



DEPARTMENT OF THE AIR FORCE
WASHINGTON D.C.

AFI10-3504_AFGM2022-01

19 May 2022

Reissued 9 June 2023

MEMORANDUM FOR DISTRIBUTION C
MAJCOMs/FOAs/DRUs

FROM: HQ USAF/A3
1480 Air Force Pentagon
Washington DC 20330-1480

SUBJECT: Air Force Guidance Memorandum to AFI 10-3504, *Dive Program*

By Order of the Secretary of the Air Force, this Guidance Memorandum immediately changes AFI 10-3504, *Dive Program*. Compliance with this Memorandum is mandatory. To the extent its directions are inconsistent with other Department of the Air Force publications, the information herein prevails, in accordance with DAFI 90-160, *Publications and Forms Management*. Ensure all records created as a result of processes prescribed in this publication are maintained in accordance with AFI 33-322, *Records Management and Information Governance Program*, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located in the Air Force Records Management System.

This Guidance Memorandum clarifies the scope of the Air Force Dive Program to exclude Air Force Fire and Emergency Services. Air Force Fire and Emergency Services employ specialized dive teams that are trained and qualified via civilian programs, while AFSPECWAR divers complete a qualifying military dive school. Additionally, Air Force Fire and Emergency Services dive teams follow established program guidance from the National Fire and Protection Agency (NFPA) and Public Safety Diving (PSD). The publications that govern Air Force Fire and Emergency Services dive operations are: NFPA 1006 Standard for Technical Rescue Personnel Professional Qualifications (<https://codesonline.nfpa.org/code/393cc2cd-08ae-4e45-abfc-af2cc76b43bc/>), NFPA 1670 Standard on Operations and Training for Technical Search and Rescue Incidents (<https://codesonline.nfpa.org/code/10e3a420-4a12-40ee-a96b-20a0dc21296e/>), NFPA 1953 Standard on Protective Ensembles for Contaminated Water Diving (<https://codesonline.nfpa.org/code/c59febd9-078d-4aeb-92f2-77026d7af0f3/>), and PSDiver Consensus Standards for Public Safety Diving in Zero or Low Visibility (<https://safe.menlosecurity.com/doc/docview/viewer/docNDEA678258B4D2300c37e1d86e481b bc8fd2a8c37a1be1a6fa6f5cb594cfb6774aa3757725f74>).

AFI 10-3504, *Dive Program*, page 5, paragraph 1.2 is amended as follows:

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

Air Force Guidance Memorandum to AFI 10-3504, *Dive Program*

Force or Air Force Fire & Emergency Services Specialized Dive Teams. This instruction does not address off-duty diving by AF military or civilian personnel, emergency underwater egress training, medical hyperbaric treatment facilities, nor emergency services conducting surface water rescue without the aid of a self-contained underwater breathing apparatus (SCUBA).

Air Force Special Warfare (AFSPECWAR) Flight Surgeons and Dive Medical Officers collaborated with Army and National Oceanic and Atmospheric Administration (NOAA) counterparts to develop the Joint Hyperbaric Medical Officer Course that includes instruction specifically tailored to providing medical support for USAF diving operations. This Guidance Memorandum updates policy to facilitate use of the Joint Hyperbaric Medical Officer Course by Air Force physicians to obtain medical training to support Air Force diving operations.

AFI 10-3504, *Dive Program*, page 18, paragraph 4.5 is amended as follows:

4.5.3. Joint Hyperbaric Medical Officer Course and National Oceanic and Atmospheric Administration Diver (USAF DMO Certification).

This Memorandum becomes void after one year has elapsed from the date of this memorandum, or upon incorporation by an interim change or rewrite of AFI 10-3504 *Dive Program*, whichever is earlier.

JAMES C. SLIFE, Lt Gen, USAF
Deputy Chief of Staff, Operations

**BY ORDER OF THE SECRETARY
OF THE AIR FORCE**

AIR FORCE INSTRUCTION 10-3504

28 JANUARY 2021

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 James P, Hughes)

Supersedes: AFI10-3501,
9 February 2009

Pages: 33

This instruction implements Department of the Air Force Policy Directive (DAFPD) 10-35, *Air Force Special Warfare*, and Department of Defense Instruction (DoDI) 3224.04, *Single Manager Responsibility for Joint Military Diving Technology and Training (MDT&T)*. 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 where noted otherwise (for the purpose of this instruction, the Air National Guard is considered a Major Command (MAJCOM)). This publication does not apply to the United States Space Force. Ensure all records generated as a result of processes prescribed in this publication adhere to Air Force Instruction 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 AF Form 847, *Recommendation for Change of Publication*; route AF 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 or to Director of Special Warfare, Air Force Deputy Chief of Staff for Operations (AF/A3S), 1480 Air Force Pentagon, Washington, DC 20330-1480. 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 Instruction (DAFI) 33-360, *Publications*

and Forms Management, 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 in accordance with [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 for awareness and tracking.

SUMMARY OF CHANGES

This instruction has been completely rewritten and reorganized, and therefore 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; administration; qualification, training, and currency requirements; mishap reporting; medical support procedures; and logistics.

