required for their military counterparts and be medically cleared to perform dive duty. (T-1)
  - 4.1.4. Commercial divers contracted by the AF who are not permanent government employees are not subject to the provisions of **paragraph 4.1.3** unless stated in their contract. Commercial contractor diving in support of AF training and operations will be conducted in accordance with accepted commercial safe diving practices. (**T-1**) Contracting officers or acquisition functions will clearly state on all purchase orders and statements of work for commercial contractor diving the requirement to comply with accepted commercial safe diving practices. (**T-1**) Contractors will not use AF-supplied breathing air, diving equipment, or ancillary dive equipment during contracted activities. (**T-2**)
  - 4.1.5. Physical exam requirements for AF military divers are established in DAFMAN 48-123. All AF military divers must pass and complete a diving duty medical examination. (**T-1**) AF divers must meet specific performance standards required by Joint, MAJCOM, and unit guidance. **Note:** AFSPECWAR airman must pass the Preventative Health Assessment annual physical to remain medically cleared for dive duty. (**T-1**)
- **4.2. AF Basic SCUBA Diver Qualification.** Members are eligible for the basic AF SCUBA Diver qualification after successful completion of the United States (US) Navy Basic SCUBA Diver course. Catalog of Navy Training Courses (CANTRAC) Course #: A-433-0123.

- **4.3. AF Combat Diver Qualification.** Members are eligible for qualification as an AF Combat Diver only after the successful sequential completion of the following courses that meet the Special Operations Forces Baseline Interoperability Standards (SOFBIS) for award of the USSOCOM Combat Diver rating. Guidance for USSOCOM Combat Diver ratings is provided in USSOCOM 350-25:
  - 4.3.1. AF members complete the AF pre-Combat Dive course, or an accredited service-sponsored pre-dive course and perform the following tasks: perform initial underwater competencies (50 meter underwater), perform drown proofing, perform underwater knot tying, and conduct open ocean surface swim (2,000-meter surface swim). Guidance for pre-Combat Dive course requirements is provided in USSOCOM 350-25.
  - 4.3.2. A USSOCOM recognized or accredited service-sponsored/retained qualification course:
    - 4.3.2.1. Air Force Combat Dive School, Open and Closed-Circuit Course. **Exception:** Graduates of only the legacy Air Force Combat Dive School Open Circuit Course are qualified under this paragraph but are not qualified to perform closed circuit diving until completion of the Closed-Circuit Course.
    - 4.3.2.2. US Army Special Forces Combat Diver Qualification Course.
    - 4.3.2.3. Basic Underwater Demolitions/SEAL Training Diving Phase.
    - 4.3.2.4. US Marine Corps (USMC) Combatant Diver Course.

# 4.4. AF Diving Medical Technician (DMT) (diving).

- 4.4.1. AF DMT personnel receive instruction in diving physics; medicine; surface supplied diving techniques, procedures, systems, and equipment; recompression chamber operations; Divers Life Support Systems Quality Assurance procedures; Self-Contained Underwater Breathing Apparatus equipment, operation, and maintenance; MK 16 Underwater Breathing Apparatus operations; MK 25 Underwater Breathing Apparatus operations; and advanced instruction in diving medical theory, equipment, and operations.
- 4.4.2. AF divers or medical personnel may be designated as DMTs if they have successfully completed one of the following formal DoD courses of instruction:
  - 4.4.2.1. US Navy Diving Medical Technician. CANTRAC Course #: A-433-0020.
  - 4.4.2.2. USMC Special Amphibious Reconnaissance Corpsman. (Diving)
  - 4.4.2.3. U.S. Army Special Forces Diving Medical Technician. Army Training Requirements and Resources System (ATRRS) Course #: 011-ASIQ5.

# 4.5. AF Hyperbaric Medical Technician (HMT) (non-diving).

4.5.1. The HMT course provides AF personnel instruction in diving physics, diving and hyperbaric medicine, supporting the performance of diving duty medical examinations, hazardous marine life, aerospace decompression illness, and identification of diving diseases/injuries along with their appropriate treatment in an operational and prolonged field care environment. AF medical personnel may be designated as HMTs if they have successfully completed:

- 4.5.2. U.S. Army Joint Hyperbaric Medical Technician Course and National Oceanic and Atmospheric Administration Diver (HMT Certification).
- **4.6. AF Diving Medical Officer (DMO) (diving qualification).** The DMO course qualifies AF personnel to perform as a diver and dive team member per approved technical manuals and the *U.S. Navy Diving Manual*. The course also provides the training necessary to perform as a medical advisor for hyperbaric treatments and to effectively evaluate divers and diver candidates prior to diving.
  - 4.6.1. AF DMOs should attempt to maintain annual dive currency.
  - 4.6.2. An AF flight surgeon, aeromedical physician assistant, or aeromedical nurse practitioner may be designated as an AF DMO if they have successfully completed the U.S. Navy Medical Department Diving Officer course (Navy DMO Certification). CANTRAC Course # A-6A-0010.
- 4.7. AF Hyperbaric Medical Officer (HMO) (non-diving qualification).
  - 4.7.1. The HMO qualification provides medical personnel the basic training necessary for hyperbaric treatments and to effectively evaluate divers and diver candidates prior to diving.
  - 4.7.2. An AF flight surgeon, aeromedical physician assistant, or aeromedical nurse practitioner may be designated as an HMO if they have successfully completed either:
    - 4.7.2.1. U.S. Navy Recognition and Treatment of Diving Casualties course. CANTRAC Course # A-4N-0018, or:
    - 4.7.2.2. U.S. Army Joint Hyperbaric Medical Officers Course and National Oceanic and Atmospheric Administration Diver (HMO Certification).
- **4.8. AF SCUBA Dive Supervisor.** Personnel are eligible for the SCUBA dive supervisor rating when they meet the qualification standards in **paragraph 4.2** and have successfully completed an AF/A3S approved course of instruction meeting the Naval Education and Training Command (NAVEDTRA) 43910 (series) *Navy Diver Personnel Qualification Standard* (PQS).
- **4.9. AF Combat Dive Supervisor.** Members qualified in accordance with **paragraph 4.3** that successfully complete one of the following formal qualification programs are eligible for the AF combat dive supervisor qualification:
  - 4.9.1. Air Force Combat Dive Supervisor Course. Course # L2AZP1ZXXX 0S0A.
  - 4.9.2. AF/A3S Open Circuit Dive Supervisor Qualification Training Program. **Note:** Open circuit dive supervisor only.
  - 4.9.3. US Army Special Forces Combat Diving Supervisor Course. ATRRS Course #2E-F65/011-ASIS6.
  - 4.9.4. Naval Special Warfare Diving Supervisor Course. CANTRAC Course # K-431-0048.
  - 4.9.5. USMC Combatant Dive Supervisor Course.

