U.S. Department of
Homeland Security

United States
Coast Guard

AIR OPERATIONS MANUAL

Distribution Statement A: Approved for public release. Distribution is unlimited.

COMDTINST M3710.1I
29 March 2021

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U.S. Department of Homeland Security
United States Coast Guard

Commandant
United States Coast Guard

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COMDTINST M3710.1I
29 MAR 2021

COMMANDANT INSTRUCTION M3710.1I

Subj: COAST GUARD AIR OPERATIONS MANUAL

1. PURPOSE. This Manual promulgates a revision of the Coast Guard Air Operations Manual. It prescribes policy, standards, instructions and capabilities pertinent to all phases of Coast Guard flight operations and is intended for use by operational commanders, unit commanding officers, aircrews tasked with operations, as well as customers of Coast Guard aviation.

2. ACTION. Area, district, and sector commanders, commanding officers of air stations, Asset Project Offices, cutters, bases, training commands, headquarters units, assistant commandants, Judge Advocate General, and special staff elements shall ensure compliance with the provisions of this Manual. Internet release is authorized.

3. DIRECTIVES AFFECTED. The Coast Guard Air Operations Manual, COMDTINST M3710.1H is cancelled.

4. DISCLAIMER: This guidance is not a substitute for applicable legal requirements, nor is it itself a legal rule. It is intended to provide operational guidance for Coast Guard personnel and is not intended to nor does it impose legally-binding requirements on any party outside the Coast Guard.

5. MAJOR CHANGES. Due to significant changes to this Manual in both context and formatting, a change list is not provided. Changes in context are highlighted in the margins with a vertical line.

6. IMPACT ASSESSMENT. Specific impacts associated with training and administrative procedures have been considered, and any questions on procedures or compliance should be directed to Commandant (CG-711).

DISTRIBUTION – SDL No. 170

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NON-STANDARD DISTRIBUTION:

7. ENVIRONMENTAL ASPECT AND IMPACT CONSIDERATIONS.

   a. Commandant (CG-711) reviewed the development of this Manual, and the general policies contained within it, and determined that this policy falls under the Department of Homeland Security (DHS) categorical exclusion A3. No further environmental analysis is necessary in accordance with the U.S. Coast Guard Environmental Planning Policy, COMDTINST 5090.1 (series).

   b. This Manual will not result in any substantial change to existing environmental conditions or violation of any applicable federal, state, or local laws relating to the protection of the environment. It is the responsibility of the action proponent to evaluate all future specific actions resulting from this policy for compliance with the National Environmental Policy Act (NEPA), other applicable environmental mandates, and the U.S. Coast Guard Environmental Planning Policy, COMDTINST 5090.1 (series).

8. DISTRIBUTION. No paper distribution will be made of this Manual. An electronic version will be located on the following Commandant (CG-612) web sites. Internet: http://www.dcms.uscg.mil/directives/ , and CGPortal: https://cg.portal.uscg.mil/library/directives/SitePages/Home.aspx . Additionally, an electronic version of this Manual will be provided via the Coast Guard Aviation Mobile Device (AMD).

9. RECORDS MANAGEMENT CONSIDERATION. This Manual has been thoroughly reviewed during the directives clearance process, and it has been determined that there are no further records scheduling requirements, in accordance with Federal Records Act, 44 U.S.C. 3101 et seq., NARA requirements, and Information and Life Cycle Management Manual COMDTINST M5212.12 (series). This policy does not create significant or substantial change to existing records management requirements.

10. CONTINUITY OF AVIATION DESIGNATIONS AND QUALIFICATIONS. Aircrew members shall continue to hold a designation or qualification (specific to aircraft type and model) even if the requirements to obtain that position have subsequently changed in this Manual. However, for members maintaining designations or qualifications, the new periodic training requirements of this Manual take immediate effect, which may not yet be updated in Asset Logistics Management Information System (ALMIS). Until all aviation ALMIS data sets are updated to the new requirements, unit tracking of new or changed designations, qualifications, or periodic training requirements outlined in this Manual will be necessary.

11. FORMS/REPORTS. The forms referenced in this Manual are available in USCG Electronic Forms on the Standard Workstation or on the CG Portal: https://cg.portal.uscg.mil/library/forms/SitePages/Forms.aspx .

12. REQUESTS FOR CHANGES. Proposed changes to this Manual shall be submitted to Commandant (CG-711) via the requesting unit's Commanding Officer.

/JOHN W. MAUGER/
Rear Admiral, U.S. Coast Guard
Assistant Commandant for Capability

RECORD OF CHANGES

Change Number	**Date of Change**	**Date Entered**	**By Whom Entered**
Original	XX January 2021		

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CHAPTER 1. OVERVIEW OF COAST GUARD AIR OPERATIONS

A. MISSION OF COAST GUARD AVIATION.

1. Mission of Coast Guard Aviation. Official Coast Guard mission programs are listed in the Operational Reporting, COMDTINST M3123.13 (series). Coast Guard Aviation is an operations and logistics component used to support Coast Guard mission programs using all multi-mission air assets. Operational response is the primary mission of Coast Guard aircraft. For this reason, aircraft capabilities are founded primarily on Search and Rescue (SAR), Enforcement of Laws and Treaties (ELT) and Marine Environmental Protection (MEP), Defense Readiness, and other missions requiring operational response.

   Various aircraft types and models in the Coast Guard also perform a logistical role, providing a variety of choices to tailor aviation support efficiently for different requirements, including cargo and personnel transportation. Coast Guard aviation is highly flexible and can be employed quickly to respond to emergent situations. Assets can be expeditiously redistributed across the country temporarily to provide a surge capability, or to respond to special missions.

   Coast Guard aircraft are assigned a specific number of program hours per year. These hours are divided among the various mission areas supported by Coast Guard aviation.

2. Purpose. This Manual prescribes policy applicable to all aircraft operated by the Coast Guard. It can be used as a guide to mission planning and execution, as well as for the exercise of professional judgment by those in aviation and those whose programs require aviation support.

   The Chapters and Appendices to this Manual provide guidance to manage aviation and are directive in nature. No provision of this Manual relieves personnel of their duty to use sound judgment, or to take such emergency action as the situation demands.

   Operational Commanders and unit Commanding Officers are empowered to use sound judgment to identify and implement additional training or techniques not addressed herein in order to best satisfy unique mission requirements of their units. Commanders implementing unit specific syllabi, or any nontraditional training, techniques, and procedures shall inform the Office of Aviation Forces, Commandant (CG-711).

3. Procedures. Successful operations require the exercise of sound leadership principles, good judgment, and common sense at all levels of command. When the need arises, special instructions or waivers will be issued by Commandant (CG-711). However, in the operational environment, mission demands may require onscene deviation from prescribed Instructions or Policy when, in the judgment of the Pilot-in-Command (PIC), such deviation is necessary for flight safety or the saving of human life. Such deviation must not be taken lightly and must be tempered by maturity and a complete understanding of the aircraft, mission, and crew.

4. Generalization. Because of the need to generalize, wording such as normally, etc., usually, and such as is employed throughout this Manual. Words or clauses of this nature shall not be used as loopholes, nor shall they be expanded to include a maneuver, situation, or circumstance which should not be performed or encountered.

5. Updates and Changes to this Manual. Proposed changes to this Manual shall be submitted to Commandant (CG-711) via the requesting unit's Commanding Officer.

B. AUTHORITY AND CONTROL OF FLIGHTS.

1. Primary Authority. The Commandant has primary authority for the operation of aircraft in the Coast Guard under 14 U.S.C. §88 and §93.

2. Clearance. A PIC receives clearance for a flight from the Commanding Officer. For scheduled flights, this is accomplished through the flight schedule. Nonscheduled flights obtain the permission of the Commanding Officer prior to departure. When this is not possible, such flights may be authorized at a lower level, refer to Chapter 2.

   Either the Commanding Officer or the PIC may delay a mission if, in the opinion of either, conditions are not safe. The PIC has final responsibility for the safe conduct of the mission. Specific guidance as to authority for flights is contained in Chapter 2. In the case of flights involving transportation of passengers or cargo, guidance may be found in Chapter 5.

3. Command and Control. Command and Control (C2) of Coast Guard aviation assets is maintained in a strategic sense by Commandant, in an operational sense by Area, District, and Sector Commanders, and in a tactical sense by air station commanders and commanders of vessels with embarked or deployed aircraft. Elements of C2 are delegated to a subordinate command, such as an aviation detachment, when lines of communication are distant or when it is critical to the completion of the mission to have command and control in the actual theater of operations. Aviation missions are planned with the concurrence of the appropriate operational commander having oversight responsibility.

4. Operational Control. Operational Control (OPCON) is the authority to organize and employ aviation forces, assign tasks, designate objectives, and give authoritative direction necessary to accomplish the mission. OPCON includes authoritative direction over all aspects of Coast Guard operations necessary to accomplish the missions assigned to the command. Additionally, OPCON is the strategic management of an aviation force throughout a wide Area Of Responsibility (AOR) to cover the spectrum of Coast Guard requirements, from daily operational tasking to complex, large-scale emergent response. OPCON resides with the Area Commander and is typically delegated to the District Commander. Except for FORCECOM and Headquarters aviation units, all air stations and the operations division of the Aviation Training Center fall under the operational control of District or Area Commanders. All Atlantic Area HC-130 aircraft are under the operational control of the Area Commander; all other Coast Guard aircraft fall under the operational control of the District Commanders.

The Training Division of the Aviation Training Center falls under the operational control of FORCECOM; the Aviation Logistics Center falls under the operational control of Commandant (CG-4); and Air Station Washington falls under the operational control of Commandant (CG-711). Additional units may fall under operational control of FORCECOM or Commandant as directed by the Deputy Commandant for Operations (CG-DCO).

5. Tactical Control. Tactical Control (TACON) is the command authority for aviation forces made available for tasking. TACON is limited to the detailed direction and control of aviation resources in the operational area necessary to accomplish assigned missions. TACON is inherent in OPCON, however the OPCON authority may delegate TACON of a certain number of its assets to another operational element without releasing OPCON. TACON of aviation assets typically rests with the Commanding Officer of the air station for which those assets are assigned. On all flights involving a TACON change, the time and place of TACON shift shall be clearly defined. Normally, TACON of aircraft and crews will shift to gaining unit upon first landing at the new operating location. If this is impractical, or if improved oversight can be attained in another manner, Commanding Officers of the units involved in the TACON change shall agree to a clearly defined time or place of TACON shift.

6. Administrative Control. Administrative Control (ADCON) is the responsibility to administratively support operational personnel. ADCON includes personnel management, logistics, maintenance support, individual and unit training, discipline, and similar matters not included in the operational missions of the subject organization. There are few situations where shifting ADCON of Coast Guard aviation forces would be prudent. However, consideration may be given to shifting ADCON of a cutter deployed helicopter for deployments greater than 60 days.

7. Coast Guard Academy Flight Club. The Coast Guard Academy supports the Coast Guard Academy Flight Club and is responsible for the club's activities. This club operates under the rules and regulations established by the Federal Aviation Regulations and is not governed by the policies delineated in this Manual. Should a mishap or flight violation occur it will be investigated by the appropriate office of the National Transportation Safety Board (NTSB).

8. Execution. Execution of an aviation mission is accomplished at the lowest level possible consistent with management and coordination of all assets participating in the mission. If only a single aviation asset is involved, the PIC is responsible for the execution of the mission.

   For aviation missions involving multiple aircraft (e.g., fast roping, airborne use of force) an Air Mission Commander (AMC) may be assigned by the unit Operations Officer and will be responsible for the overall mission execution. If aviation assets are operating jointly with surface or other assets, the AMC shall be responsible for execution of the aviation portion of the mission. HITRON issues the AUF-Noncompliant Vessel (NCV) AMC qualification prior to operational AUF-NCV deployments or missions.

If two or more aircraft are operating jointly for other missions (e.g., SAR), the responsibility for the mission normally passes to the PIC of the aircraft with the better communications capabilities. When working with surface forces, responsibility for coordinating air and surface mission execution normally rests with the surface element having the greatest communications capability.

9. Aircraft Configuration Control. The Coast Guard has established an Aircraft Configuration Control Board (ACCB) to review all proposed aircraft equipment and modifications. Aircraft Configuration Control is one of the most critical elements in ensuring the overall safety of aircraft, standardization of aircraft/mission equipment, and logistical support of aircraft and aircraft related systems. As such, no aircraft modifications or changes will be made without specific authorization from Commandants (CG-41) and (CG-711) and no inflight testing will be conducted without specific authorization from Commandant (CG-711).

   Any authorization to modify aircraft and/or conduct tests must consider a wide range of factors including but not limited to:

   - Structural loading
   - Aerodynamic characteristics
   - Weight and balance
   - Electrical load analysis
   - Aircraft performance
   - Prototype installation and Developmental Test and Evaluation (DTE)
   - Development of operating procedures and training
   - Crew performance and ergonomics
   - Trial installation and Operational Test and Evaluation (OTE)
   - Electromagnetic Interference (EMI)/Electromagnetic Compatibility (EMC) testing
   - TEMPEST testing for COMSEC systems and equipment

   The Aircraft Configuration Control Board Process Guide, CGTO PG-85-00-70-A, is maintained by Commandant (CG-41).

C. TRANSPORTATION.

1. General. Carrying passengers and cargo on Coast Guard aircraft is strictly regulated. Because of the cost of operating aircraft and the public scrutiny of passenger transportation, it is necessary to ensure passengers who ride on Coast Guard aircraft do so in the Government's interest and that it is the most cost-effective means.

The basic policy for transportation on Coast Guard aircraft is contained in Office of Management and Budget (OMB) Circular A-126, Improving the Management and Use of Government Aircraft and 41 CFR §300-304. This policy is interpreted by DHS Aviation Management and Safety, MD 0020.1 (series), which provides guidance for all aircraft operated within the Department of Homeland Security, including Coast Guard aircraft. Coast Guard specific interpretation and policy are contained in Chapter 5 of this Manual. Federal and military regulations prescribe the method of carrying hazardous materials aboard aircraft.

2. Requests for Transport. When requesting transportation on Coast Guard aircraft, the requesting agency or office must provide sufficient information so that transportation feasibility may be determined. The general information required to enter the determination process is in Chapter 5 of this Manual. It is the responsibility of the requester of the transportation, not the Coast Guard unit providing the transportation, to provide this information.

D. CONDUCT OF FLIGHTS.

1. General. A variety of factors shape the manner in which flights are conducted. Guidance concerning the conduct of flights on Coast Guard aircraft is divided into mission planning and mission execution. This guidance may be found in Chapter 3 and Chapter 4 of this Manual.

2. Risk Management. Operational commanders, Commanding Officers, and Aircraft Commanders shall carefully weigh the urgency of each mission and assess the benefits to be gained versus the risks involved. For all missions, potential risks to the aircraft and crew shall be weighed against risks to personnel and/or property if the mission is not undertaken. Additionally, the effects of exposing personnel to the additional risks associated with flight operations shall be considered. This is an ongoing process that shall continue until the mission is complete. The Risk Management Manual, COMDTINST 3500.3 (series) establishes responsibilities and procedures for training and conducting Risk Management (RM).

   While all possible contingencies cannot be addressed, the following Paragraphs establish policy guidelines to be used in making risk versus gain analyses for various aircraft missions. Coast Guard Publication 3-0 and Paragraph 1.D.2.e. below contains descriptions of the missions.

   a. Warranted Risk for National Defense. Risk of damage to or sacrifice of the aircraft and crew is acceptable if the gain is the defense of the United States, its citizens, and/or installations. Accepting this risk for national defense applies to flight activities performed during certain operational Defense Readiness missions and certain Operational Ports, Waterways, and Coastal Security (PWCS) missions.

In all cases, the appropriate Rules of Engagement or Use of Force Policy shall take precedence. RWAI aircraft operating under the TACON of NORAD elements are guided by the Operation Noble Eagle Standing Rules of Engagement. AUF-NCV rules of engagement are defined by the U.S. Coast Guard Maritime Law Enforcement Manual (MLEM), COMDTINST M16247.1 (series).

b. Warranted Risk for Search and Rescue. Crews carrying out SAR missions, or any other evolving mission in which circumstances dictate a rescue effort of persons or property, shall apply the following guidance in making risk vs. gain decisions.

(1) Saving Human Life. If a mission is likely to save human life, it warrants a maximum effort. When no suitable alternatives exist and the mission has a reasonable chance of success, the risk of damage to or abuse of the aircraft is acceptable, even though such damage or abuse may render the aircraft unrecoverable. Probable loss of the aircrew is not an acceptable risk.

(2) Preventing or Relieving Pain or Suffering. If a mission is likely to prevent or relieve intense pain or suffering, or if it may result in the possibility of saving human life, it warrants the risk of damage to or abuse of the aircraft if recovering the aircraft can be reasonably expected.

(3) Saving Property. If a mission is likely to save property of the United States or its citizens, it warrants the risk of damage to the aircraft if the value of the property to be saved is unquestionably greater than the cost of aircraft damage and the aircraft is fully expected to be recoverable.

c. Warranted Risk for Missions Involving Law Enforcement and Evidence Recovery. The possibility of recovering evidence and interdicting or apprehending alleged violators of federal law does not warrant probable damage to or abuse of the aircraft. This guidance applies to flight activities performed during missions such as: Non-AUF Drug and Alien Migrant Interdiction, routine PWCS, routine Defense Readiness, Marine Environmental Protection, Living Marine Resources, and other routine Law Enforcement missions.

AUF-NCV missions are not considered routine in nature and may warrant the risk of damage to or abuse of the aircraft following the issuance of a Statement of No Objection (SNO). The aircraft is fully expected to be recoverable, and probable loss of the aircrew is not an acceptable risk.

d. Warranted Risk for Logistics and Other Missions. Logistics or other missions having little or no urgency shall not be prosecuted if they expose the aircraft to hazards greater than those encountered during the course of routine training missions. This guidance applies to flight activities performed during missions such as: Marine Safety, Ice Operations, ATON, and Waterways Management missions.

e. Warranted Risk Table. Table 1-1 below expands on the missions defined in Coast Guard Publication 3-0 and provides a reference to the pertinent level of warranted risk guidance Paragraphs.

Table 1-1. Coast Guard Mission Warranted Risk Reference Table

Mission	Activities and Functions	Warranted Risk Guidance (refer to Sections listed)
Search and Rescue	Operate a national distress/response communication system; operate surface and air assets; plan, coordinate, and conduct search and rescue operations for persons and property in distress.	Paragraph 1.D.2.b.
Marine Safety	Establish standards and conduct vessel inspections to ensure the safety of passengers and crew aboard commercial vessels; partner with states and boating safety organizations to reduce recreational boating accidents and deaths. Investigate marine casualties; license U.S. mariners.	Paragraph 1.D.2.d.
Ports, Waterways, and Coastal Security	Conduct harbor patrols, complete vulnerability assessments, enforce security zones, approve vessel and facility security plans and ensure compliance, develop Area Maritime Security Plans, conduct risk assessments, assess foreign port antiterrorism measures and other activities to prevent terrorist attacks and minimize the damage from attacks that occur.	Paragraph 1.D.2.a. and Paragraph 1.D.2.c.

Table 1-1. Coast Guard Mission Warranted Risk Reference Table Continued

Mission	Activities and Functions	Warranted Risk Guidance (refer to Sections listed)
Drug Interdiction	Deploy cutters, aircraft, and deployable specialized forces to conduct patrols, interdict and seize maritime drug trafficking vessels.	Paragraph 1.D.2.c.
Migrant Interdiction	Deploy cutters and aircraft to prevent, disrupt and interdict maritime smuggling, and maritime migration by undocumented migrants to the U.S.	Paragraph 1.D.2.c.
Defense Readiness	Conduct worldwide military operations in support of the National Military Strategy and Department of Defense (DoD). Deploy cutters, boats, aircraft, and deployable specialized forces in and around harbors to protect DoD force mobilization operations in the U.S. and expeditionary operations overseas.	Paragraph 1.D.2.a. and Paragraph 1.D.2.c.
Ice Operations	Conduct Polar Operations to facilitate the movement of critical goods and personnel in support of scientific requirements, national security activities and maritime safety. Conduct domestic icebreaking operations to facilitate navigation and commerce. Conduct International Ice Patrol operations.	Paragraph 1.D.2.d.

Table 1-1. Coast Guard Mission Warranted Risk Reference Table Continued

Mission	Activities and Functions	Warranted Risk Guidance (refer to Sections listed)
Aids to Navigation and Waterways Management	Maintain the extensive system of U.S. aids to navigation. Monitor and coordinate marine traffic in key ports and waterways through Vessel Traffic Services. Regulate construction and operation of bridges that span navigable waters.	Paragraph 1.D.2.d.
Marine Environmental Protection	Prevent and respond to oil and hazardous substance spills. Prevent illegal dumping in U.S. waters. Prevent invasions by aquatic nuisance species.	Paragraph 1.D.2.c.
Living Marine Resources	Safeguard U.S. living marine resources and their environment, to include protected species, protected areas, and critical habitats, from unlawful acts and environmental degradation.	Paragraph 1.D.2.c.
Other Law Enforcement	Protect the U.S. maritime borders, EEZ, and relevant areas of the high seas by detecting, deterring, and interdicting foreign vessels engaged in illegal operations.	Paragraph 1.D.2.c.

3. Forcible Evacuation of Vessels. Refer to U. S. Coast Guard Addendum to the United States National Search and Rescue Supplement (NSS) to the International Aeronautical and Maritime Search and Rescue Manual (IAMSAR) COMDTINST M16130.2 (series) for guidance on Forcible Evacuation of Vessels.

E. TRAINING AND STANDARDIZATION.

1. Purpose. Training, qualification, proficiency, and readiness are essential to the successful completion of all aviation missions. Pilots and aircrew must maintain high levels of psychomotor skills to operate complex platforms safely and successfully. Such skills rapidly deteriorate if not regularly exercised. Through a combination of formal transition and upgrade training syllabi, annual proficiency training, annual check flights, and recurrent training, aircrew members maintain a high level of effectiveness and performance. Specific training and aircrew designation requirements are discussed in Chapter 7.

2. Standardization of Training and Procedures. Coast Guard Aviation uses standardized training and procedures to ensure that flight operations are conducted in the safest possible manner consistent with mission requirements. Within any aircraft type and model, all aircrew follow the same checklists and use the same procedures in clearly defined circumstances. By adhering to an approved set of standard procedures for repetitive, routine tasks, aviators create a discipline that ensures critical details are not overlooked. Necessary precautions are always taken to ensure the well-being of the crew and the aircraft.

3. Standardization and Crew Formation. Standardization permits randomly selected aviators to form a disciplined, coordinated crew on any aircraft in which they have been designated and in any mission in which they have been qualified.

4. Standardization - Aviation Training Center. The Aviation Training Center develops and promulgates standardized flight procedures. It evaluates adherence to these procedures through annual Standardization Program Visits to all operational units. These visits also examine the station's training program, ensure desired skills and standards are taught by qualified instructors, review aviator proficiency, and provide refresher training opportunities.

   Standardization is also emphasized during one-week annual proficiency checks of all operational pilots using visual flight simulators and Crew Resource Management (CRM) training.

5. Designations and Qualifications. A designation certifies that a pilot or aircrew member has gained the training and experience necessary to perform basic operation of a specified aircraft type and model, while a qualification certifies that a member has gained advanced knowledge, skills, and abilities necessary to perform specific missions in Coast Guard aircraft. Authorized designations and qualifications are outlined in Chapter 7.

6. Training Hour Targets. For operational units, at least 20 percent of all Fixed-Wing (F/W) flight hours and 40 percent of Rotary-Wing (R/W) hours should be dedicated to training. This allows for proficiency and the ability to complete the various training and upgrade syllabi. At rotary-wing units performing Aviation Special Missions, the training percentage might be higher depending on the array of special missions assigned by that unit's District and Area Commander.

F. GUIDANCE TO MISSION PLANNERS.

1. Coordinating Mission Requests. Mission requests should be submitted to the operational commander as early as possible to be considered in periodic planning processes. The operational commander will evaluate mission requests and prioritize them based on guidance provided by Commandant (CG-DCO), and will resource those missions based on program flight hours allocated by Commandant (CG-711).

   Once missions are identified and prioritized, the appropriate office coordinates with the representatives of each air station to schedule known and anticipated missions. The missions are allocated on the basis of the most suitable aircraft to do the mission, the availability of the different types and model of aircraft, and the number of funded flight hours available to accomplish the mission.

   Commanders who request aviation support should understand that program hours may limit the number of flight hours available to support a given mission. Air stations will always respond to emergencies, but depending on the number of flight hours remaining, they may be restricted in the number of flight hours available to support more routine missions. A similar process occurs within each Area.

2. Coordinating Mission Requests Outside District or Area. When a unit plans to use an asset located outside its district or area, the unit planner should use a two-step process. First, make informal telephone inquiries to the command center of the operational commander and to the operations department of the air station owning the required assets. This serves to confirm that the asset requested is the most suitable one, and to allow all parties to discuss any considerations that may not be obvious (e.g., conflicts with other expected tasking).

   The second step is for the requesting unit to send a formal request for tasking message via its district to the operational commander of the requested unit, with informational copies to the Area Commander and the air station. Normally, the operational commander sends a tasking message to the air station, and formally authorizes direct liaison between the requester and the air station for subsequent planning.

3. Participation of Mission Experts. Participation of mission experts during the planning and execution of a mission enhances mission effectiveness. Any mission requiring a level of specialized expertise should include such an expert in the planning and execution of the mission.

4. Short Notice Mission Request Procedures. Unscheduled missions, missions that need immediate response, or missions occurring at other than normal working hours are requested through the appropriate district or area command center. District units request aviation support through their own district command center.

5. Short Notice Mission Requests Outside District or Area. Requests for aviation assets under the responsibility of another District Commander are made via the requesting party's command center to the area command center and then to the district command center having responsibility for the particular aviation asset requested. If time is critical, the command centers may authorize direct liaison with the air station.

6. Requests Originating from Outside the Coast Guard. Routine requests from non-Coast Guard parties for Coast Guard aviation support are best directed through the Coast Guard program most clearly aligned with or likely to benefit from the mission. The affected Coast Guard program will evaluate the request and forward as appropriate through their chain of command to Commandant (CG-DCO). If alignment with a Coast Guard program is not clear, the Office of Aviation Forces, Commandant (CG-711) can serve as the initial entry point for these organizations. Their requests will be directed to the appropriate program for evaluation. Requests without alignment or benefit to a Coast Guard program can still be approved but will generally require reimbursement. Commandant (CG-711) will coordinate these requests.

   Direct emergency requests for Coast Guard aviation support from non-Coast Guard parties to the appropriate area command center, which forwards the requests to the Coast Guard command center for coordinated evaluation/approval.

   Specific procedures for handling requests for the transportation of passengers or cargo are discussed in Chapter 2 and Chapter 5 of this Manual.

7. Mission Prioritization. When the demands for Coast Guard aviation assets exceed the ability of the commander to fulfill each mission request, the missions are prioritized in accordance with strategic planning Directives. The highest priority is given to emergent threats. Threats to national security, serious personal injury or loss of life, and major property loss are prioritized in that order. Less emergent threats or threats that are judged less catastrophic receive a lower mission priority.

   Potentially large-scale pollution incidents need to be assessed as early as possible. Depending on the circumstances, a major spill can be a national security threat, a serious violation of federal law, a threat to life and property, or a regional economic catastrophe. Mission support of such a threat should receive very high priority. Routine missions, such as harbor patrols, may be deferred or canceled if another mission with a higher priority occurs.

8. Aircraft Characteristics. Take aircraft characteristics into account when planning missions. Coast Guard aircraft fall into two broad categories: fixed-wing and rotary-wing. These are further divided into Long-Range Surveillance (LRS), Medium-Range Surveillance (MRS), Medium-Range Recovery (MRR) and Short-Range Recovery (SRR) categories. Mission-specific capabilities are discussed in Chapter 6; for more detailed law enforcement capabilities, refer to the U.S. Coast Guard Maritime Law Enforcement Manual (MLEM), COMDTINST M16247.1 (series); SAR capabilities are further described in the U. S. Coast Guard Addendum to the United States National Search and Rescue Supplement (NSS) to

the International Aeronautical and Maritime Search and Rescue Manual (IAMSAR), COMDTINST M16130.2 (series).

a. Long Range Surveillance. Long-range surveillance aircraft satisfy the ICAO/IMO SAR equipment definition of Extra-Long Range aircraft (ELR). In optimal conditions, these aircraft have a 1500 NM action radius plus 2.5 hours search remaining. Coast Guard HC-130s can carry 75 passengers, up to 35,000 pounds of cargo or can be configured to carry litters for medical patients. Planners should be aware that large payloads decrease the range of the aircraft.

b. Medium Range Surveillance. Medium Range Surveillance aircraft satisfy the ICAO/IMO SAR equipment definition of Medium Range Aircraft (MRG). In optimal conditions, these aircraft have a 400 NM action radius plus 2.5 hours search remaining. The Coast Guard HC-144 can carry 40 passengers, up to 9,400 pounds of cargo or can be configured to carry litters for medical patients. The Coast Guard HC-27J can carry 46 passengers, up to 13,000 pounds of cargo or can be configured to carry litters for medical patients. Planners should be aware that large payloads significantly decrease the range of the aircraft.

c. Medium Range Recovery. Medium Range Recovery aircraft satisfy the ICAO/IMO SAR equipment definition of Helicopter-Medium (HEL-M). In optimal conditions, these aircraft have a 100-200 NM action radius and a capacity for evacuating 6 to 15 persons. The Coast Guard MH-60 can land on National Security Cutters and some 270 foot cutters, and can perform helicopter inflight refueling from any flight deck-equipped cutter to extend range.

d. Short Range Recovery. Short Range Recovery aircraft satisfy the ICAO/IMO SAR equipment definition of Helicopter-Light (HEL-L). In optimal conditions, these aircraft have a 100 NM action radius and a capacity for evacuating 1 to 5 persons. The Coast Guard MH-65 can land on any cutter with a flight deck and can perform helicopter inflight refueling from those ships to extend range.

9. Aircrew Utilization Standards. Aircrews are limited to specified crew mission duty limits, which must be taken into account when planning protracted missions. Aircrew utilization factors may be found in Chapter 3. UAS aircrew utilization factors can be found in Appendix (D).

10. Readiness. All Coast Guard air stations, except Air Station Washington, maintain at least one BRAVO ZERO (B-0) aircraft at all times. Some air stations may have more than one type of aircraft in a ready posture (i.e., one rotary-wing and one fixed-wing aircraft).

    B-0 aircraft are district or area assets. In the Pacific Area, all B-0 aircraft are under the direct control of the districts. In the Atlantic Area, all HC-130s are under the Operational Control (OPCON) of the area. All other aircraft in the Atlantic Area in a B-0 status are controlled by the districts.

11. Airspace Restriction. Airspace restrictions can limit the ability of an aircraft to operate in a given area. The airspace along the coastal United States is controlled at different times by a variety of agencies, primarily the Federal Aviation Administration (FAA), the Navy, and the Air Force. Examples include control zones around busy airports and military warning areas. Depending on the way the airspace is being used, Coast Guard aircraft may be restricted in their access to portions of certain airspace.

    If possible, make airspace reservations for pre-planned missions 24 hours in advance. The entity having OPCON of an aircraft shall coordinate entry into Department of Defense (DoD) Special Use Airspace.

    For emergent missions, delays can occur before Coast Guard aircraft can safely enter restricted airspace being used for activities that may pose a hazard to flight. Examples include gunfire exercises, missile launches, air combat maneuvering, etc.

12. Communications, Navigation, Surveillance/Air Traffic Management (CNS/ATM) Requirements. International or offshore flight operations can have unique aircraft equipment requirements. Commanding Officers and PICs shall review airspace CNS/ATM requirements and ensure compliance or adequate flight management provisions with required capabilities in accordance with FAA, ICAO, and DoD conventions and regulations. Commandant (CG-711) and operational commanders shall be notified in the event that aircraft CNS/ATM noncompliance results in an impact to CG flight operations.

    While special handling and waivers for CNS/ATM compliance may be available within ICAO conventions, CG aircrews shall not rely on waivers and special handling from ATM facilities for flight planning and aircraft operations.

13. Mission Objectives. Agree upon clear and realistic mission objectives before a flight. This enables the aircrew to plan the most effective means for accomplishing the mission, and it provides the customer with a reasonable measure of the effectiveness of the sortie.

    Changes to a mission while the aircraft is airborne often cannot be avoided, but it must be understood that they come at the cost of time and fuel used to revise the flight plan for the remainder of the sortie.

14. Post-Mission Reports. Post-mission reports exchanged between the aviation element and the supported element are fundamental parts of a satisfactory mission. The complexity of the report depends on the scope of the mission.

    A simple telephone call may be sufficient, or a formal written report may be necessary. Besides being the means of transmitting the results of the mission, the report should clarify any changes or problems encountered in meeting the mission objectives.

    Without an honest appraisal of the mission performance by both parties, neither party has a basis or incentive to improve the manner in which a mission is conducted in the future.

CHAPTER 2. FLIGHT AUTHORIZATION AND CLEARANCE

A. AUTHORITY FOR THE COAST GUARD TO OPERATE AIRCRAFT.

1. Authority. The basic authority for the Coast Guard to operate aircraft is contained in 14 U.S.C. §§ 2, 88 and 93. This authority is further embodied in the Federal Travel Regulations, codified at 41 CFR Chapters 300-304. Authority is also delegated under this Manual and other Coast Guard policies.

2. Policies and Reporting Requirements. Office of Management and Budget (OMB) Circular A-126, Improving the Management and Use of Government Aircraft, DHS Management Directive 0020.1 (series), Aviation Management and Safety and this Manual prescribe policies and reporting requirements for the use of Coast Guard aircraft.

3. Responsibility. The primary responsibility and authority for the operation of Coast Guard aircraft is vested in the Commandant under 14 U.S.C. §§ 88 and 93. Coast Guard aircraft shall be operated only for authorized official purposes and shall be used in the most cost-effective manner possible.

B. AUTHORIZED OFFICIAL USES OF COAST GUARD AIRCRAFT.

1. Mission Requirements Use. Use of Coast Guard aircraft for activities that constitute the discharge of DHS or Coast Guard official responsibilities, which may include authorized assistance to other government agencies. Mission Requirements Use is normally conducted as the primary purpose of flight. Authorized Mission Requirements Uses are defined and described by the various Employment Categories in the Operational Reporting, COMDTINST M3123.13 (series).

2. Required Use Transportation. Use of Coast Guard aircraft as the primary purpose of flight is reserved for certain Coast Guard officials or employees for bona fide communications or security needs of the traveler's organization or exceptional scheduling requirements. All Required Use Transportation must be approved in advance and in writing as described in Chapter 5.

3. Other Transportation for Official Business. Coast Guard aircraft may be used to transport passengers and/or cargo for Official Business. This transportation may be approved only if such use is either cost effective or if no commercial airline or aircraft service, including charter, is reasonably available to effectively fulfill the transportation requirement. Policy on transportation of passengers for official business is specified in Chapter 5.

4. Reimbursable Use. The Coast Guard enters into Reimbursable Use agreements with other government agencies in which the cost of the service provided must be recovered. Also, there are situations in which use of Coast Guard aircraft by private entities requires reimbursement. Current rates can be found in Reimbursable Standard Rates, COMDTINST 7310.1 (series). Additional guidance on reimbursement for transportation is provided in Chapter 5.

C. AUTHORITY TO APPROVE, DIRECT, AND INITIATE FLIGHTS.

1. Area and District Commanders. Area and District Commanders are delegated the authority under the DHS Management Directive, 0020.1 (series) Aviation Management and Safety, to approve and direct flights in support of assigned missions (Mission Requirements Use). The Deputy Commandant for Operations (CG-DCO) is delegated the authority to approve and direct flights of headquarters units in support of assigned missions.

2. Commanding Officers. Commanding Officers of units with tactical control of aircraft have authority to approve flights for Mission Requirements use; this approval is embodied by signing the unit flight schedule. This authority can be delegated no lower than the assigned Operations Officer. Flights may be initiated in accordance with local procedures when prior approval is not practicable (e.g., Search and Rescue missions). Such flights shall be approved by the assigned Operations Officer or higher authority as soon as possible.

   The Commanding Officer of a unit with aircraft permanently assigned shall be an active duty Coast Guard aviator. In the Commanding Officer's absence the authorities of this Manual shall be delegated to the next successive aviator below the Commanding Officer within the chain of command, no lower than the assigned aviation Operations Officer.

3. Transportation Flights. Transportation authority guidance is provided in Chapter 5 for passengers and cargo. For situations not specifically covered in this Manual, obtain guidance and approval from the appropriate District or Area Commander via the chain of command. Forward requests for air transportation that cannot be resolved at these levels to Commandant (CG-711) by the concerned District or Area Commander.

4. Flight Test Programs. Flight test programs to evaluate new equipment or aircraft configurations are prohibited without specific authorization from Commandant (CG-711). Maintenance test flights, which are authorized as discussed in Chapter 4, are not to be confused with the flight test programs prohibited by this Paragraph.

   Aircraft modifications require close coordination between Commandant (CG-711), (CG-41), (CG-1131), and Aviation Logistics Center (ALC) to ensure that airworthiness certification, flight clearance authorization and flight evaluations are completed in a safe and systematic manner. Flight clearance authority resides with Commandant (CG-711) and participation of non-Coast Guard pilots and/or aircrew in developmental test and/or operational evaluation flights must be authorized in writing by Commandant (CG-711).

   Before test flights in which a USCG aviator will be flying with a non-USCG aviator (e.g., joint USCG/NAVAIR certification or joint USCG/Original Equipment Manufacturer test flights), complete a thorough preflight briefing covering airframe model specific differences, requisite flight test maneuvers, emergency procedures, checklists and CRM issues, at a minimum.