Chapter 1—AIR FORCE DIVE PROGRAM	5
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	8
2.1. Dive Program Management.	8
2.2. Air Force Special Warfare Directorate, Deputy Chief of Staff for Operations (AF/A3S).	9
2.3. Air Force Chief of Safety (AF/SE).	10
2.4. Air Force Surgeon General (AF/SG).	11
2.5. CFMs.	11
2.6. Air Education and Training Command, (AETC/A3S).....	11
2.7. Air Force Materiel Command (AFMC).	11
2.8. MAJCOM Commanders.	11
2.9. Diving Unit or Activity Commanders.....	13
2.10. Divers.....	14

Chapter 3—ADMINISTRATION	15
3.1. Dive Duty Authorization.	15
3.2. Diving Position Validation.	15
3.3. Funding for Diving Requirements.	15
3.4. Diving Duty Orders.	15
3.5. Diving Duty Requalification.	15
3.6. Removal from Diving Duty.	16
3.7. Dive Qualification Badges.	16
Chapter 4—DIVING QUALIFICATION, TRAINING, & CURRENCY REQUIREMENTS	17
4.1. General Training Requirements.	17
4.2. AF Basic SCUBA Diver Qualification.	17
4.3. AF Combat Diver Qualification.	17
4.4. AF Dive Medical Technician (DMT).	18
4.5. AF Dive Medical Officer.	18
4.6. AF SCUBA Dive Supervisor.	18
4.7. AF Combat Dive Supervisor.	18
4.8. Currency and Refresher Requirements.	19
4.9. AF Diver Requalification.	19
Chapter 5—RESTRICTIONS & PROCEDURES	21
5.1. Ascent to Altitude After Diving or Flying After Diving.	21
5.2. Dive Profile Limitations.	21
5.3. Corrective lenses.	21
5.4. Nitrogen-Oxygen (NITROX) Diving.	21
5.5. CC-UBA Diving.	22
5.6. Enclosed Space SCUBA Diving (ESSD) Operations.	22
5.7. Breath-hold Diving Operations.	22
5.8. Swift Water SCUBA Diving Operations.	22
5.9. Mishap and Incident Reporting and Investigation.	23
5.10. Medical Support Procedures:	24

Chapter 6—DIVING SUPPORT EQUIPMENT AND LOGISTICS	25
6.1. General Logistics.	25
6.2. Diving Equipment, Tools, and Accessories.	25
6.3. Maintenance and Material Management (3M)/“Dive Locker.”	25
6.4. Safety Boat Requirements.....	26
6.5. Divers’ Breathing Gas.	26
Attachment 1—GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION	27
Attachment 2—SAMPLE MEMORANDUM FOR DIVING DUTY ORDERS	33

Chapter 1

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. Per DoDI 3224.04, the Secretary of the Navy, 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) 3150.27C, *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 SS521-AG-PRO-010, *U.S. Navy Diving Manual* (Navy Diving Manual), United States Special Operations Command (USSOCOM) Manual 350-4 Volume 1, *Special Operations Forces Baseline Interoperable Combat Diving Training Standards* (USSOCOM 350-4V1 – contact Headquarters, Air Force Special Operations Command Standards & Evaluations office for access), and OPNAVINST 3150.27.

1.1.2. This instruction implements how and when the AF uses proponent's guidance and when the AF deviates from it.

1.2. Scope. This instruction applies to all AF divers (active duty, Air Reserve Component, AF civilian personnel, and contractors when stipulated in their contracts) involved in training, operational, or administrative aspects of AF diving. This instruction does not address off-duty diving by AF military or civilian personnel, emergency underwater egress training, medical hyperbaric treatment facilities, nor emergency services conducting surface water rescue without the aid of a self-contained underwater breathing apparatus (SCUBA).

1.3. General Guidance. Only formally trained and qualified AF divers, as outlined within this AFI, using DoD approved and/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 *Navy Diving Manual*, USSOCOM 350-4V1, and OPNAVINST 3150.27. 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).** MAJCOMs will coordinate dive equipment RDT&E with the Air Force Dive Program Manager (AFDPM) and NAVSEA 00C, in accordance with DoDI 3224.04 and OPNAVINST 3150.27C. **(T-1).**

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. **(T-1)**. Procedures, checklists, and record traffic published at the MAJCOM level and on record with AF/A3S constitute authorization to deviate from standard 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/A3 or their designated representative unless specifically identified in this instruction. **(T-1)**.

1.4.3. Physical standard waivers will be submitted in accordance with DAFMAN 48-123, *Medical Examinations and Standards*. **(T-1)**.

1.4.4. Operational or procedural waiver requests must substantiate the urgent or unusual circumstances that justify their approval. Requestors will include the following:

1.4.4.1. Procedure or item from which there is a deviation. **(T-1)**.

1.4.4.2. Specific unit and name(s) of individual(s) requiring the waiver. **(T-1)**.

1.4.4.3. Inclusive dates of the waiver period. **(T-1)**.

1.4.4.4. Specific location for which the waiver will be granted. **(T-1)**.

1.4.4.5. Circumstances that necessitate the requirement for the waiver. **(T-1)**.

1.4.4.6. Applicable training, upgrade, and documentation requirements used to prepare personnel to operate under the waiver. **(T-1)**.

1.4.4.7. Unique currency and refresher training specifications that pertain to the waiver, as applicable. **(T-1)**.

1.4.4.8. Mission impact of waiver denial. **(T-1)**.

1.4.4.9. Planned actions, including implementation status, to correct the conditions that necessitated the waiver. **(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, and/or an otherwise urgent requirement exists. In this case, the divers' OIC and/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) within 24 hours or as soon as tactically or operationally feasible. **(T-2).**

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 and/or senior dive supervisor has authority and responsibility for the course of action taken.