### 4.10. Currency and Refresher Requirements.

- 4.10.1. All AF divers will accomplish a minimum of four dives annually. (**T-2**) **Note:** Dive currency is maintained until the end of the next calendar year. Example: If all four required dives are completed 1 January 2024, the diver is considered current until 31 December 2025. Dives may include multiple dives on the same day. Additionally, dive supervisors will oversee two dives annually to maintain currency. (**T-2**) Dives are based on mission profile or objectives (e.g., Search/Recovery, Navigation, and Emergency Procedure dives); there are no minimum depth requirements to accomplish a successful dive. AF divers will document and log all dive training and currency in accordance with **paragraph 2.12**. (**T-1**)
- 4.10.2. In a controlled environment, all AF divers will conduct an emergency procedure (EP) dive annually consisting of the following: buddy breathing, air sharing ascent, buddy rescue, and ditch and don (see *U.S. Navy Diving Manual*). (**T-2**) **Note:** There will be no free-swimming ascents (FSA) conducted as part of the EP dive to include ditch and don. (**T-2**)
- 4.10.3. All AF divers will accomplish a diving procedure review annually. (**T-2**) Document this review on AF Form 1522, *ARMS Additional Training Accomplishment Report*. The diving procedures review will include at a minimum:
  - 4.10.3.1. Review of buoyancy control, buddy breathing, and mask clearing procedures. **(T-1)**
  - 4.10.3.2. Review of hand signals. (**T-1**)
  - 4.10.3.3. Review of diver rescue procedures. (T-1)
  - 4.10.3.4. Review of use of unit specific equipment procedures (e.g., communications, lift bags, dry suits, full facemask, camera, sonar, navigation). (**T-1**)
- 4.10.4. MAJCOMs and unit commanders may establish additional proficiency requirements to suit mission needs.

# 4.11. AF Diver Recurrency.

- 4.11.1. AF diver recurrency requirements must be evaluated jointly by the UDPM and the senior dive supervisor based on the individual's past diving experience. (**T-2**) Factors such as the total number of dives or advanced qualifications may be used as a guide for the level of training needed.
- 4.11.2. If diving currency has lapsed for more than one year the AF diver must have MAJCOM Command Diver or MDPM approval, a current physical examination for diving duty in accordance with DAFMAN 48-123 and perform four dives in order to fully regain currency. (T-2) All dives will be conducted in accordance with *U.S. Navy Diving Manual*. (T-2) Document requalification dives in accordance with paragraph 2.12.
- 4.11.3. The MAJCOM Command Diver must review the individual's diving qualifications and history to determine what training is required. (**T-2**) At a minimum the AF diver must successfully accomplish the following academics (prior to, and in addition to, requirements outlined in **paragraph 4.3**) under the direct supervision of a qualified dive supervisor. (**T-2**) **Note:** Review the *U.S. Navy Diving Manual* for academic reference material.
  - 4.11.3.1. Underwater Physics. (T-1)

- 4.11.3.2. Underwater Physiology and Diving Disorders. (T-1)
- 4.11.3.3. Air Decompression. **(T-1)**
- 4.11.3.4. SCUBA Air Diving Operations. (T-1)
- 4.11.3.5. Operational Planning and Risk Management. (T-1)
- 4.11.3.6. Closed Circuit Underwater Breathing Apparatus (CC-UBA) Diving. (T-3)