Table 2-1. Flight Operation Approval Authorities

Flight Type	Approval Authority	Criteria for Approval	Additional Requirements
Mission Requirements	Commanding Officers of Coast Guard air stations and cutters with aircraft embarked or deployed.	Purpose of the flight is one of the authorized mission requirements uses as defined and described by the various Employment Categories in Operational Reporting, COMDTINST M3123.13 (series).	Approval authority may be delegated no lower than the Operations Officer.
Required Use (blanket approval)	Secretary of Department of Homeland Security.	Use of the government aircraft is required because of bona fide communications or security needs of the agency or exceptional scheduling requirements.	DHS Secretary has made administrative determination that all official travel on Coast Guard aircraft by DHS Secretary, Deputy DHS Secretary, Commandant, Vice Commandant, Atlantic Area Commander, and Pacific Area Commander qualifies for blanket approval as Required Use.
Required Use (USCG personnel, case-by-case)	The Judge Advocate General (TJAG) or Deputy Judge Advocate General (DJAG) of the Coast Guard.	Use of the government aircraft is required because of bona fide communications or security needs of the agency or exceptional scheduling requirements.	Must be requested in writing, in the form of a memorandum providing sufficient evidence to demonstrate the required use criteria. Requests must be routed in advance of travel to TJAG/DJAG through the Chain of Command and Commandant (CGLGL). TJAG/DJAG will provide Commandant (CG-711) a copy of all written documentation approving Required Use for filing with the flight record.
Required Use (Non-USCG agency officials)	Senior or deputy legal official of the respective Department or Agency must approve Required Use Transportation.		Responsibility of the Coast Guard directorate coordinating the flight to provide Commandant (CG-711) with written documentation approving the transportation of all personnel outside the Coast Guard for filing with the flight.

Table 2-1. Flight Operation Approval Authorities Continued

Flight Type	Approval Authority	Criteria for Approval	Additional Requirements
Transportation Primary Purpose (Flight originating within NCR)	Must be approved at least one organizational level above the person(s) traveling, but no lower than the Vice Commandant.	The actual cost of using Coast Guard aircraft, based on the in-government rate listed in Reimbursable Standard Rates, COMDTINST 7310.1 (series), is not more than the cost of using commercial airline or aircraft (including charter) service; or No commercial airline or aircraft (including charter) service is reasonably available. In this context, reasonably available means service to meet the traveler's departure and/or arrival requirements within 24-hour period unless the traveler demonstrates in writing extraordinary circumstances require a shorter period.	The transportation must be approved in advance and in writing. Must also have the concurrence of the entity having OPCON of the aircraft. Headquarters, Area, or District offices that coordinate flights under this section must forward all documentation of cost justification to Commandant (CG-711). Air stations will provide Commandant (CG-711) all associate passenger manifests not recorded in ALMIS.
Transportation Primary Purpose (Flight originating outside NCR)	Must be approved at least one organizational level above the person(s) traveling but no lower than the appropriate Area Commander.		
Transportation Primary Purpose (HQ aviation unit personnel, ALC or APO)	Requires review by Commandant (CG-711) to determine the appropriate approval authority.		
Transportation Primary Purpose (Cargo)	Requires approval one organizational level above the unit requesting the cargo transportation.		

D. PERSONNEL AUTHORIZED TO PILOT COAST GUARD AIRCRAFT.

1. Coast Guard Aviators. Except for operational orientation flights as permitted in Chapter 5 of this Manual, only Coast Guard aviators designated in type and model or in training to become designated in type and model are authorized to manipulate the controls and pilot Coast Guard manned and unmanned aircraft.
2. Other Military Aviators. Commanding Officers may assign aviators of another service, aviators assigned as a Foreign Exchange Pilot, or aviators certified as Test Pilots for DTE or OTE operations as a pilot in a Coast Guard aircraft without prior authorization so long as they are designated and qualified in type and model. Any such assignment shall be reported by the Commanding Officer to Commandant (CG-711) via the chain of command. The command shall retain a description of the conditions and an account of the circumstances leading to the assignment.
3. Civilian Contract Pilots (CCP). Civilian pilots may be assigned to operate Coast Guard aircraft when employed under an active government contract supporting maintenance, test, ferry, logistics, or training requirements. CCPs shall not be assigned to operational missions. Commandant (CG-711) shall approve the inclusion of a CCP in any Coast Guard contract. Guidance for eligibility and training requirements is provided in Contractor's Flight and Ground Operations, COMDTINST M13020.3.

E. PERSONNEL AUTHORIZED TO COMMAND COAST GUARD AIRCRAFT.

1. Authorized Command Personnel. A Coast Guard aircraft shall be flown only under the command of the pilot authorized to make the flight. Normally, authorization is granted by the Commanding Officer of the unit to which the aircraft is assigned. When a Coast Guard aircraft is temporarily located at another Coast Guard unit, the Commanding Officer of that unit may deviate from this requirement when the aircraft's use is deemed essential and fully qualified flight crewmembers are available. The Commanding Officer of the unit to which the aircraft is permanently assigned shall be advised of the aircraft's status and the estimated duration of the requirement.
2. Pilot-in-Command. The Pilot-in-Command (PIC) is defined as the pilot who has been assigned, by proper authority, to take charge of the aircraft and be responsible for a specific flight or mission.

   The PIC accepts the aircraft by signing the Preflight Record. If a flight must depart when a PIC has not been assigned, the senior pilot holding the designation of Aircraft Commander (AC) or First Pilot (FP), in that order, shall be the PIC. Omission of this act will not in itself nullify the status of the PIC.

   Normally, the PIC is the pilot in the aircraft holding the highest designation in type and model. If both pilots hold the same designation, the PIC is the pilot with the highest qualification required for the mission. If both pilots hold the same designation and qualification, the PIC is the senior pilot. If an Instructor Pilot or Flight Examiner is required to manipulate or guard the controls for the primary mission, then the required Instructor Pilot or Flight Examiner shall be the PIC. When a Civilian Contract Pilot (CCP) is assigned with an active duty pilot holding the same designation, the active duty pilot shall be the PIC.

a. Pilot-in-Command Responsibilities. The PIC is responsible for the professional, safe, orderly, efficient and effective performance of the aircraft, aircrew and passengers during the entire mission, whether it is a single sortie from home station or many sorties while deployed away from home station. This responsibility exists from the time the PIC first enters the aircraft with intent for flight, until leaving it upon completion of the mission.

b. Pilot-in-Command Authority. To carry out this responsibility, the PIC has the authority to direct all aircraft and aircrew activities during the mission, including periods between sorties. The PIC has flight clearance authority as described in this Chapter as well as the authority to modify planned missions to provide for the safety of the crew and the airframe.

It is imperative that all members of the flight crew be aware of the PIC's identity and authority. The successful completion of the mission or the safety of the crew and aircraft may be jeopardized if any crewmember doesn't know who is in command or fails to recognize the PIC's authority and act accordingly.

c. Exceptions. The authority and responsibility of the PIC of a Coast Guard aircraft are independent of rank or seniority in relation to other persons taking part in that flight, except as detailed in the following Paragraphs.

(1) Commanding Officer. The Commanding Officer of a Coast Guard aviation unit, or other aviator in tactical command, retains full authority and responsibility regarding his or her command. This includes the flight in which the aviator in tactical command is participating.

(2) Acting Aviator in Tactical Command. When the Commanding Officer (or other aviator senior to the PIC and in the aircraft's tactical chain of command) assumes direct command of the aircraft, that officer assumes responsibility for the safe and orderly conduct of the flight. Any subsequent flight rule violations, mishap reports, or other actions arising from the flight will refer to that officer, the acting aviator in tactical command, as the PIC for the remainder of the flight.

d. Transfer of Pilot-in-Command Authority/Responsibility for Manned Aircraft. The authority and responsibility of the PIC of manned aircraft will not normally be transferred to another individual. A transfer of PIC authority and responsibility may be authorized only by the Commanding Officer of the unit to which the aircraft is attached, or by a higher authority within the unit's operational chain of command.

Deviations from this policy are authorized only as required by emergency or military necessity. The fact that the PIC of an aircraft may give up the actual physical control of the aircraft to another pilot does not alter the basic assignment of authority and responsibility for the flight. For a series of flights constituting one operation (e.g., ferry, deployment), the initially assigned PIC shall retain the authority and responsibility for the aircraft until the operation has been concluded.

3. Crewmember Status. The status and crew position assignment of each individual participating in a flight must be clearly understood by the entire aircrew before the flight. This information must also be specifically recorded on the crew list or passenger manifest for the flight. The senior crewmember present in a separate compartment shall be clearly identified to the other crewmembers in that compartment.

4. Air Mission Commander. An Air Mission Commander (AMC) may be assigned when deemed necessary by the Commanding Officer for complex missions using more than one aircraft, single aircraft AUF-NCV operations or Unmanned Aerial Systems operations. The AMC is normally the senior ranking Aircraft Commander assigned to the mission. For AUF-NCV missions, the pilot shall hold an AUF-NCV Air Mission Commander Qualification. The AMC is responsible for the overall effective and safe execution of the mission ensuring detailed preplanning, mission coordination and mission briefing are completed. The AMC has the authority to direct all aircraft and aircrew activities for the duration of the mission. Each aircraft PIC retains the authority and responsibilities for their assigned aircraft as stated in Paragraph 2.E.2.a.

F. FLIGHT CLEARANCE AUTHORITY FOR COAST GUARD AIRCRAFT.

1. Clearance. Clearance, as used in this Paragraph, is defined as military permission to execute a definite aircraft movement. It is not to be confused with Air Traffic Control clearance.

2. Basic Clearance. Clearance for flights of Coast Guard aircraft is based on the nature of the mission, condition of the aircraft and crew, and the actual/expected weather and other conditions at all points in the proposed flight.

   a. Authority. Clearance authority for aircraft flights is granted to Commanding Officers of units with aircraft assigned and to the PIC for assigned missions. Commanding Officers can delegate authority for clearance to officers under their commands. Clearance authority for Coast Guard aircraft operating from other military activities is normally retained by the Coast Guard through the PIC.

   b. Restrictions. The Commanding Officer of a Coast Guard unit with aircraft assigned shall not permit a Coast Guard aircraft to depart when he or she believes the safety of the proposed flight is unduly jeopardized by the weather, condition of the aircraft or other known factors, or when such departure would constitute a violation of regulations.

c. Emergency Security Control of Air Traffic (ESCAT). ESCAT is an emergency preparedness plan that prescribes the joint action to be taken by appropriate elements of the Department of Defense (DoD), the Department of Transportation (DOT) and the Department of Homeland Security (DHS) in the interests of national security. The plan defines the authorities, responsibilities, and procedures to identify and control air traffic within a specified air defense area during air defense emergencies, defense emergency, or national security conditions. Flight operations vital to national defense, as determined by appropriate military commanders, will be given priority over all other military and civil aircraft. Whether or not USCG aircraft are permitted to fly under ESCAT depends on the level of ESCAT imposed by the North American Aerospace Defense Command (NORAD) as defined under the ESCAT Air Traffic Priority List. During ESCAT implementation, Commandant (CG-711) coordinates with DoD, DOT, and DHS on behalf of the Coast Guard and disseminates operational guidance to units as soon as available. Units shall maintain a current copy of ESCAT in their operations center.

d. Delay of Missions. The final decision to delay a mission may be made by either the Commanding Officer or PIC when, in the opinion of either individual, conditions are not safe to start or continue a mission.

Final responsibility for the safe conduct of the mission rests with the PIC. If the assigned PIC refuses a mission, it will not depart until that PIC is satisfied that conditions have improved or such necessary corrective actions have been taken that the mission can proceed safely. Another PIC and crew shall not be assigned to take the same mission under the same conditions without the specific approval of the Commanding Officer of the aviation unit to which the PIC is assigned. This authority may not be delegated. Due consideration must be given to the urgency of the mission and the new crew's ability to proceed safely on the mission under the existing conditions before a change in PIC and crew may be approved.

3. Clearance for Malfunctioning or Damaged Aircraft. If a precautionary landing is made away from home station for observed or suspected aircraft malfunctions or damage, the PIC shall ensure that a proper inspection of the aircraft is conducted by competent maintenance personnel and the results reported to the home station's engineering officer or other qualified maintenance officer.

Further flight without the approval of the appropriate clearance authority, as given in Paragraph 2.F.3.a. and Paragraph 2.F.3.b., is prohibited.

a. Minor Malfunctions and Nonstructural or Cosmetic Damage. If the engineering officer or other qualified maintenance officer has evaluated the reported malfunction to be minor and not a threat to the safety of the crew or aircraft, the Commanding Officer is authorized to clear the aircraft for further flight. If the aircraft has been damaged and the engineering officer or other qualified maintenance officer has evaluated the damage to be nonstructural or cosmetic, the Commanding Officer may clear the aircraft for further flight.

Only in the most unusual circumstances should the aircraft be cleared for further flight without the specific approval of the Commanding Officer.

b. Major Malfunctions and Actual or Suspected Structural Damage. If a major malfunction or structural damage is found or suspected and further flight is required, the Commanding Officer or his/her representative shall brief Commandant (CG-711) and Commandant (CG-41) on the extent of the damage and recommended action. Commandant (CG-711), with technical concurrence from Commandant (CG-41), will be the clearance authority for further flights of aircraft with actual or suspected structural damage or major malfunction.

4. Clearance for Aircraft Operating in the National Capital Region. When operating within the Washington, DC special flight rules area, all aircraft shall comply with 14 CFR §93 subpart V, Washington, DC Metropolitan Area Special Flight Rules Area (SFRA), and any associated FDC NOTAMs. For aircraft not assigned to Air Station Washington, Air Station Atlantic City, or the NCRAD facility, Commandant (CG-711) shall be notified prior to landing at any airport within the Washington, DC SFRA.

Furthermore, Commandant (CG-711) approval is required for all aircraft landing at Ronald Reagan National Airport (KDCA) except aircraft assigned to or in direct support of the following missions:

- Air Station Washington VIP transportation
- Transportation of individuals granted blanket Required Use
- National Capital Region Air Defense (NCRAD)
- Continuity of Operations (COOP)

Coast Guard Auxiliary aircraft are prohibited from entering the Flight Restricted Zone (FRZ).

G. MISSION ESSENTIAL PERSONNEL ABOARD NON-COAST GUARD AIRCRAFT.

1. Approval. As used in this Section, approval is defined as military permission to employ mission essential Coast Guard personnel on aircraft not operated by the Coast Guard.

2. Approval Authority. A commanding officer or officer in charge may authorize assigned personnel to fly aboard non-Coast Guard aircraft for operational missions.

Flights by mission essential personnel aboard non-Coast Guard aircraft shall be limited to the minimum necessary to accomplish assigned missions.

a. Non-Coast Guard Aircraft. For the purposes of this Section, other aircraft are those not operated by the Coast Guard and include the following:

- Aircraft operated by other military services.
- Aircraft operated by Coast Guard Auxiliary personnel.

- Aircraft operated by Civil Air Patrol, Federal, state, and local governmental agencies.
- Aircraft operated by civilian aviation service providers.

However, this Section does not apply to flights aboard air carriers as defined in 14 CFR §121 and 135 of the Federal Aviation Regulations.

b. Personnel Applicability. Refer to Paragraph 4.J. for additional requirements.

3. Air Carrier Selection. Coast Guard personnel utilizing commercial aircraft while on official business shall travel aboard civilian aircraft operated by aviation service providers certified at a minimum under 14 CFR §135, Operating Requirements: Commuter and On Demand Operations.

Whenever practicable, use civilian aircraft by vendors which have been inspected and certified by either the Department of Defense's Commercial Airlift Review Board (CARB) or the Department of the Interior's National Business Center Aviation Management Directorate (NBC-AMD). Approved providers can furnish documentation of approval.

Over-water flights on other single engine, single-piloted aircraft (fixed or rotary) shall be limited to daytime and Visual Flight Rules (VFR), as defined in 14 CFR §91, only.

CHAPTER 3. FLIGHT AND MISSION PLANNING

A. FLIGHT PLANNING PROCEDURES.

1. Preflight Planning Requirements. At a minimum, the PIC shall be familiar with applicable performance data at all intended and alternate airfields, weather for the route of flight, fuel reserve requirements, aircraft weight and balance, flight restrictions as applicable to MEDEVAC missions, NOTAMs, special use airspace, Air Defense Identification Zones and foreign clearance requirements relevant to the mission.

   Prior to any flight, the PIC shall ensure that all required risk management analyses are performed per the Risk Management Instruction, COMDTINST 3500.3 (series) to identify potential hazards and mitigation strategies.

2. Performance Data. The PIC shall assess departure, destination, and alternate field conditions, and all en route segments to ensure the flight complies with aircraft flight manual performance requirements.

   a. Departure Climb Gradient. The PIC of any fixed-wing aircraft shall ensure the aircraft meets or exceeds the published climb gradient with one engine inoperative for the departure method being used. When no climb gradient is published, the aircraft must be able to climb at 152 feet per nautical mile (2.5 percent) or greater with one engine inoperative. Departures may use visual obstacle avoidance (see-and-avoid) in lieu of meeting the required climb gradient with Commanding Officer approval.

   b. En route Performance. For each segment of the flight, the PIC shall assess the effect of wind, temperature, forecast icing, density altitude, terrain elevation, aircraft gross weight, and potential engine loss on aircraft performance.

3. Weather Briefing. Obtain an aviation weather briefing before all flights. Acceptable sources of weather data include government-sanctioned aviation weather services and dedicated aviation weather subscription services.

   If a weather briefing cannot be obtained prior to departure and the weather conditions are at or above the minimums required for departure, the flight may proceed. The PIC shall contact an appropriate facility for weather information as soon as practicable after takeoff.

4. Instrument Flight Rules (IFR) Flights. Before an IFR flight, obtain and record a comprehensive weather briefing. This weather briefing shall include all items (applicable to the route of flight) contained in a Standard Briefing as defined in the Aeronautical Information Manual (AIM). Retain IFR flight planning weather information recorded at a Coast Guard unit for 90 days.

5. Fuel Reserve Requirements. Fuel reserve shall be at least that required for 45 minutes of flight after reaching the alternate (for fixed-wing aircraft) or 20 minutes of flight after reaching the alternate (for rotary-wing aircraft).

   In any case, fuel carried on departure will be at least ten percent more than that required to reach the alternate airfield via the destination.

Consider meteorological factors, mission requirements, and any known or expected traffic delays when computing fuel reserves. Additional fuel reserve requirements, in lieu of a destination alternate for remote locations, are discussed in Paragraph 3.C.9. of this Chapter.

6. Weight and Balance. Prior to any flight, the PIC shall ensure that a weight and balance calculation has been completed based on the actual loading of the aircraft. The PIC shall also be familiar with any anticipated evolutions during the flight that will significantly change aircraft weight and balance (e.g., evolutions involving embarkation of passengers/survivors, aerial deliveries of equipment, personnel, significant fuel burn or dumping, etc.) and comply with limitations.

   Leave a copy of the completed weight and balance form with a responsible individual on the ground and file a copy with the completed flight plan, unless:

   - The unit has completed a standard loading weight and balance form within the last twelve months, and the aircraft is loaded in accordance with that standard loading, or
   - The aircraft is capable of recording weight and balance data on a crashworthy recorder.

   Retain completed weight and balance forms for 90 days at the aircraft's home unit. Conduct an inventory of all station aircraft in accordance with the Weight and Balance Process Guide, CGTO PG-85-00-180-A.

7. NOTAMs. The PIC shall be familiar with all NOTAMs and Temporary Flight Restrictions (TFRs) for the planned route of flight.

8. Special Use Airspace. All flights shall adhere to 14 CFR §73 for entry into and operations within special use airspace.

   All operations within Warning Areas shall be coordinated with the controlling agency prior to entry. Two-way communications with the controlling agency shall be maintained when practicable.

9. Air Defense Identification Zones. The PIC is responsible for coordinating entry into and operations within Air Defense Identification Zones.

10. Foreign Clearance Procedures. Coast Guard aircraft shall comply with the DoD Foreign Clearance Manual. The PIC shall confirm that required foreign clearances for aircraft, cargo, and personnel have been obtained.

11. Customs, Agriculture, and Immigration. Commanding Officers shall ensure that all aircrews comply with applicable customs, immigration, public health, and agriculture regulations.

12. Flight Plans. The PIC of a Coast Guard aircraft shall file a written or computerized domestic, military, or ICAO flight plan prior to each flight, except when departing on an urgent SAR, National Defense, Law Enforcement or Homeland Security mission, a local VFR flight, or when required for operational security. The PIC is responsible for closing out any active flight plans.

File an IFR or VFR flight plan for any transit, training, or logistics missions flown outside the unit's designated AOR. Provide a detailed route of flight and RM briefing to the designated Operations Officer or higher command authority prior to departure.

a. Local VFR Flights. For VFR flights scheduled to return to the flight's point of origin, complete the Local Clearance, Mission Route Section of the Pre-Mission and Service Record within ALMIS Electronic Asset Logbook (EAL). A paper Pre-Mission and Service Record may be substituted if required due to EAL malfunctions.

b. En route Stops. Flights making en route stops need not file a new flight plan or local flight clearance form if all of the following criteria are met:

- Intermediate stops are entered, in order of intended landing, on the flight plan filed at the original point of departure.
- Personnel to be picked up or discharged are either noted on the original flight plan or on a current passenger manifest that is left at each intermediate stop.
- The pilot-in-command remains unchanged.

c. Formation Flight Plans. One flight plan may be filed for a formation of aircraft proceeding as a unit under Visual Meteorological Conditions (VMC).

d. Flight Rules. Flights of Coast Guard aircraft shall be conducted in accordance with IFR, whenever practical.

When operating under VFR, use radar advisory services to the fullest extent practical.

e. Copies of Flight Plans. A copy of each filed flight plan shall be left with the aircraft home unit or with base operations, the airport manager, or other responsible person at the point of departure. Copies filed at Coast Guard units shall be retained for 90 days.

13. Passenger Manifest Requirements. Before any flight, the PIC shall file a copy of an accurate crew and passenger list with a responsible person, showing name, grade, and service (if military), duty station, and status aboard the aircraft (passenger or crew). Where it is not practicable to leave the crew and passenger list with someone on the ground, an appropriate ground radio station shall be advised of the personnel aboard as soon as possible.

Manifests may be recorded in ALMIS or on paper and shall be retained by the aircraft's home unit for no less than seven years.

B. FLIGHT PLANNING - AIRCREW.

1. Minimum Pilot Designation Requirements. All pilots must be designated in type and model. An AC shall be assigned as the PIC of aircraft on difficult or unusual missions, all air intercept and AUF missions, and on flights scheduled to carry passengers. Special limitations apply to pilots on Duty Involving Flying Proficiency (DIFPRO) orders, refer to Chapter 8.

   a. All Two-Pilot Aircraft. Normally, either of the following is required to meet minimum pilot assignment requirements for two-pilot aircraft:

      - An AC and a CP
      - Two FPs

      Further guidance is provided below for assignment of pilot aboard two-pilot aircraft.

      (1) Training Flights. For two-pilot aircraft, the minimum pilot assignment requirements for training flights are:

         - For flights during an approved pilot qualification syllabus under Visual Flight Rules (VFR), the student need not hold a CP designation.
         - For training flights other than pilot instruction, under daylight VFR, an FP and a CP may be assigned together. The FP shall neither relinquish the pilot's seat to the CP, except in an emergency, nor relinquish control of the aircraft when at an absolute altitude below 500 feet.
         - Special authorization for Aviation Training Center (ATC) instructors to conduct training flights under Instrument Flight Rules (IFR) with student pilots not yet qualified as CPs is provided in Paragraph 3.B.1.c.
         - IFR departures which require a departure alternate are not authorized for training flights or flights with a FP in command.

      (2) Maintenance Flights. At a minimum, an AC and an FP are required aboard two-pilot aircraft for maintenance flights. A Commanding Officer may authorize a CP in lieu of the FP on a calculated risk basis. When practicable, assign an aeronautical engineering officer to test flights of unit aircraft; however, it is not necessary for the aeronautical engineering officer to be the PIC. For further guidance and restrictions on aircrew assignments for maintenance flights, refer to Chapter 4.

      (3) Ferry Flights. For ferry flights, the minimum required pilot assignment consists of an AC and a CP.

(4) Pilot Augmentation. Maximum scheduling standards can be augmented by an additional pilot. When pilot augmentation is required, the minimum pilot assignment requirements are:

- Two ACs and a CP or FP
- One AC and two FPs

The PIC retains authority for the flight regardless of crew rotation. Maximum individual flight time and crew mission time limits still apply.

b. Short Range Recovery (SRR) Helicopters . Normally, one of the following is required to meet minimum pilot assignment requirements for aircraft authorized for single-pilot operation:

- Under daylight VMC, an AC or an FP is the minimum required. A SRR aircraft may be flown by a student pilot who has been designated Safe for Solo by the unit Commanding Officer.
- Under night VMC, the minimum requirement is an AC and a CP or two FPs. When mission urgency dictates, an AC alone may be authorized by the Commanding Officer. This authority may not be delegated.
- Under Instrument Meteorological Conditions (IMC), an AC and a CP, or two FPs, are required.

Further guidance is provided below for assignment of pilot aboard aircraft authorized for single-pilot operation.

(1) Training Flights. For SRR helicopter training flights, the minimum pilot assignment requirements are:

- Under daylight VMC - CP, but only when engaged in an upgrade syllabus flight as part of that syllabus.
- Under night VMC - An AC and a CP, or two FPs; or when the Commanding Officer determines that adequate illumination is available to provide visual reference, an AC and a student pilot engaged in syllabus instruction may be authorized.
- Special authorization for Aviation Training Center instructors to conduct training flights under IMC with student pilots not yet qualified as CPs is provided in Paragraph 3.B.1.c.
- IFR departures which require a departure alternate are not authorized for training flights or flights with a FP in command.

(2) Maintenance Flights. For SRR helicopter Maintenance flights, an AC is required. When practicable, an aeronautical engineering officer shall be assigned to test flights of unit aircraft, however, it is not necessary for the aeronautical engineering officer to be the PIC.

For further guidance and restrictions on aircrew assignments for maintenance flights, refer to Chapter 4.

(3) Ferry Flights. For SRR helicopter at least an AC and a CP are required.

The Commanding Officer may authorize a single-pilot ferry flight in day VMC if the mission is conducted within the unit's AOR or point to point on one sortie. The PIC must be AC qualified and current in the type and model of the aircraft.

c. Special Authorization for Aviation Training Center. Flight under instrument conditions may be conducted by Training Division (TRADIV) instructors and students engaged in a pilot training syllabus provided that each airport where flight operations are to be conducted has a ceiling of 500 feet or better and visibility of at least one mile, or meets approach minimums, whichever is higher.

2. Minimum Pilot Qualification Requirements. For all missions, the PIC shall hold the appropriate qualification for the mission to be performed.

A second pilot shall be assigned that is qualified for the mission to be performed, with the following exceptions:

- For operational SAR missions and SAR training during day VMC, a second pilot in an aircraft is not required to hold a Basic SAR qualification. For helicopter hoisting operations, the pilot in the right seat shall hold a Basic or Advanced SAR qualification unless flying with an Instructor Pilot for a SAR syllabus flight.
- For Vertical Surface hoisting missions, a second pilot is not required to hold an Advanced SAR - Vertical Surface qualification.
- For shipboard-helicopter operations, a second pilot is not required to hold a shipboard-helicopter qualification; for SRR, single-pilot operations may be performed per Paragraph 3.B.1.b. of this Chapter.
- For basic Fast Roping training missions, the second pilot is not required to hold a FR qualification.
- For CBR training missions, the second pilot is not required to hold a CBR qualification.

Pilots in a DIFPRO status may stand SAR alert duty if they have previously held an AC designation and Advanced SAR qualification in the aircraft type and model to be flown, have a current Basic SAR qualification, have completed local RM/OPHAZARD training, and have approval of the air station Commanding Officer.

Pilots in a DIFPRO status performing duties as the Pilot Monitoring or Pilot Flying at night or during IMC approaches to a hover over water, hovering over water, and instrument takeoffs from the water status shall hold a Basic SAR qualification, or be in the Basic SAR syllabus flying with an IP.

A pilot under instruction may be unqualified in that mission while completing an appropriate qualification syllabus.

3. Minimum Aircrew Assignment Requirements. The Paragraphs below prescribe the minimum aircrew required in addition to the minimum pilot requirements described in this Chapter for Coast Guard aircraft/missions. Crew positions are described in Chapter 8 of this Manual. Commanding Officers or PICs are authorized to require additional personnel based on unit or mission needs.

   For aircraft types and missions not indicated, Commandant (CG-711) prescribes the minimum crew requirements. The minimum crew described in the flight manual is defined as the minimum number of persons required to operate the aircraft safely.

   a. MH-60 and MH-65 Minimum Aircrew. Minimum aircrew requirements for the MH-60 and MH-65 are prescribed in Table 3-1.

Table 3-1. MH-60 and MH-65 Minimum Aircrew Requirements

Mission	BA	BH	FM	RS	FR	TAC-FR	PM-A	Comments
SAR/MEDEVAC			•	•				Requirement for RS may be waived at CO's discretion. A FM-VS and a RS-VS are required for Vertical Surface hoisting missions. Additional RS, HS or FS for MEDEVAC missions at CO's discretion.
Airborne Use of Force	•						•	The PM-A must be qualified for the assigned mission (e.g., AUF-NCV). The BA requirement can be fulfilled by the PM-A if he/she is BA qualified in type.
Fast Roping					•			
Tactical Fast Roping						•	•	For training events, requirement for PM-A may be waived at CO's discretion.

Table 3-1. MH-60 and MH-65 Minimum Aircrew Requirements Continued

Mission	BA	BH	FM	RS	FR	TAC-FR	PM-A	Comments
Nonpersonnel hoists or cargo sling operations (e.g., HIFR/ VERTREP/ External Loads)		•						
RWAI	•							A RWAI qualified aircrew is required for all RWAI missions. (Exception: A single BA/FM under instruction as part of the RWAI Aircrew Syllabus meets this requirement.)
All other missions	•							A FM is required for all personnel hoists.

b. HC-130H Minimum Aircrew. Minimum aircrew requirements for the HC-130H are prescribed in Table 3-2.

In addition to the requirements in Table 3-2, a navigator shall be assigned to any flight that will:

- Encounter Instrument Meteorological Conditions (IMC).
- Conduct any portion of the flight on an IFR flight plan.
- Use area navigation (INS and/or GPS) as primary flight path guidance.
- Be flown at night (sunset to sunrise).
- Conduct aerial deliveries.
- Conduct a full acceptance or full functional check flight in accordance with Acceptance and/or Functional Check Flight Procedures, CGTO 1C-130-6CF.

Table 3-2. HC-130H Minimum Aircrew Requirements

Mission	BA	DM	LM	R	N	FE	SSO	TSO	Comments
SAR/Patrol	•	•		•	•	•			
MEDEVAC	•		•	•		•			The R requirement can be fulfilled by a N. Additional RS, HS, or FS for MEDEVAC missions at CO's discretion.

Table 3-2. HC-130H Minimum Aircrew Requirements Continued

Mission	BA	DM	LM	R	N	FE	SSO	TSO	Comments
CASPER Sensor Operations	•	•		•	•	•	•		The BA or DM requirement can be fulfilled by the SSO if he/she is BA or DM qualified in type and model.
CASPER Tactical Operations	•	•		•	•	•	•	•	The BA or DM requirement can be fulfilled by the SSO if he/she is BA or DM qualified in type and model.
Cargo		•		•		•			The R requirement can be fulfilled by a N. When carrying less than 500 pounds of nonpalletized or nonwheeled cargo, the LM may be replaced by a BA.
All other missions	•					•			When carrying more than 50 passengers, an additional BA shall be stationed in the cargo compartment during takeoff and landing.

c. HC-130J Minimum Aircrew. Minimum aircrew requirements for the HC-130J are prescribed in Table 3-3.

Table 3-3. HC-130J Minimum Aircrew Requirements

Mission	BA	DM	LM	MSO 1	MSO 2	Comments
SAR/Patrol		•	•			Minimum crew can be LM and BA if the LM is DM qualified.
Operations using Mission Systems	•		•	•	•	When circumstances dictate, requirement for a second MSO may be waived at CO's discretion.

Table 3-3. HC-130J Minimum Aircrew Requirements Continued

Mission	BA	DM	LM	MSO 1	MSO 2	Comments
Cargo/Passenger	•		•			A LM is required for all flights carrying wheeled or palletized cargo (except the mission system pallet), cargo loads that exceed 500 pounds, flights involving more than 10 passengers, whenever floor loading limits are in question, or anytime transporting dangerous goods with passenger restrictions or segregation requirements as defined by the AFMAN 24-204.
All other missions	•					Additional RS, HS, or FS for MEDEVAC missions at CO's discretion.

d. HC-144 Minimum Aircrew. Minimum aircrew requirements for the HC-144 are prescribed in Table 3-4.

Table 3-4. HC-144 Minimum Aircrew Requirements

Mission	BA	DM	LM	MSO 1	MSO 2	Comments
SAR/Patrol	•	•				
Operations using Mission Systems	•	•		•	•	When circumstances dictate, requirement for a second MSO may be waived at CO's discretion.
Cargo/Passenger	•		•			A LM is required for all flights carrying wheeled or palletized cargo (except the mission system pallet), cargo loads that exceed 500 pounds, flights involving more than 10 passengers, whenever floor loading limits are in question, or anytime transporting dangerous goods with passenger restrictions or segregation requirements as defined by the AFMAN 24-204.
All other missions	•					Additional RS, HS, or FS for MEDEVAC missions at CO's discretion.

e. HC-27J Minimum Aircrew. Minimum aircrew requirements for the HC-27J are prescribed in Table 3-5.

Table 3-5. HC-27J Minimum Aircrew Requirements

Mission	BA	DM	LM	MSO 1	MSO 2	Comments
SAR/Patrol	•	•				Minimum crew can be LM and BA if the LM is DM qualified.
Operations using Mission Systems	•	•		•	•	When circumstances dictate, requirement for a second MSO may be waived at CO's discretion.
Cargo/Passengers	•		•			A LM is required for all flights carrying wheeled or palletized cargo (except the mission system pallet), cargo loads that exceed 500 pounds, flights involving more than 10 passengers, whenever floor loading limits are in question, or anytime transporting dangerous goods with passenger restrictions or segregation requirements as defined by the AFMAN 24-204.
All other missions	•					Additional RS, HS, or FS for MEDEVAC missions at CO's discretion.

4. Crew Utilization. For SAR missions in which saving life is probable, crew utilization requirements of this Paragraph may be waived by Commanding Officers on a calculated risk basis. This authority may not be delegated. It should be understood that flight safety will be affected with a corresponding rise in mishap potential. Advise cognizant operational commanders of the situation and action taken.

For other missions, only Commanding Officers of aviation units are authorized to waive the crew utilization requirements of this Paragraph to move an aircraft or a deadheading flight crew to or from a staging area. This authority may not be delegated. Where an exceptional operational requirement exists, the Commanding Officer may initiate the waiver on a calculated risk basis. Otherwise, a request for a waiver shall originate only from the PIC.

a. Command Responsibility. Prescribed limits are necessary for safe Coast Guard air operations. More conservative limits may and should be imposed at all command levels when deemed advisable. As these limits are approached, time available for ground duties necessarily will be reduced. Such consequences must be anticipated and accepted during periods of heavy flight activity.

b. Responsibility of Flight Crewmembers. Crew utilization standards impose limits upon operational commanders in order to improve mental and physical readiness of flight personnel. Individual benefits derived depend upon the proper use of off duty time to ensure good mental and physical condition.

It is the moral and military responsibility of each flight crewmember to engage only in those off duty activities that will allow the crewmember to report to duty fully rested. It is impossible for the Commanding Officer or cognizant department head to be aware of how crewmembers use off duty time.

Ensure all flight crewmembers are aware of these provisions. Individual flight crewmembers shall advise the Operations Officer whenever he or she is approaching, or has reached, the prescribed limits.

c. Aircrew Flight Scheduling Standards. Within any consecutive 24 hour period, avoid scheduling a flight crewmember to exceed the hourly limits shown in Table 3-6. Avoid extending flights scheduled for the maximum time allowed except for urgent mission requirements.

A new 24-hour period will begin any time a flight crew or non-crewmember has completed ten hours rest, regardless of duty status. Do not calculate deadhead time as part of rest time.

Table 3-6. Flight Scheduling Standards per 24-Hour Period

Aircraft Type	Individual Flight Hours	Crew Mission Hours
Rotary-Wing Single-Pilot	6	12
Rotary-Wing Multi-Pilot	8	12
Fixed-Wing Unpressurized	8	12
Fixed-Wing Pressurized	12	16
Rotary-Wing Multi-Pilot (CBR)	4	6
Fixed-Wing Pressurized (CBR)	4	8

(1) Reverse Cycle Operations. Unless a flight crewmember has night adapted, the member may not be scheduled for more than two consecutive nights of reverse cycle operations. The Flight Scheduling Standards and Rest Requirements of Table 3-6 and Table 3-7 apply to reverse cycle operations.

(2) Alert Duty Limits. Flight crewmembers shall not be assigned alert duty for more than 24 consecutive hours; alert duty is limited to 12 consecutive hours if adequate crew rest facilities are not available. Flight crewmembers shall have at least 10 hours off duty immediately before assuming alert duty, however specific exceptions may be authorized by the Commanding Officer on a calculated risk basis.

(3) Strip and Special Alert Duty Limits. Flight crewmembers shall not be assigned strip or special alert for more than 12 consecutive hours (with adequate crew rest facilities) or eight consecutive hours (without adequate crew rest facilities). They shall have at least 10 hours off duty immediately before assuming strip alert duty.

(4) Simulator and Aircrew Weapons Trainer Limits. Simulator, Aircrew Weapons Trainer (AWT) and Cockpit Procedures Trainer events may be scheduled anytime after aircraft events. However, aircraft events are not authorized within the 12 hour period immediately after simulator or AWT events. An event is defined as any time spent in the simulator with visuals or motion turned on.

d. Post-Mission Rest Requirements. After a flight in which accumulated times total those in Table 3-7, a crewmember shall be required to take no less than the indicated number of off-duty hours before being assigned as an aircrew member. These rest requirements shall be applied whenever an aircraft is safely on the ground or flight deck, regardless of engine or rotor operation or intent for further flight. Individual flight hours and crew mission hours, listed in Table 3-7, are cumulative unless 10 hours of rest are completed between sorties, regardless of duty status. If adequate crew rest facilities are not available between multiple sorties, crew mission time shall continue to accrue. Off duty time must allow a minimum of 8 hours of bed rest.

For any crew day that ends in a time zone that is four or more hours different from where it began, required hours off duty listed in Table 3-7 shall be increased by three hours.

One half of the number of flight hours spent deadheading shall count as crew mission time. Deadheading shall not be calculated as part of crew rest time.