Chapter 2

ROLES AND RESPONSIBILITIES

2.1. Dive Program Management. Designated Command Divers, dive program managers (DPMs), and affected career field managers (CFMs) are the heart of the dive program. MAJCOM DPMs (MDPM) and organizational DPMs disseminate safety information, report incidents and hazards, assist commanders in requirements development, and provide leadership and oversight. DPMs also disseminate tactics, techniques, and procedures (TTP) up and down the chain of command. As such, DPMs will establish direct access to the Air Force Safety Automated System (AFSAS) (<https://afsas.safety.af.mil>) or establish a process to ensure organizational safety personnel inform them of all diving mishaps in a timely manner. (T-1).

2.1.1. The Air Force Command Diver and Air Force DPM (AFDPM) reside in AF/A3S and manage the entire AF dive program. They are the principle dive subject matter experts responsible for dive program standardization, evaluation, and dive-related 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.

2.1.1.1. 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 4.7 (T-1)**.

2.1.1.2. 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 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 4.7 (T-1)**.

2.1.2. MAJCOM Command Divers and MDPMs oversee their respective command's dive program. **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.

2.1.2.1. The MAJCOM Command Diver is the principle 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 in accordance with **Paragraph 2.1.1.1 (T-1)**.

2.1.2.2. The MAJCOM DPM is the principle 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 in accordance with **Paragraph 2.1.1.2 (T-1)**.

2.2. 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. As the AF dive proponent and subject matter expert, the Director of AFSPECWAR will:

- 2.2.1. Provide a minimum of one O-6 level representative and subject matter expert to the Joint MDT&T Program Board in accordance with DoDI 3224.04.
- 2.2.2. Designate military or civilian representatives to represent the AF as members of the Military Technical Acceptance Board (MTAB) and/or the Technical Training Acceptance Board (TTAB) in accordance with DoDI 3224.04.
- 2.2.3. Appoint an AF Command Diver and AFDPM in accordance with [Paragraph 2.1](#)
- 2.2.4. Provide AF Dive Program guidance.
- 2.2.5. Be the final authority on all requests for waiver of system certification; safety and operational procedures; personnel qualifications (except physical standards); and materials related to AF diving.
- 2.2.6. Conduct periodic safety inspections of MAJCOMs with diving systems and review consolidated mission reports and other sources regarding AF diving statistics for continuous process improvement opportunities.
- 2.2.7. Develop and promulgate individual physical standard requirements for AF divers in coordination with MAJCOMs and AF/SG.
- 2.2.8. Establish qualification and requalification criteria for AF divers.
- 2.2.9. Establish administrative procedures for diving documentation in training records in accordance with AFI 36-2670, *Total Force Development*.
- 2.2.10. Establish administrative procedures for diving logs for AF divers in coordination with MAJCOMs.
- 2.2.11. Brief/coordinate with Headquarters Air Force directorates and other officials or organizations on dive operations, equipment, and training matters.
- 2.2.12. Assist Air Education and Training Command (AETC) in formulating, implementing, and evaluating formal training programs for AF divers.
- 2.2.13. Convene and chair the AF Executive Dive Committee meeting at least 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 (19ZX), and Combat Rescue Officer (19ZXC) AFS CFMs.
- 2.2.14. Participate in or send a representative to joint and sister service dive program conferences, as required.
- 2.2.15. Review all reported diving mishaps, incidents, near-mishaps, hazards, and deviations.

- 2.2.15.1. Coordinate review of mishap reports across applicable headquarters offices.
 - 2.2.15.2. Recommend or direct coordinated changes to training and procedures, where appropriate.
 - 2.2.16. Assist AETC/A3/6 in the allocation of formal dive program training quotas.
 - 2.2.17. Maintain a total force Command Diver and MDPM contact roster and disseminate information periodically to promote communication.
 - 2.2.18. Assess and certify service and civilian curricula; programs of instruction; and/or blocks of training for basic and advanced skills that meet AF dive mission requirements.
 - 2.2.19. 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.
 - 2.2.20. Coordinate with MAJCOMs to identify and investigate new equipment, ensure functional interoperability, and reduce the multiplicity of equipment currently in use.
 - 2.2.21. Develop, publish, and distribute applicable safety messages, equipment bulletins and quality deficiency reports as required.
 - 2.2.22. Maintain AF dive program checklists and safety inspection checklists.
 - 2.2.23. Ensure all Category I (see [paragraph 6.2.2](#)) 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).
 - 2.2.24. Review biennial MAJCOM operational, administrative, and material inspections to verify compliance with this instruction.
 - 2.2.25. 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.
- 2.3. 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 diving-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. Incorporate one or more AF divers into any safety investigation involving dive operations.
 - 2.3.5. Manage the AFSAS to ensure the AFDPM and/or MDPMs are provided an opportunity to submit comments on safety investigation reports.

2.4. Air Force Surgeon General (AF/SG). AF/SG, through the Air Force Medical Readiness Agency, will:

2.4.1. Designate an AF Diving Medical Officer (DMO) or Service equivalent to provide recommendations on medical requirements and qualifications for AF divers.

2.4.2. Review all diving mishap reports and provide medical support to mishap investigations in accordance with AFI 91-204.