#### **RESTRICTIONS & PROCEDURES**

- **5.1. Ascent to Altitude After Diving or Flying After Diving.** For altitude ascents to less than 10,000 feet, AF divers will follow guidelines in accordance with the *U.S. Navy Diving Manual* Table 9-6, *Required Surface Interval Before Ascent to Altitude After Diving.* **(T-2)** Flying is permitted immediately after 100% oxygen diving only; if oxygen diving has been part of a multiple underwater breathing apparatus (UBA) profile in which the AF diver was also breathing another breathing mixture (air, N2O2, or HEO2), AF divers will follow guidelines in the *U.S. Navy Diving Manual.* **(T-2)** 
  - 5.1.1. Any member performing training that involves breathing compressed air underwater, hyperbaric or recompression chamber exposure, or aircraft pressurization checks will follow the guidelines in paragraph 5.1. (T-2)
  - 5.1.2. For ascent to greater than 10,000 feet with less than a 48-hour surface interval, AF divers will contact Naval Sea Systems Command, Office of the Director of Ocean Engineering, Supervisor of Salvage and Diving, Diving Program Division, Supervisor of Diving (NAVSEA 00C3B), at duty phone number (202) 781-4062, or after-hours cellular phone number (202) 423-5079 for minimum surface interval guidance. (**T-2**)
- **5.2. Dive Profile Limitations.** AF divers will only use the dive tables contained in the *U.S. Navy Diving Manual.* (**T-1**)
  - 5.2.1. AF divers will not perform planned decompression dives except in cases of operational necessity, and only after detailed risk analysis and written approval from the first O-6 paygrade in the chain of command. (T-2)
  - 5.2.2. AF divers performing dive operations at elevations above mean sea level will refer to the *U.S. Navy Diving Manual* for procedures and modified table uses. (**T-2**) AF divers will obtain MAJCOM/A3 or joint force equivalent approval and NAVSEA 00C3 consultation for all dives above 10,000 feet mean sea level. (**T-1**) **Note:** NAVSEA 00C3B point of contact is the Supervisor of Diving at duty phone number (202) 781-4062, or after-hours cellular phone number (202) 423-5079.
  - 5.2.3. FSA training will be conducted in accordance with the U.S. Navy Diving Manual. (T-2)
- **5.3. Corrective Lenses.** Personnel whose vision is cleared for diving duty do not require waivers for corrective lenses. Prescription mask lenses will be purchased at unit expense for those individuals who require prescription lenses. **(T-2)** All AF divers who desire to wear contact lenses while diving must be enrolled in the aircrew soft contact lens program (see DAFMAN 48-123). **(T-1)**

### 5.4. Nitrogen-Oxygen (NITROX) Diving.

5.4.1. NITROX diving operations will be performed in accordance with the *U.S. Navy Diving Manual*. (**T-1**) NITROX diving is unique and uses increased levels of oxygen between 25-40% to increase bottom time and decrease decompression time compared to standard air non-decompression dives.

- 5.4.2. NITROX diving requires additional training, specialized equipment, and specialized facilities; units will document qualification in the individual's training folder. (**T-1**)
- 5.4.3. Units must have NITROX diving approved by their MAJCOM Command Diver. (T-2)
- 5.5. Closed Circuit Underwater Breathing Apparatus (CC-UBA) Diving.
  - 5.5.1. All CC-UBA diving operations will be in accordance with the *U.S. Navy Diving Manual*. (**T-1**)
  - 5.5.2. Units must have their MDPM approval to maintain CC-UBA diving equipment. (T-2)
  - 5.5.3. Units must have a CC-UBA diving program approved by their MAJCOM Command Diver. (**T-2**) Other unit commanders, with notification to their own MAJCOM Command Diver, may authorize qualified personnel to participate in CC-UBA diving operations sponsored by approved units.
  - 5.5.4. Units must conduct CC-UBA diving operations under the direct oversight of a current and qualified combat dive supervisor and DMT/DMO. (**T-1**) The medical professional must have completed formal training at a DoD recognized course of instruction. (**T-2**)
- **5.6. Enclosed Space SCUBA Diving (ESSD) Operations. Warning:** ESSD is a high-risk activity and is strictly limited to saving human life or recovering items of such importance to warrant the risk of potential loss of life.
  - 5.6.1. ESSD is defined as any dive conducted without direct access to the surface (e.g., vehicles, aircraft cabin, any overhead environment, etc.). All ESSD will be limited to a maximum depth of 60 feet with a minimum 19 standard cubic feet redundant air source. (**T-2**) For amplifying guidance, refer to the *U.S. Navy Diving Manual* and Air Force Tactics, Techniques, and Procedures publication (AFTTP) 3-3.Guardian Angel, *Guardian Angel Combat Fundamentals*.
  - 5.6.2. Unit commander will approve any ESSD training and notify the MDPM for tracking purposes. (**T-3**)
- **5.7. Cold Water Diving Operations.** Units will perform cold water dive operations in accordance with the *U.S. Navy Diving Manual*. Cold water diving requires special planning considerations relate to diving under/near ice cover or in water 37°F and colder. (**T-2**) For additional information, units may refer to AFTTP 3-3.GA and MAJCOM approved TTPs.
- **5.8. Breath-hold Diving Operations.** Breath-hold diving is a dangerous practice that may lead to unconsciousness and death and shall be limited to operations and training that cannot be effectively accomplished with UBA such as, free ascent and escape training, SCUBA confidence training, shallow water inspections or object recovery, and obstacle/ordnance clearance. Units may conduct breath-hold diving operations with unit commander approval. For amplifying guidance, refer to the *U.S. Navy Diving Manual* and AF Combat Dive School QTP. **Warning:** The practice of hyperventilating for the purpose of "blowing off" carbon dioxide, (as differentiated from taking two or three deep breaths) prior to a breath-hold dive is a primary cause of unconsciousness and may lead to death. Breath-hold divers shall terminate the dive and surface at the first sign of the urge to breathe.