Table 3-7. Post Mission Rest Requirements

Fixed-Wing		Rotary-Wing/Single Pilot Fixed-Wing		Hours Off Duty
Individual Flight Hours	**Crew Mission Hours**	**Individual Flight Hours**	**Crew Mission Hours**	
8.0-9.9	12.0-12.9	6.0-6.9	10.0-10.9	10 (12) *
10.0-11.9	13.0-14.9	7.0-7.9	11.0-11.9	12 (18) *
12.0+	15.0+	8.0+	12.0+	15 (24) *
NOTE: Alternate Off Duty Standards (*) are to be used if the individual flight hours or crew mission hours in this table are achieved for two or more consecutive days. For single-pilot fixed-wing and rotary-wing ferry operations, use fixed-wing standards.				

e. Extended Period Duty Limits. When the tempo of operations requires individual flight time in excess of the extended period duty limits listed in this Paragraph, flight personnel shall be closely monitored and specifically cleared by the aviation unit Commanding Officer on the advice of a flight surgeon.

(1) Duty Limits.

(a) Deployed Aircrews. A flight crewmember may remain in a duty status indefinitely as long as they have not exceeded an average of four flight hours per day for the previous seven days (including days prior to deployment) and has not exceeded individual flight hours or crew mission hours in Table 3-7. If the average flight hours per day exceed four hours during any seven consecutive days, then the crewmember shall be relieved from all duty for no less than 24 hours.

(b) Non-deployed Aircrews (including all RWAI). A flight crewmember shall be relieved from all duty (including collateral duties) for no less than 24 consecutive hours at least once during any eight consecutive days (192 hours).

(2) Seven-Day Hour Limit. A flight crewmember shall not fly as a crewmember more than 50 hours in any seven consecutive days.

(3) Thirty-Day Hour Limit. A flight crewmember shall not fly as a crewmember more than 125 hours during any 30 consecutive days.

(4) 365-Day Hour Limit. A flight crewmember shall not fly as a crewmember more than 1100 total military/civilian hours during any 365 consecutive days.

(5) Cross-decking Aviation Detachments (AVDETs). The decision to move AVDETs between cutters should be carefully weighed against all mission requirements, logistical concerns, and crew fatigue. Area commands shall be notified anytime the movement of AVDETs between cutters will extend their consecutive days at sea beyond 30 days.

5. Alcohol Consumption. Aviation personnel are restricted from aerial flight for 12 hours after last alcohol use and must have no residual effects. This includes the use of low and no-alcohol beer. Residual effects include light-headedness, headache, fatigue, nausea, visual alteration/distortion, and lack of alertness.

6. Medication. Personnel engaged in flight operations shall not take any medication/supplement unless prescribed and/or approved by a flight surgeon or other qualified aviation medicine provider in accordance with the Coast Guard Aviation Medicine Manual, COMDTINST M6410.3 (series) or current aeromedical policy letters on medication use.

7. Restrictions on Blood and Bone Marrow Donations. Aircrew personnel shall obtain permission from the Commanding Officer before donating blood or bone marrow. Aircrew personnel shall be grounded following blood or bone marrow donations. Return to flight status shall be in accordance with the Coast Guard Aviation Medicine Manual, COMDTINST M6410.3 (series).

8. Hypobaric Exposure. The following restrictions to flight following low pressure chamber flights or accidental hypobaric exposure apply:

   - Flight personnel shall not perform flight duties for 12 hours after exposure to low pressure chamber flight in excess of 30,000 feet. They may fly during the 12 hours as passengers in aircraft where cabin altitude does not exceed 10,000 feet.
   - Individuals who have experienced a reaction to decompression (i.e., vasomotor collapse, unconsciousness, bends, etc.) shall be immediately referred to a flight surgeon or other qualified aviation medicine provider.

9. Hyperbaric Exposure. Under normal circumstances, flight personnel shall not fly or participate in low pressure chamber flights within 24 hours following Self-Contained Underwater Breathing Apparatus (SCUBA) diving, compressed air dives, or high-pressure chamber evolutions.

   Where an urgent operational requirement dictates, flight personnel may fly within 12 hours of SCUBA diving, provided no symptoms of decompression sickness or air embolism as described in the Coast Guard Aviation Medicine Manual, COMDTINST M6410.3 (series) develop following surfacing and the subject is examined and cleared for flight duties by a flight surgeon or other qualified aviation medicine provider.

   Emergency Breathing Device training does not limit personnel from flight or Low Pressure Chamber training. The duration and depth of training is not normally sufficient to produce symptoms of decompression sickness or air embolism.

10. Vision. Aviation personnel are required to have at least 20/20 vision while performing flight duties. Aviators required to fly with corrective lenses or contact lenses to correct to 20/20 must have in possession a backup pair of corrective lenses. Pilots shall not wear contact lenses during single-pilot operations. If prescribed, Helicopter Rescue Swimmers shall wear the prescription lens mask. Refer to Section 1.C.13 of the Coast Guard Aviation Medicine Manual, COMDTINST M6410.3 (series) for further information.

C. FLIGHT PLANNING - WEATHER.

1. Meteorological and Navigation Planning Facilities. Commanding Officers shall ensure that adequate meteorological and flight planning facilities are provided for the use of their assigned aircrews. Operations Watch Standers shall notify airborne crews of changing weather conditions. The requirements for reporting shall be promulgated in unit standing orders.

2. Application of Actual and Forecasted Weather. All flights shall comply with the weather requirements of this Section based on the actual weather at the point of departure, the forecast weather en route, and the forecast at both the destination and alternate for the period beginning one hour before until one hour after the estimated time of arrival (ETA) at each point.

   Existing weather can be used as a basis for clearance when forecast weather is unavailable and if the pilot's analysis of available data indicates satisfactory conditions for the planned flight.

3. Instrument Meteorological Conditions and Instrument Flight Rules Flight Plans. File an Instrument Flight Rules (IFR) flight plan for all flights which may expect to encounter IMC in controlled airspace on any portion of the planned route. For local area operations, an IFR flight plan is not required if a Special VFR clearance is obtained.

4. Takeoff Minimums. Published nonstandard takeoff minimums apply to all missions except operational Rotary-Wing Air Intercept (RWAI).

   The following standard takeoff minimums apply in the absence of published nonstandard minimums for the departure airport:

   - Meteorological visibility of one half statute mile for nonoperational missions.
   - Meteorological visibility of one quarter statute mile for operational missions.

   When urgency of the mission dictates, the Commanding Officer of the parent unit may authorize a takeoff below these minimums. This authority may be delegated to deployed Aircraft Commanders. Consideration must be given to obstacle/terrain clearance, departure alternate, emergency landing capability, equipment limitations, and pilot ability.

5. RWAI Weather Requirements. For operational RWAI missions, there are no takeoff minimums. To conduct an intercept, the intercepting aircraft shall have the target of interest in sight and remain clear of clouds with no less than one statute mile of flight visibility.

For RWAI training missions, the interceptor and the Track of Interest (TOI) aircraft shall maintain VFR cloud clearances while in the training area. The minimum visibility for RWAI training missions is 3 NM. The TOI altitude shall allow for a minimum of 1,500 feet between the TOI aircraft and cloud bases or next cloud layer when operating VFR over-the-top. The minimum hard deck for training intercept is 1,000 feet Above Ground Level (AGL).

6. Departure Alternate Requirements. When departure airport weather is above takeoff minimums but below approach minimums, a departure alternate is required that meets weather requirements described in Paragraph 3.C.10. of this Chapter (Alternate Airport Minimums (Departure and Destination)). An airport shall be selected and indicated on the flight plan that meets the following criteria:

   - Two-engine aircraft: not more than one hour from the departure airport at single-engine cruising speed computed for no wind conditions.
   - Four-engine aircraft: not more than two hours from the departure airport at three-engine cruising speed computed for no wind conditions.

   The aircraft must be capable of climbing to and maintaining MEA with one engine inoperative while en route to the departure alternate.

   If the departure airport is not served by an instrument approach, a departure alternate is required unless departure airport weather allows a visual approach at the departure airport.

   IFR departures which require a departure alternate are not authorized for training flights or flights with a FP in command.

7. Destination Forecast Unavailable or Below Minimums. No clearance shall be authorized for destinations at which there is no Terminal Aerodrome Forecast available, or the forecast weather will be below compatible approach minimums (ceiling and visibility) upon arrival unless an alternate airport is available at which forecast weather conditions are equal to or better than the following:

   For fixed-wing aircraft:

   - Ceiling is at least 2,000 feet above the airport elevation or at least 400 feet above the lowest compatible approach minimum, whichever is higher.
   - Visibility is at least three statute miles.

   For rotary-wing aircraft:

   - Ceiling is at least 1,000 feet above the airport elevation or at least 400 feet above the lowest compatible approach minimum, whichever is higher.
   - Visibility will be at least two statute miles.

8. Destination Alternate Requirements. An alternate destination is required on all instrument flight plans if the intended point of landing does not have a serviceable approach procedure or when the forecast weather at the first point of intended landing (for each point of intended landing on a stopover flight plan) does not meet the following conditions for the period one hour before to one hour after the ETA:

   For fixed-wing aircraft:

   - Ceiling is at least 2,000 feet above the airport elevation, or 400 feet above the lowest compatible approach minimum, whichever is higher.
   - Visibility is at least three statute miles.

   For rotary-wing aircraft:

   - Ceiling is at least 1,000 feet above the airport elevation or at least 400 feet above the lowest compatible approach minimum, whichever is higher.
   - Visibility is at least two statute miles.

9. Destination Alternate Not Available. If the destination is an island or other remote location where an alternate is unavailable, the Commanding Officer of the unit to which the aircraft is attached will determine the amount of holding time that must be planned in lieu of an alternate; in no case shall this be less than one hour. This holding time is in addition to the fuel reserve requirements outlined in Paragraph 3.A.5. of this Chapter.

10. Alternate Airport Minimums (Departure and Destination). The weather at the departure alternate must be at or above the specified weather at departure time and forecast to remain so for one hour after ETA at the departure alternate. Weather at the destination alternate must be forecast to be at or above the specified weather from one hour before to one hour after ETA at the destination alternate.

    For fixed-wing aircraft, weather must be equal to or better than published nonstandard alternate minimums. If none are specified, the ceiling must be at least 800 feet and visibility two statute miles for airports served by a compatible non-precision approach, and ceiling at least 600 feet and visibility two statute miles for airports served by a compatible precision approach; but weather at the alternate shall not be lower than the lowest compatible circling minimums as specified in current flight information publications.

    For rotary-wing aircraft, the ceiling must be at least 200 feet above the minimum for the approach to be flown, and visibility at least one statute mile but not less than the minimum visibility for the approach to be flown.

    If an airport is designated as Alternate/Not Authorized (e.g., indicated by triangle-A/NA in US Government charts), weather at the alternate must meet those allowing descent from the MEA, approach and landing under basic VFR.

11. Shipboard Operations. Weather criteria for conducting shipboard operations, including takeoff, landing, Vertical Replenishment (VERTREP), and Helicopter Inflight Refueling (HIFR), are published in the Shipboard-Helicopter Operational Procedures Manual, COMDTINST M3710.2 (series).

12. Flight in Icing Conditions. Flight in icing conditions shall be conducted in accordance with the applicable aircraft flight manual.

13. Turbulence and Thunderstorms. Flight in turbulence shall be conducted in accordance with the aircraft flight manual. All flights shall avoid thunderstorms.

    Fixed-wing flights shall avoid areas of known (reported or verified) severe turbulence and extreme turbulence. Rotary-wing flights shall avoid areas of moderate or greater intensity turbulence.

14. Volcanic Ash Precautions. Avoid aircraft operations in the general area of volcanic activity. Since volcanic dust may extend for several hundred miles, flights should be planned well clear of the area and, if possible, the flight path should be above or on the upwind side of the volcanic dust. Aircraft which have encountered volcanic dust shall not be cleared to fly until suitable maintenance inspections have been accomplished.

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CHAPTER 4. CONDUCT OF AIRCRAFT OPERATIONS

A. FLIGHT DISCIPLINE.

1. Purpose. Flight discipline is the resolve to safely employ an aircraft within operational, regulatory and organizational guidelines while using a systematic approach to track and validate the path of the aircraft and the actions of fellow crewmembers. Flight discipline recognizes the ever present potential for human error due to (1) the limitations of human performance; (2) the challenging and complex aviation environment and (3) the multifaceted interactions among flight crewmembers and aircraft technology. Flight discipline creates and maintains flight safety through CRM core competencies.

2. Crew Duties. All flight crewmembers are duty bound to implement and employ flight discipline defined behaviors without hesitation in all situations. Each crewmember contributes to mission accomplishment through the effective and efficient completion of their assigned crew duties and shall also monitor and back up other crewmembers to ensure the accurate accomplishment of their duties. To create and maintain aircraft flight safety while executing the mission, all crewmembers shall perform their specific flight duties:

   - The primary responsibility of the pilot flying (PF) is to control the flight path of the aircraft, including monitoring automated systems if engaged. It is the PF's secondary responsibility to monitor non-flight path associated tasks such as aircraft systems, navigation, radio communications, and the activities of other crewmembers. The PF shall not allow the secondary responsibility to interfere with the primary responsibility of controlling and monitoring the aircraft's flight path.

   - The primary responsibility of the pilot monitoring (PM) is to monitor the flight path of the aircraft, including monitoring automated systems if engaged, and execute appropriate backup. It is the PM's secondary responsibility to complete non-flight path associated tasks such as aircraft systems, navigation, radio communications, and the activities of other crewmembers. The PM shall not allow the secondary responsibility to interfere with the primary responsibility of monitoring the aircraft's flight path.

   - The primary responsibility of flight crews is to execute their assigned duty in aircraft cabin and monitor the flight path of the aircraft during critical phases of flight.

   Aircraft type communities shall define the specific crewmember duties within their respective aircraft flight manual. Additionally, specialized missions such as RWAI may require deviations from standard flight control responsibilities. These known deviations shall be addressed by the mission specific TTP manuals and routinely evaluated by the ATC Mobile Aviation Special Missions Division.

3. Checklist Use. Checklists shall be used in all aircraft except those specifically exempted by Commandant (CG-711). The use of checklists is mandatory.

   If a Commandant (CG-711) approved electronic checklist is used, there must be a paper copy within arm's reach ready for immediate availability. In the absence of a Coast Guard promulgated checklist, the most recent checklist provided in the appropriate flight manual shall be used.

   Local modifications to checklists, including partial completions without specific intent for flight operations, are not authorized without approval of Commandant (CG-711). Rapid response checklists must be published and approved for use at individual units by Commandant (CG-711).

4. Standard Phraseology. The use of standardized phraseology promotes effective communication and increases team efficiency. To maintain shared situational awareness among flight crews, crewmembers shall announce changes in flight path and/or aircraft configuration. Aircraft type communities shall define the standard phraseology and specific levels of automation verbalized within aircraft flight manuals.

5. Critical Phases of Flight. Critical phases of flight are aircraft operations where the consequences of deviation increase and safety margins decrease. Critical phases of flight include but are not limited to:

   - All ground operations involving aircraft movement.
   - Takeoff, approach, and landing.
   - Anytime a checklist is in progress.
   - Immediately prior to level off during climb/descent under IFR.
   - Fixed-wing flight operations below 1,500 feet AGL, except when in cruise flight.
   - Hover operations.
   - Below 300 feet AGL/AWL during approach or departure from a hover.
   - As directed by the PIC.

   All flight crewmembers will employ the sterile cockpit rule to minimize distractions during critical phases of flight. This rule is not solely limited to the personnel physically located in the cockpit area of the aircraft, as the title may indicate, but this rule applies to everyone on the aircraft. No person shall engage in any conversation or activity that could distract or interfere with a flight crewmember properly conducting their assigned duties during critical phases of flight. This rule does not preclude emergency procedure training.

   During critical phases of flight the PM shall be able to immediately take control of the aircraft if necessary. The PM shall announce any control inputs that assist or limit the flight control inputs of the PF.

6. Two-Challenge Rule. During the normal course of operations, if any crewmember challenges the actions of the pilot flying and does not receive an appropriate acknowledgment after a second challenge, the pilot monitoring shall initiate a change in control of the aircraft.

7. No-Challenge Rule. If the pilot monitoring feels the aircraft is in extremis and immediate action is required for the safety of flight, the pilot monitoring shall initiate the appropriate control input in lieu of the Two-Challenge Rule while verbalizing the control inputs and hazardous condition (e.g., left turn, traffic, my controls). Once the hazard is cleared, positive aircraft control shall be definitive (e.g., clear of the hazard, your controls).

8. Automation. The purpose of aircraft automation is to assist the flight crew with mission accomplishment. Flight crews delegate flight path and aircraft system functions to balance workload and optimize situational awareness. The level of automation used at any specific time should be the most appropriate to (1) safely control the flight path of the aircraft; (2) assist flight crew workload; (3) maintain shared situational awareness among the flight crew; and (4) enhance mission effectiveness. Flight crews shall adhere to the following automation principles:

   - Flight crews have the final and ultimate authority over the automation for controlling the aircraft flight path and monitoring aircraft systems.
   - Aircraft automation shall not command flight crew actions but recommend/suggest appropriate actions, and the flight crew shall determine the proper course of action.
   - Flight crews shall know their current aircraft automation level, and how that automation level affects their workload and shared situational awareness.
   - Flight crews shall be proficient in operating the aircraft at, and transitioning between, all levels of automation.
   - If aircraft automation provides unexpected commands to the flight controls, flight crews shall revert to lower levels of automation, or manual flying, as necessary, before resolving any problems with the automation.

   Since the automation interface is unique to the aircraft, aircraft type communities shall define the specific levels of automation within their respective aircraft flight manual.

9. Automation Flight Discipline . Advanced technology aircraft with automated systems require high levels of crew coordination to prioritize tasks and effectively manage workload. Successful crew coordination is accomplished through standardized procedures and flight discipline. To maintain appropriate levels of automation situational awareness, flight crews shall adhere to the following:

   - Ensure the duties of all flight crewmembers using automated systems are clearly defined, briefed, and understood.
   - Maintain constant awareness of cockpit automation modes in all phases of flight.
   - Crosscheck other flight crewmembers' Flight Management System (FMS) data or flight guidance system inputs for completeness and accuracy.
   - Use standard phraseology for advising current automation status, any changes to the automation status or aircraft systems status.

- Perform normal systems monitoring duties in conjunction with utilizing advisories from automated alert systems.

Ensure that automation systems data entry does not detract from the primary responsibility of controlling and monitoring the aircraft flight path, refer to Crew Duties.

10. Operating the Flight Controls. Pilots shall constantly know who is operating the aircraft as PF and PM and ensure both roles are occurring throughout the flight. Flight control transfer between PF and PM shall be announced verbally and conducted in a clear and direct manner. The PF is responsible for controlling the flight path until the PM acknowledges PF duties.

    Specialized missions such as RWAI may require deviations from standard flight control responsibilities. These known deviations shall be addressed by the mission specific TTP manuals and routinely evaluated by the ATC Mobile Aviation Special Missions Division.

    a. Control Guarding and Defensive Posturing. During critical phases of flight the pilot monitoring shall have his or her hands and feet in a position to immediately take control of the aircraft if necessary. The pilot monitoring shall announce any control inputs that assist or limit the flight control inputs of the pilot flying. Changes in physical control shall be accomplished per the guidance in the following Paragraph.

    b. Changes in Physical Control. Changes in the physical control of aircraft shall be done in a positive manner. Normally, simple voice procedures shall be used.

        The pilot exercising control is responsible until the relieving pilot verbally acknowledges acceptance of control. When verbal transfer is not possible for reasons such as high noise levels or an inoperative Intercommunications System (ICS), the following procedures shall be used:

        - The pilot desiring to be relieved shall pat his or her head with one hand and then point to the other pilot.
        - The pilot taking control shall pat his or her head in acknowledgment and immediately and deliberately move both hands to the flight controls.
        - The pilot being relieved shall hold both hands overhead signifying that he or she has given up control.

11. Cockpit Strategic Napping. Cockpit strategic napping is authorized aboard the HC-130, HC-27, HC-144, and C-37 during low-workload phases of flight as a means to reduce fatigue and improve performance during subsequent high-workload phases. However, if fatigue will unacceptably degrade safety, the mission will be discontinued and a replacement crew assigned. Anticipated cockpit strategic napping will not be relied upon in evaluating crew fatigue during pre-mission planning.

Of the two pilots and a designated flight deck crewmember seated in the flight engineer seat, jump seat, or augmented crew position, only one may nap at a time; the remaining two crewmembers shall remain in their crew positions. Naps shall be limited to 40 minutes, and all crewmembers shall be awakened one hour before an anticipated high-workload event. The autopilot, TCAS, and terrain warning systems (if equipped) shall be employed during cockpit strategic napping.

12. Expressing Breast Milk. To the maximum extent possible, crewmembers should be able to express breast milk. This action should not jeopardize crewmember safety regarding PPE requirements and occupation of pilot's seats shall comply with policy in Paragraph 4.C.13. The PIC has the final authority to determine when a crewmember may express breast milk during flight operations. Use of electronic devices to assist in the expressing of breast milk shall comply with Paragraph 4.L., Inflight use of Portable Electronic Devices.

13. Knowledge of Aircraft Manuals and Directives. All aircrew members shall be familiar with the publications that pertain to all aircraft for which they hold current designations. These publications include, but are not limited to, aircraft flight manuals, safety of flight supplements, and Commandant Instructions. A current flight/performance manual (portable electronic device or paper) and all pertinent checklists shall be carried on the aircraft and be available to the crew.

14. Focus on Aviation Professionalism. A focus on aviation professional development early in a pilot's career is paramount to building a solid foundation of knowledge and skill. To maintain this focus, duty-standing pilots on their first Coast Guard aviation tour shall not enroll in off-duty post-graduate education until they have earned an Aircraft Commander designation and have completed mission qualification relevant to the unit's mission requirements (e.g., AC designation with an Advanced SAR qualification).

B. GROUND OPERATIONS.

1. Starting the Aircraft Engines. An aircraft engine shall not be started unless a pilot, either designated or in training for designation in type and model, or a crewmember certified in writing by the Commanding Officer as being qualified to perform engine starts, occupies a pilot's seat.

2. Engaging Helicopter Rotors. A pilot designated in type and model shall occupy a pilot's seat whenever the rotor is engaged, turning under power, or during shut down. Undesignated pilots under instruction as part of an approved ATC Mobile syllabus may occupy a pilot seat during hot-seat evolutions.

3. Fire Guard During Engine Start. Observe the following precautions before starting an engine or APU:

   - Post a fire watch/observer outside the aircraft to monitor each engine as it is started. If the aircraft is so equipped, the fire watch/observer shall have two-way voice communications with the person starting the engine, unless impractical or unsafe.
   - The person starting the engine exchanges signals with the fire watch/observer to ensure that the propeller/rotor and exhaust areas are clear.

- Fixed-wing aircraft that depart the ramp before starting all engines can conduct further engine starts without external fire watch or observer, if the starts are monitored from inside the aircraft.

- If possible, establish a radio fire guard prior to engine start with a controlling entity of that airfield (e.g., FBO, Ground Control, Base Ops, Maintenance Control) that maintains the ability to notify crash rescue. Secure the radio fire guard at the completion of APU/engine ground operations.

4. High Power Run-Ups. Before conducting a high power run-up, position the aircraft so that propeller, rotor, or exhaust blast will not cause damage to other aircraft, personnel, equipment, or property.

5. Taxiing Aircraft. Only pilots designated or in training for designation in type and model, or crewmembers designated in writing by the Commanding Officer as being qualified to perform taxiing operations, shall taxi a fixed-wing aircraft. Only pilots designated or in training for designation in type and model, shall taxi a rotary-wing aircraft.

   When an aircraft is being taxied within 25 feet of obstructions, a two person (minimum) taxi crew is required. One member will serve as taxi signalman/wing walker, the other as an additional wing walker. Aircraft shall not be taxied at any time within 5 feet of obstructions.

   Further guidance on aircraft taxiing and ground handling is provided in the Aeronautical Engineering Maintenance Management Process Guide, CGTO PG-85-00-110-A.

6. Controlling Vehicles Near Aircraft. When operating vehicles near aircraft, adequate guide personnel shall be used to help vehicle operators maintain safe clearance. This requirement must be stressed at non-aviation units.

7. Hot Refueling. Hot refueling is the act of fueling an aircraft while one or more engines are operating. Gravity feed hot refueling is prohibited. Aircraft equipped with a single-point (pressure) refueling capability may be hot refueled with the PIC's approval.

   Carefully weigh the benefit of repetitive hot refueling against the risk. By lengthening the interval between through/postflight inspections, the risk of experiencing an undetected aircraft component problem increases.

8. Loading/Unloading of Cargo. It is the responsibility of the PIC to ensure that cargo is loaded and unloaded safely. For aircraft in which a Loadmaster qualification exists: Whenever the cargo may affect the weight and balance of the aircraft and whenever hazardous cargo is involved, loading and unloading operations should be supervised by a qualified Loadmaster and shall be conducted in accordance with Preparing Hazardous Material for Military Air Shipment, AFMAN 24-204. It should be noted that the supervisory role of the Loadmaster in no way diminishes the overall responsibility of the PIC.

Normally, the aircraft's engines should not be running and propellers/rotors should not be turning while cargo loading/unloading operations are in progress. If required by operational exigency and deemed by the PIC to be safe under the existing conditions, cargo may be loaded/unloaded with engines running and/or propellers/rotors turning. Care shall be taken to ensure that an adequate safety zone is maintained around any turning propellers/rotors and exhaust blast areas during any engines running evolution.

Care shall also be taken to prevent any foreign object from becoming dislodged and damaging the aircraft or cargo, or injuring personnel during the loading and unloading process.

9. Embarkation/Debarkation of Personnel. It is the responsibility of the PIC to ensure that all personnel enter and leave the aircraft safely. Normally, fixed-wing aircraft's engines should not be running and propellers should not be turning while personnel are entering or leaving the aircraft. Aircraft swapping crews for hotseat training missions are authorized to leave the engines running.

   If deemed by the PIC to be safe under the existing conditions, personnel may enter or depart the aircraft with engines running and/or propellers/rotors turning under the supervision of an aircrew member. Care shall be taken to ensure an adequate safety zone is maintained around any turning propellers/rotors and exhaust blast areas during any engines running evolution.

   Care shall also be taken to prevent any foreign object from damaging the aircraft or cargo, or injuring personnel. In particular, personnel approaching or departing an aircraft while its engines are running shall not wear headgear other than approved safety helmets or wear or carry other items which may easily become separated from their persons by a gust of wind or propeller/rotor/exhaust blast.

10. Security of Aircraft. All classified material shall be safeguarded in accordance with the Physical Security and Force Protection Program, COMDTINST M5530.1 (series) and Local Instructions.

    All weapons shall be safeguarded in accordance with the Ordnance Manual, COMDTINST M8000.2 (series).

    a. Aboard Military Units. Whenever it is reasonable and prudent based on mission requirements, location of the operating area, etc., Coast Guard aircraft should be left on military installations between flights so that military security is provided for the aircraft.

    b. Away from Military Units. When an aircraft must be left on a field, airport, beach, or other area where a military installation cannot provide for its security, the PIC shall take adequate measures to ensure the safety of the aircraft and its equipment.

    c. Aircraft Involved in a Mishap. When an aircraft is involved in a mishap, the PIC is responsible for the security of the aircraft until relieved by proper authority. If the PIC is incapacitated, the senior crewmember not incapacitated shall assume this responsibility.

C. GENERAL FLIGHT RULES.

1. Overview. Federal Aviation Regulations contained in Title 14 CFR, International Civil Aviation Organization (ICAO) Conventions (except as provided in Flight Information Publication (FLIP) General Planning), International Regulations for Preventing Collisions at Sea, and the DoD Foreign Clearance Manual are binding on Coast Guard personnel in the operation of all Coast Guard aircraft, including UAS and lighter than air vehicles. Exemptions exist for some military and SAR operations, refer to FAA Exemptions and Authorizations found on the Office of Aviation Forces (Commandant, CG-711) CG-Portal page.

2. Approved Publications. Flights in Coast Guard aircraft shall be conducted in accordance with the rules, regulations, or recommended procedures specified by the publications in the following rank ordered list. Where conflicting regulations or varying procedures exist, the higher ranking publication shall be followed:

   - Coast Guard Directives
   - Federal Aviation Regulations, 14 CFR §91 and 97 and FAA Manuals
   - Joint FAA/Military Documents
   - DoD Publications

   Proposed changes to flight information publications shall be coordinated through Commandant (CG-711).

3. Use of GPS for Navigation. For IFR flight, aircraft navigation shall not be predicated solely upon the Global Positioning System (GPS) unless the aircraft GPS Navigation System is certified for IFR navigation in the applicable phase of flight. Noncertified GPS may be used as a means to confirm other navigation sources. When available, encrypted military codes (e.g., P-codes, M-codes) and Selective Availability/Anti-Spoofing (SAASM) equipment shall be used unless a certified nonmilitary operating mode is available that is more appropriate for the route being flown.

   Aircraft using GPS as the sole source of navigation shall be equipped with a current navigation database approved by the National Geospatial-Intelligence Agency (NGA), or a commercial database from a vendor with an FAA Letter of Acceptance issued in accordance with Acceptance of Aeronautical Data Processes and Associated Databases, FAA Advisory Circular 20-153a or subsequent guidance. Flight crews shall verify the validity of the GPS database in accordance with the AIM.

   If the navigation database is expired, navigation may be authorized by unit commanding officers if the navigation data can be verified for correctness and the instrument procedures have not been amended since the expiration of the database. This verification can only be made using up to date (current) aeronautical publications (e.g., FLIP). With an expired database, avoid making critical navigation decisions based solely on the aircraft's moving map display, due to possible discrepancies with depicted special use airspace and various other classes of airspace.

4. Digital Moving Maps. Aircraft using digital moving maps on their Multi-Function Displays (MFD) shall be equipped with a current map series obtained from the National Geospatial-Intelligence Agency (NGA). Flight crews shall verify the validity of the database in accordance with the AIM.

   If the digital moving maps are not current, usage may be authorized by the unit commanding officer, but they are not to be used as a primary means of navigation until updated with the current supplements from NGA. With expired maps, avoid making critical navigation decisions based solely on the moving map display, due to possible discrepancies with various classes of airspace.

5. Terminal Instrument Procedures. Terminal instrument procedures prescribed by the FAA or DoD are authorized. Also, terminal instrument procedures prescribed by an ICAO contracting state are authorized provided the procedure is identified as meeting criteria equivalent to that specified in any of the following:

   - The United States Standard for Terminal Instrument Procedures (TERPS).
   - ICAO Document 8168-OPS; Procedures for Air Navigation Services-Aircraft Operations (PANS-OPS), Volume II.
   - Joint Aviation Authorities, Joint Aviation Requirements, operational agreements, Part 1 (JAR-OPS-1).

   The Commanding Officer may approve any terminal instrument procedure not meeting these criteria for urgent operations; however, for routine operations a DoD TERPS review shall be requested through Commandant (CG-711).

   a. Instrument Approach and Landing Minimums. An instrument approach may be started and flown to minimums when the reported weather is below minimums; however, the pilot will not descend below the published Minimum Descent Altitude/Decision Altitude (MDA/DA), or land, unless he or she can either:

      - Comply with 14 CFR §91.175
      - Proceed with a contact approach

      For instrument approaches, the term Military Aircraft in 14 CFR §91.175(c) does not exempt Coast Guard aircraft from adhering to the provisions of that Paragraph.

   b. Helicopter Circling Approach Minimums. Helicopters may circle to land at the straight-in MDA or DH as long as they can accomplish the maneuver within 500 feet of the runway centerline and remain within the airport boundaries. Determination of departure or arrival requirements discussed in Chapter 3 shall not be predicated upon this capability.

   c. ILS Approach Categories. Category II and III ILS approaches are not authorized.

   d. Navigation Source Selection. Use of an approved RNAV system as a means to navigate on the final approach segment of an instrument approach procedure based on a VOR, TACAN or NDB signal, is

allowable. The underlying NAVAID must be operational and monitored for final segment course alignment.

e. Shipboard Instrument Approach Procedures. Shipboard instrument approach procedures are published in the Shipboard-Helicopter Operational Procedures Manual, COMDTINST M3710.2 (series) and Helicopter Operating Procedures, NWP-3-04.1 (series).

6. Simulated Instrument Flight. Simulated instrument flight in any Coast Guard aircraft is prohibited unless another pilot (other than the PF), designated in type and model is in the cockpit monitoring the evolution. ATC Mobile Instructor Pilots may fly simulated instrument approaches with a copilot under instruction executing PM duties. In addition, a lookout having direct communications with the PM shall be so stationed that he or she can scan the sector normally observed by the pilot simulating instrument conditions.

7. View-Limiting Devices. View Limiting Devices (VLDs) shall be approved by ATC Mobile. VLDs should be utilized during IFR training wherever practical to maximize basic instrument flying proficiency.

   VLDs shall meet the following criteria:

   - It shall not obscure the pilot monitoring's vision.
   - It shall be capable of instant removal or positioning by the pilot using the device so that he or she has full, unobstructed vision.
   - The device shall not be attached to the aircraft.

   VLDs shall only be used by one pilot at a time. A view-limiting device shall not be used below 500' AWL at night. When intending to land, a view-limiting device shall be removed no lower than the published Minimum Descent Altitude/Decision Altitude (MDA/DA) for the instrument approach being flown.

8. Visual Approaches. Accepting and flying a visual approach at an unfamiliar field elevates the risk and difficulty of flying the approach. To the maximum extent practical, aircrews landing at an unfamiliar airfield shall request and fly a published instrument approach, if available.

   If a visual approach is to be made, the PIC shall be familiar with the area surrounding the airport, including nearby airports, terrain and obstacles; and the airport environment, including local traffic pattern procedures, airport layout and communications procedures.

   Fixed-wing aircraft shall adhere to electronic and/or visual glidepath guidance when available.

9. Stabilized Approach Criteria. A fixed-wing aircraft shall execute a missed approach or go-around if the following criteria are not met, except for momentary deviations by 1,000 feet AGL in IMC or 500 feet AGL in VMC:

   - The aircraft is in the intended landing configuration.
   - The aircraft is on the intended flight path with no more than minor corrections required.
   - Aircraft speed is within 10 knots of the computed approach airspeed.

- Sink rate is no greater than 1,000 fpm.
- All briefings and checklists are complete.
- If on a precision approach, the aircraft is within one dot of the localizer and glideslope. If circling, the aircraft is wings level by 300 feet AGL.

If deviations from stabilized approach criteria are required, they shall be briefed to the crew prior to executing the approach.

10. Special PIC Qualification Airports. When weather is less than 1,000 feet above the MEA, a fixed-wing aircraft may not conduct an approach to an airport identified by the FAA as a Special PIC Qualification airport unless the PIC has reviewed surrounding terrain and obstructions using pictorial means (e.g., photographs and topographical maps) and is familiar with all approach and departure procedures likely to be flown at that airport. If the PIC has flown to a Special PIC Qualification airport within the preceding 12 months, a pictorial review is not required.

11. Minimum Equipment for Flight. It is desirable that all Coast Guard aircraft be fully equipped and have all components functioning properly on every mission. It is recognized that for certain missions and under specific circumstances safe operation is possible with less than all equipment operational. Commanding Officers may publish minimum equipment lists for aircraft assigned to their units to serve as guidance for flight crews and to provide additional planning parameters for operational commanders.

    The final responsibility regarding equipment required for a mission rests with the PIC. When the PIC considers an item essential for the accomplishment of the mission, he or she may designate the component or system as mission essential, and it will be repaired or replaced before departure. Acceptance of an aircraft by a PIC to operate on one mission or mission segment without an item or system does not commit that PIC or another PIC to subsequent operations with the same item or system inoperative.

12. Transponder and TCAS. Coast Guard aircraft shall fly with a functioning radar beacon transponder with mode 3/A or Mode S capability unless mission urgency dictates. While TCAS is not mission essential equipment, a properly functioning TCAS shall be used unless mission requirements dictate securing it.

    a. Call Sign and Transponder Codes for SAR and LE. All normal Coast Guard operations shall use the COAST GUARD call sign defined in FAA Joint Order 7110.65 (series) when communicating with air traffic control. Coast Guard aircraft shall use the RESCUE call sign defined in FAA Joint Order 7110.65 (series) when communicating with air traffic control and are authorized to squawk Mode 3 code 1277 on search and rescue missions when operating VFR to, from, or within a designated search area. At SAR case conclusion, or when not actively engaged in support of a SAR mission, the RESCUE call sign and 1277 code should not be used. Special IFF codes for law enforcement and other missions are promulgated separately.

All Coast Guard aircraft may use established call signs from the USAF Call Sign List or as assigned by TACON when communicating with air traffic control, when applicable. Units shall send all requests to change call sign assignments in USAF Voice Call Sign Lists or use any call sign other than those as defined in FAA Joint Order 7110.65 (series) to Commandant (CG-711) for approval.

b. IFF Mode 4/5 Employment. IFF Mode 4 or 5 provisions are included in all CG aircraft to meet national defense and homeland security operations throughout global combat theaters and within CONUS during implementation of the Emergency Security Control of Air Traffic (ESCAT) plan as governed by 32 CFR §245.5. Coast Guard IFF Mode 4/5 operations shall be consistent with applicable DoD Directives and Regulations.

Commanding Officers are responsible for ensuring that their unit can employ mode 4 and/or 5 equipment and procedures at any time, and shall direct recurrent training as required to maintain this ability.

13. Occupation of Pilot Seat. The PIC of a Coast Guard aircraft that requires two pilots will ensure that both pilot seats are always occupied. If either pilot must leave his or her seat, he or she will be relieved by another pilot or aircrew. At least one seat will always be occupied by a pilot designated in type and model.

For the HC-130H, one pilot and the Flight Engineer shall be seated at their flight stations whenever the other pilot is not seated. In addition, both pilots shall be seated at their flight stations whenever the Flight Engineer is not seated.

Further guidance concerning seat occupation during orientation flights can be found in Chapter 5 of this Manual.

14. Inflight Emergencies. As soon as practicable following the declaration of an emergency, the PIC should notify, or request the agency with whom he or she is communicating to notify, the command exercising operational control (OPCON) over the aircraft for that mission. During this critical time, communications with the aircraft should be limited to providing whatever assistance or advice is requested by the PIC.

The responsibility for the safety of the aircraft and crew and the successful resolution of the emergency lies solely with the PIC.