2.5. CFMs. Air Force CFMs of dive-inherent AF specialties (AFSs): The 1Z1, 1Z2, 1Z4 and 19ZXA/C 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/A3S). AETC/A3S, AFSPECWAR Division will:

2.6.1. Oversee the formal training aspects of the AF Dive Program. **(T-1).**

2.6.2. Manage AF quota policy for all DoD diver courses and other formal training as required. **(T-1).**

2.6.3. Provide oversight of AF instructor requirements at DoD formal diving schools. **(T-2).**

2.7. Air Force Materiel Command (AFMC). AFMC will:

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 diving-related equipment to AF/A3S for addition to the ANU diving equipment list. **(T-1).** 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 and diving related equipment items utilized by the MAJCOMs. **(T-1).**

2.7.3. Coordinate any required test and evaluation of diving equipment. **(T-1).**

2.8. MAJCOM Commanders. MAJCOM commanders have authority and responsibility for diving operations under their control to include the development of service-unique tactics, techniques, procedures (TTPs) 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 in accordance with [Paragraph 2.1.2](#) and forward appointment letters to AF/A3S. **(T-1).** These positions advise the MAJCOM commander on diving-related issues. While MAJCOM commanders are ultimately accountable for the responsibilities outlined below, MAJCOM commanders may, at their discretion, delegate responsibilities to the Command Diver or MDPM.

2.8.2. Establish, approve, and monitor (as required) command-specific dive programs, policy, guidance, and training programs according to operational need. **(T-2).**

2.8.3. Coordinate and manage (as required) their MAJCOM's requirements for diving systems and equipment. **(T-2).**

2.8.4. 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. **(T-1).**

2.8.5. Participate in the AF Executive Dive Committee. **(T-1).**

2.8.6. Attend AF, joint, sister service, and industry conferences, meetings, boards, task forces, and committees pertaining to military diving when feasible and applicable. **(T-2).**

2.8.7. Identify, prepare or validate operational requirements, Mission Needs Statements, and Operational Requirements Documents as required. Additionally, participate in the MAJCOM Mission Area Plans process. **(T-2).**

2.8.8. Coordinate with MAJCOM functional area managers and training points of contact (POCs) for formal training requirements, and submit class quota requests for initial and upgrade training. **(T-1).**

2.8.9. Maintain copies of diving standard operating procedures and programs of instruction or syllabuses of instruction developed by activities under their purview. **(T-2).**

2.8.10. 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, in accordance with AFI 36-2670. **(T-2).**

2.8.11. 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. **(T-1).**

2.8.12. Provide units with dive program checklists and safety evaluation checklists in accordance with [paragraph 2.2.22](#), prior to unit dive program inspections. **(T-2).**

2.8.13. 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 6.2.3](#)) dive equipment; and materials related to AF diving. **(T-1).**

2.8.14. Document deviations from inter-service references and this instruction and review annually. Every three years, review roles and missions requiring exception from standard procedures and equipment, and submit to AF/A3S via AF Form 847 for inclusion in this instruction. **(T-1).** Include as applicable:

2.8.14.1. Roles and missions requiring exceptions to policy.

2.8.14.2. Procedural guidance used by assigned personnel during such operations, to include checklists.

2.8.14.3. Training, upgrade, and documentation requirements, and lesson plans to train personnel in such operations.

2.8.14.4. Proficiency criteria and refresher training specifications for inclusion in Duty Air Force Specialty Code specific instructions.

2.8.15. Participate in dive incident investigations as required.

2.8.16. Review all diving mishap, incident, near-mishap, and hazard reports and ensure all required follow-up actions are accomplished; manage resulting safety recommendations in accordance with AFI 91-204, *Safety Investigation and Hazard Reporting*, using AFSAS (<https://afsas.safety.af.mil/>); and forward reports of completed action to the AFDPM to ensure dissemination of lessons learned. (T-1).

2.8.17. Disseminate safety information, tactics, and procedures to unit DPMs. (T-1).

2.8.18. Approve or disapprove dive equipment RDT&E (see [paragraph 1.3.2](#)). (T-2).

2.8.19. Review and archive all operational dive consolidated mission reports, and forward copies to the AFDPM and AF Command Diver. (T-1).

2.8.20. Review annual validation reports of AF divers outside of PAFSCs 1Z1/2/4 and 19ZXA/C and forward the report to the AFDPM. (T-1).

2.9. Diving Unit or Activity Commanders. Diving unit or activity commanders will:

2.9.1. Appoint a unit DPM, in writing, to oversee all unit diving-related areas, and forward a copy of the appointment letter to the MDPM. (T-2). The DPM should meet qualifications listed in [Paragraph 2.1.1.2](#)

2.9.2. Provide the owning MAJCOM with a copy of their approved Designed Operational Capability statement or equivalent requiring their military dive mission. (T-2).

2.9.3. Implement higher headquarters policies and procedures. (T-2).

2.9.4. 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. (T-2).

2.9.5. Ensure unit level dive supervisors are trained, certified, and designated in writing. (T-1).

2.9.6. Implement a diving risk management program. (T-2). See AFPAM 90-803, *Risk Management (RM) Guidelines and Tools*, for guidelines and tools.

2.9.7. Generate, as needed, and forward operational dive consolidated mission reports through chain of command, and to the MDPM, within seven days of mission completion or as soon as operationally feasible. (T-2).

2.9.8. Ensure all Category I DLSS, recompression chambers, and critical diving equipment are certified by NAVSEA 00C4 or the MAJCOM/A3 (as applicable); ensure diving equipment is maintained in accordance with NAVSEAINST 4790.8C, *Ships' Maintenance and Material Management (3-M) Manual*. (T-1). 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. (T-1).

2.9.9. Report all deviations without an approved waiver in accordance with [paragraphs 1.4.5.1](#) and [1.4.5.2](#) (T-1).

2.9.10. Report all events, to include mishaps, incidents, hazards, and near-mishaps according to [paragraphs 5.9](#) through [5.9.5](#) (T-1).