# **5.9.** Swift Water SCUBA Diving Operations.

- 5.9.1. For diving operations, swift water is defined as a sustained current between 1 and 4 knots. For additional information, units may consult Army Technical Manual 3-34.84, *Swift Water Diving Operations*. **Note:** Swift water SCUBA diving operations are inherently more dangerous, posing additional risks to the diver and support personnel beyond those encountered in normal diving operations.
- 5.9.2. Units will complete a thorough risk analysis and detailed mitigation strategy prior to conducting swift water diving. (**T-2**)
- 5.9.3. The unit commander will approve any swift water dive training and notify the MDPM for tracking purposes. **(T-3)**
- **5.10. Mishap and Incident Reporting and Investigation.** Units must report dive related mishaps to the MDPM and through Air Force Occupational Safety channels in accordance with DAFI 91-204. **(T-1)** Mishap and incident reporting is a unit level responsibility, and timely reporting of mishaps and incidents is essential. The MDPM will ensure all diving mishaps resulting in death, lost time, personnel injury or illness, recompression treatment, or significant material damage are reported within 24 hours both via Air Force safety channels and to the Naval Safety Command (NAVSAFECOM) in accordance with the *U.S. Navy Diving Manual*, and OPNAVINST 3150.27D, as NAVSAFECOM centralizes the collection, dissemination, and reporting of DoD diving safety statistics. **(T-1)** 
  - 5.10.1. Investigations are second in priority only to medical care for injured personnel.
    - 5.10.1.1. The primary purpose of an investigation is to identify safety-related factors that have bearing on the conduct of AF diving operations, and to consider changes to administration, qualifications, standards, requirements, currency, training, equipment and procedures, when appropriate. Safety investigations exist to prevent future mishaps and may elicit sensitive information protected from disclosure by the safety privilege.
    - 5.10.1.2. Major mishaps, including fatalities and serious injuries, will likely require an accident and legal investigation. Guidance on accident and legal investigations is provided in AFI 51-307, *Aerospace and Ground Accident Investigations*. The purpose of an accident investigation is to inquire into all the facts and circumstances surrounding accidents, to prepare a publicly releasable report, and to obtain and preserve all available evidence for use in litigation, claims, disciplinary action, and adverse administrative action.
  - 5.10.2. A mishap is an unplanned occurrence, or series of occurrences, that result in death, damage, injury, or occupational illness. Any event that meets DoDI 6055.07, *Mishap Notification, Investigation, Reporting, and Record Keeping*, or discipline-specific safety manual criteria qualifies as a mishap and must be reported and investigated in accordance with DAFI 91-204. (**T-1**) The AF classifies mishaps by total direct mishap cost and the severity of injury/occupational illness. Refer to the Wing Safety offices and DAFMAN 91-224, *Ground Safety Investigation and Reports*, for additional information and support.
  - 5.10.3. An incident is defined as a planned or unplanned occurrence or series of occurrences resulting in injury or damage that does not meet mishap reporting criteria.

- 5.10.4. The US Navy defines diving near-mishaps and hazards in addition to mishaps. Near-mishaps are defined as acts or events where injury or equipment damage was avoided by mere chance, while hazards are defined as unsafe acts or conditions that degrade safety and increase the probability of a mishap. Units should report near-mishaps and hazards to NAVSAFECOM in accordance with the *U.S. Navy Diving Manual*, and OPNAVINST 3150.27D, as NAVSAFECOM centralizes the collection, dissemination, and reporting of DoD diving safety statistics. Further information on what the Navy considers reportable near-mishaps and hazards is contained in *U.S. Navy Diving Manual*. Self-evaluation and self-reporting of near mishaps is a key measure of professionalism and demonstrates concern for the greater diving community.
- 5.10.5. On direction from the MAJCOM Command Diver, and in coordination with MAJCOM/Safety, diving equipment that may have contributed to a mishap must be impounded, secured, kept un-tampered, and shipped by fastest traceable means to the Naval Experimental Diving Unit (NEDU) for analysis. (T-1) The equipment will not be dismantled, cleaned, or altered in any way prior to shipment to NEDU. (T-1) In accordance with the U.S. Navy Diving Manual, ensure an equipment mishap information sheet accompanies equipment NEDU. (T-0)The mishap information sheet is located https://supsalv.navy.mil/00C3mishap.asp?dest=00c3 (Common Access Card (CAC) restricted). Notify NAVSEA 00C prior to shipment of any incident-related equipment to NEDU.
- **5.11. Medical Support Procedures.** Prior to conducting dive operations, the dive supervisor will:
  - 5.11.1. Establish an emergency medical action plan to include transport options and a suitable hyperbaric facility, preferably a recompression chamber (see **paragraph 5.11.2**). **(T-2)** A hyperbaric chamber locator request can be found at <a href="https://supsalv.navy.mil/chamloc.asp?dest=00c3">https://supsalv.navy.mil/chamloc.asp?dest=00c3</a>, or contact the Divers Alert Network medical department emergency hotline at phone number +1 (919) 684-9111 for immediate assistance. Dive supervisors should complete the "Emergency Assistance Checklist" found in the *U.S. Navy Diving Manual* to collect pertinent information and disseminate to all team members prior to commencing diving operations.
  - 5.11.2. Verify the designated hyperbaric facility is currently capable of treating dive casualties. Guidance on hyperbaric facility requirements is provided in the *U.S. Navy Diving Manual* Volume 5. Confirm methods to establish and maintain communication with the hyperbaric facility. (**T-2**) **Note:** The Defense Health Agency maintains a current list of Central Command hyperbaric chambers at <a href="https://kx.health.mil/kj/kx2/HyperbaricMedicine/Pages/home.aspx">https://kx.health.mil/kj/kx2/HyperbaricMedicine/Pages/home.aspx</a>, see documents tab (CAC restricted).
  - 5.11.3. Ensure that each member of the diving team maintains currency on Basic Life Support training certification, is familiar with recompression procedures, and knows the location and contact procedures for the hyperbaric facility as well as any available on-call Undersea Medical Officers. (**T-2**)