15. Laser Illumination. If an aircrew member receives a direct eye strike by an external laser light source, the crew shall act to ensure the safety of the aircraft and minimize further exposure to lasers. Do not look for the source of the laser using binoculars or other magnifying optics since this could lead to significant eye injury. After an incident, crewmembers receiving a direct eye strike from a laser should be assessed using the AMSLER Grid Eye Chart and the PIC shall determine if the crew can safely continue the mission. The location of the incident shall be reported to OPCON, the nearest air traffic control facility, and local law enforcement as soon as safely possible. Upon return to base, the incident shall be reported to the unit flight safety officer and the members receiving a direct eye strike from a laser shall be assessed by medical personnel in accordance with the Safety and Environmental Health Manual, COMDTINST M5100.47 (series).

Additionally, the Command shall notify Coast Guard Investigative Services (CGIS), the CIO/CDIO, and District Intelligence Staff of the event as well as the law enforcement agency to which the event was originally reported.

16. Unusual Performance of Aircraft. Commanding Officers shall report to Commandants (CG-41), (CG-711), and (CG-1131) any abnormal, erratic, or unusual performance of assigned aircraft or their power plants that differs from failure modes described in the aircraft flight manual. Recommendations for possible corrective action should accompany the report. In urgent cases, this report shall be made by message, action to Commandant (CG-41) and information to the appropriate District and Area Commander.

    Report material failures shall per the Aeronautical Engineering Maintenance Management Manual, COMDTINST M13020.1 (series).

17. Annoyance to Persons and Endangering Property. Flights of Coast Guard aircraft shall cause a minimum of annoyance to persons and activities. It is not sufficient that the pilot is satisfied that no person is actually endangered. The pilot must exercise enough caution to be assured that no person could reasonably believe that they or their property is endangered. Except for operational missions requiring otherwise, the following specific restrictions apply.

    a. Fur and Poultry Farms. Fur and poultry farms shall be avoided. Valuable broods and litters may be lost due to panic caused by aircraft.

    b. Resorts and Beaches. Resorts and beaches shall be avoided by fixed-wing aircraft by at least one mile when at an absolute altitude of less than 2,000 feet and by rotary-wing aircraft by at least 1/4 mile when at an absolute altitude of less than 500 feet. This limitation is waived when these areas are over flown for the conduct of an operational mission, in normal en route flights on airways, or in compliance with an approved traffic or approach pattern.

18. Disturbance of Wildlife. Commanding Officers shall implement standard operating procedures to prevent unnecessary over-flight of sensitive environmental habitat areas, to include, but not be limited to, critical habitat designated under the Endangered Species Act, migratory bird sanctuaries, marine mammal haul-outs and rookeries, and sea turtle nesting beaches. Pilots shall be made aware of the location, dimensions, and valid time periods of environmentally sensitive areas within the unit AOR.

    If flying over environmentally sensitive areas, maintain an altitude of no less than 2,000 feet AGL except during response or reconnaissance operations. Additionally, Commanding Officers may authorize specific training events within environmentally sensitive areas when no reasonable alternatives exist. Prior to approving such training flights, the Commanding Officer must ensure compliance with all applicable environmental laws, regulations, and Executive Orders, and conduct any required coordination with the regulatory agency associated with the applicable law and area to be overflown. Limit the amount of time spent at low altitudes to what is necessary to accomplish the particular response, reconnaissance or authorized training operation.

    Hunting from any Coast Guard aircraft is prohibited.

19. Air Defense Identification Zones. Adhere to all procedures for operating within or transiting Air Defense Identification Zones (ADIZ).

20. Position Reports. The Telecommunication Manual, COMDTINST M2000.3 (series), prescribes requirements for position reporting by Coast Guard aircraft.

21. Operations Over High Seas. For operations over the high seas, all Coast Guard aircraft shall comply with the provisions of FLIP General Planning, Chapter 8. The following guidance supplements the Section titled, Operations Not Conducted Under ICAO Procedures, when operating within international airspace.

    Due Regard operations should be undertaken only when the operational gain significantly outweighs the risk. When Due Regard operations are conducted, full responsibility for separation between Coast Guard aircraft and all other aircraft, both public and civil, falls on the Coast Guard.

    Operational airspace deconfliction is the responsibility of the operational and tactical commanders (OPCON and TACON). Commanders must ensure procedures are in place to minimize the risk, including de-confliction procedures and a tactical communications plan. Commanders must be especially vigilant in identifying situations where more than one aircraft are directed to operate in the same area or to proceed to the same point.

    a. Aircraft Operating Within RADAR Surveillance and Radio Communications of a Surface RADAR Facility. Airspace deconfliction during Due Regard operations may be accomplished when an aircraft is in radar and radio contact with a surface facility only when that facility is certified to provide aircraft separation by the appropriate controlling agency.

    b. Operations with Aircraft Equipped with RADAR Providing Separation. Coast Guard aircraft are not equipped with radar that is sufficient to provide airspace deconfliction during Due Regard operations. Other aircraft that are properly equipped and certified by the appropriate controlling agency can provide aircraft separation.

22. Instrument Meteorological Conditions Operations Outside Controlled Airspace. Aircraft operations in IMC in uncontrolled airspace shall be minimized. Aircraft commanders must exercise sound judgment before entering IMC in uncontrolled airspace keeping in mind the goal is to descend or ascend to acquire VMC. If mission requirements allow, Aircraft Commanders shall broadcast their intentions on applicable common or guard frequencies before initiating operations in IMC in uncontrolled airspace. Except when mission requirements dictate, prolonged IMC operations in uncontrolled airspace are not allowed.

23. Use of Night Vision Goggles. Night vision goggles enhance safety and mission effectiveness during night operations, and shall be used whenever practical. However, routine NVG use shall not be allowed to degrade basic instrument skills. All training evolutions logged as unaided shall be conducted with NVGs out of the pilot's field of view (e.g., stowed in the up position).

Essential cockpit lighting shall be NVG compatible. Also, pilot NVGs shall be mounted to a standard helmet or headgear.

24. Use of Aircraft Exterior Lights. Lights out operations may be conducted within US domestic airspace under the provisions of the FAA Exemptions and Authorizations found on the CG-711 CG-Portal page, or over the high seas under the provisions of Due Regard Operations.

    The operational commander shall specifically authorize lights out operations in the appropriate tasking order; for NVG training missions, this may be authorized by the Commanding Officer. Aircraft may be authorized, but not directed to operate with lights out. If the Aircraft Commander determines that safety requirements can be met, exterior lights may be secured.

D. OPERATIONAL FLIGHT MANEUVERS.

1. Maximum Performance Maneuvers. The number of persons aboard a Coast Guard aircraft engaged in critical flight operations where actual maximum performance maneuvers are required for test and evaluation shall be limited to those required to properly operate the aircraft and accomplish the mission.

   For helicopter autorotation practice, participation by all Coast Guard flight crewmembers is permitted consistent with crew make-up for other operational training maneuvers.

2. Aerial Deliveries. Aerial deliveries shall be conducted in accordance with the procedures, limitations, and techniques developed by the respective aircraft standardization units and equipment limitations specified in the Aviation Life Support Equipment (ALSE) Manual, COMDTINST M13520.1 (series). Only items approved by Commandant (CG-711) for aerial delivery or those items that fit inside an approved aerial delivery container may be deployed from an aircraft in forward flight.

   Fixed-wing aircraft supporting International Ice Patrol Reconnaissance flights are authorized to drop memorial wreaths commemorating two historically significant events in Coast Guard history. In conjunction with already scheduled Ice Patrol flights, wreaths may be dropped in remembrance of the sinking of the RMS Titanic and in memory of the Coast Guard lives lost serving as members of Greenland Patrol in World War II. CG-711 shall be notified of the scheduled dates for each drop.

3. Parachute Jumps. Commanding Officers may authorize training or operational parachute jumps from Coast Guard HC-130, HC-27 and HC-144 aircraft by DoD contingents having parachute insertion as primary mission capability. Parachute jumps from USCG helicopters are prohibited. A qualified jumpmaster, current in accordance with parent service Directives, shall supervise the jump evolution aboard each aircraft. Each individual jumper must likewise be currently qualified. Before flight, all participating Coast Guard aircrew and DoD personnel shall be briefed on standard terminology, crew duties and responsibilities, and emergency procedures.

4. Air Deployment of the Combat Rubber Raiding Craft. Commanding Officers may authorize training or operational deployments of the combat rubber raiding craft (CRRC) from Coast Guard HC-130 aircraft. Review of the

appropriate loading manuals by DoD personnel and a Coast Guard qualified Loadmaster/Dropmaster is required before flight to ensure the CRRC is rigged correctly. DoD personnel must be qualified in accordance with their own service Directives to air deploy the CRRC from HC-130 aircraft. One DoD team member must remain with the aircraft to provide assistance during Post Drop Checklist execution.

Before flight, brief all participating Coast Guard aircrew and DoD personnel on standard terminology, crew duties and responsibilities, and emergency procedures. Before flight, a Coast Guard qualified Dropmaster shall be designated to supervise DoD personnel during the deployment.

5. Formations of Aircraft. Formation flights shall be thoroughly coordinated and briefed by all participating flight crews before conducting the flight. For flights of dissimilar aircraft particular attention shall be given to differences in wake turbulence, minimum and maximum airspeeds, maneuvering power requirements, clearing, and flight safety.

   a. Right-of-Way. When a single Coast Guard aircraft is converging with an aircraft formation at approximately the same altitude (except head-on, or nearly so), the formation flight has the right-of-way. In other cases, the formation shall be considered as a single aircraft and the right-of-way rules of 14 CFR §91.113 apply.

   b. Joining Formations. Unless specifically ordered to do so by competent authority, a single aircraft shall not join a formation in the air, and one formation shall not join another. The order for joining a formation in the air shall be given before takeoff of the aircraft concerned, or by radio, and the leader of the formation to be joined shall be informed of the order.

      When the pilot of a single aircraft or the leader of another formation is about to join a formation, the single aircraft shall approach the formation to be joined from a safe altitude and from the side. It shall not enter the formation until its presence has been acknowledged by the leader of the formation to be joined.

   c. Formation Flight in Other Than Visual Meteorological Conditions. Formation flight in Instrument Meteorological Conditions (IMC) is prohibited.

      Formation flight in support of tactical fast roping operational missions may be conducted under a Special VFR (SVFR) clearance. In addition to standard 14 CFR §91 helicopter SVFR requirements, forecast visibility must be at least 1/4 mile along the entire route to be flown.

   d. Night Formation Flights. Units designated by Commandant (CG-DCO) to perform TAC-FR, RWAI and AUF-NCV are authorized to fly night formation flights for training and operational missions.

6. Flight in the Vicinity of Civil Aircraft. Commercial carriers and other civil aircraft shall be avoided unless close approach is required by SAR, law enforcement operations, homeland security/defense operations, or conforms with Air Traffic Control (ATC) or control tower clearances.

7. RWAI Authority. Only those aviation units authorized by Commandant (DCO) and trained by ATC Mobile may conduct RWAI operations.

   Air intercepts shall only be conducted during authorized operational missions, initial and recurrent training, and exercises. A scramble Directive from TACON constitutes authority to close with a TOI to identify, signal, and escort (as required).

   a. RWAI Training Limits. Intercept training shall be conducted at a minimum of 1,000 feet AGL. In abeam, head-to-head and static TOI intercepts both aircraft shall have each other in sight by no less than one NM to continue the practice intercept. If the TOI aircraft maintains position over a linear geographical landmark or agreed upon ground track, only the interceptor is required to have the other aircraft in sight at one NM to continue the practice intercept.

   b. RWAI Training Tracks of Interest. Only aircraft specifically pre-briefed to conduct RWAI training shall be intercepted during training evolutions or exercises.

      Unit pilots may perform simulated TOI duties without a RWAI qualification. At all times during close maneuvering, the simulated TOI aircraft shall have one crewmember exclusively designated to monitor the interceptor position and closure.

      Aircraft from the CG Air Auxiliary, Civil Air Patrol or other agencies may be used to conduct day and night training and exercises only when radar services by an air defense ground-based or airborne radar control source are utilized.

      All CG Air Auxiliary flights in support of RWAI training shall be conducted in accordance with Auxiliary Operations Policy Manual, COMDTINST M16798.3 (series).

      When non-Coast Guard aircraft (CG Air Auxiliary, Civil Air Patrol, etc.) support is utilized, these aircrews shall receive a thorough mission briefing regarding RWAI procedures and safety prior to conducting training. In addition to a pilot, the non-Coast Guard aircraft shall have a qualified aircrew member onboard exclusively designated to monitor the interceptor position and closure.

8. Zooming of Vessels. No vessels shall be zoomed except in an emergency or during a SAR operation when the attention or assistance of the vessel is desired. Identification passes for law enforcement and SAR are authorized. The FAA has specifically authorized the Coast Guard to deviate from 14 CFR §91.119(c) on law enforcement missions, specifically to operate no closer than 200 feet from a suspect vessel and no closer than 500 feet from other persons, vehicles, vessels or structures. When radio communications cannot be established with the vessel, the aircraft first should establish identification, and then indicate to the vessel the location of the distress, using the procedure described in FLIP or AIM. Other methods of getting the attention of a vessel, such as using the loud hailer or dropping message blocks, may be employed.

9. Aggressive Maneuvering. The aggressive use or maneuvering of a Coast Guard aircraft to stop a noncompliant vessel is prohibited. The Commandant has granted an exemption from this policy for assets trained and equipped for assignment to AUF duties. The U.S. Coast Guard Maritime Law Enforcement Manual (MLEM), COMDTINST M16247.1 (series) contains the policy on use of force for Coast Guard aircraft.

10. Feathering Propellers/Securing Engines. Other than during HC-130 reduced engine operations, no propeller shall be feathered or engine shutdown in flight, except in an emergency, during a maintenance flight or as part of a Commandant (CG-711) approved training syllabus. If a propeller is feathered or engine is shut down for training, it must be conducted in accordance with the following criteria:

    - Day, VMC only.
    - In the vicinity of a suitable airport with crash equipment immediately available.
    - The entire feathered propeller/secured engine evolution shall be conducted at or above 6,000 feet AGL.

11. HC-130 Reduced Engine Operations. When dictated by mission requirements, two- or three-engine operation is permitted for HC-130 aircraft, however no HC-130 missions shall be planned anticipating two- or three-engine operations. As a mission develops, if the PIC determines an urgent operational necessity (e.g., emergent SAR or LE, extending endurance to ensure onscene relief), reduced engine operations are permitted.

    Budgetary considerations are not valid reasons for conducting reduced engine operations. Reduced engine operations in all other Coast Guard aircraft is an emergency situation and is not authorized for planning and/or operational missions.

12. Helicopter External Load Transport. Conduct helicopter external load operations (when using the helicopter cargo hook) in accordance with the procedures and limitations developed by the respective aircraft standardization unit.

    The Multi-Service Helicopter External Air Transport Manual, COMDTINST M13482 (series) prescribes basic principles and procedures, as well as single and dual point rigging procedures.

    Additional Vertical Replenishment (VERTREP) procedures are contained in the Shipboard-Helicopter Operational Procedures Manual, COMDTINST M3710.2 (series).

    In cases where the procedures published in particular manuals differ, the order of precedence shall be:

    - Applicable aircraft flight manual
    - Shipboard-Helicopter Operational Procedures Manual, COMDTINST M3710.2 (series)
    - Multi-Service Helicopter External Air Transport Manual, COMDTINST M13482 (series)

Use of any external lift device not listed in the Shipboard-Helicopter Operational Procedures Manual, COMDTINST M3710.2 (series) or the Multi-Service Helicopter External Air Transport Manual, COMDTINST M13482 (series) and not approved for use by Commandant (CG-711) is not authorized.

13. Shipboard Helicopter Operations. Shipboard helicopter operations include landings and takeoffs aboard suitably equipped vessels, VERTREP, and Helicopter Inflight Refueling (HIFR). When such operations involve military vessels, pilots shall comply with the requirements of the ship's parent service Directives (i.e., Shipboard-Helicopter Operational Procedures Manual, COMDTINST M3710.2 (series) for Coast Guard, NWP 3-04.1 (series) for U.S. Navy, and APP 2 (series) for NATO). Pilots shall comply with Shipboard-Helicopter Operational Procedures Manual, COMDTINST M3710.2 (series) when such operations involve nonmilitary vessels.

    Prior to commencing an operational shipboard deployment a workup shall be completed between the AVDET and cutter personnel. The entire workup or individual events can be waived only with concurrence of the cutter and air station Commanding Officers, who are responsible for ensuring the proficiency of the members.

    A workup will include: Day - Night - NVG landings (in order), static refuel, hot refuel, startup/shutdown, tiedown, blade-folding, traversing, crash on deck, egress, HIFR, and VERTREP.

14. Hoisting of Helicopter Passengers. Hoisting helicopter passengers is authorized when personnel are transported to or from remote and isolated sites or vessels where a helicopter landing would be impractical. Such transfers should be accomplished only after existing conditions and circumstances surrounding the event have been considered. Hoist transfers shall not be made for convenience only. VIPs shall not be hoisted for administrative or logistical purposes.

15. Hoisting Divers. Divers may be deployed via rescue basket or, with appropriate training, an Aircraft Configuration Control Board (ACCB) approved harness from Coast Guard Aircraft.

    For Harness deployments, the divers must complete a Commandant (CG-711) approved familiarization syllabus. The same procedures used for harness deployment of Coast Guard Helicopter Rescue Swimmers (RS) shall be used when deploying divers via harness. Harness deployment while wearing tanks is limited to water deployment only. Only harnesses maintained and inspected by Aviation Survival Technicians and enrolled in the ALSE MSR ACMS System may be used.

    To maintain harness deployment authorization, divers must complete the Diver Helicopter Deployment syllabus with a qualified RS Instructor, or conduct a harness deployment dive mission within the previous 12 months. Initial and recurrent training requirements shall be documented and maintained by individual air stations.

    The basket may be used to deploy divers, and requires no formal training. When utilizing the basket, deploy the diver without tanks. Additional hoist(s) will be required for delivery of the dive tanks and other required gear.

When available, a qualified RS should be deployed before diver deployments to assist divers and survivors in the water.

Free fall and sling deployments of rescue divers are prohibited at all times.

16. Helicopter Rescue Swimmer Deployment. Deployment of the Rescue Swimmer shall be thoroughly coordinated and briefed by all crewmembers. The crew shall consider on scene environmental factors (e.g., sea state, water/air temperature, etc.), marine life, and the ability of the RS to safely complete the mission.

    a. Deployment Authorization. The decision to deploy the Rescue Swimmer (RS) is initiated by the PIC, but the RS has the authority to decline deployment if the RS assesses the situation to be beyond his or her capability.

    b. Deployment Restrictions. Helicopter Rescue Swimmers are trained and qualified to a different standard than Cutter Swimmers. Cutter swimmers are not permitted to deploy from helicopters.

       Self-Contained Underwater Breathing Apparatus (SCUBA) procedures or equipment shall be neither used nor maintained by the RS. A RS shall not swim into or under a capsized or submerged object (e.g., vehicles, vessels, aircraft, parachutes, ice layers, etc.). If deployed next to a capsized object, the RS is permitted to search visually and reach inside while maintaining a grasp on a reference point on the exterior of the object.

17. Fast Roping Operations. Fast roping capabilities consist of basic fast roping (FR) and tactical fast roping (TAC-FR). Basic fast roping is the delivery of teams via fast rope to a compliant target. Tactical fast roping includes tactical flight to and from a target that may have active aggressors and delivery of teams to such targets via fast rope. Fast roping may be referred to as Vertical Insertion in other publications.

    Commandant (CG-DCO) shall designate units for TAC-FR. Operational Commanders shall designate units for FR.

    Personnel from Maritime Operational Threat Response (MOTR) agencies are authorized to conduct fast roping from Coast Guard aircraft. Qualification and currency of MOTR agency fast rope personnel shall be verified by TACON prior to any fast rope event. Fast roping for Coast Guard missions shall be governed by FORCECOM approved Coast Guard Tactics, Techniques, and Procedures (TTP).

18. Vertical Delivery of Boarding Team Members. District Commanders, on a unit-by-unit basis, may authorize Vertical Delivery (VDEL) of USCG boarding team members to conduct vessel inspections and examinations. This authority may be delegated to the appropriate operational command level. Such members must first complete a Commandant (CG-711) approved initial qualification syllabus. Such members shall have completed at least one hoist evolution within the preceding 12 calendar months.

    After 12 calendar months without a hoist, members lapse to unqualified and shall complete the Commandant (CG-711) approved initial qualification syllabus prior to conducting VDEL operations.

19. Hoisting Canine Explosive Detection Teams. Hoisting of Canine Explosive Detection Teams (CEDT) is authorized. The handler and canine must complete the Commandant (CG-711) approved Canine Handler initial qualification syllabus. Each CEDT shall complete at least one hoist evolution within the preceding 12 calendar months.

    After 12 calendar months without a hoist, members lapse to unqualified and shall complete the Commandant (CG-711) approved initial qualification syllabus prior to conducting hoisting operations.

    Approval authority for hoisting CEDT is the aviation unit Commanding Officer.

20. Use of Helicopter HUD During Night AUF Missions. Functioning Heads Up Displays (HUDs) for both pilots are required to conduct night AUF. Both pilots shall be trained and proficient in HUD use prior to operational missions.

21. Practice Autorotations. Practice helicopter autorotations must conform with the provisions of the applicable flight manuals and the following limitations:

    - Practice autorotations shall be conducted only under daylight VMC.
    - Practice autorotations shall be terminated with a power recovery at a minimum altitude of 10 feet.
    - Practice autorotations shall be terminated at 1,000 feet with a no-flare recovery, if crash equipment is not immediately available.

22. Single-Engine Maneuvers. Except for MH-65s, helicopter practice single-engine maneuvers to a landing shall be conducted only at facilities that have crash equipment readily available.

23. Water Operating Cover Requirements (Training Operations). A cover asset is required for all rotary-wing training flights conducting rescue swimmer operations to the water, night approaches to the water (including PATCH, MATCH, or CATCH), or any prolonged over water hovering/hoist operations without single-engine continued flight capability. The cover asset shall be underway/airborne in the immediate area with effective two-way communications and can be a SAR-capable helicopter, a vessel less than 160 feet in length, a ship-helicopter compatible vessel at FLICON 2, or a designated rescue boat in the water.

    A SAR-capable helicopter providing cover shall have a Rescue Swimmer as part of the aircrew; this requirement may be waived by the unit Commanding Officer. During rescue swimmer training, the cover boat or other helicopter shall have visual contact with the training operation before the Rescue Swimmer is deployed to the water.

    Before starting any such operation, the type of training, position, and the number of persons aboard each helicopter will be passed to and acknowledged by the asset providing cover.

E. OFFSHORE FLIGHT OPERATIONS.

1. Overview. The Commanding Officer of a unit to which a rotary- or fixed-wing aircraft is assigned must carefully weigh the urgency of each offshore mission. Mission planning for offshore flight operations shall include an assessment of aircrew survivability and the risk management policy stated in Chapter 1 of this Manual. This analysis shall be based on the possibility that the aircrew might be forced into a survival situation during any phase of the mission.

2. Aircrew Survivability Factors. There are three factors that should be evaluated for each mission over water:

   - Estimated time to loss of useful consciousness
   - Probable survival time
   - Estimated recovery time

   a. Loss of Useful Consciousness. Loss of useful consciousness adversely affects the probable survival time since the crewmember loses the physical ability to control the survival situation due to the debilitating effects of hypothermia, the abnormal lowering of internal body temperature. Even in situations where fatality from hypothermia is highly improbable, cold water greatly facilitates unconsciousness and/or death from drowning, often in the first 10 to 15 minutes, particularly for those not wearing flotation devices.

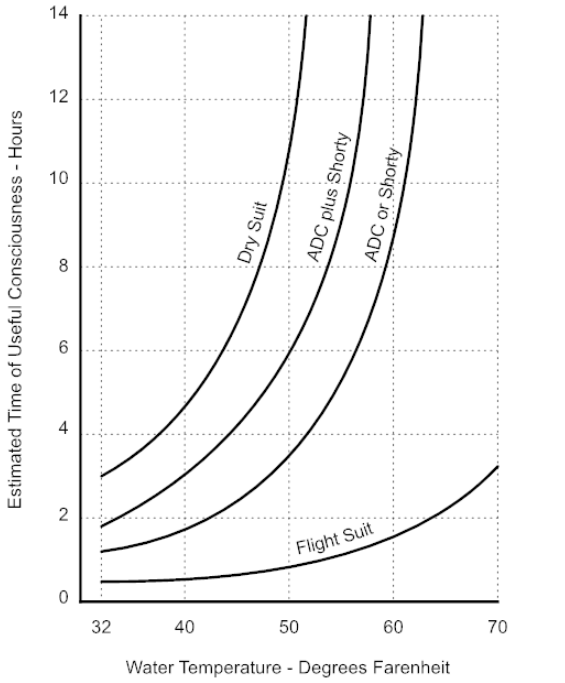

Figure 4-1. Probable Survival Time

b. Probable Survival Time. Exposure to the chilling effects of cold air, wind, or water can result in fatal hypothermia. The rate of body heat loss increases as air and water temperatures decrease. Fatal results from hypothermia occur over four times more often in water than on land.

The curves in Figure 4-1 were developed using known data points for specific sets of known conditions. In the general case, and even when conditions are close to those used to generate the curves, Figure 4-1 should be used as a guideline, not as a precise indicator.

A large amount of individual variability can be associated with different body sizes, builds, level of body fat, physical fitness, and state of health. Specialized insulated protective clothing (e.g., survival suits, wet suits) are capable of increasing survival time from 2 to 10 times (or more) the basic duration shown in Figure 4-1.

c. Recovery Time. Recovery time is the total elapsed time from the occurrence of a mishap until the aircrew is rescued. Recovery time includes the time required for recovery resources to become aware of the mishap, ascertain the position of the downed aircrew, proceed to scene, conduct a search, effect rescue, and begin appropriate medical treatment.

3. Unescorted Operations. The maximum recovery time should not exceed the estimated time to loss of useful consciousness.

4. Escorts. An escort should be provided anytime the Commanding Officer or PIC deems it necessary. An escort is recommended anytime the estimated recovery time exceeds the estimated time to loss of useful consciousness.

F. PARTICIPATION OF AIRCRAFT IN FLIGHT AND STATIC DISPLAYS.

1. Overview. Various organizations request the participation of Coast Guard aircraft in local demonstrations and celebrations. Several provisions of the Coast Guard External Affairs Manual, COMDTINST M5700.13 (series), are applicable as modified herein. Contact the District Legal Office for current procedures for accepting gifts of travel expenses for Coast Guard personnel participating in air shows and static displays.

2. Approval Authority. The Area or District Commander (of the area or district to which the aircraft is assigned) has the authority to approve the participation of Coast Guard aircraft in all flight and static displays. The Commanding Officers of ATC and ALC have approval authority for participation of their aircraft in flight and static displays. Commandant (CG-711) shall be notified of such participation.

a. DoD Eligible Events for Military Aircraft. With appropriate Area/District Commander approval, Coast Guard aviation units may provide aircraft to participate in DoD approved eligible events for military aviation. Separate requests for Coast Guard participation from the sponsors of these DoD approved events are not required.

Coast Guard crews participating in these events shall cooperate with appropriate DoD and sponsor requirements.

b. Foreign Events. In addition to the previously noted procedures, requests for flight and static displays in other countries shall be forwarded to the Deputy Commandant for Operations, Office of International Affairs (CG-DCO-I) for participation concurrence via Commandant (CG-711). CG-DCO-I will validate that aircraft participation is in alignment with U.S. foreign policy.

c. Short Notice Procedure for Coast Guard Vessels in Foreign Waters. Vessels with helicopters embarked or deployed while visiting foreign ports or transiting foreign territories might be asked to provide helicopter flights or static demonstrations on short notice. Commanding Officers of such vessels may authorize demonstrations provided the following conditions are met:

- Diplomatic clearance for flight within the host country airspace must have been previously obtained in accordance with Foreign Port Calls, COMDTINST 3128.1 (series).
- Transportation of foreign nationals is not involved.
- Instructions contained in the DoD Foreign Clearance Manual have been followed.

d. Exceptions to External Affairs Manual Requirements. If any of the stipulations in the Coast Guard External Affairs Manual, COMDTINST M5700.13 (series) cannot be met, but the District/Area Commander considers the request reasonable, forward the request to Commandant (CG-711) for approval. Such requests must include a listing of the reasons for the exceptions and the Area or District Commander's recommendation.

3. Policy. Organization sponsors requesting the participation of Coast Guard aircraft and participating Coast Guard aircrews are governed by the following policy.

a. Mission Impact and Cost. Sponsors must understand that in all cases, Coast Guard participation must not interfere with Coast Guard operations and training programs, and must be at no additional cost to the U.S. Government.

b. Space for Recruiting. Sponsors should consult with local Coast Guard recruiters and provide, at no charge, prime space at the event site for recruiting activities.

c. Profit. Sponsors must understand that the Coast Guard is unable to support events for which sponsorship is intended to make a business profit. Admission or other charges do not necessarily preclude Coast Guard participation. The Coast Guard cannot participate in events that charge admission unless its participation is incidental to the event, and not the primary attraction.

d. Considerations for Participation. Participation of Coast Guard aviation assets shall be committed only after consideration of safety, availability of assets, public demand, unit missions, event focus and appropriateness of participation, and equitable treatment of all eligible requests.

e. Flyovers/Flight Demonstrations. Requests for aircraft flyovers or flight demonstrations will be considered for aviation oriented events (i.e., air shows, airport anniversaries, or dedication events), patriotic observances (one day only) held in conjunction with Armed Forces Day, Memorial Day, Independence Day, POW/MIA Recognition Day, Patriot Day (9/11), or Veterans Day (event must be within seven days of the actual holiday date to be considered), or public affairs activities in support of local community relations programs of the Coast Guard.

Other events may be considered on a case-by-case basis, and must have clear benefit to the U.S. Government. Forward all requests for flyovers or flight demonstrations, whether for the observances listed here or any others, for approval by the Area or District Commander.

(1) Holiday Flyovers. Flyovers for the patriotic holidays are limited to one to four aircraft of the same type making a single pass.

(2) Funeral Flyovers. Missing man formations are not authorized for community relations' events, but reserved for individual funeral or memorial services for designated active duty rated personnel or dignitaries of the U. S. Armed Forces and Federal Government.

(3) Joint Flyovers. Joint flyovers involving Coast Guard and DoD aircraft shall be governed by DoD policy.

f. Static Displays. Requests for aircraft static displays will be considered only for air shows, airport events, expositions and fairs, and public events that contribute to the public knowledge of Coast Guard equipment capabilities and missions. Events include recruiting and Coast Guard Day celebrations. Forward all requests for static displays to the Area or District Commander for approval.

4. Responsibilities. Except for DoD approved eligible events for military aircraft, sponsors are required to submit a written request for participation of Coast Guard aircraft inflight and static displays for approval through the local Coast Guard installation before the event.

If a fly-over or flight demonstration is planned, the sponsor is responsible for coordinating airspace use with, and complying with any restrictions imposed by the Federal Aviation Administration (FAA), or the appropriate foreign government agency, before submitting the request to the Coast Guard. The sponsor is responsible for all necessary security and safety precautions. In the request, the sponsor shall provide:

- The name, address, phone number of the organization, and a point of contact.
- The event title, a description of the theme or objective, details of the location (i.e., airport, lake, park, city/state, elevation, runway length and width), and estimated attendance.

5. Records. The PIC shall include comments in the Remarks/Mission Narrative Section of the ALMIS Flight Record indicating that a copy of the approved request for flight or static display is on file at the unit. All approved requests for flight or static display shall be filed and maintained at the unit for one year.

G. MAINTENANCE AND FERRY FLIGHTS.

1. Overview. Maintenance flights are by their very nature one of the most potentially hazardous flight regimes encountered on a day-to-day basis. In order to minimize the risks involved in this essential phase of aircraft maintenance, Commanding Officers shall ensure that all maintenance flights are conducted in compliance with the guidance provided herein, and with the proven practices specified in the Aeronautical Engineering Maintenance Management Manual, COMDTINST M13020.1 (series). Pay particular attention to crew experience, environmental factors, and preflight preparation, including detailed briefings on all aspects of the flight.

   Due to the inherent increased risk of such flights, these flights shall be completed in areas with the least possible exposure to personnel, equipment and property.

2. Flight Verification Check. Complete flight verification checks of any component(s) or system(s) before continuing a sortie as an operational or training mission.

   a. Restrictions. There are no special restrictions on pilot/crew assignment for flight verification checks.

   b. Weather. Flight verification checks should be conducted in VMC if the item to be checked is required for flight in IMC.

   c. Fixed-wing Maintenance Flights Downgraded to Flight Verification. For maintenance flights in fixed-wing aircraft that have been downgraded by the Commanding Officer to flight verification checks as provided for in the Aeronautical Engineering Maintenance Management Manual, COMDTINST M13020.1 (series), the following additional restrictions apply:

      - Passengers shall not be carried.
      - Engine shutdowns in the HC-130 shall be accomplished at or above 1,000 feet AGL and in VMC.

3. Maintenance Test Flights. Maintenance test flights include partial test flights after the completion of critical maintenance, or complete test flights when required. HC-130 and HC-27 functional check flights (FCF) are considered test flights.

   a. Pilot and Crew Assignment. The minimum number of crewmembers shall be assigned to a maintenance test flight consistent with safe conduct of the flight and accomplishment of the required check(s). More than the minimum crew listed below may be assigned at Commanding Officer discretion to provide junior members experience in performing test flight procedures or to act as a Safety Pilot in SRR aircraft for more complex test flights or test flights conducted in dense traffic areas.

Passengers shall not be carried.

The PIC shall occupy a pilot seat throughout the flight and should operate the primary flight controls during takeoffs and landings, unless deemed necessary to complete essential maintenance test flight procedures.

Technical Observers may be included as part of the minimum number of crewmembers if their presence is required to accomplish the objectives of the test flight.

Minimum pilot requirements for test flights are:

- All except SRR Helicopters - an AC and FP. An aviation Commanding Officer may authorize a Copilot in lieu of the First Pilot on a calculated risk basis.
- SRR Helicopters - an AC.
- When practicable, an aeronautical engineering officer should be assigned to test flights of unit aircraft. It is not necessary for the aeronautical engineering officer to be the PIC.

b. Maintenance Briefing. Prior to a test flight, the PIC shall be briefed by maintenance personnel as to the exact nature of the maintenance performed and the procedures to be used to accomplish the functional check(s). The PIC will signify receipt of a QA Briefing and the intention to conduct the required functional checks by signing and dating the Quality Assurance Briefing blocks on the EAL Maintenance Record Review screen or when applicable the Flight Safety Maintenance Document.

Additional administrative procedures to ensure fulfillment of this requirement are prescribed in the Aeronautical Engineering Maintenance Management Manual, COMDTINST M13020.1 (series).

c. Engine Shutdown or Propeller Feathering. Feathering of propellers or engine shutdowns shall be accomplished at or above 6,000 feet AGL and in VMC in the vicinity of a suitable airport with crash equipment immediately available.

d. Weather. Test flights shall be conducted during daylight hours in VMC. If necessary to accomplish assigned operational missions, the Commanding Officer may waive this requirement if the flight can be conducted safely under the existing conditions. This authority may not be delegated.

e. Hover Checks. Hover checks for helicopters may be accomplished at any time at the discretion of the Commanding Officer.

4. Ferry Flights. Commandant (CG-711) will direct the transfer of all aircraft. When an aircraft is transferred between reporting custodians, the procedures contained in the Aircraft Transfer Process Guide, CGTO PG-85-00-160-A shall be used.

H. FLIGHT VIOLATIONS.

1. Initial Action. When a report of an alleged violation is received, a Commanding Officer shall take the following steps.
   - Determine the name and command of each pilot involved.
   - Within 24 hours, notify the command to which the pilot is attached that a violation has been alleged. Details concerning the alleged violation and a statement as to whether the pilot has been informed shall be included in this notification.
   - When the aircraft involved in the alleged violation cannot be positively identified, Commanding Officers of other units or agencies that may assist in identification shall be contacted. If identification still cannot be made, and if a Coast Guard aircraft is involved, details of the alleged violation will be forwarded to Commandant (CG-711).
2. Investigation and Formal Report. A Commanding Officer of an air unit who receives a report of alleged violation of flying regulations, allegedly committed by a person attached to the command, shall convene an investigation to determine the facts.
   a. Military Justice Investigation. If confirmed information indicates a major violation, such as careless or reckless operation of an aircraft, willful unauthorized flight through special use airspace, ADIZ, or foreign airspace, or failure to obtain or comply with pertinent ATC Instructions, an investigation shall be made in accordance with the Military Justice Manual, COMDTINST M5810.1 (series).
   b. Letter Report to Commandant. If a preliminary investigation indicates that the matter is not serious enough to warrant conduct of a military justice investigation, the Commanding Officer shall make a letter report to Commandant (CG-711), through the chain of command.
   c. Administrative Requirements. Refer to Chapter 9 of this Manual for additional administrative requirements following a mishap or flight rule violation.

I. PASSENGERS.

1. Passengers. A passenger is any person transported on a Coast Guard aircraft other than a flight crewmember or mission essential personnel. Passengers are normally aboard aircraft for transportation or to accompany mission essential personnel (e.g., aide, Congressional staff, etc). Passengers are not critical to mission execution.
2. Passenger Briefing. The PIC shall ensure that all passengers embarked on Coast Guard aircraft receive an adequate briefing. This briefing shall cover at least the following:
   - Use of personal flotation equipment (if flight will proceed over water).
   - Applicable alerting signals in event of emergency.
   - Action required in case of ditching or crash landing.

- Location and operation of emergency exits and other equipment.
- Seat belt rules and signals.
- Restrictions regarding electronic devices, firearms, etc.
- Location and operation of supplemental oxygen (as required).
- Tobacco use is not allowed aboard Coast Guard aircraft.

Civilian passengers shall be provided a copy of the disclosure statement contained in Enclosure (1).

3. VIP Passengers. Except in an emergency, Very Important Person (VIP) flights should not arrive before the latest ETA that has been forwarded to the destination. The latest ETA should be sent in ample time to permit notification of interested personnel.

4. Safety Restraint of Passengers. The PIC may authorize passengers on transport missions to unfasten their seat belts and move about the aircraft during flight in smooth air. The PIC must be alert at all times to anticipate turbulent flight conditions while passengers have seat belts unfastened. Physical safety restraint requirements for passengers are outlined in Chapter 7.

5. Children. Children shall be accompanied by a parent, guardian, or attendant designated by the child's parent or guardian to attend to the safety of the child during the flight.