2.9.11. Ensure accurate submission of electronic Dive Log Reports using AFSAS Dive/Jump Reporting System (DJRS) within 10 workdays of each dive. (T-1). Units will maintain a record of dive logs on file for 3 years. (T-1).

2.9.12. Certify members for Diving Duty through Diving Duty Orders submission.

2.9.13. Validate Hazardous Duty Incentive Pay, Dive (HDIP-Dive) or Battlefield Airmen Skill Incentive Pay (BASIP)/Special Warfare Skill Incentive Pay (SWSIP) entitlement for all assigned AF divers. (T-1).

2.9.14. Prepare annual validation report of AF divers outside of PAFSCs 1Z1/2/4 and 19ZX/C and submit the report to the MDPM.

2.10. Divers. AF Divers will:

2.10.1. Monitor their diving qualifications to ensure proper record entries in DJRS (which meets the *Navy Diving Manual* personal dive log requirement), On the Job Training (OJT) records, and Aviation Resource Management System (ARMS) or other MAJCOM- or AFS-specific formats. (T-1).

2.10.2. Perform diving 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. (T-1). Grounding from flight, special operations, or jump duties applies to diving duty unless specifically identified by the flight surgeon in writing on the DD Form 2992.

2.10.3. Maintain dive qualification and currency in accordance with this instruction. (T-1).

Chapter 3

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 approved diving activities validated by their MAJCOM in accordance with this AFI.

3.2. Diving Position Validation. Do not assign members to diving duty unless the member designated requires active dive status and is assigned to a MAJCOM-approved diving activity or holds a 1Z1, 1Z2, 1Z4 or 19ZX/C PAFSC. Forward request 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 and Comptroller's Milpers budget office (SAF/FMBOP), is responsible for developing the dive pay budget. Only qualified members on diving duty orders (assigned to dive-inherent AFS or MAJCOM-validated position numbers), requiring frequent and regular dives, are entitled to HDIP-Dive. **NOTE:** Members receiving BASIP/SWSIP will not receive HDIP-Dive. **(T-1)**. HDIP-Dive requirements are prescribed in DoD FMR 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 above guidance. **(T-1)**.

3.4. Diving Duty Orders. AF personnel will be placed on Diving Duty Orders before engaging in diving operations (initial AETC training and requalification training). **(T-1)**. 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; and that member holds a 1Z1, 1Z2, 1Z4 or 19ZX/C PAFSC or is assigned to a position number approved for diving duty and on file with the MDPM. **(T-1)**. By 1 Oct of each calendar year, each MDPM will provide the AFDPM a list of all active AF divers outside PAFSC 1Z1, 1Z2, 1Z4, and 19ZX/C along with their position numbers and personnel accounting symbol code for budgeting and program oversight. **(T-1)**.

3.5. Diving Duty Requalification. AF divers who are disqualified for non-permanent reasons may be requalified in accordance with [Paragraph 4.9](#) when their impediment to diving is removed.

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)**. Commanders will not remove members in the 1Z1, 1Z2, 1Z4, or 19ZXA/C AFSs from diving duty when they are moving from one assignment to another. **(T-1)**.

3.7. Dive Qualification Badges. AF members are authorized to wear the AF dive badge (or the qualifying course service badge) in accordance with AFI 36-2903, *Dress and Personal Appearance of Air Force Personnel*, when awarded upon completion of formal training as outlined in **Paragraphs 4.2** and **4.3** Foreign diver qualification badges are not authorized.

Chapter 4

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 *Navy Diving Manual* as implemented by this Instruction. **(T-2). Exception:** Air Force Special Operations Command-assigned AF divers will adhere to USSOCOM 350-4V1 for combat dive training under USSOCOM authority. **(T-2).** 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. AF civil service personnel are governed by both the provisions of this AFI and Occupational Safety and Health Administration (OSHA) diving standards, delineated in 29 Code of Federal Regulations, Part 1910 *Occupational Safety and Health Standards*, Subpart T, *Commercial Diving Operations*. AF civilian divers are identified as permanent AF employees who have been formally trained at a DoD diving school. AF civilian divers will possess the same qualifications as those required for their military counterparts and must meet the same physical requirements as outlined below. **(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 standards for AF divers are established in DAFMAN 48-123. All AF divers (including civil service personnel) must pass annual flight and/or diving physicals to remain qualified. **(T-1).** AF divers must meet specific performance standards required by Joint, MAJCOM, and unit guidance. **(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 SCUBA Diver course.

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 in accordance with USSOCOM 350-4V1:

4.3.1. An Education and Training Course Announcement listed Pre-Combat Dive course that qualifies members as Combat Swimmers in accordance with:

4.3.1.1. The SOFBIS (drown proofing, underwater knot tying, 50 meter underwater swim, and a 2000 meter surface swim).

4.3.1.2. The AF Combat Dive Course program of instruction.

4.3.2. A USSOCOM recognized or accredited service sponsored 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 Dive Medical Technician (DMT). AF medical personnel may be designated as DMTs if they have successfully completed one of the following formal DoD courses of instruction:

4.4.1. US Navy Diving Medical Technician.

4.4.2. USMC Amphibious Reconnaissance Corpsman.

4.4.3. US Army Dive Medical Technician.

4.5. AF Dive Medical Officer. An AF Flight Surgeon or Physician Assistant may be designated as a DMO if they have completed one of the following formal DoD courses of instruction:

4.5.1. U.S. Navy Diving Medical Officer (Navy DMO Certification).

4.5.2. U.S. Navy Recognition and Treatment of Diving Casualties (R&T) and National Oceanic and Atmospheric Administration Diver (AF DMO Certification).