- 5.11.4. Due to the degree of medical expertise, special training, and experience necessary to properly assess and treat diving injuries, units should make every attempt to qualify unit medical officers as diving medical officers (DMOs) or hyperbaric medical officers (HMOs). For open circuit diving, the top side medical support will be a nationally registered paramedic (NREMT-P) trained and documented in dive injury recognition IAW AFSPECWAR open circuit dive supervisor qualification: underwater physiology and first aid fundamentals. NREMT-Ps are operating under the purview of a physician (physicians should be DMO/HMO-qualified). (T-2) Note: IAW the *U.S. Navy Diving Manual*, medical personnel requirements for CC-UBAs include Diving Medical Technician or other individual specifically trained in diagnosis/emergency treatment of diving injuries. Personnel must have completed formal training at a DoD recognized course of instruction. DMTs/HMTs should operate under the purview of a physician, preferably a DMO/HMO. (T-1)
- 5.11.5. For additional diving medical emergency guidance contact NEDU at (850) 234-4351, defense switched network (DSN) (312) 436-4351, or commercial (850) 230-3100, available 24 hours a day. If NEDU cannot be reached, contact Naval Diving and Salvage Training Center via commercial telephone at (850) 234-4651 or DSN (312) 436-4651.
- 5.11.6. All suspected or identified AF decompression sickness and arterial gas embolism cases must be promptly reported to the United States Air Force (USAF) Division of Undersea and Hyperbaric Medicine at Brooks Army Medical Center via commercial telephone at (210) 539-8000 or DSN 389-8000 during duty hours, and commercial (210) 916-2500 (option 2) or DSN 429-2500 after duty hours. (**T-1**)

# DIVING SUPPORT EQUIPMENT AND LOGISTICS

- **6.1. General Logistics.** The AFMC-assigned SPO is the single AF item manager for all diving and maritime related supplies and equipment. As the National Stock System does not list all required items, the SPO may procure them through the Prime Vendor Program. If local purchase of equipment is authorized, units will follow ANU guidance and/or MAJCOM directives to purchase diving equipment through industry sources. **(T-2)**
- **6.2. Diving Equipment, Tools, and Accessories.** The ANU designation is applied by the Navy supervisor of diving and salvage (NAVSEA-00C3) to diving equipment, tools, and accessories, after they have undergone design safety reviews, test and evaluation, or both, to ensure diver safety.
  - 6.2.1. The ANU process addresses two basic categories of equipment:
    - 6.2.1.1. Category I. Life support diving equipment. Category I equipment provides a safe, controlled environment for a diver by satisfying the life support requirements of the intended diving operation (e.g., UBA, regulators, cylinders, manifolds, buoyancy compensators, compressors, portable recompression chambers, medical equipment for use in recompression chambers, etc.). AF divers will only use Category I equipment, tools, and accessories that are on the ANU. (T-1)
    - 6.2.1.2. Category II. Non-life support diving equipment. Category II equipment enhances the mission capability and is not essential for diver life support (e.g., fins, masks, snorkels, communication systems, explosive-actuated tools, powered tools, propulsion systems, and computers).
  - 6.2.2. If AF diving units identify requirements that equipment listed on the ANU cannot address, they will forward documentation on equipment proposed to meet that requirement to their MDPM. (T-1) The MDPM will coordinate with NAVSEA-00C3 prior to use for an independent review of documentation. (T-1) The MDPM will provide the requirements package and documentation review to the MAJCOM/A3 for risk acceptance. (T-2) The MDPM will maintain a list of non-ANU Category II items for which the MAJCOM has accepted the risk and provide that list to the AFDPM. (T-2)
  - 6.2.3. The ANU list is located at <a href="https://supsalv.navy.mil/anu/Home.asp">https://supsalv.navy.mil/anu/Home.asp</a>.
- **6.3. Maintenance and Material Management (3M) "Dive Locker."** The use of the Navy's Ships' 3M equipment documentation program, as described in NAVSEAINST 4790.8 current series, ensures diving equipment functions safely and meets Navy diving equipment inspection and certification criteria.
  - 6.3.1. Maintenance and material managers will use the 3M system to plan, acquire, organize, account, direct, control, and evaluate manpower and material resources in support of maintenance. (T-1)
  - 6.3.2. Dive Locker personnel are key advisors to the unit commander about diving equipment readiness. Military personnel must be trained and certified before performing maintenance on any diving systems. (T-1)

- 6.3.2.1. If units contract diving maintenance, they must ensure the contract stipulates all requirements necessary to meet standards established by the Navy Planned Maintenance System, the AF, and the Department of Transportation applicable to specific unit owned equipment. (T-1) Note: Some units have boat trailering requirements and driving requirements that may require unique licensing.
- 6.3.2.2. Commanders must ensure Dive Locker personnel, or the Unit Dive Program Manager are trained and certified. (**T-2**) The Navy Planned Maintenance System provides guidance to accomplish pre and post dive Maintenance Requirement Card actions for all diving equipment utilized.

# 6.4. Safety Boat Requirements.

- 6.4.1. A safety boat is required for open water diving, or when an AF diver is untended and may be displaced from the dive site. (**T-3**) The safety boat must be a powered, highly maneuverable craft to facilitate rapid recovery and transport in the event of a diver in distress or other emergency. (**T-3**)
- 6.4.2. The safety boat will display a "Diver Down" signal (flag and/or lights) any time diving operations are conducted. (**T-0**) The safety boat will act as a safety picket boat and keep the operational area free of unnecessary boat traffic. (**T-3**)
- 6.4.3. If the operational area of the dive is widely dispersed (an entire harbor, or around a point of land) or consists of inexperienced divers, the OIC/dive supervisor will determine the appropriate number of additional boats required. (**T-3**)
- 6.4.4. In addition to U.S. Coast Guard boat safety requirements, ensure the safety boat is in an operational condition. This includes correctly functioning motor, steering, battery, bilge pumps, and lights. (**T-2**) The safety boat will be equipped with adequate fuel, paddles, life jackets, tool kit, fire extinguisher, binoculars, anchor and line, electronic navigation, depth fathometer, and search light. (**T-2**) Safety Boats will not exceed the maximum capacity for persons or weight listed on the boat safety capacity plate. (**T-2**)
- 6.4.5. Designated Safety Boat emergency medical equipment will include an Artificial Manual Bag Valve Mask type resuscitator, Automated External Defibrillator, marine backboard and portable oxygen supply with sufficient capacity to reach either the recompression chamber or the planned evacuation location. (**T-2**)
- 6.4.6. Very High Frequency radio, and other communication links will be utilized as necessary. (**T-3**) Communications will be maintained between safety boats (if more than one), any shore support parties, transporting entities such as airplanes or other boats, receiving parties such as a boat or shore party, the dive supervisor (if dislocated), and the parent command. (**T-3**) USSOCOM 350-25 and the *U.S. Navy Diving Manual* contain additional safety boat guidance.