6. Uniform Requirements for Passengers. Passengers on Coast Guard aircraft are authorized to wear civilian clothing. Uniforms should be worn by Uniformed Services passengers when required by operational necessity or the DoD Foreign Clearance Manual. When civilian clothing is worn, it shall be in good taste, at the discretion of the Commanding Officer or the PIC. Coast Guard personnel must ensure that their dress and personal appearance are appropriate for the occasion and will not discredit the Coast Guard. Conservative styles and fashions are authorized. Tank tops or T-shirts worn as outer garments, shorts, sandals and revealing, soiled or torn clothing are examples of inappropriate civilian clothing.

7. Passenger Identification. Positive identification is required of all passengers.

8. Passenger Travel Orders and Authorizations. Official travelers will have in their possession a travel or transportation authorization published by an appropriate approving authority. Travelers other than DHS employees or members of the U.S. Uniformed Services are also required to possess documentation that their travel aboard Coast Guard aircraft has been approved in accordance with this Manual.

9. Pets. Normally, pets are not authorized on government aircraft, except in very unusual circumstances, and at no cost to the Government. Bona fide working animals (i.e., guide, rescue, or police dogs) are not pets and are authorized transportation when accompanied by a handler.

The rescue of pets as part of a SAR evacuation is at the discretion of the PIC, and only if it can be done without the pet becoming a hazard to other survivors or the aircrew. Discretionary approval of other pet transportation lies with the Commanding Officer, unless otherwise stated in this Manual. Pets are specifically not authorized in conjunction with Environmental and Morale Leave travel aboard Coast Guard aircraft.

J. MISSION ESSENTIAL PERSONNEL.

1. Mission Essential Personnel. Mission essential personnel are either aircrew or non-aircrew. Mission essential personnel holding a current designation in the aircraft type and model are considered aircrew. Mission essential personnel not holding a current designation in the aircraft type and model are considered non-aircrew.

   Flights by non-aircrew mission essential personnel shall be limited to the minimum necessary to accomplish assigned missions.

2. Aircraft Orientation for All Mission Essential Personnel. Prior to flight, all mission essential personnel shall complete orientation on the following:

   - All items of the passenger briefing.
   - Mission essential duties expected during the flight.
   - Aircraft hazards (including engine exhaust, propeller, rotor and tail rotor avoidance).
   - Operation of door and emergency exits.
   - Use of ICS and Sterile ICS.
   - Use of standard phraseology (as required) to accomplish mission.

3. Equipment and Training Requirements for Mission Essential Personnel. Equipment requirements are listed in Chapter 6. Training requirements for aircrew mission essential personnel are listed in Chapter 8. Training requirements for non-aircrew mission essential personnel are listed in Chapter 8.

4. Flights Aboard other Aircraft. When mission essential personnel fly aboard other aircraft they shall adhere to the requirements of that agency/organization. However, the training and equipment requirements in this Manual serve as a minimum standard. If the other military service's requirements are less stringent, the member shall adhere to the requirements of this Manual.

   If safety equipment is incompatible aboard the other aircraft, unit commanding officers may waive safety equipment requirements and align with the other organization for no longer than 30 days based on response urgency.

K. WEAPONS.

1. Purpose. There is an operational requirement for weapons, including firearms and Oleoresin Capsicum (OC) pepper spray, to be carried aboard Coast Guard aircraft by Coast Guard aircrew members, law enforcement officers, and military troops. Policy regarding firearms and OC pepper spray on board Coast Guard aircraft is contained in the U.S. Coast Guard Maritime Law Enforcement Manual (MLEM), COMDTINST M16247.1 (series). Specific guidance for the use and transportation of weapons is provided below.

   Aircraft planning to land in a foreign country with weapons aboard shall comply with entry requirements outlined in the DoD Foreign Clearance Manual.

2. Authority and Responsibility of the PIC. The PIC shall ensure that the policy provided in this Section is enforced. In cases not specifically covered, he or she shall be the final authority as to the condition of firearms to be carried on Coast Guard aircraft.

3. Firearms Carried by Coast Guard Flight Crews. Firearms may be carried by Coast Guard flight crew and Mission Essential Personnel aboard Coast Guard aircraft if required due to the operational environment (OPBAT, HITRON, Arctic Operations, AUF etc.), training for missions requiring the carrying of weapons, or when providing security for an automatic weapon as required in the Ordnance Manual, COMDTINST M8000.2 (series). Only ACCB-approved weapons shall be used.

   a. Personal Defense Weapons Carried by CG Flight Crews. All flight crewmembers carrying personal defense weapons shall be qualified and current in accordance with Ordnance Manual, COMDTINST M8000.2 (series). Aircrew members shall carry personal defense weapons for training and operational missions in accordance with the Ordnance Manual, COMDTINST M8000.2 (series) and the U.S. Coast Guard Maritime Law Enforcement Manual (MLEM), COMDTINST M16247.1 (series).

      Handguns carried by aircrews shall be carried using the standard method of carry outlined in the Ordnance Manual, COMDTINST M8000.2 (series); in flight, the weapon may be holstered in an approved aircrew vest.

   b. Long Guns Carried by CG Flight Crews. Shotguns or rifles shall remain securely stowed until directed by the PIC. They shall not be loaded, nor shall a round be chambered until directed by the PIC. These weapons shall be used only by flight crewmembers who are qualified and current in accordance with the Ordnance Manual, COMDTINST M8000.2 (series).

   c. Authorization to Carry Firearms. If the Commanding Officer of an aviation unit determines that there is a requirement for aircrews to carry firearms aboard unit aircraft, he or she shall submit a written request, through the chain of command, to the Deputy Commandant for Operations (CG-DCO).

4. Firearms Carried by Military Troops and LE Officers on CG Aircraft. The Commanding Officer may approve transport or carriage of firearms by non-Coast Guard military troops or law enforcement officers when operating in an official capacity. The PIC shall ascertain what type of weapon each armed official carries and provide him or her a brief of the Coast Guard firearm policy before the flight.

   Requests for non-Coast Guard military or law enforcement officers to discharge firearms from Coast Guard aircraft shall be routed to Commandant (CG-DCO) via through Commandant (CG-711) via the chain of command. For such missions, the military troops or law enforcement officials are not authorized to load and/or discharge their weapons from the aircraft without approval of the PIC.

   a. Handguns Carried by Military Troops and LE Officers. Single action handguns (the hammer must be manually cocked other than by pulling the trigger) shall NOT have a round chambered (under the firing pin). Handguns designed with an internal or operator activated device that physically locks the firing pin in the retracted position unless the trigger is pulled, and double action handguns (the hammer/weapon is cocked and released by pulling the trigger) shall be allowed to have a round in the chamber with the handgun safely de-cocked and holstered. All handguns with mechanical safety devices shall have those safeties engaged.

   b. Long Guns Carried by Military Troops and LE Officers. Long guns (rifles, submachine-guns, shotguns) shall be securely stowed and shall be transported unloaded, i.e., no ammunition inserted into the weapon, unless specifically authorized by the PIC.

5. Personal Firearms. The use of personal firearms aboard Coast Guard aircraft is prohibited. Personal firearms may be transported unloaded as checked baggage or cargo.

6. Firearms Transported as Checked Baggage or Cargo. Firearms transported as checked baggage or cargo aboard Coast Guard aircraft will be unloaded and surrendered to a flight crewmember for stowage in accordance with Preparing Hazardous Materials for Military Air Shipments, AFMAN 24-204. In cases where a survivor or object of a search is recovered and found to have a firearm in his or her possession, the firearm shall be unloaded and surrendered to a flight crewmember for stowage.

   At no time are firearms, which are transported as cargo, to be hand carried by the custodian while inflight. Firearms transported as checked baggage shall be adequately secured to be inaccessible to passengers while they are aboard the aircraft.

7. Airborne Use of Force. The following process shall be used for employment of airborne use of force at Coast Guard aviation units:

   - Commandant (CG-711) shall task ATC Mobile via memorandum to provide AUF training to specific aviation units.

- When AUF training is complete, ATC Mobile shall notify Commandant (CG-711) via memo, recommending the unit to be authorized for AUF operations.

- The Deputy Commandant for Operations (CG-DCO) will authorize aviation units for AUF operations via memorandum. The appropriate District will promulgate amplifying guidance for employment of AUF in the Area of Operations.

Aviation units that are authorized for AUF operations may conduct AUF in accordance with the U.S. Coast Guard Maritime Law Enforcement Manual (MLEM), COMDTINST M16247.1 (series).

8. Deadly Force. The use of deadly force from an aircraft is authorized as prescribed in the U.S. Coast Guard Maritime Law Enforcement Manual (MLEM), COMDTINST M16247.1 (series).

   If deadly force or suppression shots are fired from Coast Guard aircraft, contact Coast Guard Command Center at Headquarters (1-800-DAD-SAFE or 202-372-2100) by the most expedient means possible. Follow the use of force reporting requirements in the U.S. Coast Guard Maritime Law Enforcement Manual (MLEM), COMDTINST M16247.1 (series) and the Critical Incident Stress Management (CISM) Instruction, COMDTINST 1754.3 (series).

   A message report, providing the details of the incident, shall be sent to Deputy Commandant for Operations (CG-DCO), through the chain of command, within four hours of notification of the incident or end of the flight, whichever occurs first.

9. Laser Emission. The inappropriate or unintentional use of an aircraft Laser system potentially poses a threat to an aircrew and the public. Only laser light from a system approved in accordance with Safety and Environmental Health Manual, COMDTINST M5100.47 (series) and the ACCB process shall be emitted from an aircraft. Due to the inherent risk of Laser systems, under no circumstances shall a laser be energized in a manner inconsistent with its intended use or in violation of its operating procedures. Any accidental radiation occurrence during the use of the laser pointer shall be reported to CG-1131 per Safety and Environmental Health Manual, COMDTINST M5100.47 (series).

L. INFLIGHT USE OF PORTABLE ELECTRONIC DEVICES.

1. General. Portable electronic devices (PED) that interface with or attach to Coast Guard aircraft shall be approved for use by the Aviation Configuration Control Board (ACCB) in accordance with the USCG Electromagnetic Compatibility Process Guide, CGTO PG-85-00-220-A. This includes devices that only interface via aircraft power. The ACCB process will ensure alignment or special approval for use in accordance with the U.S. Coast Guard Cybersecurity Manual, COMDTINST M5500.13 (series). A list of approved devices for each aircraft type and model is maintained by the Aviation Logistics Center.

Only devices explicitly authorized and approved through the ACCB process shall be used when classified keymat (with the exception of GPS or IFF systems) or classified materials are onboard the aircraft and not secured in an approved security container. These devices shall have special configuration requirements that shall be followed when used under these circumstances (example: Aviation Mobile Device in restricted mode). If not authorized for use and the batteries cannot be removed, the devices shall be secured within a radio frequency-shielded pouch or security container.

2. Transmitting Devices. Carry-on devices equipped with transmitting capabilities (i.e., bluetooth, WiFi, etc.) may be operated with pilot-in-command approval if all transmission capabilities are disabled. If transmission capabilities cannot be disabled, or operations dictate it be operated while transmitting, either the ACCB or SOFT process is required IAW Coast Guard Aeronautical Engineering Maintenance Management Manual, COMDTINST M13020.1 (series), and the device shall be added to the list of approved devices maintained by ALC.

3. Cellular Telephones. Cellular telephones and other devices with cellular capability may be carried aboard aircraft and treated as carry-on devices as outlined in Paragraph 4.L.2. if cellular service and other transmit functionality can be secured via Airplane Mode or other configuration means with the following exception: when classified keymat is loaded (with the exception of GPS or IFF systems), or when classified materials are aboard and not secured in a security container, cellular devices shall be secured within a radio frequency-shielded pouch or security container.

4. Aviation Mobile Device. The Aviation Mobile Device (AMD) is an electronic information management tool for aviation mission planning and execution, designed to reduce pilot and aircrew workload, increase efficiency, and enhance situational awareness. The USCG Aviation Mobile Device Management (MDM) system manages the security and application capability of AMDs. Only Coast Guard issued AMDs that are in compliance with current USCG MDM standards and have ALC SOFT approval are authorized for use in USCG flight operations.

   The AMD has the capability to display and store a variety of aviation publications, aeronautical charts, and safety of flight information. Operating guidelines, minimum requirements, and safety considerations are detailed in FORCECOM CGTTP 3-90.3 (series). This includes the use and operation of AMD peripheral devices (ex: ADS-B In receiver) approved through the ACCB process. The AMD and any approved peripheral devices shall be checked before each flight for information currency and operational functionality.

   The AMD is not certified as a sole source of navigation. Aircraft positional information (own-ship) provided on the AMD through the internal GPS receiver or other peripheral devices is for situational awareness only, and shall be cross referenced for accuracy with positional information provided by the aircraft's primary flight instruments. This includes the use of emerging technologies associated with the AMD such as synthetic vision (terrain avoidance), traffic alerts (ADS-B information), and Attitude Heading Reference Systems (AHRS).

If the AMD is being used in accordance with the guidelines set forth by FORCECOM CGTTP 3-90.3 (series), Commanding Officers may authorize the reduction of paper navigational publications carried onboard Coast Guard aircraft and total publication allowances held at local units. Commanding Officers shall determine which AOR specific paper publications shall still be carried onboard the aircraft to ensure mission success should a dual-AMD failure occur. Pilots are responsible for ensuring that all essential information for their AOR, or any planned mission outside their AOR, is loaded and up to date on their AMD prior to each flight. Special consideration should be given to deployed aircrews and their inability to obtain electronic publication updates, or any other circumstances beyond normal operations. If electronic updating of the AMD navigational charts is not available, paper charts shall be used.

5. Devices With Recording Capability. PEDs with the ability to record audio, video, still imagery or other data that do not transmit or interface with the aircraft are authorized to be used during flight at the discretion of the Pilot-in-Command. However, when classified keymat is loaded (with the exception of GPS or IFF systems), or when classified materials are aboard and not secured in a security container, all such devices shall be turned off and stowed unless specifically approved by ACCB or as described below for government-issued cameras.

6. Government Issued Cameras. Government-issued cameras may be authorized for inflight use while classified keymat is loaded or when classified materials are aboard and not secured in a security container. Approval shall be granted by the responsible security manager and shall be for a specific model of camera. Take care to avoid unintentional capture of classified information.

7. Medical Equipment. The use of manual pacer-defibrillators and Automatic External Defibrillators (AED) is approved aboard all Coast Guard aircraft. Defibrillators are required to use internal batteries as the sole power supply. No connection to aircraft power is allowed.

   During SAR or MEDEVAC situations, the use of Emergency Medical Services (EMS)-provided non-transmitting medical equipment is authorized for use at the discretion of the Pilot-in-Command.

8. Devices Always Allowed. Non-transmitting, non-interfaced, non-recording devices, such as personal medical devices (e.g., hearing aids, pacemakers), hand-held calculators, electronic watches, etc., are authorized for use at the discretion of the Pilot-in-Command and do not require ACCB or SOFT approval.

M. AIRCRAFT SECURITY AND C4ISR SYSTEMS.

1. Security Policy Guidance. Operational Commanders are responsible to develop guidance and administer security programs and operations to ensure use of aircraft systems comply with Operational Security (OPSEC), Information Security (INFOSEC), and Communications Security (COMSEC) policy including the following:
   - Classified Information Management Program, COMDTINST M5510.23 (series)
   - Coast Guard Operations Security (OPSEC) Program Manual, COMDTINST M5510.24 (series)
   - Telecommunication Manual, COMDTINST M2000.3 (series)
   - EKMS Policy and Procedures for Navy Electronic Key Management System Tiers 2 and 3, EKMS-1 (series)
   - Coast Guard External Affairs Manual, COMDTINST M5700.13 (series)
   - The Coast Guard Freedom of Information (FOIA) and Privacy Acts Manual, COMDTINST M5260.3 (series)
   - Privacy Incident Response, Notification, and Reporting Procedures for Personally Identifiable Information (PII), COMDTINST 5260.5 (series)
   - U.S. Coast Guard Cybersecurity Manual, COMDTINST M5500.13 (series)
   - DHS Operational Imagery Security Classification Guide, DHS SCG USCG 009.1
2. Access to Classified Systems. All personnel with direct access to classified system shall have a security clearance equal to or greater than the classification of the system they are operating or accessing.
   a. Media and the General Public. The media or general public shall not observe operation of C4ISR controls, displays or indicators without the direct approval of the operational commander and Commandant (CG-711). Any public review or observation shall be protected from disclosing the operational capabilities of the system.
   b. C4ISR and Foreign Personnel. Demonstration of C4ISR system capabilities to foreign personnel shall have the concurrence of the Foreign Disclosure Office, Commandant (CG-222).
3. Handling of Electronic Memory Devices. Any electronic memory device (e.g., hard drive, removable memory module, optical media, magnetic tape, etc. or any system component with internal memory) shall automatically assume the classification of the system to which it is connected, and shall be marked, handled and stored in accordance with Commandant Instructions appropriate for the level of classification of the system.
4. Handling of C4ISR Data. During operations that have not been designated classified by TACON, all recorded imagery, still or video, shall be treated as Unclassified/For Official Use Only until a lower designation is assigned in accordance with Commandant (CG-DCO) policy and DHS SCG USCG 009.1.

All C4ISR data and imagery collected during a classified mission shall be marked, handled and stored in accordance with Commandant Instructions appropriate for the level of classification of the mission. In general, missions flown in support of JIATF-S will be considered Unclassified/For Official Use Only/Law Enforcement Sensitive, even though the specific tasking comes from a classified source.

5. Voice Recordings. Voice recordings may be considered a form of Personally Identifiable Information (PII) and shall be protected in accordance with the Privacy Act of 1974 and Privacy Incident Response, Notification, and Reporting Procedures for Personally Identifiable Information (PII), COMDTINST 5260.5 (series).

   Voice recordings shall be reviewed IAW Privacy Incident Response, Notification, and Reporting Procedures for Personally Identifiable Information (PII), COMDTINST 5260.5 (series), prior to release.

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CHAPTER 5. PASSENGERS AND CARGO

A. BASIC PRINCIPLES.

1. Federal Statute, Regulations, and Executive Branch Policy. 41 C.F.R. § 301-70.800 *et seq.* prescribes regulations governing the policies and procedures for agencies that authorize travel on government aircraft. The Office of Management and Budget (OMB) has also issued overarching Executive Branch policy for improving the management and use of government aircraft, Improving the Management and Use of Government Aircraft, Circular No. A-126, in accordance with these regulations. OMB Circular No. A-126 prescribes clarifying policies to be followed by Executive Agencies in acquiring, managing, using, accounting for the cost of, and disposing of aircraft.
2. Department of Homeland Security Policy. In accordance with OMB Circular No. A-126, DHS has issued DHS Aviation Management and Safety, MD 0020.1 (series), to provide additional guidance on the use of DHS aircraft. Consistent with these broader policy documents, this Chapter provides clarifying guidance for the operation and management of Coast Guard aircraft for purposes of transportation and orientation.
3. Use of Coast Guard Aircraft. Coast Guard aircraft will only be used for official purposes. Coast Guard aircraft must be used in the most cost effective manner to meet requirements and will not be used for political activities. Furthermore, commercial transportation shall be used for passengers and/or cargo to the maximum extent practicable.
4. Approval of Coast Guard Aircraft Operations. All Coast Guard flights require approval at the appropriate level within the organization depending upon the justification (authorized use) for the operation of a particular flight. As discussed in Chapter 2, there are three types of authorized official uses for Coast Guard aircraft: Mission Requirements, Required Use, and Official Transportation. Table 5-1 below discusses the approval authority and criteria for authorizing each type of official use flight.
5. Approval of Passengers Onboard Coast Guard Aircraft. Flights that involve the transportation of passengers require secondary approval that may differ from the authority to authorize the underlying operation of the flight. Table 5-1 below discusses the criteria requirements and approval authorities for passenger transportation. Some categories of passengers (e.g., Senior Federal Officials, non-Federal travelers, etc.) require additional special approval, as discussed in Paragraph 5.D., regardless of the underlying flight or passenger justification.
6. Disclosure Statement Requirements. In accordance with the Federal Travel Regulations, specifically 41 CFR § 301-70.909, civilian passengers shall be provided a copy of the disclosure statement contained in Enclosure (1).
7. Record Keeping Requirements. All approvals to carry passengers or cargo shall be retained as part of the official flight records. Commandant (CG-711) shall maintain a record for each flight on which a senior federal official, the spouse or dependent of a senior federal official, or a non-Federal traveler (not on an Invitational Travel Authorization (ITA)) is transported aboard Coast Guard aircraft.

The records shall be retained for seven years, in accordance with the Information and Life Cycle Management Manual, COMDTINST M5212.12 (series). The record shall contain the following documents:

- Copy of the passenger manifest.
- Copy of all documents approving the transportation of such passengers on the flight.
- Copy of cost justification where appropriate.

8. Points of Contact. The following email distribution lists shall be used for inquiries and approval process in accordance with the directions contained in this Chapter:
   - COMDT (CG-0921): HQS-DG-lst-CG-0921-Logistics@uscg.mil
   - COMDT (CG-LGL): HQS-SMB-CG-LGL@uscg.mil
   - COMDT (CG-711): HQS-DG-lst-CG-711-ATR@uscg.mil
   - Vice COMDT (CG-09): USCG.EXEC@uscg.mil

Table 5-1. Passenger Approval Authorities

Flight Type	Required Passenger/Cargo Approval Authority	Criteria for Approval	Additional Requirements
Mission Requirements	Commanding Officers of Coast Guard air stations and cutters with aircraft embarked or deployed.	Personnel or cargo must be mission essential. Mission essential is determined when their presence aboard Coast Guard aircraft is in direct support of approved mission requirements use for the flight. Examples include the transport of troops and/or equipment, carriage of specialized intelligence-gathering personnel or equipment, medical evacuation, transport of search and rescue survivors, etc.	Approval authority may be delegated no lower than the Operations Officer. Flights for morale or orientation as the primary purpose of the flight, or that are flown for the purpose of attending meetings, site visits, conferences, or making speeches are examples of flights that are not Mission Requirements Use.
Required Use	N/A if official traveler.	Once required use transportation has been approved for the principal official, transportation aboard Coast Guard aircraft is also appropriate for accompanying staff members.	
Transportation Primary Purpose	Flights being flown for the primary purpose of transporting passengers (without any other justification) must be approved IAW Chapter 2.	Refer to the Invitational Travel Authorizations, COMDTINST 12570.3 (series), for guidance on determining when a non-Coast Guard member might be traveling for an official purpose, including examples of travel that is in the best interests of the government.	Special approval passenger and congressional passenger approval requirements in Paragraph 5.D. must be followed, if applicable.

Table 5-1. Passenger Approval Authorities Continued

Flight Type	Required Passenger/Cargo Approval Authority	Criteria for Approval	Additional Requirements
Transportation Secondary Purpose (Flight originating within NCR)	Must be approved at least one organizational level above the person(s) traveling, but no lower than Assistant Commandants in charge of HQ directorates.	Secondary use of the aircraft for other transportation for conduct of agency business may be presumed to result in cost savings, so a cost comparison is not required.	All official transportation as secondary purpose must have concurrence of the entity having OPCON of the aircraft.
Transportation Secondary Purpose (Flight originating outside NCR)	Must be approved at least one organizational level above the person(s) traveling, but no lower than the Commanding Officer of a major command (e.g., air station or Sector).	Official travel passengers and cargo may travel aboard Coast Guard aircraft on a space-available basis for secondary use transportation when: (1) The aircraft is already scheduled for an official purpose. The previously-scheduled official purpose must be documented in the approved flight schedule. (2) Secondary use transportation does not exceed minimum mission requirements (i.e., a larger aircraft than needed for the official purpose). (3) Secondary use transportation results in only minor additional costs to the Government. (4) The traveler has a valid official purpose for their travel as documented in an ITA, orders, or similar.	Purpose of flight equates to Mission use, Space Available travel in the DHS Aviation Management and Safety, MD 0020.1 (series). Refer to the Invitational Travel Authorizations, COMDTINST 12570.3 (series), for guidance on determining when a non-Coast Guard member might be traveling for an official purpose, including examples of travel that is in the best interests of the government. Special approval passenger and congressional passenger approval requirements in Section D must be followed, if applicable.
Transportation Secondary Purpose (Cargo)	One organizational level above the unit requesting the cargo transportation.		

Table 5-1. Passenger Approval Authorities Continued

Flight Type	Required Passenger/Cargo Approval Authority	Criteria for Approval	Additional Requirements
Space Available Transportation (Nonofficial travel - Reimbursement)	Vice Commandant	Transportation of nonofficial travelers aboard Coast Guard aircraft may be authorized on a space available basis provided the Government is reimbursed at the full coach fare and: (1) The aircraft is already scheduled for an official purpose (e.g., Mission Requirements Use or Required Use). (2) Such additional transportation does not exceed minimum mission requirements (i.e., a larger aircraft than needed for the official purpose). (3) Such additional transportation results in only minor additional cost, if any, to the Government.	Reimbursable transportation must be routed through the chain-of-command and Commandant (CG-711). Each request must include the following information: (1) Description of the purpose of travel, (2) An approved itinerary for the trip, (3) Reimbursement cost data, (4) Aircraft type involved, and (5) Benefit to the interest of the Federal Government. The office responsible for coordinating such travel must: (1) Calculate the commercial, full coach fare equivalent of the flight. (2) Notify the individual of this amount. (3) Instruct the individual on where to mail payment and how to provide any additional information that may be required.

B. ADDITIONAL MISSION REQUIREMENTS USE PASSENGER APPROVAL GUIDANCE.

1. Recurring Classes of Mission Essential Personnel. The following categories of mission essential personnel may occur regularly and are provided to assist Commanding Officers in their decision whether to approve non-aircrew personnel to participate in a Mission Requirements Use flight.

   a. Commanders AOR Overflight. An Area, District, or Sector Commanders overflight reconnaissance of their area of operation for familiarization is a mission requirement for the effective conduct of command and control responsibilities. Landing at a location other than the original point of departure, except for required fuel stops, must be evaluated and approved separately as either Required Use transportation or Other Transportation for the Conduct of Official Business.

   b. Medical Evacuation. Patients and attendants may fly on an approved Medical Evacuation (MEDEVAC) flight when the patient's medical condition has been validated by a qualified Coast Guard Flight Surgeon, or competent medical authority if a Coast Guard Flight Surgeon is not readily available. These individuals may not be transported if either adequate care or a commercial transport service such as an air ambulance is locally available. An immediate family member is authorized to accompany the patient as an attendant for all patients under the age of 18.

   c. Assistance to Other Agencies. Other government agency personnel may fly aboard a flight on an approved mission to cooperate with or in support of federal, state, or local government agencies. It is the duty of the requesting agency to provide the approving authority with adequate justification for the flight.

   d. Foreign Nationals. Foreign nationals may take part in flights when they support Coast Guard missions. Foreign nationals shall be approved by the entity having OPCON of the flight. Refer to Paragraph 5.D. for requirements of the Foreign Visits Program and Commandant (CG-DCO-I) flight concurrence.

   e. General Schedule (GS) Employees. Coast Guard General Schedule (GS) employees whose presence inflight is essential to accomplishing a Coast Guard mission are considered mission essential under this Section.

   f. Contractor Engineering and Technical Services Personnel. Contractor Engineering and Technical Services (CETS) civilian personnel who are employees of commercial concerns under contract to the Coast Guard and whose presence inflight is essential to accomplishing a Coast Guard mission are considered mission essential under this Section. CETS includes Contract Field Services personnel, Field Service Representatives, Technical Representatives, and other contractor personnel.

g. Prisoners and Guards. Prisoners and guards on an approved law enforcement or prisoner transfer mission are considered mission essential.

h. Uniformed Services and Coast Guard Auxiliary Personnel. Uniformed Services and Coast Guard Auxiliary personnel when on orders to participate in any Mission Requirements Use function are considered mission essential.

C. ADDITIONAL SECONDARY USE PASSENGER APPROVAL GUIDANCE.

1. Recurring Classes of Mission Essential Personnel. The Coast Guard may support the official transportation needs of other government agencies and other nongovernment entities on a space available basis or in conjunction with Mission Requirements Use flights. Several authorized categories of passengers are outlined below. The following categories of secondary use passengers may occur regularly and are provided to assist approval authorities in their decision whether to approve secondary use requests

   a. Cooperation with Federal, State, and Local Agencies. When requested by proper authority, the Coast Guard may transport personnel belonging to federal, state, or local government agencies participating in official missions not in support of a Coast Guard program, but in which Coast Guard support is considered essential to the mission's successful completion. The Coast Guard has authority, pursuant to 14 U.S.C. §701(a), to utilize its personnel and facilities, including aircraft, to assist any federal agency, state, territory or possession to perform any activity for which such personnel and facilities are especially qualified. District, Area and Sector staffs shall obtain written documentation from the requesting agency that the transportation supports an official mission or function of that agency.

   b. Disaster Relief Personnel. Persons engaged in disaster relief activities, including personnel associated with welfare or relief organizations, when properly requested by another government agency (e.g., transport of Red Cross personnel in support of FEMA) may be authorized to fly aboard Coast Guard Aircraft. Requesting agencies must demonstrate organic authority to assist the nongovernmental organization.

   c. Federal Advisory Committees. Personnel associated with an authorized federal advisory committee that assists the Coast Guard to carry out an authorized responsibility, mission or function (e.g., Regional Fisheries Management Councils, Area Maritime Security Committees, Tribal/State Marine Fisheries Commissions) may be authorized to fly aboard Coast Guard Aircraft.

   d. Representatives of the Media. Representatives of the media, both print and broadcast, if the transportation will provide improved media coverage while serving both the interest of the Coast Guard and the public may be authorized to fly aboard Coast Guard Aircraft. Transportation of members of the media representing national or international news and information services should be coordinated through the chain of command including District public affairs for local

or regional representatives in advance with Commandant (CG-LGL) and inform Commandant (CG-711). When space limitations preclude transporting all interested media personnel, consult the District, Area, or headquarters public affairs offices.

e. Commercial Film and Television Producers. Commercial producers of features, short subject films, or television series may request participation of Coast Guard aircraft and/or transportation of personnel. The Coast Guard External Affairs Manual, COMDTINST M5700.13 (series), requires such requests be referred to Commandant (CG-0922) or the Public Affairs Liaison Office (Hollywood) for approval. Once that approval has been received, the use of Coast Guard facilities and transportation of passengers may then be approved by the Commanding Officer. Personnel will be considered in the same category as media representatives.

f. Foreign Nationals. Foreign nationals may be transported during combined operations or exercises. Transportation is also permitted for diplomatic or public relations if deemed in the best interest of the Federal Government. Foreign nationals shall be approved by the entity having OPCON of the flight. Refer to Paragraph 5.D. for requirements of the Foreign Visit Program and Commandant (CG-DCO-I) flight concurrence.

D. SPECIAL PASSENGER APPROVAL AND REPORTING REQUIREMENTS.

1. Applicability. Certain categories of passengers require special approval and reporting requirements. These special approval and reporting requirements are in addition to the approval requirements discussed in Table 5-1.

2. Coast Guard Senior Federal Officials (CG SES), Spouses or Dependents of Senior Federal Officials, Non-Federal Travelers.

   a. Approval Authority. The Judge Advocate General (TJAG) or Deputy Judge Advocate General (DJAG) must approve, in advance of travel, in writing. Route all requests via the chain of command to the DJAG, Office of General Law, Commandant (CG-LGL).

   b. In special emergency situations, an after-the-fact written approval by the DJAG is permitted. Notify Commandant (CG-711) and Commandant (CG-LGL) of circumstances where advance written approval cannot be coordinated, as soon as practicable.

   c. Reporting Requirement. Any transportation of senior Federal officials, their spouses, dependents and any non-Federal travelers during a semi-annual period shall be reported to Commandant (CG-711). Reports shall be submitted by 15 October and 15 April.

3. Other Agency Senior Federal Officials. For senior Federal officials outside the Coast Guard, the senior or deputy legal official of the respective Department or Agency must approve the transportation of that official aboard Coast Guard aircraft. It is the responsibility of the Coast Guard directorate coordinating the flight to provide Commandant (CG-711) with written documentation approving the transportation of all personnel outside the Coast Guard.

4. Congressional Travelers. Coast Guard aircraft can be used for the transportation of Congressional travelers when such usage is in the best interest of the Federal Government.

   a. Approval Authority. All request for transportation on Coast Guard aircraft for Members of Congress, their staffs, spouse and/or dependents, regardless of the purpose of the flight, shall be reviewed and approved by the DHS Assistant Secretary of Legislative Affairs. Refer all requests to Commandant (CG-0921).

   b. Congressional Operational Orientation Flights. Congressional operational orientation flights, that depart from and return to the point of origin to provide first-hand observation, qualify as “mission requirements" flights pursuant to Paragraph 2.B.1. Commandant (CG-0921) will review all Congressional Operational Orientation flights and forward recommendations through Commandant (CG-711) to Commandant (CG-7) for endorsement/approval. Once endorsed/approved by Commandant (CG-7), the ATR will be sent for final approval to DHS Office of Legislative Affairs.

   c. Congressional Transportation Flights. Flights that transport Congressional travelers from Point A to Point B, even if they involve the opportunity to observe Coast Guard flight operations or mission while transiting, do not qualify as “mission requirements" flights and require approval by the Vice Commandant. Commandant (CG-0921) will review all Congressional Transportation flights and forward recommendations through Commandant (CG-711) to the Vice Commandant (CG-09) for endorsement. Once endorsed/approved by Vice Commandant (CG-09), the ATR is then sent to DHS Office of Legislative Affairs for final approval.

   d. Commandant (CG-0921) requires the following information to process the request: date request received, originator of the request, date/location of flight, type of aircraft to be used, name and titles of personnel participating, purpose of the flight, flight plan, principal Coast Guard units/personnel involved, Coast Guard personnel escorting delegation, benefit to the Coast Guard and Federal government, impact of denial, and points of contact for air station and Congressional Staff.

   e. Reporting Requirements. Commandant (CG-0921) shall provide a written record of the DHS flight approval to Commandant (CG-711) for filing with the flight records in accordance with DHS Aviation Management and Safety, MD 0020.1 (series).

5. Foreign Nationals.

   a. Visits to CG Facilities. The Assistant Commandant for Intelligence (CG-2) and Deputy Commandant for Operations, Directorate of International Affairs (DCO-I) administers the Foreign Visits Program to screen foreign nationals visiting USCG facilities. All foreign nationals who visit USCG facilities (including units, aircraft, ships, and offsite locations where USCG members are the hosts) must be approved in accordance with this program. The requirement applies to all foreign nationals even if the visitor doesn’t intend to fly onboard a USCG aircraft

and even if the foreign national is representing a foreign government as a part of a bilateral agreement. All visit requests shall be submitted 30 days in advance. For additional guidance contact Commandant (CG-DCO-I).

b. Flight Concurrence. In addition to the requirements of the Foreign Visits Program, Commandant (CG-DCO-I) shall give concurrence for each flight embarking a foreign national, except when the flight is conducted pursuant to a bilateral agreement. Concurrence should be sought via email correspondence to foreigntravelpolicy@uscg.mil. A current list of bilateral agreements can be provided by Commandant (CG-DCO-I). Units may submit flight concurrence requests by email or memorandum and a single request may be used for a series of flights for the same foreign national. Note that requesting flight concurrence is a parallel process to submitting a Foreign Visits Program request, but may be done at the same time.

E. OCONUS AEROMEDICAL TRANSPORT.

1. Applicability.. This Section applies to active duty members and dependents of active duty members stationed Outside the Continental United States (OCONUS) for the purpose of receiving medical and in some circumstances dental care that is not available at their permanent duty station. Patients in this category must be authorized by the Coast Guard medical system to receive care.

   OCONUS units with sufficient authorized medical patients and attendants to meet the cost comparison requirements are authorized to approve aeromedical flights and document the flight as cost justified. The cost comparison will be based solely upon the number of authorized patients and authorized attendants (i.e., approved by proper Medical Authority), but shall not include Space Available aeromedical patients.

2. Eligibility Requirements. The following eligibility guidance is provided:

   a. Aeromedical Space Required. Patients considered Aeromedical Space Required:

      (1) Active duty members of the Coast Guard, Department of Defense, or U.S. Public Health Service attached to the Coast Guard.

      (2) A dependent of an active duty member of the Coast Guard, Department of Defense or U.S. Public Health Service attached to the Coast Guard.

   b. Aeromedical Space Available. Patients considered Aeromedical Space Available:

      (1) Retired members of the U.S. Coast Guard or Department of Defense.

      (2) Dependents of retired members or deceased retired members.

      (3) Other personnel authorized care from the Coast Guard medical system.

c. Attendants. Patients requiring assistance, based upon the determination of the competent medical authority, may be accompanied by an attendant. The attendant will also be on orders issued by the competent medical authority. The attendant will travel under the same priority as the patient (i.e., Space Required).

Patients returning to their home station are authorized transportation aboard Coast Guard aircraft under the same category in which they originally traveled to the medical facility. Patients are not required to be accompanied by their sponsor.

3. Seating Priority. Space Required patients and attendants will have first priority for seating on the aircraft, followed by Aeromedical Space Available patients; during OCONUS aeromedical transportation flights only, Aeromedical Space Available patients are authorized priority transportation in a Space Available travel status.

4. Aeromedical Transportation Flight Records. Commanding Officers of air stations conducting aeromedical transportation flights shall maintain, for a minimum of 7 years, a paper record for each aeromedical transportation flight containing the following documents:

- Hard copy of flight record printed from ALMIS.
- Hard copy of the passenger manifest.
- A copy of all documents establishing the cost justification for aeromedical transportation.

F. TRANSPORTATION OF CARGO.

1. Applicability. This Section applies to transportation of cargo aboard Coast Guard aircraft. Commercial airlines or services, including charters, shall be relied upon to the maximum extent practicable. The use of these external services must economically and effectively meet the cargo transportation requirements. Coast Guard aircraft may be used to transport cargo when these external services are unable to do so.

2. Mission Essential Cargo. Cargo is considered mission essential when their presence aboard Coast Guard aircraft is in direct support of the approved Mission Requirements Use for the flight. Approval of mission essential cargo shall be made in accordance with the Mission Requirements Use Section of this Chapter.

3. Transportation of Non-Mission Essential Cargo as the Primary Purpose of Flight. Cargo that is not considered mission essential may be transported as the primary purpose of the flight. Approval of non-mission essential cargo shall be made in accordance with Table 5-1.