4.6. 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).

4.7. 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.

4.7.1. Air Force Combat Dive Supervisor Course.

4.7.2. US Army Special Forces Combat Dive Supervisor Course.

4.7.3. Naval Special Warfare Diving Supervisor Course.

4.7.4. USMC Combatant Dive Supervisor Course.

4.7.5. A course of instruction, approved by AF/A3S, which meets the NAVEDTRA 43910 (series) for all systems taught at courses listed in [Paragraph 4.3.2](#)

4.8. Currency and Refresher Requirements.

4.8.1. Currency on the swim portion of the AFSPECWAR Tier 2 Operator Fitness Test satisfies individual AF diver Combat Swimmer currency requirements.

4.8.2. All AF divers will accomplish a minimum of four dives annually (Calendar year) to maintain currency. **(T-2)**. Dives may include multiple dives on the same day. Additionally, dive supervisors will oversee two dives annually (Calendar year) 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 [Paragraphs 2.2.9, 2.9.11, and 2.10.1](#) **(T-1)**.

4.8.3. 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 *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)**.

4.8.4. All AF divers will accomplish a diving procedures 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:

4.8.4.1. Review of buoyancy control, buddy breathing, and mask clearing procedures. **(T-1)**.

4.8.4.2. Review of hand signals. **(T-1)**.

4.8.4.3. Review of diver rescue procedures. **(T-1)**.

4.8.4.4. Review of use of unit specific equipment procedures (e.g., communications, lift bags, dry suits, full facemask, camera, sonar, navigation). **(T-1)**.

4.8.5. MAJCOMs and unit commanders may establish additional proficiency requirements to suit mission needs.

4.9. AF Diver Requalification.

4.9.1. AF diver requalification requirements must be evaluated jointly by the unit DPM 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 requalification training needed.

4.9.2. If diving currency has lapsed for more than one year but less than three years, the AF diver must have commander approval, a current physical examination for diving duty in accordance with DAFMAN 48-123, and perform four requalification dives in order to be fully requalified. **(T-2)**. All dives shall be conducted in accordance with *Navy Diving Manual*. **(T-2)**. Dives should be completed in accordance with the unit Designed Operational Capability statement tasks or Mission Essential Task List. Document requalification dives in accordance with [Paragraphs 2.2.9, 2.9.11, and 2.10.1](#)

4.9.3. If diving currency has lapsed for more than three years, the member will be placed in a non-qualified status. **(T-1)**. The 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 4.9.2](#)) under the direct supervision of a qualified dive supervisor. **(T-2)**. **NOTE:** Review the *Navy Dive Manual* for academic reference material.

4.9.3.1. Underwater Physics. **(T-1)**.

4.9.3.2. Underwater Physiology and Diving Disorders. **(T-1)**.

4.9.3.3. Air Decompression. **(T-1)**.

4.9.3.4. SCUBA Air Diving Operations. **(T-1)**.

4.9.3.5. Operational Planning and Risk Management. **(T-1)**.

4.9.3.6. Closed Circuit Underwater Breathing Apparatus (CC-UBA) Diving. **(T-3)**.

Chapter 5

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 *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 *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 NAVSEA 00C3B, Supervisor of Diving at (202) 781-4062, for minimum surface interval guidance. **(T-2)**.

5.2. Dive Profile Limitations. AF divers will only use the dive tables contained in the *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 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 *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 00C3 point of contact is the Supervisor of Diving at (202) 781-4062.

5.2.3. FSA training will be conducted in accordance with *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 *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 Command Diver. **(T-2)**.

5.5. CC-UBA Diving.

5.5.1. All CC-UBA diving operations will be in accordance with the *Navy Diving Manual*. (T-1).

5.5.2. Units must have MDPM approval to maintain CC-UBA diving equipment. (T-2).

5.5.3. Units must have CC-UBA diving approved by their Command Diver. (T-2). Other unit commanders, with notification to their own Command Diver, may authorize qualified personnel to participate in CC-UBA diving operations sponsored by approved units.

5.5.4. Sustainment training for Combat Diver Qualification will be in accordance with USSOCOM 350-4V1. (T-1).

5.5.5. Units must conduct CC-UBA diving operations under the direct oversight of a current and qualified Combat Dive Supervisor and either a DMO or DMT. (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 *Navy Diving Manual* and Air Force Tactics, Techniques, and Procedures publication (AFTTP) 3-3.GA, *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. Breath-hold Diving Operations. Units may conduct breath-hold diving operations with unit commander approval. For amplifying guidance, refer to the *Navy Diving Manual* and AF Combat Dive School syllabi. **WARNING:** Voluntary hyperventilation is dangerous and can lead to unconsciousness and death during breath-hold dives.

5.8. Swift Water SCUBA Diving Operations.

5.8.1. For diving operations, swift water is defined as sustained current between 1 and 4 knots. For additional information, units may consult Army Technical Manual (TM) 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.

5.8.2. Units will complete a thorough risk analysis and detailed mitigation strategy prior to conducting swift water diving. (T-2).

5.8.3. Unit commander will approve any swift water dive training and notify the MDPM for tracking purposes. (T-3).

5.9. 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 AFI 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 Center (NAVSAFECEN) in accordance with the *Navy Diving Manual*, and OPNAVINST 3150.27C, as NAVSAFECEN centralizes the collection, dissemination, and reporting of DoD diving safety statistics. **(T-1).**

5.9.1. Investigations are second in priority only to medical care for injured personnel. 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, and procedures, when appropriate. Safety investigations exist to prevent future mishaps. Major mishaps, especially those involving fatalities, may also require legal investigation and reporting.