# 6.5. Divers' Breathing Gas.

- 6.5.1. Breathing Air. All diving and diving support personnel must adhere to the air quality standards in the *U.S. Navy Diving Manual* or Technical Order (T.O.) 42B-1-22, *Quality Control of Compressed and Liquid Breathing Air.* (**T-0**)
- 6.5.2. Oxygen. All diving and diving support personnel must adhere to the oxygen quality standards in the *U.S. Navy Diving Manual* or T.O. 42B6-1-1-WA-1, *Quality Control of Aviator's Breathing Oxygen.* (**T-0**)

ADRIAN L. SPAIN, Lt General, USAF Deputy Chief of Staff, Operations

#### **Attachment 1**

#### GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

#### References

5 USC § 301, Departmental Regulations and E.O. 9397 (SSN)

DoDI 3224.04, Single Manager Responsibility for Joint Military Diving Technology and Training (MDT&T), 26 May 2017

DoDI 6055.07, Mishap Notification, Investigation, Reporting, and Record Keeping, 11 June 2019

DAFPD 10-35, Air Force Special Warfare, 4 January 2021

AFI 33-322, Records Management and Information Governance Program, 23 March 2020

DAFI 36-2903, Dress and Personal Appearance of Department of the Air Force Personnel, 29 February 2024

AFI 51-307, Aerospace and Ground Accident Investigations, 18 March 2019

AFI 90-802, Risk Management, 01 April 2019

DAFI 91-204, Safety Investigations and Reports, 10 March 2021

DAFMAN 36-2689, Training Program, 31 March 2023

DAFMAN 48-123, Medical Examinations and Standards, 8 December 2020

DAFMAN 91-224, Ground Safety Investigation and Reports, 21 January 2022

DAFPAM 90-803, Risk Management (RM) Guidelines and Tools, 23 March 2022

AFTTP 3-3.Guardian Angel, Guardian Angel Combat Fundamentals, 10 June 2022

SS521-AG-PRO-010 / 0910-LP-115-1921, U.S. Navy Diving Manual, 30 April 2018

USSOCOM 350-25, Special Operations Forces Baseline Interoperable Training Standards, Combat Diving, 16 November 2022

OPNAVINST 3150.27D, Navy Diving Policy and Joint Military Diving Technology and Training Program, 24 August 2021

NAVSEAINST 4790.8D, Ships' Maintenance and Material Management (3-M) Manual, 17 June 2021

NAVEDTRA 43910 (series), Navy Diver Personnel Qualification Standards

TM 3-34.84, Swift Water Diving Operations, 16 March 2015

DoD Financial Management Regulation 7000.14-R, Volume 7A, *Department of Defense Financial Management Regulation*; Volume 7A: *Military Pay Policy – Active Duty and Reserve Pay - Chapter 11*, September 2023

Title 29 Code of Federal Regulations, Part 1910 Occupational Safety and Health Standards, Subpart T, Commercial Diving Operations, 13 June 2011

T.O. 42B-1-22, Quality Control of Compressed and Liquid Breathing Air, 1 July 2017