   Cost and/or schedule justification shall be recorded in the comments section of the flight record.

4. Transportation of Cargo as the Secondary Purpose of Flight. Cargo that is not considered mission essential may be transported on a space-available basis in accordance with Table 5-1.

5. Privately Owned Vehicles. The transportation of privately owned/leased vehicles, including automobiles, motorcycles and boats, is prohibited.

6. Cargo Inspection and Hazardous Cargo Handling and Regulation. Cargo may be inspected, regulated, or prohibited for safety-of-flight reasons by Commanding Officers of aviation units or by pilots in command of flights. Preparing Hazardous Materials for Military Air Shipment, AFMAN 24-204, shall apply to all cargo carried in Coast Guard aircraft, including mission essential cargo. Requests for waivers to deviate from this guidance shall be submitted in writing to Commandant (CG-711).

7. Tactical, Contingency, and Emergency Airlift. Once the potential for risk versus the gain has been considered, Area/District Commanders having Operational Control (OPCON) of aircraft are delegated the authority to invoke the provisions of Preparing Hazardous Materials for Military Air Shipment, AFMAN 24-204, Chapter 3, as necessary to meet response requirements.

G. ORIENTATION FLIGHTS.

1. Applicability. This Section outlines requirements to carry passengers on flights that depart from and return to the point of origin to provide the passenger first-hand observation of Coast Guard aviation. Reasonable stopovers during orientation missions are permitted as long as participants remain, for all practical purposes, with the aircrew and conduct no other business. Approval for a passenger to deplane and conduct business at a location other than the point of origin is considered transportation and must be granted under one of the preceding Sections of this Chapter.

2. General Restrictions. The following general restrictions apply to orientation flights:

   - Orientation flights shall be secondary to the approved Mission Requirements Use of the aircraft.
   - Participants shall be properly identified and sponsored, and where applicable, the appropriate organizational uniform shall be worn.
   - Sponsoring organizations that require parental consent for their own members to participate in special activities shall be responsible for satisfying their own such needs; the Government has no such requirement.
   - Only minor additional expenditure of operating funds is authorized for orientation flights.
   - Access to sensors and sensor capabilities by orientation flight participants shall be carefully monitored to avoid security compromises. Access shall be granted only to individuals with previously verified clearance appropriate to the classification of the sensor or its capabilities.

3. Authority. Commanding Officers of Coast Guard air stations and cutters with aircraft embarked or deployed have the authority to approve orientation flights. This authority shall not be delegated.

4. Operational Orientation Flights. Operational orientation flight opportunities are intended to afford full operational familiarization with the missions of

Coast Guard aviation. Due to the inherent increased level of risk associated with operational missions, such flights are limited to those personnel whose professional interaction with the Coast Guard will be clearly enhanced.

Keep exposure of participants to unusual or hazardous conditions to a minimum. Authorized participants are listed below.

a. Participants Authorized to Operate the Flight Controls of a Coast Guard Aircraft. Participants allowed to occupy a pilot seat and actuate the flight controls during VMC include the following classes of individuals:

- Coast Guard Aviators (not designated in type and model).
- Foreign Exchange Pilots (not designated in type and model) assigned to Coast Guard aviation units.
- DHS Pilots and DoD Aviators on Active Duty.
- Coast Guard Aircrew (designated in type and model).
- Flight Surgeons.
- Academy Cadet Aviation Training Program (CATP) and 1/c Aviation Intern personnel.
- Participants of all approved USCG commissioning and pre-commissioning programs.

b. Orientation Flight Restrictions. Orientation flights with participants operating the flight controls may be conducted aboard HC-130, HC-27, HC-144, and MH-65 aircraft and are subject to the following restrictions:

(1) Fixed-wing.

- An Aircraft Commander shall occupy the left seat.
- Participants shall not occupy a pilot's seat below 1,000 feet AGL/AWL.
- Participants may operate the controls above 1,000 feet AGL/AWL.
- The non-flying pilot shall occupy the jump seat or augmented crew seat as a safety observer. On the HC-130H, the second pilot shall remain on the flight deck.

(2) MH-65.

- An Aircraft Commander shall occupy the right seat.
- Participants may occupy the left seat pilot position during takeoff and landing.
- Participants may operate the controls above 500 feet AGL/AWL.
- With Commanding Officer's approval, prior rotary-wing designated pilots may operate the controls below 500 feet AGL/AWL when flying in the left seat with an Instructor Pilot in the right seat. The Commanding Officer will approve the flight regime to be flown and impose appropriate limits.

c. Prospective Cadets/Selectees. Prospective U.S. Coast Guard Academy Cadets, Coast Guard Academy Scholars (CGAS) Program selectees, Officer Candidate School (OCS) selectees, and Direct Commission Program selectees may participate in operational orientation flights. Persons in this category must show written proof that they have been tendered an appointment or been selected.

d. Coast Guard Auxiliary. Coast Guard Auxiliary members on competent orders may participate in operational orientation flights.

e. Civil Air Patrol. Senior and cadet members of the Civil Air Patrol (CAP) may participate in operational orientation flights. Such personnel are authorized to:

- Take part in joint Coast Guard-Civil Air Patrol SAR or SAREX missions.
- Take part in non-SAR operational or logistic flights in multi-engine aircraft when performing official CAP duties and traveling under appropriate Transportation Authorization (TA) issued by proper Authority.

f. U.S. Uniformed Services, DHS Members, and Law Enforcement Agencies. Current members of the U.S. Uniformed Services, members of the Department of Homeland Security, and Federal law enforcement agencies may participate in operational orientation flights. Commanding officers shall ensure that these orientation flights comply with the general restrictions listed in Paragraph 5.G.2. above.

g. FAA Employees. FAA employees and designated examiners may also participate for:

- Flight-checking local Coast Guard air traffic control procedures and facilities, navigational aids, communications, and approach and departure procedures.
- Examining rated aircrew personnel of the Coast Guard for civil pilot, navigator, or engineer certificates or ratings, provided a seating position permits direct monitoring of aircrew duties. Flights during which these examinations take place are not limited to the local flying area.
- Familiarization with Coast Guard missions, flight profiles, and other interface with Air Traffic Control procedures and facilities.

h. Foreign Nationals. Foreign nationals may participate in operational orientation flights when their presence is deemed in the best interest of the Federal Government. Foreign nationals shall be approved by the entity having OPCON of the flight. Refer to Paragraph 5.D.5.a. for requirements of the Foreign Visit Program and Commandant (CG-DCO-I) flight concurrence.

i. Representatives of the Media. Representatives of the media when such participation will provide improved media coverage and will serve the interest of the Coast Guard and the public may participate in operational orientation flights. Commandant (CG-0922) shall be notified through district public affairs at the earliest opportunity to gain awareness of the event. Commandant (CG-0922) approval is not required. For local media flights, units shall notify district public affairs at the earliest opportunity.

j. Science Community Members. Science support personnel working under the National Science Foundation (NSF) or other government agency direction may participate in operational orientation flights when such participation enhances his or her understanding of the science performed in the AOR.

k. Rescue Swimmer Survivors. Active and reserve military personnel and members of the Department of the Homeland Security are authorized to act as survivors on RS training flights after completing the Commandant (CG-711) approved Rescue Swimmer Training Survivor Syllabus. Only graduates of a formal helicopter rescue swimmer training program are permitted to perform free fall deployments.

Members of the media that meet the criteria of Paragraph 5.G.4.i. and other agency personnel seeking approval may be approved on a case by case basis to serve as RS survivors during daylight hours with Commandant (CG-711) approval.

l. Congressional Members and their Staff. Congressional members or their staff sent to observe Coast Guard operations may participate in operational orientation flights. Providing these members and/or their staff the opportunity to observe operations from the air will give them a better understanding of Coast Guard missions.

Submit requests to Commandant (CG-0921) via the most expeditious means, who reviews the requests and forwards recommendations through Commandant (CG-711) to Commandant (CG-7) for approval.

In those instances where Congressional personnel contact an Air Station directly to request a flight, Commandant (CG-0921) will require the following information to process the request: date request received, originator of the request, date/location of flight, type of aircraft to be used, name and titles of personnel participating, purpose of the flight, flight plan, principal USCG units/personnel involved, USCG personnel escorting delegation, benefit to the USCG and Federal government, impact of denial, POC for air station and Congressional staff. Once endorsed, requests will be sent for approval to the DHS Assistant Secretary for Legislative Affairs.

m. Federal Civilian Employees. Federal civilian employees may participate in operational orientation flights if they will benefit from the exposure to Coast Guard missions provided by an orientation flight.

5. Restricted Orientation Flights. Restricted aircraft orientation flight opportunities are intended to afford a limited, brief familiarization with the missions of Coast Guard aviation, without exposure to the level of risk associated with operational missions. Such flights are restricted to the local flying area and the amount of time necessary for the orientation.

   Participation in helicopter flights must be during daylight VFR flight conditions. Participants shall not be subjected to unusual or hazardous conditions. The following are authorized participants:

   - Students of State and US sponsored Maritime Academies (e.g., Kings Point, Massachusetts Maritime Academy).
   - Members of the corps of cadets at US Senior Military Colleges.
   - ROTC Cadets, designated applicants, and key civilian officials of the sponsoring school directly involved in administering the ROTC program.
   - JROTC students, Naval Sea Cadets, and accompanying adult leaders.

6. Special Circumstances. Restricted orientation flights of short duration for special circumstances not already listed here can be requested.

   Special requests shall normally be limited to humanitarian requests, VIPs, etc., when in the best interest of the Federal Government and provide unusual public relations benefit.

   All such requests shall be considered on a case by case basis. Such special requests, if deemed desirable, shall be sent via the chain of command to Commandant (CG-711) for review and forwarding to the Vice Commandant (CG-09) for approval. Amplifying information shall include:

   - Personnel involved
   - Aircraft type
   - A description of the purpose of flight
   - The benefit to the interest of the Federal Government
   - An assessment of impact of denial

CHAPTER 6. EQUIPMENT

A. MISSION CONFIGURATIONS.

1. Purpose. This Section describes capabilities expected of Coast Guard aircraft for common missions. An aircraft that does not meet the capability requirements for a mission listed in this Section shall be considered Partially Mission Capable for that mission. A Commanding Officer may assign an aircraft not meeting all mission capability requirements if he or she determines that the mission will have a reasonable chance of success. Similarly, for missions not listed in this Section the Commanding Officer shall ensure the aircraft is suitably equipped to provide a reasonable chance of success.

2. Basic Capability. To be fully mission capable for any mission, an aircraft is expected to be able to fly VFR and IFR, during the day and at night, to include night-vision capability if the aircraft is approved for NVG operations.

   To the maximum extent practical, aircraft shall carry detection aids, Electro-Optical/Infra-Red (EO/IR) sensor equipment, surface search radar, and rescue equipment to maintain a SAR and Law Enforcement response capability while engaged in all other missions.

3. Fixed-Wing Aircraft. The following mission configurations apply to HC-130H and HC-130J Long Range Surveillance (LRS) aircraft, and HC-27 and HC-144 Medium Range Surveillance (MRS) aircraft except where noted otherwise.

   a. Search and Rescue. The minimum rescue equipment required to be carried aboard Coast Guard aircraft is described in Coast Guard Aviation Life Support Equipment (ALSE) Manual, COMDTINST M13520.1 (series)and Aviation Life Support Equipment Systems Process Guide, CGTO PG-85-00-310-A. To be considered fully mission capable for SAR, a fixed-wing aircraft shall have the following abilities during the day and at night:

      - Electronically detect and locate a 406 MHz distress beacon.
      - Communicate on international distress frequencies.
      - Mark datum and determine drift.
      - Visually mark the position of a search object.
      - Deliver a raft for 5 or more survivors.
      - Deliver rafts for 15 or more survivors (recommended but not required for MRS).
      - Deliver a dewatering pump to a disabled vessel.
      - Communicate with survivors.
      - Deliver small miscellaneous items to survivors.

b. Enforcement of Laws and Treaties. To be considered fully mission capable for enforcement of laws an treaties, a fixed-wing aircraft shall have the following abilities during the day and at night:

- Maintain encrypted communication with command and control and operational assets.
- Record visual images of targets of interest.
- Detect a surface target while maintaining a covert distance/altitude.
- Accurately determine the position of a surface target while maintaining a covert distance/altitude.
- Classify a surface target while maintaining a covert distance/altitude.
- Communicate on civil maritime frequencies.

c. International Ice Patrol. To be considered fully mission capable for the International Ice Patrol, a fixed-wing aircraft shall have the following abilities:

- Detect a small iceberg in zero visibility.
- Accurately determine the position of a small iceberg in zero visibility.
- Differentiate between an iceberg and a vessel in zero visibility.

4. Rotary-Wing Aircraft. The following mission configurations apply to MH-60 Medium Range Recovery (MRR) aircraft and MH-65 Short Range Recovery (SRR) aircraft except where noted otherwise.

a. Search and Rescue. The minimum rescue equipment required to be carried aboard Coast Guard aircraft is described in Coast Guard Aviation Life Support Equipment (ALSE) Manual, COMDTINST M13520.1 (series) and Aviation Life Support Equipment Systems Process Guide, CGTO PG-85-00-310-A. To be considered fully mission capable for SAR, a rotary-wing aircraft shall have the following abilities during the day and at night:

- Electronically detect and locate a 406 MHz distress beacon.
- Communicate on international distress frequencies.
- Mark datum and determine drift.
- Visually mark the position of a search object.
- Deliver a dewatering pump to a disabled vessel (not required for SRR).
- Communicate with survivors.
- Recover 1 to 5 survivors from a vessel or the water (SRR).
- Recover 6 to 15 survivors from a vessel or the water (MRR).
- Provide safe transport for survivors.
- Search utilizing the Electro-Optical/Infra-Red Sensor System (ESS).

While not explicitly required to be considered fully mission capable (including lack of qualified ESS operator), utilization of the ESS should be maximized particularly during PIW cases where usage of the SAROPS capability could greatly increase the probability of detection.

b. Enforcement of Laws and Treaties. To be considered fully mission capable for the enforcement of laws an treaties, a rotary-wing aircraft shall have the following abilities during the day and at night:

- Maintain encrypted communication with Federal, state, local and tribal law enforcement entities
- Record visual images of targets of interest.
- Accurately determine the position of a surface target.
- Communicate on civil maritime frequencies.
- Search utilizing ESS.

While not explicitly required to be considered fully mission capable (including lack of qualified ESS operator), utilization of the ESS should be maximized.

c. Airborne Use of Force. To be considered fully mission capable for airborne use of force, a rotary-wing aircraft shall have the following abilities during the day and at night:

- Maintain encrypted communication with Federal, state, local and tribal law enforcement entities.
- Clearly show that the aircraft represents law enforcement.
- Communicate on civil maritime frequencies.
- Surveil targets of interest covertly and from beyond the range of small-arms fire.
- Temporarily prevent a noncompliant vessel from operating under its own power or from maneuvering freely.
- Apply deadly force.

In addition to the above, AUF-NCV aircraft shall be capable of day and night warning shots and disabling fire.

d. Fast Roping. To be considered fully mission capable for basic and tactical fast roping, a rotary-wing aircraft shall have the ability to deliver a boarding team by fast-rope during the day and at night.

e. Air Intercept. To be considered fully mission capable for air intercept, a rotary-wing aircraft shall have the following abilities during the day and at night:

- Maintain communication with command and control and operational assets
- Communicate on civil aviation frequencies.
- Visually provide compliance directions to a target of interest.

B. PROTECTIVE CLOTHING.

1. Overview. Policy, Authorization, and Instructions pertaining to the procurement, configuration, use and maintenance of protective clothing authorized for personnel conducting Coast Guard missions from an aircraft is specified in the Coast Guard Aviation Life Support Equipment (ALSE) Manual, COMDTINST M13520.1 (series) and the Aviation Life Support Equipment Systems Process Guide, CGTO PG-85-00-310-A. Use of other protective clothing items is prohibited unless specifically authorized by Commandant (CG-711).

2. Protective Clothing (Flight Gear) Inspection . Personal protective clothing and equipment issued to aviation personnel shall be inspected annually and when reporting aboard a new unit.

3. Flight Suits and Boots. Aircrew personnel (with the exception of Air Station Washington) shall wear fire retardant flight suits or anti-exposure coveralls and flight boots when engaged in all ground and inflight operations. To provide maximum fire protection, sleeves shall not be rolled up. Mission essential personnel and passengers should wear fire retardant flight suits for operational, non-transport missions.

4. Flight Gloves. Rotary-wing flight crews shall wear fire retardant flight gloves when engaged in all ground and flight operations. Mission essential personnel and passengers should wear fire retardant flight gloves for operational, non-transport missions.

   Protective work gloves shall be available aboard each aircraft that provide suitable protection from hazards expected to be encountered during routine operations.

5. Flight Helmets. For rotary-wing aircraft, aircrew members shall wear an approved helmet when within close proximity to a turning rotor system, including hoisting. All other personnel shall wear a helmet when within close proximity to a turning rotor system, including hoisting, to the maximum extent practical. All personnel shall use the eye-protecting visor to the maximum extent practicable. Aircrew members and mission essential personnel are exempt from these requirements when administering medical attention.

   The Rescue Swimmer helmet or flight helmet shall be worn during all deployments. Judgment should be used to determine which helmet is most appropriate during deployments to and recovery from land, vertical surface, or platforms where water entry is not a factor. Approved eye protection shall be worn in conjunction with either helmet.

   Wearing helmets is optional for aircrew members, mission essential personnel, and passengers aboard fixed-wing aircraft; however, HC-130, HC-27, and HC-144 Dropmasters (DMs) and personnel assisting in drops must wear approved cranial protection and eye protection during drop operations.

6. Conditions Requiring Anti-Exposure Garments. Anti-exposure garments shall be worn by all aircrew, passengers and mission essential personnel, with the exception of survivors/patients embarked during search and rescue, when required by Table 6-1 during all rotary-wing operations beyond autorotation distance from land.

   Non-aircrew personnel conducting fast roping or vertical delivery shall wear anti-exposure garments in accordance with the Rescue and Survival Systems Manual, COMDTINST M10470.10 (series).

   The Commanding Officer having TACON of the flight may authorize deviation from this requirement on a case-by-case basis, after a determination that the risks associated with crew performance degradation, thermal stress, and environmental considerations are offset by the benefits associated with the deviation.

   Personnel shall not enter the water during any training unless wearing an anti-exposure garment as required by Table 6-1.

Table 6-1. Anti-Exposure Garment Requirements per Water/Air Temperature

Water Temp (W)		Air Temp (A)	Anti-Exposure Garment
70° F ≤ W	and	Any	Not required
60° F ≤ W < 70° F	and	85° F ≤ A	Not required
60° F ≤ W < 70° F	and	A < 85° F	Required
W < 60° F	and	Any	Required

   a. Authorized Anti-Exposure Garments. Aircrew shall wear the Aircrew Dry Coverall or the Aircrew Immersion Coverall garments described in the Coast Guard Aviation Life Support Equipment (ALSE) Manual, COMDTINST M13520.1 (series).

      Non-aircrew personnel with frequent periodic flight requirements shall wear the authorized anti-exposure garments described in Coast Guard Aviation Life Support Equipment (ALSE) Manual, COMDTINST M13520.1 (series) when available. All non-aircrew personnel may wear anti-exposure coveralls or dry suit ensembles described in the Rescue and Survival Systems Manual, COMDTINST M10470.10 (series).

      Other agency personnel may wear anti-exposure garments authorized by their respective agency.

   b. Immersion Suit. Personnel aboard Coast Guard rotary-wing aircraft, with the exception of survivors/patients embarked during search and rescue, are prohibited from wearing immersion suits in flight because of the hazard involved in an inverted egress.

7. Underwear and Socks. Underwear for flight suits shall be 100 percent cotton or fire retardant and moisture-wicking. The T-shirt worn with flight suits shall be crew neck and ODU-blue in color. Socks shall be at least 80 percent cotton or wool. Aircrew Dry Coverall (ADC) undergarment must consist of fire retardant/ moisture-wicking garments, cotton undergarments are not authorized to wear

with the ADC as they will absorb perspiration and make the person subject to chill, hypothermia, and frostbite.

8. Kneepads. Kneepads shall be available aboard rotary-wing aircraft.

9. Ballistic Vests. Ballistic protection shall be worn by aircrew on all operational AUF missions when firearms are carried.

10. CBR Ensemble. Chemical, Biological, and Radiological (CBR) ensemble shall be worn in accordance with Aviation Crew Systems Special Missions Aircrew Equipment, NAVAIR 13-1-6.10 (series) and the Office of Aeronautical Engineering (CG-41) Directives.

11. Portable Isolation Unit. The Portable Isolation Unit (PIU) may be used to transport asymptomatic individuals exposed to, or potentially exposed to infectious agents or Chemical War Agents (CWA). Transport of patients typically includes a medical attendant and shall be completed IAW USCG Countering WMD Capabilities Manual COMDTINST M3400.51 (series) and PIU Tactics, Techniques, and Procedures, CGTTP: 3-11.1.

12. Biological Sample Kit. Transport of infectious biological samples may be completed on a case by case basis. Such requests shall be sent via the chain of command to Commandant (CG-711) for review and forwarding to the Director of Health, Safety and Work-Life Directorate (CG-11) for approval IAW USCG Countering WMD Capabilities Manual COMDTINST M3400.51 (series) and approved Tactics, Techniques, and Procedures.

13. Rescue Swimmer Deployment Ensemble. Rescue Swimmers (RS) may wear the required water ensemble during flight. Water ensembles are not specifically designed for flame resistance and can cause heat stress to the RS. Aircraft commanders must consider the risks of performance degradation and lack of flame protection versus practicality when permitting the RS to wear a water ensemble for periods longer than 30 minutes.

    The RS dry suit and accompanied wet/dry suit hood/surfcap shall be worn by all RSs when water temperature is 55 °F or below. During rescue or training operations where the risk of dry suit damage exists due to contact with terrain, the wet suit is authorized to be used regardless of water temperature.

C. FLOTATION EQUIPMENT.

1. Life Rafts. All aircraft shall carry enough life rafts of a rated capacity and buoyancy to accommodate all aircraft occupants for flights that remain over water longer than 30 minutes or extend beyond 100 nautical miles from the nearest shore.

2. Personal Flotation Device. All aircraft shall carry one Personal Flotation Device (PFD) for each person aboard. Aircrew survival vests may only be worn by personnel trained in their use.

    Aircraft Configuration Control Board (ACCB) approved automatic inflatable vests may be worn by deployable specialized forces personnel. The vests shall remain disarmed until immediately before the member deploys from the aircraft.

Automatic inflatable vests shall not be transported aboard Coast Guard aircraft unless they are disarmed.

a. Multi-Engine Fixed-Wing Aircraft. Occupants of multiengine fixed-wing aircraft are not required to wear flotation devices. The use of flotation devices shall be a decision made on a case-by-case basis by the Aircraft Commander or the command.

b. Rotary-Wing, Single-Engine Fixed-Wing, or Airship Aircraft. Rotary-wing aircrew members shall wear the approved survival vest during all flight operations. All occupants aboard rotary-wing, single-engine fixed-wing (including floatplanes and seaplanes), or airship aircraft that operate beyond emergency landing distance from land shall wear an approved aircraft type personal floatation device.

3. Minimum Contents of Survival Vests. The Coast Guard Aviation Life Support Equipment (ALSE) Manual, COMDTINST M13520.1 (series), specifies minimum contents of the survival vest. Commanding Officers may require additional items to meet local conditions with the approval of Commandant (CG-711). Emergency Breathing devices shall only be carried by personnel who have successfully completed the required training to use such devices. The survival egress air equipped survival vest shall not be installed or worn on fixed-wing aircraft.

D. OXYGEN.

1. Unpressurized Aircraft. Each person aboard an aircraft shall use oxygen at cabin altitudes above 10,000 feet MSL. However, when no oxygen equipment is in use, an unpressurized aircraft may ascend to 12,000 feet MSL provided it does not remain above 10,000 feet MSL for more than thirty minutes.

   Aircraft with oxygen equipment available but unable to pressurize will not exceed FL180 unless a comprehensive briefing by competent aviation medical authority is obtained immediately prior to the flight. This is to reacquaint crewmembers with the hazards associated with high altitude flight, such as decompression sickness, hypoxia, etc., and to ensure adherence to preparatory measures, such as pre-breathing.

2. Pressurized Aircraft. If cabin pressure altitude is normally maintained at 10,000 feet or less, the following applies:

   - In pressurized aircraft operating above FL180, oxygen masks shall be readily available for use by all aircrew members.
   - In pressurized aircraft operating above FL350, one pilot at the controls shall be wearing and using an oxygen mask unless there are two pilots at the controls that have an approved quick-donning mask with instant Intercommunication System (ICS) capability that is properly adjusted and positioned for use within five seconds. If the second pilot leaves the flight controls, the remaining pilot shall put on and use an oxygen mask until the other pilot has returned to the flight controls.
   - In pressurized aircraft operating above FL410, one pilot at the controls shall be wearing and using an oxygen mask.

- In pressurized aircraft operating above FL250, a source of oxygen shall be within reach of each passenger for emergency use. Enough oxygen shall be carried to provide for all passengers until the aircraft can descend to 10,000 feet MSL.

E. SAFETY DEVICES.

1. Personnel Safety Restraint. Each occupant of a Coast Guard aircraft in motion shall occupy an aircraft seat and wear a properly fastened safety belt. Where installed, both a safety belt and shoulder harness shall be worn.

   a. Exceptions. Exceptions to safety belt requirements may be granted by the pilot-in-command for:

      - Required inflight crew duties.
      - Crew and passenger movement when above 1,000 feet absolute altitude, in smooth air.
      - Rescue or disaster victims and MEDEVAC patients.
      - Training and standardization checks. In this case, the PIC may authorize necessary personnel to stand on the flight deck of HC-130 aircraft during takeoff and landing when required for training or standardization checks. HC-130 Standardization Unit Instructor Pilots may stand on the flight deck when performing standardization checks.

   Exceptions may be granted by the air station Commanding Officer for mission essential personnel or teams whose capability would be significantly degraded or otherwise affected. This exception shall not be used for convenience.

   b. Safety Harness (Gunner's Belt). Crewmembers engaged in activity near an open or faulty hatch, door, ramp, or window shall wear a properly attached and adjusted safety harness (gunner's belt).

   HC-130 crewmembers are not required to wear safety harnesses when removing the flight deck overhead escape hatch.

   c. Passenger Restraint. Each passenger aboard Coast Guard aircraft shall occupy a suitable seat and shall wear a properly fastened seat belt when the aircraft is in motion, unless otherwise authorized by the PIC.

   d. Restraint for Children. All children above the age of two being transported aboard CG aircraft will occupy their own seat with separate seat belt for takeoffs, landings and ground taxi operations.

   Children under the age of two may be held by an adult who is occupying an approved seat, provided the child does not occupy or use any restraining device; or they may occupy an approved child restraint system that is secured to the aircraft and bears the labels:

      - This child restraint system conforms to all applicable Federal motor vehicle safety standards.
      - This restraint is certified for use in motor vehicles and aircraft.

2. First Aid Kits. One first aid kit for treatment of injuries likely to occur in flight or minor accidents shall be provided for every ten occupants. The contents of the first aid kits (and maintenance cycle) are enrolled in the Aviation Computerized Maintenance System (ACMS).

   Oxymetazoline spray (e.g., Afrin) for acute relief of Eustachian dysfunction during descent, shall be obtained from local medical facilities. A mishap message is required when the oxymetazoline spray in the first aid kit is used.

3. Emergency Locator Transmitter. Each aircraft shall be equipped with an operable emergency locator transmitter.

4. Crash Ax. Each aircraft shall be equipped with a crash ax. The number and location of crash axes shall be defined in each aircraft flight manual.

5. Personnel Hoisting and Delivery Devices. Only personnel hoisting and delivery devices (strops, baskets, litters, harnesses, fast rope equipment, etc.) which have been approved by the ACCB are authorized. Personnel hoisting and delivery devices maintained at air stations shall be enrolled in the Aviation Computerized Maintenance System (ACMS).

   Approved litters aboard cutters or at boat stations shall be marked as HELICOPTER HOISTABLE and maintained in accordance with the Rescue and Survival Systems Manual, COMDTINST M10470.10 (series).

6. Hoist Static Discharge Cable. To prevent/decrease static electricity discharge, the Hoist Static Discharge Cable (HSD) shall be used for personnel deployments utilizing the hoist cable (rescue swimmer, vertical delivery of boarding team members, etc.) when atmospheric conditions are conducive to a build-up of static discharge, unless it is determined that conditions exist that could cause the HSD to become a hazard to the deployed member (heavy sea state, snag hazards, etc.).

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CHAPTER 7. FLIGHT CREWMEMBER DESIGNATIONS, QUALIFICATIONS, AND TRAINING

A. DESIGNATION AND QUALIFICATION OF PILOTS AND AIRCREW.

1. Authority. Commanding Officers have the authority to issue or revoke designations and qualifications. In the interest of flight safety, assignment of multiple designations or qualifications should be kept to a minimum consistent with the capability requirements of the unit. Each person flying as a crewmember on a Coast Guard aircraft shall hold a current designation or be in training for a designation in that aircraft type and model. Designations and qualifications shall be issued in writing.

2. Continuity of Designations and Qualifications. An aircrew member shall continue to hold a designation or qualification (specific to aircraft type and model) even if the requirements to obtain that position are subsequently changed. However, additional training might be required for aircraft equipment hardware or software changes.

3. Eligibility. All enlisted personnel with aviation ratings, including personnel E-3 and below who are assigned an aviation designator (e.g., ANAMT) are eligible for enlisted aircrew member designations. All personnel are eligible for the Aviation Mission Specialist designation if their duties require participation in aerial flight. Flight Surgeons are designated and assigned by Commandant (CG-1121).

4. Designations. A designation certifies that a pilot or aircrew member has gained the training and experience necessary to perform the appropriate minimum crew duties required to safely fly a specified type and model of aircraft day or night in all weather conditions in which the aircraft is certified to fly, and is capable of properly using all installed aircraft equipment required for flight in all conditions.

   Designations are valid for 12 months and lapse if requirements to maintain designation are not completed by the end of the 12th calendar month. This requirement may extend to the end of the 15th calendar month in order to meet scheduling demands with approval from the Commanding Officer.

   a. Awarding Aviation Designation Insignia. Designated flight crewmembers shall wear insignia, as described in the Uniform Regulations, COMDTINST M1020.6 (series), as follows:

      - Award insignia for Coast Guard aviators in accordance with Officer Accessions, Evaluations, and Promotions, COMDTINST M1000.3 (series).
      - Award insignia for Coast Guard enlisted aircrew members in accordance with Enlistments, Evaluations, and Advancements, COMDTINST M1000.2 (series).
      - Award Flight Surgeon insignia in accordance with the Coast Guard Aviation Medicine Manual, COMDTINST M6410.3 (series).

- Aviation mission specialist insignia are authorized to be worn temporarily upon designation for as long as the individual is assigned to a unit with responsibilities to perform one of the mission specialist duties and maintains the appropriate qualification criteria. The insignia may be worn permanently once a designated individual has accumulated 200 flight hours in rotary-wing aircraft or 400 flight hours in fixed-wing aircraft while training for or performing their mission specialty. Personnel qualified or previously qualified as pilots, Naval Flight Officers, Flight Surgeons, aircrew or Rescue Swimmers are not authorized to wear the mission specialist insignia.

b. Rescinding Aviation Insignia. Coast Guard aviator and aircrew insignia shall be rescinded in accordance with the Military Qualification and Insignias, COMDTINST M1200.1 (series). Helicopter Rescue Swimmer and Aviation Mission Specialist insignia may be rescinded if the Commanding Officer determines that the individual is no longer professionally qualified and revokes the designation, or the individual requests to be permanently removed from flight duty.

5. Authorized Designations. Authorized pilot designations include Copilot (CP), First Pilot (FP) and Aircraft Commander (AC). Authorized aircrew designations include Basic Aircrew (BA), Aviation Mission Specialist (AMS), and Flight Surgeon (FS) for all aircraft types; Flight Engineer (FE) and Navigator (N) for the HC-130H.

6. Training Required to Obtain a Designation. Use Commandant (CG-711) approved flight syllabi for all pilot and flight crewmember designations including those for Unmanned Aircraft Systems (UAS) and lighter than air vehicles. Completed syllabi shall be retained in the individual's training record.

a. Requirements to Begin Flight Instruction. Trainees shall complete the following general requirements before commencing the flight portion of any designation syllabus, except those items in which a trainee is current:

- Initial Crew Resource Management (CRM) training.
- Low Pressure/Dynamic Hypoxia Training – pressurized aircraft crews only.
- Underwater Egress Training (Dunker) – helicopter crews only.
- Aviation Water Survival Training (Wet Drill) – not required for Air Station Washington.
- Emergency Breathing Device/Shallow Water Egress Training (EBD/SWET) – helicopter crews only.
- Swim test – not required for Air Station Washington.
- Emergency Ground Egress Training – required for each aircraft type and model in which designation is sought.
- Training in installed survival gear.
- Training in use of ICS and terminology.

b. Training Required Within 60 Days of Designation. Complete the following training within a 60-day period after initial designation:

- Local Initial OPSEC/COMSEC Training
- Training in the Use of Survival Equipment and Pyrotechnics
- Operational Hazard Awareness Training
- Land Survival Training

c. Designation Standardization Check Flight. Complete a designation standardization check flight in the type and model of aircraft in which the member is to be designated. This check shall be given by an instructor assigned to an ATC Mobile Training Division or by a unit Flight Examiner.

7. Requirements to Maintain All Designations. Pilots and aircrew are required to maintain the following periodic currency requirements. Failure to meet these requirements results in loss of designation.

a. 75-Month Requirements. Each pilot and aircrew member designated in rotary-wing aircraft shall have completed Underwater Egress Training (Dunker) with no critical failures within the preceding 75 calendar months.

b. 12-Month Requirements. Each member shall have completed a designation standardization check in each aircraft type and model in which a designation is held and CRM refresher training within the preceding 12 calendar months. This requirement may extend to 15 months in order to meet scheduling demands with approval from the Commanding Officer. The designation standardization check may be completed in conjunction with any 12-month qualification standardization checks.

Air Station Washington members shall have completed a designation check in each aircraft type in which a designation is held and comply with all other standard 12 month requirements.

c. Calendar Year Requirements. Each pilot and aircrew member shall complete the following once per calendar year:

- Aviation Water Survival Training (Wet Drill) – not required for Air Station Washington.
- Emergency Breathing Device/Shallow Water Egress Training (EBD/SWET) – helicopter crews only.
- Swim Test – not required for Air Station Washington.
- Survival Equipment and Pyrotechnics.
- Land Survival Training.
- Emergency Ground Egress Training – required for each aircraft type and model in which a member is designated.
- OPSEC/COMSEC Training.

- Operational Hazard Awareness Training (Note: Requires AOR specific training prior to standing duty at new duty location – to include surge operations, backfill, DIFPRO, remote locations, as well as PCS).
- Laser Hazard and Employment Training – only for aircrew and maintenance personnel of platforms employing Class 3B and Class 4 Lasers.
- Physiological Training.

d. Semi-Annual Requirements. A Commandant (CG-711) approved recurrent training syllabus, if promulgated, shall be completed once per semi-annual period. Unit commanding officers may add content as necessary to address local operational requirements.

e. Six-Month Requirements. Each crewmember shall have performed the duties of his or her designated crew position inflight at least once within the preceding six calendar months.

8. Warm-Up Requirements. Recent flight experience is intended to ensure proficiency and is separate from the minimum recurrent training requirements stated for each designation. Commands shall prescribe an appropriate warm-up syllabus to accomplish this purpose.

Any member, except one holding an AMS or FS designation, who has not flown in the capacity of his or her designation within the preceding 30 days (inflight or in an approved simulator) shall not be assigned in that capacity unless another member current in that designation is also assigned. For pilots, an AC or FP that has not flown in the preceding 30 days shall not be assigned as Pilot-in-Command. A CP that has not flown in the preceding 30 days shall not be assigned to an operational mission.

Any pilot deployed aboard a ship who has not flown in his or her primary crew position (inflight or in an approved simulator) during the previous 21 days will be required to fly a warm-up prior to flying in that crew position on an operational mission.

Pilots stationed at the ALC or APO that have not flown in the preceding 45 days shall not be assigned as Pilot-in-Command.

9. Redesignation. If a flight crewmember does not complete periodic training requirements, fails an evaluated event, or has a designation removed for cause by the Commanding Officer, the individual shall not fly except for the purpose of redesignation. The Commanding Officer may redesignate the member using the guidance outlined below. A redesignation memo shall be signed by the CO and maintained in the aircrew training record.

a. Redesignation after not completing periodic requirements. If a member has no flights in the aircraft type and model in which he or she is designated within the preceding 12 calendar months, the individual must complete a Commandant (CG-711) approved designation or redesignation syllabus.

If a member has no flights within the previous six calendar months, a designation standardization check flight is required for redesignation. For crewmembers designated in more than one model of the same type of aircraft, a Commandant (CG-711) approved ground syllabus may be substituted for a designation standardization check flight for one of the lapsed designations.

If a member fails to complete the minimum periodic requirements, the Commanding Officer may redesignate the individual after the incomplete tasks are completed. For incomplete flight tasks, a designation check flight consisting of the incomplete tasks is required.

b. Redesignation after failure of an evaluated event. If a member fails any portion of an evaluated event (e.g., standardization check, instrument check or aviation water survival training), the individual shall receive additional training and pass a subsequent evaluation in the area(s) of deficiency; additional training and re-test may be performed at the time of failure at the discretion of the Examiner. Subsequent redesignation shall be authorized by the Commanding Officer. Failure of any portion of an evaluated event shall be documented in the individual's training record.

c. Redesignation After Revocation for Cause. If removal of a designation does not warrant an AEB, a course for redesignation should be conveyed to the aviator in writing or in person. Documentation of course to redesignation is at the Commanding Officer's discretion.

(1) Faulty Judgement. The aviator has demonstrated faulty judgment in flight situations. This may be evidenced by serious or repeated violations of flight discipline or mishaps involving pilot judgment.

(2) Lack of Skills. The aviator has demonstrated a lack of general or specific flight skills. This may be evidenced by mishaps or near mishaps involving pilot skill, failure to satisfactorily complete all or any part of a prescribed training syllabus, or failure to comply with minimum annual flight requirements for reasons within the aviator's control.