5.9.2. A mishap is defined as 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 AFI 91-204. **(T-1).** The AF classifies mishaps by total direct mishap cost and the severity of injury/occupational illness. Reference the Wing Safety offices and AFMAN 91-224, *Ground Safety Investigation and Hazard Reporting*, for additional information and support.

5.9.3. 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.

5.9.4. 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 NAVSAFECEN in accordance with the Navy Dive Manual and OPNAVINST 3150.27C, as NAVSAFECEN 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 the *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.

5.9.5. On direction from the 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 *Navy Dive Manual*, ensure an equipment mishap information sheet accompanies equipment send to NEDU. **(T-0).** The mishap information sheet is located at <https://secure.supsalv.org/> (Common Access Card (CAC) restricted) in the Diving Policy Documents section under 00C3 publications. Notify NAVSEA 00C prior to shipment of any incident-related equipment to NEDU.

5.10. Medical Support Procedures: Prior to conducting dive operations the dive supervisor will:

5.10.1. Establish an emergency medical action plan to include transport options and a suitable hyperbaric facility, preferably a recompression chamber (see [paragraph 5.10.2](#)). (T-2). Dive supervisors should complete the “Emergency Assistance Checklist” found in the *Navy Diving Manual* to collect pertinent information and disseminate to all team members prior to commencing diving operations.

5.10.2. Verify the designated hyperbaric facility is currently capable of treating dive casualties and confirm methods to establish and maintain communication with the hyperbaric facility (T-2). **NOTE:** Find the current list of Central Command facilities at: <https://kx.health.mil/kj/kx2/HyperbaricMedicine/Pages/home.aspx>. (CAC restricted, requires membership.)

5.10.3. Ensure that each member of the diving team is current on Basic Life Support training, familiar with recompression procedures, and knows the location and contact procedures for the hyperbaric facility as well as the DMO (see [Paragraph 5.10.1](#)). (T-2).

5.10.4. Due to the degree of medical expertise, special training, and experience necessary to properly treat diving injuries, units will not perform diving operations unless a non-diving DMO or DMT as defined in this instruction is present (this requirement may be satisfied by a DMO- or DMT-qualified dive supervisor or standby diver). (T-2). DMTs operate under the purview of a physician, preferably a DMO. **NOTE:** For open circuit diving only, the diving unit commander may waive this requirement down to a Nationally Registered Paramedic operating under the purview of a physician (physician should be DMO-qualified).

5.10.5. For additional diving medical emergency guidance contact NEDU at (850) 234-4351 (DSN 436-4351) or (850) 230-3100, available 24 hours a day. If NEDU cannot be reached, contact Naval Diving and Salvage Training Center (NDSTC) at (850) 234-4651 (DSN 436-4651).

5.10.6. All AF decompression sickness and arterial gas embolism cases must be promptly reported to AF SAM/FEEH at Brooks Army Medical Center via telephone at (210) 539-8000 (DSN 389-8000) during duty hours and (210) 916-2500 (DSN 429-2500) after duty hours. (T-1).

Chapter 6

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:

6.2.2. 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 use only ANU Category I equipment, tools, and accessories. **(T-1).**

6.2.3. 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).

6.2.4. 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).**

6.2.5. The ANU list is located at: <https://www.navsea.navy.mil/Home/SUPSALV/00C3-Diving/Diving-ANU/>.

6.3. Maintenance and Material Management (3M)/“Dive Locker.” The use of the Navy’s Ships 3M equipment documentation program, as described in NAVSEAINST 4790.8C, ensures diving equipment functions safely and meets Navy diving equipment inspection and certification criteria. 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).** 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).** 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)**. Commanders must ensure dive supervisors are trained and certified to accomplish basic equipment maintenance duties. **(T-2)**.

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 in the vicinity of other vessels. **(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 shall determine the appropriate number of additional boats required. **(T-3)**.

6.4.4. In addition to U.S. Coast Guard boat safety requirements, the safety boat shall be equipped with electronic navigation, depth fathometer, search light, Very High Frequency (VHF) radio, and other communication links 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 parent command. **(T-3)**. USSOCOM 350-4V1 and the *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 *Navy Diving Manual* or technical order (T.O.) 42B-1-22, *Quality Control of Compressed and Liquid Breathing Air*, as directed by unit commander. **(T-1)**.

6.5.2. Oxygen. All diving and diving support personnel must adhere to the oxygen quality standards in the *Navy Diving Manual* or T.O. 42B6-1-1-WA-1, *Quality Control of Aviator's Breathing Oxygen*, as directed by unit commander. **(T-1)**.