T.O. 42B6-1-1-WA-1, Quality Control of Aviator's Breathing Oxygen, 6 March 2012

#### Prescribed Forms

None

# Adopted Forms

DAF Form 679, DAF Publication Compliance Item Waiver Request/Approval

DAF Form 847, Recommendation for Change of Publication

AF Form 1522, ARMS Additional Training Accomplishment Report

DD Form 114, Military Pay Order

DD Form 2992, Medical Recommendation for Flying or Special Operational Duty

# Abbreviations and Acronyms

**AETC**—Air Education and Training Command

**AF**—Air Force

**AFDPM**—Air Force Dive Program Manager

**AFI**—Air Force Instruction

**AFMC**—Air Force Materiel Command

**AFS**—Air Force Specialty

**AFSAS**—Air Force Safety Automated System

**AFSPECWAR**—Air Force Special Warfare (Directorate)

**AFTTP**—Air Force Tactics, Techniques, and Procedures

**ANU**—Authorized for Navy Use

**ARMS**—Aviation Resource Management System

**ATRRS**—Army Training Requirements and Resources System

CAC—Common Access Card

**CANTRAC**—Catalog of Navy Training Courses

**CC-UBA**—Closed Circuit Underwater Breathing Apparatus

**CFM**—Career Field Manager

**CRRC**—Combat Rubber Raiding Craft

**DAF**—Department of the Air Force

**DAFI**—Department of the Air Force Instruction

**DAFMAN**—Department of the Air Force Manual

**DAFPD**—Department of the Air Force Policy Directive

**DD**—Department of Defense (as used on forms)

**DJRS**—Dive/Jump Reporting System

**DLSS**—Diver Life Support Systems

**DMO**—Diving Medical Officer

**DMT**—Diving Medical Technician

**DoD**—Department of Defense

**DoDI**—Department of Defense Instruction

**DPM**—Dive Program Manager

**DSN**—Defense Switched Network

**EP**—Emergency Procedure

**ESSD**—Enclosed Space SCUBA Diving

**FSA**—Free Swimming Ascent

**HDIP**—Dive—Hazardous Duty Incentive Pay-Dive

**HMO**—Hyperbaric Medical Officers

**HMT**—Hyperbaric Medical Technician

IAW—In Accordance With

**MAJCOM**—Major Command

MDPM—MAJCOM Dive Program Manager

**MDT&T**—Military Diving Technology and Training

**NAVEDTRA**—Naval Education and Training Command

NAVSAFECOM—Naval Safety Command

**NEDU**—Naval Experimental Diving Unit

NITROX—Nitrogen-Oxygen

**OIC**—Officer in Charge

**OPNAVINST**—Office of the Chief of Naval Operations Instruction

**OPR**—Office of Primary Responsibility

**PAFSC**—Primary Air Force Specialty Code

**POC**—Point of Contact

**QTP**—Qualification Training Program

**PQS**—Personnel Qualification Standards

**RDT&E**—Research, Development, Testing, and Evaluation

**RM**—Risk Management

**SCA**—System Certification Authority

**SCUBA**—Self-Contained Underwater Breathing Apparatus

**SOFBIS**—Special Operations Forces Baseline Interoperability Standards

**SPO**—System Program Office

**SWSIP**—Special Warfare Skill Incentive Pay

**T.O.**—Technical Order

**TTP**—Tactics, Techniques and Procedures

**UBA**—Underwater Breathing Apparatus

**UDPM**—Unit Diver Program Manager

**U.S.**—United States

**USAF**—United States Air Force

**USMC**—United States Marine Corps

**USSOCOM**—United States Special Operations Command

**3M**—Maintenance and Material Management

Office Symbols

**AETC/A3**—Air Education and Training Command, Operations

**AETC/A3LS**—Air Education and Training Command, Special Warfare Branch

**AETC/A6**—Air Education and Training Command, Communications

**AF/A3S**—Air Force Special Warfare Directorate, Deputy Chief of Staff for Operations

**AF/SE**—Air Force Chief of Safety

**AF/SG**—Air Force Surgeon General

MAJCOM/A3—MAJCOM Directorate of Air and Space Operations

**NAVSEA 00C**—Naval Sea Systems Command, Office of the Director of Ocean Engineering, Supervisor of Salvage and Diving

**NAVSEA 00C3**—Naval Sea Systems Command, Office of the Director of Ocean Engineering, Supervisor of Salvage and Diving, Diving Program Division

**NAVSEA 00C3B**—Naval Sea Systems Command, Office of the Director of Ocean Engineering, Supervisor of Salvage and Diving, Diving Program Division, Supervisor of Diving

**NAVSEA 00C4**—Naval Sea Systems Command, Office of the Director of Ocean Engineering, Supervisor of Salvage and Diving, Diving Systems Safety Certification Division

**SAF/FMBOP**—Assistant Secretary of the Air Force for Financial Management Budget Operations and Personnel

#### **Terms**

**AF Diver**—An AF military or civilian member who has successfully completed formal training at a DoD approved diving course of instruction and has a duty position requirement to perform military diving.

Annually—On a yearly basis, a year may be defined either via Calendar or Fiscal timelines.

**Category I**—Life support diving equipment; Category I equipment provides a safe, controlled environment for a diver by satisfying the life support requirements of the intended diving operation (e.g., UBA, regulators, cylinders, manifolds, buoyancy compensators, compressors, portable recompression chambers, medical equipment for use in recompression chambers, etc.).

**Category II**—Non-life support diving equipment; Category II equipment enhances the mission capability and is not essential for diver life support (e.g., fins, masks, snorkels, communication systems, explosive-actuated tools, powered tools, propulsion systems, and computers).

**Certify**—To validate in writing.

**Deviation**—The action of doing something that is different from the usual or common way of behaving (i.e., not adhering to the contents of AFI 10-3504).

**Diver**—A person performing the act of diving.

**Dive Supervisor**—An individual who has graduated from a formal DoD dive supervisor qualification course or who has completed Naval Education and Training Command (NAVEDTRA) 43910 (series) *Military Diver Personnel Qualification Standards* (PQS). After completion of qualification, the individual is designated in writing by the commander. Dive supervisors should be selected based on knowledge, experience, skill level, and competence. There is no minimum rank requirement for dive supervisors.

**Diving**—Any underwater activity or related hyperbaric facility operations, to include breath-hold diving, in which personnel are subjected to elevated ambient pressure and use equipment, such as:

- **a.** -Surface-supplied diving systems and equipment including weight handling equipment and equipment used to support saturation diving operations, including the submarine rescue chambers.
- **b.** -Self-contained underwater breathing apparatus (SCUBA), including open circuit, semi-closed circuit, and closed-circuit designs using any breathing medium.
- c. -Undersea habitats.
- **d.** -Dry-deck shelter, to include swimmer delivery vehicles, submarine lock-in and out trunks, divers' propulsion vehicles, and associated certified life support systems. This definition is not intended to propose an inclusive definition of scope of certification for the family of systems mentioned.
- **e.** -Manned hyperbaric chambers, recompression chambers, diving simulators such as diver support systems for aviation escape trainers.
- **f.** -Diver tool systems, which are pneumatically, electrically, hydraulically driven or explosively actuated.
- g. -Any other diving life support systems or diving equipment utilized by military divers.

**Dive Medical Officer (DMO)**—A physician trained specifically in diving medicine and physiology. The DMO is a graduate of a DoD or AF-recognized Diving Medical Officer course of instruction. A DMO may assist and advise treatment and care of diving casualties but may not modify U.S. Navy Recompression Chamber procedures. A DMO may be placed on permissive dive orders but may not be placed on permanent dive duty without completion of a formal DoD approved diver course.