(3) Lack of Mental Abilities. The aviator has demonstrated certain habits, traits of character, emotional tendencies, lack of mental aptitude, or motivation that makes continuing in assigned flying duties questionable.

(4) Professionally Unfit. The aviator is considered to be professionally unfit for flying for any reason not specified above.

10. Qualifications. A qualification certifies that a member has gained advanced knowledge, skills and abilities necessary to perform specific missions in a type and model of Coast Guard aircraft.

Qualifications are valid for 12 months and lapse if requirements to maintain qualification are not completed by the end of the 12th calendar month. This requirement may extend to 15 months in order to meet scheduling demands with approval from the Commanding Officer.

11. Requirements for All Qualifications. To obtain a qualification, a member shall:
    - Meet all prerequisites listed in this Chapter for that qualification.
    - Be recommended for the qualification by the unit FEB.
    - Complete a Commandant (CG-711) approved syllabus for the qualification sought.
    - Complete an inflight qualification standardization check, if required as part of the qualification syllabus or as an annual evaluation.

    The Operations Officer shall approve entry into the qualification syllabus.

    To maintain a qualification, a Commandant (CG-711) approved recurrent training syllabus, if promulgated, shall be completed once per semi-annual period. Unit commanding officers may add content as necessary to address local operational requirements. Additional requirements for specific qualifications are further described in this Chapter.

12. Requalification. Failure to meet the requirements to maintain a given qualification results in suspension of the qualification until the steps outlined for requalification have been met.

    a. Requalification after not completing periodic requirements. If a member has not performed the mission or any periodic training requirements associated with a qualification within the preceding 12 calendar months, the individual must complete a Commandant (CG-711) approved qualification or requalification syllabus before the member is assigned to a mission requiring that qualification.

       If a member has not performed the mission or any periodic training requirements associated with a qualification within the preceding six calendar months, the individual shall successfully complete a qualification standardization check (where applicable) before the member is assigned to a mission requiring that qualification.

       If any other periodic requirement has not been completed in the designated time frame, the delinquent requirement shall be completed before the member is assigned to an operational mission requiring that qualification.

    b. Requalification after failure of an evaluated event. If a member fails any portion of an evaluated event (e.g., standardization check), the individual shall receive additional training in the area(s) of deficiency and shall pass a subsequent evaluation for requalification. Additional training and retest may be performed at the time of failure at the discretion of the examiner. Document any failure in the individual's training record.

13. Proration of Semi-Annual Flight Requirements. Semi-annual minimum flight requirements for designation and qualifications may be prorated for flight crewmembers who are not available for flying duty for a portion of that semi-annual period because of PCS transfer, non-flying TAD, protracted emergency, sick leave, or similar circumstances. In this sense, protracted is meant to be more than 30 days. Semi-annual requirements for individuals gaining a designation or qualification within that semi-annual period may also

be prorated. The semi-annual requirement is the amount determined from Table 7-1. Determine the months remaining according to the following criteria (consecutive days absent), then find the prorated flight crew minimums for the number of months remaining.

Table 7-1. Proration of Semi-Annual Minimums

Consecutive Days Absent	Reduction of Months Counted
0-14 days	No reduction
15-45 days	1 month
46-75 days	2 month
76-105 days	3 month
106-135 days	4 month
136-165 days	5 month
166 days to 6 months	No requirement

Prorated Flight Crew Minimums														
Months Remaining	**Hours of Flight Time or Number of Events**													
	48	24	12	11	10	9	8	7	6	5	4	3	2	1
5	40	20	10	9	8	7	7	6	5	4	3	2	2	1
4	32	16	8	7	7	6	5	5	4	3	3	2	1	1
Months Remaining	**Hours of Flight Time or Number of Events**													
3	24	12	6	6	5	5	4	4	3	3	2	2	1	1
2	16	8	4	4	3	3	3	3	2	2	1	1	1	1
1	One Standardization Check Flight													

B. PILOT DESIGNATIONS.

1. Purpose. The following requirements must be met by pilots to obtain and maintain pilot designations, in addition to the requirements for all designations.

2. Copilot . To be designated a Copilot (CP), an aviator must demonstrate proficiency in performing duties of Copilot for the aircraft type and model for which the designation is being sought. These duties shall include navigation and use of all installed navigation equipment, and use of NVGs (except designees in the C-37A).

   The member must also demonstrate knowledge in aircraft systems and emergency procedures; communications and security procedures; Federal Aviation Regulations; and this Manual.

   For initial designation in aircraft type and model, the member shall:

   - Hold a current designation as a military aviator.
   - Have held a military instrument rating.

- Complete a Commandant (CG-711) approved course of instruction in the applicable aircraft type and model.
- Complete a written closed-book examination promulgated by the applicable ATC Mobile Training Division.
- Pass a designation standardization check flight with an ATC Mobile Flight Examiner.
- Pass an Instrument check flight with an ATC Mobile Flight Examiner.
- Pass a night procedures check flight with an ATC Mobile Flight Examiner.

3. First Pilot. To be designated a First Pilot (FP), an aviator must demonstrate proficiency in performing Pilot-In-Command duties for the aircraft type and model for which the designation is being sought. These duties shall include transportation of cargo, HAZMAT, and passengers as applicable to the aircraft type, model and maintenance acceptance and test flights.

   The member must also demonstrate knowledge in aircraft systems and emergency procedures, aircraft weight and balance, fuel management, ground security of aircraft away from home unit, and requirements and waivers for the performance of maintenance flights.

   For initial designation in aircraft type and model, the member shall:

   - Be recommended for the FP designation by the unit Operations Officer or the cognizant ATC Mobile Training Division.
   - Fulfill, to a more advanced degree, all requirements for CP designation.
   - Have at least 500 hours of total pilot time in military aircraft.
   - Complete a written closed-book examination promulgated by the applicable ATC Mobile Training Division.
   - Pass a designation standardization check flight with an ATC Mobile Flight Examiner or unit FEB pilot.

4. Aircraft Commander. To be designated an Aircraft Commander (AC), an aviator must demonstrate, to a high degree, the ability to exercise judgment, flight discipline and aircrew supervision, including the use of Crew Resource Management principles.

   The member must also demonstrate knowledge in this Manual, current Directives, including unit, district, and Commandant Instructions, pertinent technical data and publications concerning aircraft operations, application of operations and communications plans, and operations over the High Seas.

   For initial AC designation in aircraft type and model, the member shall:

   - Be recommended for the AC designation by the unit Operations Officer.
   - Fulfill, to a more advanced degree, all requirements for FP designation.
   - For all fixed-wing multi-engine aircraft, have at least 250 hours in fixed-wing multi-engine aircraft.

- For multi-piloted fixed-wing aircraft, have not less than 900 total pilot hours in military aircraft (excluding 3rd pilot time), of which at least 250 hours is in fixed-wing aircraft.
- For rotary-wing aircraft, have not less than 700 total pilot hours in military aircraft (excluding 3rd pilot time), of which at least 150 hours is in rotary-wing aircraft.
- Complete a written closed-book examination promulgated by the applicable ATC Mobile Training Division.
- Pass a designation standardization check flight with a unit or ATC Mobile Flight Examiner.
- Complete an oral exam that focuses on the practical application of the knowledge requirements for AC designation. Special emphasis will be placed on evaluating the candidate's judgment and maturity during this exam.

5. Civilian Contract Pilots. Civilian pilots contracted to fly Coast Guard aircraft shall be managed in accordance with Contractor's Flight and Ground Operations, COMDTINST M13020.3. A Civilian Contract Pilot (CCP) may hold any pilot designation.

   A CCP shall meet the prescribed minimum proficiency and recurrent training requirements for the applicable designation. However, night training requirements are not required if the CCP will not perform night operations under his or her contract.

6. Maintaining Pilot Designations. Pilots are required to maintain the periodic currency requirements outlined for all designations in this Chapter. Additional requirements are outlined below. Failure to meet these requirements results in loss of designation. Coast Guard pilots assigned Duty Involving Flying Operations (DIFOPS) on exchange programs with another service shall fulfill the minimum requirements of that service in lieu of Coast Guard requirements.

   a. 12-Year Requirements. Each pilot of a pressurized aircraft shall have completed Low Pressure/Dynamic Hypoxia training within the preceding 12 calendar years.

   b. 12-Month Requirements. Each pilot shall have completed the following within the preceding 12 calendar months (expiration is at the end of the 12th calendar month, and may be extended to the end of the 15th calendar month in order to meet scheduling demands with approval of the Commanding Officer):

      - An instrument check in each category in which a designation is held.
      - For fixed-wing, except Air Station Washington, a night procedures check in each aircraft type and model in which a designation is held.
      - A proficiency simulator course for each aircraft type and model in which a designation is held. Pilots in DIFPRO status are encouraged to attend proficiency simulator training (when available) but are exempt from completing this requirement.

Pilots in a DIFPRO status shall have completed a proficiency course within the previous 12 calendar months (expiration is at the end of the 12th calendar month, and may be extended to the end of the 15th calendar month in order to meet scheduling demands with approval of CG-711) to maintain a Basic SAR qualification.

c. Semi-Annual Requirements (DIFOPS). While minimums specified below are to be conducted within a semi-annual period, it is desirable to provide duty standing pilots 20-25 flight hours per month to ensure adequate proficiency, limit operational risks, and not compromise flight safety. Furthermore, it is expected that minimums requiring multiple iterations of a maneuver be fulfilled over the course of the semi-annual period to ensure constant proficiency.

The semi-annual minimum requirements outlined in Table 7-2 below shall be completed by pilots in DIFOPS status for each aircraft type and model in which a designation is held.

Table 7-2. Semi-Annual Minimums for DIFOPS Pilots

Required Task	Requirement	Remarks
Pilot Time	48 hours (AC/FP) 24 hours (CP)	6 hours must be at night 4 hours must be on NVGs (Up to one-half of each time requirement may be completed in an approved simulator)
Instrument Approach Procedures	3 approaches with a Decision Altitude (DA) 3 Approaches with a Minimum Descent Altitude (MDA)	3 approaches shall be at night 1 approach to an MDA and 1 approach to a DA shall be hand flown 1 circling approach (fixed-wing only) 1 approach flown to a published Missed Approach Procedure
Landings	6	2 shall be at night
NOTE: Units shall ensure pilots are able to safely conduct all types of approaches their specific aircraft type and model are capable of. Units shall focus on the types of approaches most applicable to their AOR.		

d. Semi-Annual Requirements (DIFPRO). Pilots on DIFPRO orders shall maintain a current CP designation in not more than one type and model aircraft.

The semi-annual minimum requirements outlined below shall be completed by pilots in DIFPRO status:

- Flight time - 24 hours minimum, 50 hours maximum.
- Night time - 2 hours (NVG time may be counted as night time)

Instrument approaches:

- 2 approaches with a DA
- 2 approaches with an MDA
- 1 approach must be a landing at night

Up to one-half of these requirements may be completed in an approved flight simulator.

C. PILOT QUALIFICATIONS.

1. Purpose. The following requirements must be met by pilots to obtain and maintain the qualifications outlined below.
2. Helicopter Over Water Requirements. Several pilot qualifications described in this Section require the ability to make an approach to a hover over water. For those qualifications, the maneuvers in Table 7-3 shall be completed each semi-annual period. Completion of Table 7-3 requirements within the semi-annual period may be applied to more than one qualification.

Table 7-3. Helicopter Over Water Semi-Annual Requirements

Required Task	Frequency	Remarks (apply to each row)
Coupled Approach to a Hover	6	• At least four shall be completed at night. • Up to one-half of each requirement may be completed in an approved simulator. • At least one shall be completed in simulated IMC using a view-limiting device. An operational approach or takeoff flown in actual IMC may be counted toward this requirement. • For MH-65: Up to one-half of the coupled approach requirement may be completed using IAS/VS mode.
Manual Approach to a Hover	6	
Coupled Instrument Takeoff	6	
Manual Instrument Takeoff	6	

3. Basic SAR Qualification. The Basic SAR qualification authorizes a pilot to assist in the performance of over-water planning, communications, and procedures; and to create a foundational skill set for the performance of critical over-water maneuvers in preparation for the advanced SAR qualification.

   The Basic SAR qualification authorizes rotary-wing pilots, at night or during IMC, to perform duties as the Pilot Monitoring or Pilot Flying during approaches to a hover over water, hovering over water, and Instrument Takeoffs from the water.

The Basic SAR qualification is specific to aircraft type and model and may be completed in conjunction with any aircraft transition or redesignation course.

a. Prerequisites for Basic SAR Qualification. The pilot must hold a current designation. The Basic SAR Qualification is attained either through resident based instruction at Aviation Training Center (ATC) Mobile, Alabama or by completion of the Basic SAR Requalification syllabus for aircraft type and model, if previously qualified.

b. Requirements to Maintain Basic SAR Qualification. Each pilot must perform copilot SAR duties on a recurrent training syllabus at least once per semi-annual period to maintain the basic SAR qualification. Additionally, each helicopter pilot shall complete the helicopter over water requirements listed in Table 7-3 each semi-annual period. Completion of the Advanced SAR qualification semi-annual requirements listed in Table 7-4 is encouraged but not required.

4. Advanced SAR Qualification. The Advanced SAR qualification authorizes a pilot to act as pilot-in-command for SAR missions and conduct Helicopter Inflight Refueling (HIFR). The advanced SAR qualification signifies knowledge of aircraft SAR procedures and limitations, and of the policies and procedures contained in the U. S. Coast Guard Addendum to the United States National Search and Rescue Supplement (NSS) to the International Aeronautical and Maritime Search and Rescue Manual (IAMSAR) COMDTINST M16130.2 (series). The Advanced SAR qualification is specific to aircraft type and model.

a. Prerequisites for Advanced SAR Qualification. Prior to beginning the Advanced SAR syllabus, a pilot shall be Basic SAR qualified and complete the Search Coordination and Execution (SC&E) course offered by the National SAR School, or an approved online training course.

Prior to receiving the qualification, the pilot must be designated a First Pilot or higher. The pilot must complete an oral exam on the practical application of Advanced SAR knowledge requirements. Special emphasis will be placed on evaluating the candidate's judgment and maturity during this exam. The candidate shall demonstrate, to a high degree, the ability to carry out all types of SAR missions including duty as onscene coordinator, as appropriate for type and model.

b. Requirements to Maintain Advanced SAR Qualification. Each pilot shall have completed a SAR Procedures Check within the preceding 12 calendar months. Expiration is at the end of the calendar month and may be extended to the end of the 15th calendar month with Commanding Officer approval.

Complete the SAR tasks on a recurrent training syllabus at least once per semi-annual period. Train in an offshore environment if possible.

Helicopter pilots shall complete the helicopter over water requirements listed in Table 7-3 each semi-annual period.

Complete the requirements in Table 7-4 each semi-annual period.

It is recommended that each pilot participate in a familiarization visit aboard each type of vessel typically used for hoist training in the unit's AOR.

Table 7-4. Advanced SAR Qualification Semi-Annual Requirements

Rotary-Wing Requirements		
Required Task	**Frequency**	**Remarks (apply to each row)**
Boat Hoists	6	• Three hoists shall be completed at night. • Up to two RS deployments (above the 6 required) can be used towards this requirement. • One hoist shall be to a boat DIW with trail line.
Rescue Swimmer Deployment and Recovery	6	• Four deployments and recoveries shall be completed at night. • One shall be a direct deployment and one shall be a deployment to a boat
Fixed-Wing Requirements		
Required Task	**Frequency**	**Remarks (apply to each row)**
Aerial Delivery System (ADS) Delivery	2	• Actual or practice gear shall be deployed for at least one ADS delivery. • One ADS delivery shall be performed at night; an NVG-aided drop satisfies the night drop requirement.
Air-Sea Rescue Kit Delivery (ASRK-24, ASRK-16 or ASRK-Modified)	2	• Actual or practice gear shall be deployed for at least one rescue kit delivery. • One rescue kit delivery shall be performed at night; an NVG-aided drop satisfies the night drop requirement.

5. Advanced SAR-Vertical Surface Qualification. The Advanced SAR - Vertical Surface Qualification authorizes a pilot to perform vertical surface hoisting evolutions using approved life support equipment.

   a. Prerequisites for Advanced SAR -Vertical Surface Qualification. To be eligible for the Advanced SAR - Vertical Surface qualification the member must be Advanced SAR qualified in the type and model of aircraft for which the qualification is being sought.

      The member must complete an oral exam that focuses on the practical application of employing the vertical surface capability. Special emphasis will be placed on aircraft limitations, environmental conditions and rescue swimmer safety.

b. Requirements to Maintain Advanced SAR-Vertical Surface Qualification. Each Advanced SAR-Vertical Surface qualified pilot shall have completed at least one vertical surface hoist evolution within the preceding 12 calendar months (may be extended to 15 calendar months with Commanding Officer approval).

6. CBR Qualification. A Chemical, Biological, and Radiological (CBR) qualification authorizes a pilot to operate an aircraft while wearing the specialized CBR personal protective equipment.

a. Prerequisite for CBR Qualification. To be eligible for the CBR qualification the member must be designated a First Pilot or higher in the type and model of aircraft for which the qualification is being sought. Each CBR pilot must have received training on the CBR ensemble, and conducted a flight in the aircraft or ATC approved simulator with the CBR ensemble (real or training) donned prior to earning the CBR qualification.

b. Requirements to Maintain CBR Qualification. Each CBR qualified pilot must have donned and received proper training on the CBR ensemble annually. Pilots shall conduct one flight in the aircraft or ATC approved simulator with CBR ensemble (real or training) donned every 18 calendar months.

7. Shipboard-Helicopter Qualification. A shipboard-helicopter qualification authorizes a helicopter pilot to conduct shipboard landings and Helicopter Inflight Refueling (HIFR). To obtain a shipboard-helicopter qualification, pilots shall complete the requirements specified in the Shipboard-Helicopter Operational Procedures Manual, COMDTINST M3710.2 (series).

a. Requirements to Maintain Shipboard-Helicopter Qualification. To maintain a shipboard-helicopter qualification, pilots shall complete the recurrent training requirements specified in the Shipboard-Helicopter Operational Procedures Manual, COMDTINST M3710.2 (series). In addition, pilots at units for which there is no SAR readiness posture, shall perform one HIFR evolution each semi-annual period. If underway HIFR is not possible, land-based simulated HIFR with a training rig will meet this requirement.

b. Lapse in Shipboard-Helicopter Qualification. If a member fails to meet recurrent training requirements, they shall follow the requalification training requirements specified in the Shipboard-Helicopter Operational Procedures Manual, COMDTINST M3710.2 (series) prior to acting as PIC for a subsequent shipboard-helicopter mission. Failure to meet the shipboard-helicopter recurrent training requirements does not require a notification letter to Commandant (CG-711), as described in Paragraph 7.H.3.a. of this Manual.

8. AUF-NCV Qualification. An AUF-NCV qualification authorizes a helicopter pilot to perform single- and multi-aircraft AUF-NCV missions.

   a. Prerequisites for AUF-NCV Qualification. To be eligible for the AUF-NCV qualification, a pilot must have the following minimum flight experience:

   - Current Aircraft Commander; or First Pilot that held a previous USCG AC or DoD PIC Designation.
   - 500 hours rotary-wing pilot time.
   - 50 hours NVG time.

   b. 12-month Requirements to Maintain AUF-NCV Qualification. Each AUF-NCV qualified pilot shall have completed the following within the preceding 12 calendar months:

   - An inflight AUF-NCV qualification standardization check.
   - A noncompliant vessel open-book test.
   - Receive an AUF operational law briefing.
   - Review evidence-gathering techniques outlined in U.S. Coast Guard Maritime Law Enforcement Manual (MLEM), COMDTINST M16247.1 (series).

   c. Semi-Annual Requirements to Maintain AUF-NCV Qualification. Each AUF-NCV qualified pilot shall complete the following each semi-annual period:

   - 6 CD tactics flights, at least three of which using NVGs.
   - 2 AUF-NCV aerial gunnery flights, at least one of which using NVGs.
   - Helicopter over water requirements listed in Table 7-3.

9. AUF-NCV Air Mission Commander Qualification. An AUF-NCV Air Mission Commander qualification is judgment intensive and builds upon the AUF-NCV qualification. Only the Commanding Officer of an aviation unit authorized by Commandant (CG-DCO) to perform AUF-NCV operations or ATC Mobile may issue this qualification.

   To be eligible for the AUF-NCV Mission Commander qualification, the member must be AUF-NCV qualified and complete the following prerequisites:

   - 1,000 hours of total pilot time in military aircraft.
   - 30 days (minimum) deployed as an AUF-NCV qualified pilot.
   - A noncompliant vessel open-book test.
   - An oral board that focuses on the practical application of the knowledge requirements for Mission Commander qualification. Special emphasis will be placed on evaluating the candidate's judgment, leadership skills, thorough comprehension of the legal aspects and limits governing AUF-NCV operations, and other operational aspects such as Shipboard Helicopter operations.

10. Basic Fast Roping Qualification. The basic Fast Roping (FR) qualification authorizes a helicopter pilot to deliver boarding team members to a compliant vessel using an approved fast rope and recover members using a hoist.

    a. Prerequisites for FR Qualification. To be eligible for the basic Fast Roping qualification, a pilot shall have the following minimum flight experience:

    - 500 hours rotary-wing pilot time
    - 50 hours NVG time

    b. Requirements to Maintain FR Qualification. Each FR qualified pilot shall have completed an inflight FR qualification standardization check within the preceding 12 calendar months (may be extended to 15 calendar months with Commanding Officer approval).

    An FR qualified pilot shall complete 6 fast-rope deployments each semi-annual period, at least 4 of which using NVGs; each evolution shall include at least two ropers. A minimum of 4 evolutions shall be to a maritime target (vessel, oil rig, etc).

    An FR qualified pilot shall complete 6 boat hoist evolutions each semi-annual period; Three hoists shall be completed at night; one shall be NVG-aided and two shall be unaided. Boat hoists completed for the Advanced SAR minimums may be counted toward this requirement.

    Additionally, each pilot shall complete the helicopter over water requirements listed in Table 7-3 each semi-annual period.

11. Tactical Fast Roping Qualification. The Tactical Fast Roping (TAC-FR) qualification authorizes a qualified pilot to execute a multi-aircraft mission to deliver a boarding team to a location that might have active aggressors. TAC-FR operations include coordination with an aviation asset providing armed cover.

    a. Prerequisites for TAC-FR Qualification. To be eligible for the TAC-FR qualification, a pilot shall have the following minimum flight experience:

    - Current Aircraft Commander; or First Pilot that held a previous USCG AC or DoD PIC Designation.
    - 1,000 hours of total pilot time in military aircraft.
    - 500 hours rotary-wing pilot time.
    - 50 hours NVG time.

    b. Requirements to Maintain TAC-FR Qualification. Complete the following to maintain the TAC-FR qualification:

    - Inflight TAC-FR qualification standardization check within the preceding 12 calendar months (may be extended to 15 calendar months with Commanding Officer approval).
    - Helicopter over water requirements listed in Table 7-3 each semi-annual period.
    - The requirements in Table 7-5 each semi-annual period.

Table 7-5. Pilot TAC-FR Semi-Annual Requirements

Required Task	Frequency	Remarks
Over Land Approaches	6	A minimum of 3 approaches shall employ NVGs
Over Water Approaches	6	A minimum of 3 approaches shall employ NVGs
NVG Formation Flight	8 Hours	
Tactical Exercise	1	
Fast-Roping Deployments	6	Each deployment shall include at least 2 ropers; A minimum of 4 deployments shall employ NVGs; A minimum of 4 deployments shall be to a maritime target (vessel, oil rig, etc)
Boat Hoists	6	Three hoists shall be completed at night. One shall be NVG-aided and two shall be unaided. Boat hoists completed for the Advanced SAR minimums may be counted toward this requirement.

12. Tactical Cover Qualification. A Tactical Cover qualification authorizes an Advanced AUF-PWCS qualified helicopter pilot to perform AUF tactical cover for TAC-FR and hook and climb operations described in Aviation Special Missions (ASM) Tactics, Techniques, and Procedures, CGTTP 3-90.1 (series), Hook and Climb Tactics, Techniques, and Procedures, CGTTP 3-95.1 (series), and Helicopter Insertion and Extraction Tactics, Techniques, and Procedures, CGTTP 3-95.4 (series).

    a. Prerequisites for Tactical Cover Qualification. To be eligible for the Tactical Cover qualification, a pilot must be Advanced AUF-PWCS qualified.

    b. Requirements to Maintain Tactical Cover Qualification. Each pilot shall have completed an inflight Tactical Cover qualification standardization check within the preceding 12 calendar months (may be extended to 15 calendar months with Commanding Officer approval).

    Tactical Cover qualified pilots shall complete the over land approaches, over water approaches, tactical exercise and NVG formation flight requirements of Table 7-5.

13. Rotary-Wing Air Intercept Qualification. A Rotary-Wing Air Intercept (RWAI) qualification authorizes a helicopter pilot to perform air intercept and escort of aircraft for law enforcement, national defense and homeland security missions.

    a. Prerequisites for RWAI Qualification. To be eligible for the RWAI qualification, a pilot must be designated a First Pilot or higher.

b. Requirements to Maintain RWAI Qualification. Each RWAI qualified pilot shall have completed:

- An inflight RWAI qualification standardization check within the preceding 12 calendar months (may be extended to 15 calendar months with Commanding Officer approval).
- Three RWAI RT flights from the right seat (at least two shall be NVG aided) and one RWAI operational exercise from either seat each semi-annual period. Table 7-6, contains the minimum maneuvers for an RWAI RT flight. The semi-annual RWAI operational exercise shall include vectors from an Air Defense Sector (ADS) and should include 3 evolutions.

If an RWAI pilot has not completed an RWAI RT flight in the preceding 90 days, that pilot shall complete an NVG aided RWAI RT flight from the right seat before the member is assigned to an operational mission.

Table 7-6. RWAI RT Flight (right seat) Requirements

Required Task	Frequency	Remarks
Intercepts	5	• At least one shall be head-to-head • At least one shall be abeam • At least one shall be to a static TOI
Movement to signal position	1	

c. Requirements to Maintain ATC Mobile RWAI Qualification. The following are required for an ATC Mobile RWAI pilot to maintain an RWAI qualification:

- Each ATC Mobile RWAI qualified pilot shall have completed an inflight RWAI qualification standardization check within the preceding 12 calendar months (may be extended to 15 calendar months with Commanding Officer approval).
- Complete a minimum of 24 intercepts, a minimum of 18 intercepts using NVGs each semi-annual period
- No more than 30 days prior to standing operational RWAI duty, an ATC Mobile RWAI qualified pilot shall complete the requirements outlined in Table 7-6.

14. Fixed-Wing Air Intercept Qualification. The Fixed-Wing Air Intercept (FWAI) qualification authorizes a fixed-wing pilot to perform air intercept and escort of aircraft for law enforcement and homeland security missions. Training and qualification requirements for pilots and aircrew are specified in the Air Interdiction Procedures Manual, COMDTINST M3710.3 (series).

15. Aerial Dispersant Delivery Qualification. An Aerial Dispersant Delivery System (ADDS) qualification authorizes a pilot to employ ADDS for training and operational marine environmental protection missions.

    a. Prerequisites for ADDS Qualification. To be eligible for the ADDS qualification the member must be designated in the type and model of aircraft for which the qualification is being sought.

    b. Requirements to Maintain ADDS Qualification. Within the preceding 12 calendar months (may be extended to 15 calendar months with Commanding Officer approval), the member must have performed one ADDS mission or exercise, consisting of deploying and stowing the booms inflight and performing the ADDS checklists.

D. AIRCREW DESIGNATIONS.

1. Purpose. The following requirements must be met by aircrew members to obtain and maintain aircrew designations, in addition to the requirements for all designations.

2. Basic Aircrew. The Basic Aircrew (BA) designation is the entry-level aircrew position of any Coast Guard aircraft. A member must demonstrate type-specific aircraft knowledge as well as basic skills to participate as an aircrew member in operational missions. A Basic Aircrew candidate must meet the following requirements:

   - Must be a graduate of a military aviation A school; or from a Coast Guard approved commercial aviation A school, or have achieved an aviation rating in one of the other U.S. Armed Forces.
   - Must have completed a Commandant (CG-711) approved syllabus for the type and model of aircraft in which the designation is sought.

3. HC-130H Flight Engineer. To obtain a HC-130H Flight Engineer (FE) designation, a member must have held a HC-130H BA designation for at least one year, and must be recommended for Flight Engineer by the unit FEB and unit Operations Officer.

   - A Flight Engineer candidate must complete an approved Commandant (CG-711) HC-130 Flight Engineer course.
   - Each HC-130H Flight Engineer shall have completed a proficiency simulator course within the preceding 12 calendar months.

4. HC-130H Navigator . The Navigator (N) designation authorizes a HC-130H crewmember to operate the mission radar, supervise the Radio Operator and assist the pilots in navigation and communication duties.

   - Prior to beginning the Navigator syllabus the member must be a qualified Radio Operator with at least 50 flight hours in aircraft type.
   - Prior to beginning the Navigator flight syllabus the member must complete the ATC Mobile Basic Air Navigation course.

5. Aviation Mission Specialist. The Aviation Mission Specialist (AMS) designation, when accompanied by a mission qualification or mission essential competency, enables a member that does not hold a BA designation to

perform Coast Guard mission-specific duties aboard a particular aircraft type and model. AMS-designated TACLET personnel may perform duties aboard a particular type aircraft.

- To obtain an AMS designation, the member must complete the Commandant (CG-711) approved syllabus for the type and model of aircraft in which the designation is sought.

6. Flight Surgeon and APA-D. Requirements for designation as a Coast Guard Flight Surgeon are described in Chapter 5, Coast Guard Aviation Medicine Manual, COMDTINST M6410.3 (series). Additionally, Flight Surgeons (FS) shall complete the same requirements as those for the AMS designation. Flight surgeons shall be provided maximum exposure to all Coast Guard flight regimes.

   - Flight surgeons shall obtain a minimum of 24 hours of flight time per semi-annual period, to include at least four hours of night time, of which at least two hours shall be NVG-aided.

E. AIRCREW QUALIFICATIONS.

1. Purpose. Aircrew qualifications, other than pilot qualifications, establish crew positions to perform Coast Guard missions.

2. Basic Hoist Qualification. A Basic Hoist (BH) qualification authorizes a Basic Aircrew member to perform non-personnel hoists.

   a. Prerequisites for Basic Hoist Qualification. To be eligible for the Basic Hoist qualification the member must be designated as Basic Aircrew in the type and model of aircraft for which the qualification is being sought.

   b. Requirements to Maintain Basic Hoist Qualification. Each Basic Hoist qualified aircrew member shall have completed a Basic Hoist standardization check within the preceding 12 calendar months (may be extended to 15 calendar months with Commanding Officer approval). Additionally, each BH shall have conducted at least one basic hoist evolution within the preceding semi-annual period.

3. Flight Mechanic Qualification. A Flight Mechanic (FM) qualification authorizes a rotary-wing crewmember to perform hoist evolutions including Rescue Swimmer Operations and to hoist survivors during day and night conditions using approved life support equipment.

   a. Prerequisites for Flight Mechanic Qualification. Prior to beginning the Flight Mechanic syllabus the member must be designated as Basic Aircrew in the type and model of aircraft for which the qualification is being sought.

   b. Requirements to Maintain Flight Mechanic Qualification. The following are required to maintain the FM qualification:

      - Complete a Flight Mechanic qualification standardization check within the preceding 12 calendar months (may be extended to 15 calendar months with Commanding Officer approval).

- Conduct at least one boat hoist, or a rescue swimmer deployment to the water or vertical surface, within the preceding semi-annual period.
- Complete the requirements listed in the Flight Mechanic Semi-Annual Requirements, Table 7-7.
- Participate in biennial asset familiarization training on platforms routinely encountered in the unit's AOR; Asset familiarization training shall be completed within three months of reporting to a new operational unit.

Table 7-7. Flight Mechanic Semi-Annual Requirements

Required Task	Frequency	Remarks
Boat Hoists	4	Two at night, one to a boat DIW with trail line
Rescue Swimmer Deployment Recovery Sequences	4	Two at night One Direct deployment
Hoist Emergency Drill	2	Recommend at least: one hoist failure, one ICS failure
Rescue Swimmer Emergency Drill	1	Lost swimmer or leaving swimmer on scene

4. Flight Mechanic-Vertical Surface Qualification. The Flight Mechanic-Vertical Surface (FM-VS) Qualification authorizes a Flight Mechanic to perform vertical surface hoisting evolutions using approved life support equipment.
   a. Prerequisites for Flight Mechanic-Vertical Surface Qualification. To be eligible for the Fight Mechanic - Vertical Surface qualification the member must be qualified as Flight Mechanic in the type and model of aircraft for which the qualification is being sought.
   b. Requirements to Maintain Flight Mechanic-Vertical Surface Qualification. Each Flight Mechanic-Vertical Surface qualified member shall have completed at least one vertical surface hoist evolution within the preceding 12 calendar months (may be extended to 15 calendar months with Commanding Officer approval).
5. Rescue Swimmer Qualification. The Rescue Swimmer (RS) qualification authorizes a crewmember to deploy from a helicopter to assist persons or property in distress. Additionally, an RS is authorized to perform Emergency Medical Technician (EMT) duties aboard Coast Guard aircraft.
   a. Prerequisites for Rescue Swimmer Qualification. To be eligible for the RS qualification for the type and model of aircraft for which the qualification is being sought, the following requirements must be met:
      - The member must be designated as Basic Aircrew in the primary type and model of aircraft for which the qualification is being sought.
      - Complete a military helicopter rescue swimmer school.

- Complete certification as a Coast Guard National Registered Emergency Medical Technician (EMT).

b. Awarding Rescue Swimmer Insignia. Members shall be awarded insignia as described in the Uniform Regulations, COMDTINST M1020.6 (series) upon completion of the requirements to obtain the Rescue Swimmer qualification.

c. Requirements to Maintain Rescue Swimmer Qualification. The following are required to maintain the RS qualification:

- Complete a RS qualification standardization check within the preceding 12 calendar months (may be extended to 15 calendar months with Commanding Officer approval).
- Complete the physical fitness and medical training requirements listed in the Coast Guard Helicopter Rescue Swimmer Manual, COMDTINST M3710.4 (series).
- Conduct at least one RS deployment within the preceding 90 days.
- Participate in a biennial asset familiarization training on platforms routinely encountered in the unit's AOR; Asset familiarization training shall be completed within three months of reporting to a new operational unit.
- Complete the requirements listed in the Rescue Swimmer Semi-Annual Requirements, Table 7-8.

RSs stationed at a dual rotary-wing unit (e.g., ATC Mobile, Kodiak) are only required to gain BA designation in one airframe. Upon completion of the Commandant (CG-711) approved RS transition syllabus, a RS may deploy from the other airframe in which a BA designation is not held. Airframe qualification utilizing the RS transition syllabus is only approved for dual rotor wing units and is deemed a temporary qualification and shall be rescinded upon member transfer. Members attached to the ATC RS Standardization Division shall complete the Commandant (CG-711) approved RS transition syllabus for the additional rotary-wing airframe prior to conducting standardization checks at a unit that does not maintain their primary airframe.

Rescue Swimmers who are transferred to a unit with a different rotary-wing aircraft are authorized to fly as mission essential personnel fulfilling the operational RS position, not a crewmember, for 90 days upon completion of the Helicopter Rescue Swimmer Abbreviated Qualification Syllabus. Rescue Swimmers shall be designated in type within the 90-day period.

In instances of urgent operational necessity, RSs from a single and/or dual rotor wing unit may deploy from either airframe after receiving the Mission Essential Personnel aircraft orientation described in Paragraph 4.J.2. of this Manual.

Qualified Rescue Swimmers may log deployments to the water or any surface regardless of the type and model of helicopter. Aviation Survival Technicians (AST) from pay grade E-7 thru E-9 may lapse in RS qualification. Those that choose not to participate are required to notify Chief, Office of Aviation Forces (CG-711). This does not prohibit the AST from maintaining the BA designation.

Table 7-8. Rescue Swimmer Semi-Annual Requirements

Required Task	Frequency	Remarks
Free Fall Deployment	4	Used only in daylight and requires a minimum water depth of 12 feet.
Sling/Harness Deployment*	4	A minimum of one Sling/Harness Deployment shall employ Hoist Static Discharge Cable.
Direct Deployment*	4	A minimum of one Direct Deployment shall employ Double Lift Recovery.
Rescue Swimmer Emergency Drill	1	Lost swimmer or leaving swimmer onscene.
Aircraft Vectoring	1	Every 180 days from date of last completion.
NOTE: * A minimum of one Sling/Harness or one Direct Deployment shall be completed at night. Deployment chosen is at RS discretion.		

6. Rescue Swimmer Advanced Helicopter Rescue School (AHRS). Rescue Swimmers are required to attend AHRS within 3 years of initial RS qualification. Recurrent training at AHRS is required every 6 years.

7. Rescue Swimmer -Vertical Surface Qualification. The Rescue Swimmer-Vertical Surface (RS-VS) Qualification authorizes a Rescue Swimmer to perform vertical surface hoisting evolutions using approved life support equipment.

   a. Prerequisites for Rescue Swimmer-Vertical Surface Qualification. To be eligible for the Rescue Swimmer-Vertical Surface qualification the member must be qualified as Rescue Swimmer in the type of aircraft for which the qualification is being sought.

   b. Requirements to Maintain Rescue Swimmer-Vertical Surface Qualification. Each Rescue Swimmer-Vertical Surface qualified member shall have completed at least one vertical surface hoist evolution within the preceding 12 calendar months (may be extended to 15 calendar months with Commanding Officer approval).

8. Transitional Rescue Swimmer Qualification. The Transitional Rescue Swimmer (RS) qualification authorizes a Rescue Swimmer stationed at a dual rotary-wing unit (e.g., ATC Mobile, Kodiak) to deploy from the secondary airframe in which a BA designation is not held after completing the Commandant (CG-711) approved RS Transition Syllabus.

   a. Requirements to Maintain Transitional Rescue Swimmer Qualification. Transitional Rescue Swimmer Qualification is deemed a temporary qualification and shall be rescinded upon member transfer to a non dual aircraft unit. Members attached to the ATC RS Standardization Division shall complete the Commandant (CG-711) approved RS transition syllabus for the additional rotary-wing airframe prior to conducting standardization checks at a unit that does not maintain their primary airframe.

   b. Training while at Advanced Helicopter Rescue School (AHRS). Rescue Swimmers attending AHRS may log deployments without the transitional RS qualification, regardless of helicopter type and model.