JOSEPH T. GUASTELLA Jr.,
Lt General, USAF
Deputy Chief of Staff, Operations

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

DAFPD 10-35, *Air Force Special Warfare*, 5 January 2021

DoDI 3224.04, *Single Manager Responsibility for Joint Military Diving Technology and Training (MDT&T)*, 23 May 2008

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

DAFI 33-360, *Publications and Forms Management*, 1 December 2015

OPNAVINST 3150.27C, *Navy Diving Policy and Joint Military Diving Technology and Training Program*, 24 June 2016

SS521-AG-PRO-010 / 0910-LP-106-0957, *U.S. Navy Diving Manual*, 01 December 2016

USSOCOM 350-4V1, *Special Operations Forces Baseline Interoperable Combat Diving Training Standards*, 7 April 2017

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

AFI 36-2670, *Total Force Development*, 25 June 2020

AFI 91-204, *Safety Investigation and Hazard Reporting*, 27 April 2018

AFPAM 90-803, *Risk Management (RM) Guidelines and Tools*, 11 February 2013

NAVSEAINST 4790.8C, *Ships' Maintenance and Material Management (3-M) Manual*, 14 March 2013

DoD FMR 7000.14-R, Volume 7A, *Department of Defense Financial Management Regulation; Volume 7A: "Military Pay Policy – Active Duty and Reserve Pay,"* September 2019

AFI 36-2903, *Dress and Personal Appearance of Air Force Personnel*, 7 February 2020

29Code of Federal Regulations, Part 1910 *Occupational Safety and Health Standards*, Subpart T, *Commercial Diving Operations*, current edition

NAVEDTRA 43910 (series), *Navy Diver Personnel Qualification Standards*

AFTTP 3-3.Guardian Angel, *Guardian Angel Combat Fundamentals*, 25 September 2018

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

DoDI 6055.07, *Mishap Notification, Investigation, Reporting, and Record Keeping*, 6 June 2011

AFMAN 91-224, *Ground Safety Investigation and Hazard Reporting*, 29 March 2019

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

AF 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

AFPD—Air Force Policy Directive

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

BASIP—Battlefield Airmen Skill Incentive Pay

CAC—Common Access Card

CC-UBA—Closed Circuit Underwater Breathing Apparatus

CFM—Career Field Manager

DAFI—Department of the Air Force Instruction

DD—Department of Defense (only used for forms; e.g., DD Form 2992)

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

EP—Emergency Procedure

ESSD—Enclosed Space SCUBA Diving

FSA—Free Swimming Ascent

HDIP—Dive—Hazardous Duty Incentive Pay-Dive

MAJCOM—Major Command

MDPM—MAJCOM Dive Program Manager

MDT&T—Military Diving Technology and Training

MTAB—Military Technical Advisory Board

NAVEDTRA—Naval Education and Training Command

NAVFAC—Naval Facilities Engineering Command

NAVSAFECEN—Naval Safety Center

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

NDSTC—Naval Diving and Salvage Training Center

NEDU—Naval Experimental Diving Unit

NITROX—Nitrogen-Oxygen

OIC—Officer In Charge

OJT—On the Job Training

OPNAVINST—Office of the Chief of Naval Operations Instruction

OPR—Office of Primary Responsibility

OSHA—Occupational Safety and Health Administration

PAFSC—Primary Air Force Specialty Code

POC—Point of Contact

PQS—Personnel Qualification Standards

R&T—Recognition and Treatment

RDTE—Research, Development, Testing, and Evaluation

SCUBA—Self-Contained Underwater Breathing Apparatus

SOFBIS—Special Operations Forces Baseline Interoperability Standards

SPO—System Program Office

SWSIP—Special Warfare Skill Incentive Pay

TM—Technical Manual (Army)

T.O.—Technical Order

TTAB—Technical Training Acceptance Board

TTP—Tactics, Techniques and Procedures

UBA—Underwater Breathing Apparatus

US—United States

USMC—United States Marine Corps

USSOCOM—United States Special Operations Command

VHF—Very High Frequency

3M—Maintenance and Material Management

Terms

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

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.

Diving 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.

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 (AFI 91-204).

Hazard—1. An unsafe act or condition that degrades safety and increases probability of a mishap (*Navy Diving Manual*).

2. Any real or potential condition that can cause injury, damage, or occupational illness (AFI 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 (NAVFAC) 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.

POC:

https://www.navfac.navy.mil/products_and_services/ci/products_and_services/naval_ocean_facilities_program/hyperbaric_certification.html. USAF Hyperbaric Facilities are located at Brooke Army Medical Center, Ft Sam Houston, TX and David Grant USAF Medical Center, Travis AFB, CA. POC: <https://kx.health.mil/kj/kx2/HyperbaricMedicine/Pages/home.aspx> (CAC restricted, membership required).

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 (AFI 91-204).

Medical Personnel—Diving Medical Officers, Diving Medical Technicians, Flight Surgeons, Physician Assistants, 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 unplanned occurrence, or series of occurrences, that results in damage to DoD property; occupational illness of DoD personnel; injury to on- or off-duty DoD military personnel; injury to on-duty DoD civilian personnel; or damage to public or private property, or injury or illness to non-DoD personnel, caused by DoD activities (AFI 91-204).

Naval Safety Center (NAVSAFECEN) Diving—Works directly with AF components on all safety related matters of diving. NAVSAFECEN conducts comprehensive assist 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) (*Navy Diving Manual*).

Recompression Chamber—A vessel designed to operate at elevated air pressures above atmospheric pressure, used for recompression of divers for both planned and emergency situations. While hyperbaric facilities may be used as recompression chambers for treatment of diving-related injuries by the proper personnel, diving recompression is not the primary use of hyperbaric facilities in general. For diving use, a recompression chamber is preferred if available.

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 <https://www.navsea.navy.mil/Home/SUPSALV/>.

Unit Dive Program Manager (DPM)—Designated in writing by unit commander, the DPM is responsible for the safe conduct of all diving operations within the unit. This individual is thoroughly familiar with all unit diving techniques 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.

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
<p>SSgt Wilbee A. Mariner, USSF/S3S, Patrick SFB, Florida, 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 tactical diving operations.</p>
Nemo R. Aquarius, Lt Col, USSF Commander
<p>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).</p>