**Diving Medical Technician (DMT)**—An individual who receives formal DoD training in recognition and treatment of diving related injuries and operates under the medical license and supervision of a DMO. DMTs are trained to administer medical treatment adjuncts, handle emergencies that may arise during training, and instruct members of the diving team in first aid procedures.

**Event**—A broad term used to describe an occurrence, or series of occurrences, or a condition which has implications for the safety community. Events include Mishap, Nuclear Surety, Incident, Hazard, and Safety Study (DAFI 91-204).

**Hazard**—(1) An unsafe act or condition that degrades safety and increases probability of a mishap (SS521-AG-PRO-010 / 0910-LP-115-1921, *U.S. Navy Diving Manual*); and

(2) any real or potential condition that can cause injury, damage, or occupational illness (DAFI 91—204).

Hyperbaric Facilities—Facilities containing a vessel, or vessels designed to operate at elevated air pressures above atmospheric pressure, used for medical research or medical treatment of various ailments. Naval Facilities Engineering Command is the acquisition and System Certification Authority (SCA) for Navy shore-based hyperbaric chamber facilities, which includes dive lockers, dive training, medical treatment, and equipment maintenance/test facilities. Contact: Office of the Chief Engineer, Naval Facilities Engineering Systems Command, 1322 Patterson Ave. SE Suite 1000, Washington Navy Yard, D.C. 20374, USAF Hyperbaric Facilities are located at Brooke Army Medical Center, Ft Sam Houston, TX and David Grant **USAF** Medical Center. Travis POC: AFB. CA. https://kx.health.mil/kj/kx2/HyperbaricMedicine/Pages/home.aspx (CAC restricted, membership required).

**Hyperbaric Medical Officer (HMO)**—A non-diving physician or physician assistant trained specifically in diving medicine and physiology. The HMO is a graduate of a DoD or AF-recognized Hyperbaric Medical Officer course of instruction. The HMO's primary role is to medically evaluate and clear candidates for diver training and medically clear divers to return to diving duties after suspension. An HMO may assist and advise treatment and care of diving casualties but may not modify U.S. Navy Recompression Chamber procedures.

**Hyperbaric Medical Technician** (HMT)—A non-diver who receives formal DoD training in recognition and treatment of diving related injuries and operates under the medical license and supervision of a DMO or HMO. HMTs are trained to administer medical treatment adjuncts, handle emergencies that may arise during diving operations, and instruct members of the diving team in first aid procedures.

**Incident**—A planned or unplanned occurrence or series of occurrences resulting in injury or damage that does not meet Mishap or Nuclear Surety reporting criteria (DAFI 91-204).

**Medical Personnel**—Dive medical officers, dive medical technicians, AF flight surgeons, aeromedical physician assistants, aeromedical nurse practitioners, independent duty medical technicians, and nationally registered paramedics.

**Military Diver**—Military personnel (to include Reserve and Guard components) and civilians employed by DoD components, regardless of component, who have successfully completed formal training at a DoD diving course of instruction and have a duty position requirement to perform military diving.

**Mishap**—An event or series of events, caused by DoD activities, that results in damage to personnel or property.

**Naval Safety Command (NAVSAFECOM) Diving**—Works directly with AF components on all safety related matters of diving. NAVSAFECOM conducts comprehensive assistance visits and safety assessments of Diving Life Support Facilities upon request.

**Near-mishap**—An act or event where injury or equipment damage was avoided by mere chance (Navy use only) (SS521-AG-PRO-010 / 0910-LP-115-1921, *U.S. Navy Diving Manual*).

**Recompression Chamber**—A vessel designed to operate at pressures above atmospheric pressure, used for recompression of divers for both planned and emergency situations.

System Certification—The procedure for independent technical review, survey, test, and approval to ensure material and procedural adequacy of diving equipment or systems to perform safely within specified operational limits. NAVSEA 00C is the DoD technical authority as the Supervisor of Salvage and Diving (SUPSALV) in the Office of the Director of Ocean Engineering. The AF Diving mission falls primarily under two 00C codes. The first is NAVSEA 00C3, Diving Program Division, the Navy's technical authority for military diving programs, equipment, and procedures. Responsible for the Navy Dive Manual and Authorized for Navy Use (ANU) list, the Navy Supervisor of Diving (SUPDIVE) resides in this office code. The second is NAVSEA 00C4, Diving Systems Safety Certification Division, the Navy's technical authority for all diver life support systems (DLSS) maintenance and certification to include all SCUBA, Open-Circuit, Semi-Closed-Circuit and Closed-Circuit UBAs and portable recompression chambers. POCs for both offices can be found at <a href="https://www.navsea.navy.mil/Home/SUPSALV/">https://www.navsea.navy.mil/Home/SUPSALV/</a>.

Validate—To make something officially acceptable or approved, especially after examining it.

### **Attachment 2**

### SAMPLE MEMORANDUM FOR DIVING DUTY ORDERS

# Table A2.1. Sample Memorandum for Diving Duty Orders.

Date

SPECIAL ORDER M-00XX

SSgt Wilbee A. Mariner, USAF, Moody AFB, Georgia, is required to perform military diving activities in the normal conduct of his duties. He has completed and met all initial training and certification requirements and is authorized to perform diving operations.

Nemo R. Aquarius, Lt Col, USSF Commander

**NOTE:** This document is prepared by the commander's support staff and processed through the host base finance office along with a DD Form 114 for action. Effective dates are normally from date arrived station (if fully qualified) or first dive (for requalification), to end date (usually out-processing).