9. Basic Fast Roping Qualification. The basic Fast Roping (FR) qualification authorizes a Flight Mechanic to deliver boarding team members to a vessel using an approved fast rope.

   a. Prerequisites for FR Qualification. To be eligible for the FR qualification the member must hold a Flight Mechanic qualification in the type and model of aircraft for which the FR qualification is being sought.

   b. Requirements to Maintain FR Qualification. Each FR qualified Flight Mechanic shall have completed an FR qualification standardization check within the preceding 12 calendar months (may be extended to 15 calendar months with Commanding Officer approval).

      An FR qualified Flight Mechanic shall complete 6 fast roping evolutions each semi-annual period, at least 4 of which using NVGs; each evolution shall include at least two ropers. A minimum of 4 evolutions shall be to a maritime target (vessel, oil rig, etc.).

10. Tactical Fast Roping Qualification. The Tactical Fast Roping (TAC-FR) qualification authorizes a Flight Mechanic to deliver a boarding team to a location that might have active aggressors.

   a. Prerequisites for TAC-FR Qualification. Prior to beginning the TAC-FR syllabus, the member must hold the FM and FR mission qualification in the type and model of aircraft for which the TAC-FR qualification is being sought.

   b. Requirements to Maintain TAC-FR Qualification. Each TAC-FR-qualified Flight Mechanic shall have completed a TAC-FR qualification standardization check within the preceding 12 calendar months (may be extended to 15 calendar months with Commanding Officer approval).

      Semi-annual training requirements to maintain this qualification are outlined in Table 7-9.

Table 7-9. Flight Mechanic Tactical Fast Roping Semi-Annual Requirements

Required Task	Frequency	Remarks
Over Land Approaches	6	A minimum of 3 approaches shall employ NVGs
Over Water Approaches	6	A minimum of 3 approaches shall employ NVGs
Fast-Roping Evolutions	6	Each deployment shall include at least 2 ropers; A minimum of 4 deployments shall employ NVGs; A minimum of 4 deployments shall be to a maritime target (vessel, oil rig, etc)
Tactical Exercise	1	

11. Precision Marksman-Aviation Mission Qualification. A Precision Marksman-Aviation (PM-A) mission qualification authorizes a designated aircrew member to employ Airborne Use of Force (AUF) as described in the Maritime Law Enforcement Manual (MLEM), COMDTINST M16247.1 (series). A designated aviation crewmember (BA or AMS) with a PM-A or PM-A instructor (PM-AI) qualification may exercise those qualifications in any helicopter approved for CG AUF missions. This includes CG, DoD, and allied aircraft. In addition, a PM-AI qualified Flight Examiner (FE) may complete AMS designation standardization checks for PM-As. The PM-A qualification is mission-specific, and a separate Commandant (CG-711) approved syllabus is required for each mission qualification (e.g., AUF-NCV).

    a. Prerequisites for Precision Marksman-Aviation Qualification. To be eligible for the PM-A qualification the member must be designated as Basic Aircrew or Aviation Mission Specialist in the type of aircraft for which the qualification is being sought.

    Prerequisites for a PM-A qualification are described in the Precision Marksman Policy and Standards Manual, COMDTINST M16601.18 (series). In addition, to be eligible for the PM-A qualification, the member shall be designated as a BA or AMS in a Coast Guard helicopter.

    b. Requirements to Maintain Precision Marksman-Aviation Qualification. The requirements to maintain the PM-A qualification are described in Precision Marksman Policy and Standards Manual, COMDTINST M16601.18 (series). In addition, an AUF operational law briefing shall be completed within the preceding 12 calendar months.

12. RWAI Aircrew Qualification. The RWAI Aircrew qualification authorizes a Basic Aircrew member to perform RWAI aircrew tasks.

    a. Prerequisites for RWAI Aircrew Qualification. To be eligible for the RWAI Aircrew qualification the member must be designated as Basic Aircrew in the type and model of aircraft for which the qualification is being sought.

b. Requirements to Maintain RWAI Aircrew Qualification. Each RWAI Aircrew qualified member shall have completed at least one RWAI intercept to include movement to signal position within the preceding 12 calendar months (may be extended to 15 calendar months with Commanding Officer approval).

13. C4ISR System Operator Qualifications. To maintain qualification, Rotary-Wing C4ISR system operators (i.e., Communication Systems, Electro-Optical Sensor System (ESS) etc.) and Fixed-Wing C4ISR System Operators (i.e., Mission System Operator (MSO), Tactical System Operators (TSO), Sensor System Operators (SSO), etc.) should have completed the applicable C4ISR Proficiency (Refresher) Training (provided annually at each air station) within the preceding 30 calendar months.

a. Radio Operator Qualification. The Radio Operator (R) qualification authorizes a HC-130H crewmember to assist the pilots in performing communication duties.

(1) Prerequisites for Radio Operator Qualification. To be eligible for the Radio Operator qualification the member shall be designated as Basic Aircrew in the type and model of aircraft for which the qualification is being sought.

(2) Requirements to Maintain Radio Operator Qualification. Each Radio Operator shall have completed a Radio Operator qualification standardization check within the preceding 12 calendar months (may be extended to 15 calendar months with Commanding Officer approval).

b. Sensor System Operator Qualification. The Sensor System Operator (SSO) qualification authorizes aircrew to operate sensor and communications equipment aboard the HC-130H. A separate SSO qualification is required for each aircraft model.

(1) Prerequisites for SSO Qualification. To be eligible for the SSO qualification the member shall complete the SSO ground school at ATC Mobile and shall be designated as Basic Aircrew or Aviation Mission Specialist in the type and model of aircraft for which the qualification is being sought.

(2) Requirements to Maintain SSO Qualification. The following are required to maintain an SSO qualification:

- Each SSO shall have completed an SSO qualification standardization check within the preceding 12 calendar months (may be extended to 15 calendar months with Commanding Officer approval).
- HC-130H Sensor Systems Operators shall complete the recurrent training requirements outlined in the C-130H Training and Standardization Manual, CGTO-1C-130-1-A.

c. Tactical System Operator Qualification. The Tactical System Operator (TSO) qualification authorizes aircrew to operate data communications equipment aboard the HC-130H.

(1) Prerequisites for TSO Qualification. To be eligible for the TSO qualification the member shall complete the TSO ground school and be designated as Basic Aircrew, Aviation Mission Specialist or Navigator in the type and model of aircraft for which the qualification is being sought.

(2) Requirements to Maintain TSO Qualification. TSOs shall complete the recurrent training requirements outlined in the C-130H Training and Standardization Manual, CGTO-1C-130-1-A. Additionally, each TSO shall have completed a TSO qualification standardization check within the preceding 12 calendar months (may be extended to 15 calendar months with Commanding Officer approval).

d. Mission System Operator Qualification. The Mission System Operator (MSO) qualification authorizes aircrew to operate sensor and communications equipment aboard the HC-130J, HC-27J, C-37A and HC-144.

(1) Prerequisites for MSO Qualification. To be eligible for the MSO qualification the member must complete the MSO ground school and be designated as Basic Aircrew or Aviation Mission Specialist in the type and model of aircraft for which the qualification is being sought.

(2) Requirements to Maintain MSO Qualification. Each MSO shall have completed an MSO qualification standardization check within the preceding 12 calendar months (may be extended to 15 calendar months with Commanding Officer approval). Semi-annual training requirements to maintain this qualification are outlined in Table 7-10 below.

Table 7-10. Mission System Operator Semi-Annual Requirements

Required Task	Frequency	Remarks
Complete Minotaur operations	2	Drawings, track filters, TSAR
Search radar operations	2	ISAR, vectoring
EO/IR operations	2	Minotaur and manual
Establish HF secure	2	
MILSATCOM operations	2	
Imagery transfer via Minotaur and SAMBA	2	

14. Loadmaster Qualification. The Loadmaster (LM) qualification authorizes aircrew of the HC-130, HC-27, and HC-144 to load, transport and off-load cargo within the limits specified by the aircraft flight manual.

    a. Prerequisites for Loadmaster Qualification. To be eligible for the Loadmaster qualification the member must be designated as Basic Aircrew in the type and model of aircraft for which the qualification is being sought.

    b. Requirements to Maintain Loadmaster Qualification. The member shall complete one cargo loading exercise to include on-loading, securing and off-loading cargo and completing all required documentation each semi-annual period. Additionally, each Loadmaster shall have completed a Loadmaster qualification standardization check within the preceding 12 calendar months (may be extended to 15 calendar months with Commanding Officer approval).

15. Dropmaster Qualification. The Dropmaster (DM) qualification authorizes aircrew of the HC-130, HC-27, and HC-144 to perform aerial delivery of approved equipment.

    a. Prerequisites for Dropmaster Qualification. To be eligible for the Dropmaster qualification the member must be designated as Basic Aircrew in the type and model of aircraft for which the qualification is being sought.

    b. Requirements to Maintain Dropmaster Qualification. The following are required to maintain the DM qualification:

        - Each Dropmaster shall have completed a Dropmaster qualification standardization check within the preceding 12 calendar months (may be extended to 15 calendar months with Commanding Officer approval).

        - Each Dropmaster shall conduct one Aerial Delivery System delivery each semi-annual period.

16. Aerial Dispersant Delivery System Qualification. The Aerial Dispersant Delivery System (ADDS) qualification authorizes HC-130 aircrew to perform ground handling and inflight operation of the ADDS.

    a. Prerequisites for ADDS Qualification. To be eligible for the ADDS qualification the member must be designated as Basic Aircrew in the type and model of aircraft for which the qualification is being sought.

    b. Requirements to Maintain ADDS Qualification. Within the preceding 12 calendar months (may be extended to 15 calendar months with Commanding Officer approval), the member must have performed one ADDS mission or exercise, consisting of loading the pack on the ground deploying and stowing the booms inflight and performing the ADDS checklists.

F. INSTRUCTORS AND EXAMINERS.

1. Purpose. Instructors and Examiners are qualified to perform formal syllabus instruction. This does not limit other crew positions from providing instruction as prescribed within specific curricula. All qualified crewmembers are expected to provide mentoring and to share their knowledge and experience with junior flight crewmembers.

2. Instructor Qualification. Commanding Officers shall authorize all Pilot and Aircrew Instructors in writing. This authorization shall include the designation and all qualifications for which the member is authorized to instruct. Instructors may be authorized to perform instruction for any current designations and qualifications they hold.

   The Instructor qualification lapses upon PCS transfer. The Commanding Officer of the gaining unit may issue a new authorization letter based on prior Instructor qualifications that are still current.

   a. Requirements to Obtain Instructor Qualification. To be considered for an Instructor qualification, a member must demonstrate, to a high degree, the following personal characteristics:

      - Superior judgment.
      - Patience, tact, understanding, and a desire to instruct others.
      - A personality that inspires confidence and wins the respect of others.
      - Sufficient experience to uphold the desired standard of knowledge, judgment, and proficiency in the maneuvers he or she will be instructing.

      To obtain an Instructor qualification, the member shall:

      - Be recommended for Instructor designation by the unit Operations Officer.
      - Have been designated in type and qualified for the mission(s) to be instructed. The Commanding Officer shall ensure prospective instructor pilots posses the necessary mission experience and proficiency.
      - Have completed ATC Mobile training in methods of instruction.
      - Be thoroughly familiar with the aircraft systems and equipment, normal and emergency operating procedures, and aircraft performance under all conditions of flight for the respective crew position.
      - Complete a Commandant (CG-711) approved instructor syllabus pertaining to the designation held by the member.
      - Pass an instructor qualification standardization check flight with a unit or ATC Mobile Flight Examiner.

   b. Requirements to Maintain Instructor Qualification. Each member shall have completed an instructor qualification standardization check within the preceding 12 calendar months.

The following requirements shall be completed each semi-annual period:

- Each Instructor Pilot shall conduct a combination of at least six upgrade syllabus flights and recurrent training syllabus flights.
- Each Aircrew Instructor shall conduct at least three syllabus instruction flights or ground training sessions for the qualifications or designations he or she holds during each semi-annual period. Loadmaster Instructors may complete their semi-annual syllabus or flight checks in the aircraft without actually being inflight.
- Each PM-A Instructor shall conduct at least three syllabus instruction flights, which may include ground range sessions or check flights in the designated classification level.

Syllabus events instructed in the approved simulators, flight trainers, or the Aircrew Weapons Trainer can be counted toward the above requirements. Instructors who fail to conduct the minimum number of instructional events or check flights lapse and must satisfactorily complete an instructor standardization check before conducting further instructional flights.

c. Flight Syllabus Instruction. Only qualified Instructors, designated in the type and model of aircraft, position, and training being conducted, shall perform the flight portion of initial and upgrade syllabus instruction except as provided below:

- Instructors assigned to the ATC Mobile Sensors/C4ISR Training Division qualified in HC-144 or HC-130J mission systems may provide initial and upgrade instruction on the operation of either the HC-144 or HC-130J mission system.
- Instructors assigned to the ATC Mobile Sensors/C4ISR Training Division qualified in HC-130H mission systems may provide initial and upgrade instruction on the operation of the HC-130H mission system.
- Instructors assigned to the ATC Mobile Sensors/C4ISR Training Division who are experts in the operation of any Coast Guard helicopter EO/IR sensor system and communication systems may provide initial and upgrade instruction on the operation of EO/IR systems aboard any other Coast Guard helicopter.
- RWAI qualified Aircraft Commanders may provide initial and upgrade instruction to basic aircrew as detailed in the RWAI Aircrew Qualification Syllabus.

When an Instructor is aboard who does not hold a current designation in type and model, sufficient designated personnel shall be carried to meet the minimum crew requirements outlined in Chapter 3.

3. Flight Examiner Qualification. Commanding Officers shall authorize all unit Pilot or Aircrew Flight Examiners in writing. A Flight Examiner is authorized to perform designation and qualification evaluations for any crew positions in which the member holds Instructor qualifications.

The Flight Examiner qualification lapses upon PCS transfer. The Commanding Officer of the gaining unit may issue a new authorization letter based on prior Flight Examiner qualifications that are still current.

a. Prerequisites for Flight Examiner Qualification. Before Flight Examiner qualification, the member shall be a qualified Instructor, and be recommended for Flight Examiner qualification by the unit Operations Officer.

b. Requirements to Maintain Flight Examiner Qualification. Flight Examiners have the same proficiency requirements as Instructors, and can use flight check events toward meeting those requirements.

4. Duties and Responsibilities of Training Divisions. Training Divisions of ATC Mobile are responsible for ensuring standardized operation of equipment during Coast Guard aviation missions. Standardization is achieved through development and delivery of training curricula, development and maintenance of aircraft operating manuals and supplements, and through annual evaluation of air station standardization programs.

   Additionally, Training Divisions shall provide subject matter experts as directed by Commandant (CG-711) for aircraft accident analysis.

   a. Training Curricula. Training Divisions are responsible for developing and maintaining standardized designation, qualification, and recurrent flight training curricula for approval by FORCECOM (FC-T) and Commandant (CG-711) for all flight crew positions. Each curriculum shall define the duties of each crewmember, the skills necessary to complete each duty and performance standards by which successful completion can be evaluated.

      Training Divisions shall develop and maintain a standardized flight evaluation check for each designation, and for qualifications as required, to be used for initial and annual evaluation check flights.

   b. Aircraft Operating Guidance. Training Divisions shall assist in the preparation and review of aircraft operating manuals and supplements, as well as documentation of tactics, techniques, and procedures for the successful completion of Coast Guard missions. Additionally, Training Divisions shall provide capability recommendations to Commandant (CG-711) for upgrade and replacement of aircraft equipment to enhance the operational efficiency and safety in each aircraft. Finally, Training Divisions shall maintain close liaison with other units and agencies that operate similar aircraft and have comparable flight crew designations.

   c. Standardization Visits. Training Divisions shall conduct evaluations of aviation standardization programs. Representatives of the Training Divisions shall make annual visits to:

      - Check the unit's adherence to standard operating procedures.
      - Ensure desired skills and standard procedures are taught.
      - Provide refresher training and enhance the professional knowledge of the unit's flight crewmembers.

- Evaluate the flight crew training program.
- Validate all unit-generated portions of recurrent training or written examinations.
- Provide reports to air unit Commanding Officers with copies forwarded to FC-A and CG-711.
- Provide and publish standardization trend report for fleet awareness with copies forwarded to FC-A and CG-711.

G. PERIODIC TRAINING EVENTS AND EVALUATIONS.

1. Purpose. This Section describes the minimum content of periodic training events and evaluations. Frequency of these events is prescribed elsewhere in this Chapter.

2. Low Pressure/Dynamic Hypoxia Training. Low Pressure/Dynamic Hypoxia training shall provide crewmembers the ability to identify personal reactions to an oxygen-deprived environment, and perform corrective action when those reactions are experienced. Training shall be conducted in a Low Pressure Chamber (LPC), Mask Hypoxia Trainer (MHT), or Normobaric Hypoxia Trainer (NHT).

3. Aviation Water Survival Training (Wet Drill). Aviation water survival training, also known as the wet drill, provides members with exposure to the environment and the equipment provided in Coast Guard aircraft for extended survival following a water landing. The trainee shall receive instruction in water survival techniques and equipment, and shall enter and remain in the water for at least 10 minutes while wearing a flight suit or Aircrew Dry Coverall (ADC) and survival vest. An offshore site where moderate sea conditions exist is preferable to a swimming pool, lake, or sheltered harbor since offshore sea conditions are those likely to be encountered in a survival situation.

   While in the water the trainee must inflate the survival vest orally, locate and deploy the items of survival equipment it contains, as practicable, and note the effort required to swim and remain in a stable flotation posture in the prevailing water conditions. The trainee shall then enter a one-person raft, or multi-person raft. For those trainees who fly parachute equipped aircraft, parachute disentanglement training shall be included.

4. Underwater Egress Training (Dunker). Underwater egress training provides personnel with skills required to use egress equipment and procedures to successfully egress a rotary-wing aircraft after entering the water. This training is held at a Commandant (CG-711) approved training facility and shall include, when authorized, use of the approved Emergency Breathing Device (EBD) for Coast Guard aircrew members. Aircrew members shall not fly on Coast Guard rotary-wing aircraft until the Coast Guard or DoD performance standards are met.

5. Emergency Breathing Device/Shallow Water Egress Training (EBD/SWET). Emergency Breathing device training provides helicopter aircrew members with skills and confidence required to increase the probability

of a successful egress under disorienting conditions after the aircraft enters the water and becomes inverted.

Coast Guard aircrew shall satisfactorily complete this training using the approved emergency breathing device. Aircrew members shall not fly on Coast Guard rotary-wing aircraft until the performance standards are met.

If not current in Emergency Breathing device training when reporting aboard a unit, personnel must complete the training within 60 days of arrival at the unit.

The underwater egress training (dunker), if successfully completed using the Emergency Breathing device, meets the periodic requirement for EBD/SWET.

6. Swim Test. A swim test evaluates an aircrew member's ability to swim a short distance in order to reach a life raft after a water landing. During the test, the aircrew member must successfully complete a 75-yard swim using the crawl stroke, breast stroke, back stroke, side stroke, or a combination thereof. The test will be performed while wearing a flight suit (not ADC), boots and an uninflated, normally-equipped life vest (or training vest with the pocket survival items replaced by two pounds of weight). During the swim, the individual shall not touch the bottom and demonstrate comfort, not necessarily form, in the stroke(s) used. In addition to the 75-yard swim, all helicopter crewmembers shall successfully tread water or drown proof for a period of two minutes.
7. Emergency Ground Egress Training. Emergency ground egress training shall consist of a lecture on basic principles, followed by actual operation of the exits and associated equipment. Training shall include simulated egress from the member's primary crew position following egress steps outlined in the designated airframe flight manual.
8. Survival Equipment and Pyrotechnics. Members shall be provided an overview of the location and operation of aircrew survival and signaling equipment carried in life vest and aboard unit aircraft.
9. Boat Hoisting Familiarization Review. A risk mitigation meeting shall take place annually between rotary-wing air stations and each of their supporting AOR boat stations. The purpose of the meeting is to reduce hoisting training risk through communication, shared hoisting best practices, lessons learned, and possible areas for improved procedures. Training References, available on the CGPortal from Aviation Training Center Helicopter Operational Safety Summit Team (HOSST) shall be reviewed. These include: Boat Crew Hand Signals, HOSST Video and Hoist Interface Job Aid.
10. Operational Hazard Awareness Training. Units shall provide training to all pilots and aircrew members on operational hazards, especially those unique to the unit's area of responsibility. Topics may include, but are not limited to:
    - Specific procedures for reserving, operating and communicating within special use airspace including warning areas.
    - Weather services and facilities.
    - Aircraft maintenance or inspection.
    - Operation and maintenance of airfield facilities and services.
    - Aircraft ground support services.

- NAVAIDs (en route and approach facilities).
- Procedures, Techniques, and Instructions in management of air traffic; Regulations, Procedures, or Policies published by FAA, ICAO, or DoD.
- Flight Publications.
- General and local hazards associated with ground taxi operations.
- Other applicable areas (e.g., low-level wires, remote landing sites, high-density traffic areas, fixed structures, light poles, power lines, ground laser illumination hot spots, etc.).
- UAS hazards to include at a minimum; local areas of high activity, contact information for local entities known to regularly utilize UAS, FAA Part 107 guidelines for UAS usage, and UAS reporting procedures.

11. Land Survival Training. Land survival training shall provide aircrews with knowledge and strategies for survival following an off-airport landing. The training shall be tailored to each unit to suit the terrain, climate, and resources available within the area of operations most likely to be encountered.

12. Physiological Training. Physiological training shall familiarize aircrews with ways the human body responds to the flight environment. A flight surgeon, aviation physiologist, or other qualified aviation medicine provider shall conduct in-person training or provide an approved online presentation. Training shall include:

    - Night adaptation
    - Visual and vestibular illusions
    - Potential negative impact of smoking, caffeine, and alcohol
    - Benefits of physical fitness
    - Physiological changes that can be anticipated as the body ages

    In addition, all aircrew of pressurized aircraft with a service ceiling above FL250 will receive training in:

    - Symptoms of hypoxia
    - Time of useful consciousness without supplemental oxygen
    - The physiological effects of pressurized and unpressurized flight

13. CRM Training. Crew Resource Management (CRM) training enhances flight crew performance by improving team coordination through specific individual and team behaviors. CRM training shall be conducted for all pilots and aircrew in accordance with Risk Management Instruction, COMDTINST 3500.3 (series). Initial and refresher CRM training shall emphasize the following CRM core competencies and their associated behaviors:

    - Decision Making
    - Task-related Assertiveness
    - Operational Analysis

- Communication
- Leadership
- Adaptability
- Shared Situational Awareness
- Monitoring and Backup

14. Standardization Checks. Standardization checks are a means of periodically evaluating a member's competence and proficiency in the application of standard operating procedures. Standardization checks may be performed by an Examiner assigned to the applicable ATC Mobile Training Division, or by a unit Flight Examiner.

    A standard evaluation check sheet, promulgated by the applicable standardization unit, shall be used for the check. The content and standards of performance for any standardization check shall be the same as the initial designation or qualification standardization check.

    Failure of a crewmember to demonstrate satisfactory performance in all areas of the standardization check shall result in loss of the member's designation or qualification for the crew position being checked.

    a. Designation Standardization Check. A designation standardization check is used to evaluate a member's competence and proficiency in normal and emergency operations.

        - Each member shall complete a standardization check, either inflight or in an approved flight simulator, and a closed-book and open-book (if given) examination within 30 days of the event on critical aircraft systems, emergency procedures and limitations. Satisfactory completion shall be defined as a score of 80 percent.
        - Recurrent designation standardization checks for AMS and all fixed-wing BA may be conducted on the ground.
        - All fixed-wing pilots and aircrew shall don and use oxygen equipment.

    b. Qualification Standardization Check. A qualification standardization check is used to evaluate a member's competence and proficiency in mission operations; it may be completed in conjunction with the member's designation standardization check.

        PM-A initial and recurrent tactics standardization checks may be completed in the aircrew weapons trainer at ATC Mobile.

        A recurrent Loadmaster qualification standardization check may be completed on the ground; all others shall be completed in flight.

15. Pilot SAR Procedures Check. SAR procedures checks shall include, as a minimum:

    - Search planning and procedures.
    - Delivery of rescue equipment.
    - Hoisting (rotary-wing only).

- Simulated instrument approach using a view-limiting device or night instrument approach to a hover (rotary-wing only).

16. Pilot Instrument Check. A pilot instrument check consists of a written examination and an instrument check flight, which shall be completed within 30 days of each other. An instrument check is valid for all aircraft in the same category in which the check is performed. Maneuvers to be accomplished on instrument flight checks conducted by another Military Service shall be determined by that Service.

    a. Instrument Written Examination. Each pilot shall complete a written examination covering the knowledge items listed in 14 CFR §61.65 (b), as well as pertinent regulations and procedures found in Coast Guard Instructions, Federal Aviation Regulations, and Government aeronautical publications (e.g., FLIP General Planning).

    b. Instrument Check Flight. An instrument check flight shall be completed either inflight or in an approved simulator and shall be given by a Flight Examiner assigned to an ATC Mobile Training Division or by a unit Flight Examiner. The examinee shall be evaluated on overall flight discipline, situational awareness, aeronautical decision making and automation management while performing the following performance items:

        - Analysis of actual or simulated weather information
        - Planning and filing of an actual or simulated instrument route of flight
        - Departure, en route, and arrival procedures
        - Holding procedures
        - Precision approach
        - Non-precision approach
        - APV approach, if applicable
        - Circling approach (fixed-wing only)
        - Published missed approach
        - Landing from an instrument approach (fixed-wing only)

        Published approaches shall be selected that can be flown using any of the installed aircraft equipment, and are representative of the types of approaches that would normally be flown at the pilot's assigned unit.

17. Night Procedures Check Flight. A night procedures check flight shall be completed either inflight or in an approved flight simulator and shall be given by an examiner assigned to an ATC Mobile Training Division or by a unit Flight Examiner. Completion of an academic portion within 30 days of the flight shall be documented on the check sheet. The examinee shall be evaluated on the following:

    - NVG-aided (if applicable) and unaided night procedures relevant to the aircraft, unit AOR and assigned missions.
    - Knowledge and recognition of night illusions.

- Knowledge of NVG equipment and limitations, if applicable.

18. Proficiency Simulator Course. A proficiency simulator course shall provide training in realistic flight scenarios while placing emphasis on maneuvers and emergency procedures not routinely performed in the aircraft. A review of Instrument Flight Rules and this Manual shall accompany simulator instruction. Use of training providers other than ATC Mobile shall be approved by Commandant (CG-711). Training towards any pilot designation or qualification may be completed in conjunction with a proficiency simulator course.

    Authorized simulators include:

    - Flight simulators operated by ATC Mobile.
    - Flight simulators operated by the DoD for HC-130E/H/J, HC-27J and C-37.
    - Flight simulators approved by the FAA for the HC-130, HC-27 and C-37 (Gulfstream V).

H. ADMINISTRATION OF DESIGNATIONS, QUALIFICATIONS AND TRAINING.

1. Unit Training Program. Unit training programs shall be established to prepare flight crewmembers for designation and to maintain desired skills through recurrent training.

    a. Scheduling of Periodic Training. Periodic training intervals represent the maximum time between events. An event having a 12-month completion interval shall be scheduled within 12 months after its most recent completion. For a calendar year event, a reasonable attempt shall be made to schedule the event one year from its most recent completion.

    For Air Station Washington, a pilot proficiency simulator course shall be scheduled within 6 months after the most recent simulator event, to the greatest extent practicable.

    b. Written Examinations. Units shall administer written tests to satisfy the examination requirements prescribed for designations and qualifications. Examinations developed by ATC Mobile Training Divisions shall be used to the maximum extent possible; units may add content as necessary to address local operational requirements. 80 percent shall be considered the minimum score to satisfactorily pass all examinations.

2. Records. Commanding Officers of aviation units are responsible for maintaining logbooks and training records, including ALMIS data entries, of pilots and aircrews under their command. All designation letters, qualification letters, completed syllabi, standardization check sheets, waivers and any other documentation reflecting performance of flight-related duties shall be permanently retained in the Coast Guard Training Record in accordance with Pilot Training Record Cover Sheet, Form CG-3700 or Aircrew Training Record Cover Sheet, Form CG-3701. Upon PCS, the training record will be sealed and hand carried by the member to the gaining command. It will be maintained throughout an individual's career as a Coast Guard flight crewmember. All aviators in a DIFPRO status are responsible for maintaining their own training records.

a. Designation and Qualification.

Each issuance, revocation or change of designation or qualification shall be documented in ALMIS.

b. Coast Guard Competency Listings. The unit Servicing Personnel Office (SPO) or Personnel and Administration Office shall ensure that each individual's competency listing in Direct Access accurately reflects current aviation designations and qualifications in accordance with the U.S. Coast Guard Competency Management System Manual, COMDTINST M5300.2 (series).

c. Check Flight and Qualification Letters. Unit Flight Examining Boards shall maintain records of all check flights administered and qualifications issued or renewed.

d. Small Arms Firing Reports. Complete in accordance with Precision Marksman Policy and Standards Manual, COMDTINST M16601.18 (series).

3. Compliance With Training Requirements. All flight crewmembers require thorough training to function as efficient members of a safe and effective flight team. To ensure crewmembers develop and maintain a high standard of proficiency, Commanding Officers of aviation units shall ensure completion of training as described in this Chapter. Commanding Officers shall require training beyond these minimums if necessary to maintain proficiency.

Personnel shall not be allowed to remain in a training syllabus without satisfactory progress for extended periods. Trainee status shall not be used to allow undesignated individuals to remain on flight orders.

a. Failure to Meet Pilot Training Requirements. The commanding officer shall submit a letter report to Commandant (CG-711) together with a statement from the pilot concerned, whenever a pilot fails an evaluated event, fails a written examination, or fails to maintain a qualification or designation in accordance with the training requirements of this Chapter. This report shall be submitted within 30 days of the time when that pilot failed to maintain currency. Exceptions to this requirement are: failures during an upgrade syllabus, intentional lapses directed by the unit commanding officer, or lapses due to medical issues. A copy of the letter and supporting data, if any, shall become a permanent part of the pilot's training record. Commandant (CG-711) will review each case of noncompliance and the crewmember shall be notified only if adverse action is to be taken.

Commanding Officers determine the magnitude of the deficiency when deciding whether to remove or change a pilot's designation or qualification. Minor deficiencies, corrected during the same flight and marked as Train to Level do not require a letter or a change in designation or qualification.

Unit FEs are authorized to fly with that individual to reevaluate performance to the required level only after a training plan is approved by ATC Mobile. If the magnitude of the deficiency is too large or if a training plan cannot be agreed upon, that undesignated pilot may only fly with an ATC Mobile FE until reaching the required performance level for redesignation.

If the deficiency is found while being evaluated by an ATC Mobile FE during a Standardization Visit or a Proficiency Course, ATC Mobile will make a recommendation to that pilot's command regarding a change in designation or qualification. Ultimately, the decision to change the designation or qualification is the responsibility of the unit Commanding Officer.

If a DIFPRO pilot fails to successfully complete minimum recurrent training requirements, the pilot shall submit a letter to Commandant (CG-711) regarding failure to complete minimums.

b. Failure to meet Other Flight Crewmember Training Requirements. Unit training officers shall submit a letter report to the Commanding Officer via the chain of command, together with a statement from the flight crewmember concerned, whenever a flight crewmember fails an evaluated event, fails a written examination, or fails to maintain a qualification or designation in accordance with the training requirements of this Chapter. This report must be submitted within 30 days following the end of the period. Exceptions to this requirement are: failures during an upgrade syllabus, intentional lapses directed by the unit commanding officer, or lapses due to medical issues. The crewmember shall not fly in the capacity of the qualification or designation for which the member is deficient, pending a decision by the Commanding Officer regarding this status. The Commanding Officer may remove the individual from flight orders, allow additional training, or take other action as appropriate. The action taken will become a permanent part of the individual’s training record.

4. Flight Standards Board. A Flight Standards Board (FSB) composed of experienced Aircraft Commanders, Instructor Pilots, Flight Examiners, the Flight Safety Officer and enlisted flight crewmembers shall be established. FSB members shall be designated in writing by the unit Commanding Officer.

   The Board’s function will be to advise the Commanding Officer on matters pertaining to unit standardization, aircraft, and crew performance and other related topics. The FSB shall meet quarterly and provide a written report of each meeting to the unit Commanding Officer. Flight surgeons or other qualified aviation medicine providers are encouraged to advise the board on matters pertaining to human performance, when applicable.

5. Flight Examining Board. A Flight Examining Board (FEB) composed entirely of Flight Examiners representing pilots and each enlisted aircrew position shall be established. FEB members shall be designated in writing by the unit Commanding Officer. Flight surgeons or other qualified aviation medicine providers are encouraged to advise the board on matters pertaining to human performance, when applicable.

The FEB shall recommend personnel to the Operations Officer to be eligible for designations and qualifications. The FEB shall also ensure unit members are progressing in upgrade training and recommend plans to improve performance of members not meeting command expectations. The FEB shall meet at least quarterly and provide a written report of each meeting to the unit Operations Officer.

6. Coast Guard Aviator Evaluation Board. If a Commanding Officer develops serious doubts as to a pilot's performance, potential, or motivation, he or she shall make a thorough investigation. If warranted, the Commanding Officer may report the results by letter to the Commander, Personnel Services Center (PSC-OPM) and request a Coast Guard Aviator Evaluation Board. The board will be convened by Commander, PSC in accordance with Officer Accessions, Evaluations, and Promotions, COMDTINST M1000.3 (series) and Military Qualifications and Insignia, COMDTINST M1200.1 (series).

CHAPTER 8. AVIATION SAFETY

A. SAFETY PROGRAM.

1. Purpose. The fundamental reasons for a comprehensive aviation safety program are the well being of personnel and the preservation of limited resources, with the goal of conducting flight operations in the safest possible manner consistent with mission requirements. To achieve this goal, the Coast Guard safety program establishes organizational requirements to identify hazardous situations, take corrective actions to reduce risks and/or eliminate danger, and disseminate information to promote the safety and occupational health of military and civilian personnel. The Safety and Environmental Health Manual, COMDTINST M5100.47 (series), provides specific guidance for the flight safety program.

2. Exchange of Safety Information. Free and open exchange of operational hazard assessments, risk management tools, crew/maintenance resource management activities, and mishap reports to inform all parties on effective mission accomplishment are vital to safe operations.

   a. Command Emphasis. Effective aviation safety requires continuous command emphasis and leadership. If hazards are recognized and effectively reduced or eliminated, mishap potential will be reduced and the operational effectiveness of the air unit will be enhanced. Experience has shown that a strong command mishap prevention (loss control) policy will reduce aircraft mishap potential and thereby enhance overall mission effectiveness.

   b. Crew Participation. Each individual connected with air operations, whether in an operational or supporting role (e.g., aircrew, scheduling, maintenance), contributes directly to the effectiveness of the aviation safety program. Effective safety is a team effort and requires the active participation of all hands. Specific responsibilities and requirements are prescribed in the Safety and Environmental Health Manual, COMDTINST M5100.47 (series).

   c. Requests for Grounding. A voluntary request for temporary grounding should not be considered a sign of weakness. It should be treated as an indication of the maturity and sound judgment of the individual involved. Aircrew personnel should consult their flight surgeon or other qualified aviation medicine provider, when the slightest doubt as to their fitness exists. Commanding Officers should support an unbiased and healthy attitude toward grounding of flying personnel in the interest of mission readiness and operational safety.

B. MISHAP RESPONSE.

1. Mishap Response. Coast Guard aviation has three separate processes which address mishaps: a Mishap Analysis Board (MAB), an administrative/major incident investiqation, and an Aviator Evaluation Board (AEB). Mishap analysis is governed by the Safety and Environmental Health Manual, COMDTINST M5100.47 (series). Administrative investigations and aviator evaluation boards are addressed in Chapter 9 of this Manual, Administrative Requirements.

The outcomes of a safety investigation are not punitive and are to be used solely for prevention of future mishaps. Commandant (CG-1131) manages the mishap analysis process, including participation on aviation mishap analysis or investigations between the USCG and other agencies. Contact Commandant (CG-1131) immediately after any event that could be of interest to FAA/NTSB/DoD.

2. Flight Restrictions Following Aircraft Mishaps. Aircrew personnel shall be temporarily grounded following involvement in any Class A or B mishap. Temporary grounding of aircrews following Class C or Class D mishaps may be advisable in certain situations and shall be at the discretion of the Commanding Officer or a designated representative.
In accordance with Officer Accessions, Evaluations, and Promotions, COMDTINST M1000.3 (series), an AEB is required for all Class A mishaps. The aircrew members involved in Class A mishaps will remain grounded until the AEB process is complete. Waiver of this requirement may be obtained from Commandant (CG-711).

Aircrew personnel must be evaluated by a flight surgeon and be found physically qualified and aeronautically adaptable for aviation duties prior to resuming flight status. Waiver of this requirement may only be obtained from Commandant (CG-711).

a. Building Resilience Following a Crisis or Traumatic Event. Because of the nature of their work, members of the CG are regularly faced with events and traumas that have the potential to impact their well-being. Repeated exposure to serious accidents or aviation mishaps, loss of life, or near loss of life creates the potential for a number of physical and emotional impacts such as sleep disturbance, anxiety, and acute stress/panic. When there is an impact experienced by a member or group, the current best practices for supporting them are to foster resilience and resistance to stress and crisis support.

b. Coast Guard Crisis Assistance, and CGSUPRT. A number of programs are available in the CG to mitigate the physical and psychological effects of traumatic and crisis events. One program managed by the Office of Work-Life is Critical Incident Stress Management (CISM). CISM is a comprehensive, integrated, systemic package of crisis intervention tools/strategies such as debriefings, psychological first aid, and information sharing. The strategies are implemented based on the situation and the needs of the impacted members, families, and communities. Participation has been demonstrated to facilitate personnel retention, on-the-job performance as well as reduce stress in personal lives and relationships. CISM guidance can be found in Critical Incident Stress Management (CISM) Instruction, COMDTINST 1754.3 (series). A network of trained personnel exists in the CG; this network can be accessed through the Health, Safety and Work-Life Service Center.

The Coast Guard provides the Employee Assistance Program (CG-SUPRT) for members seeking personal confidential help for stress or other issues related to exposure to crises. The program provides confidential counseling, coaching and information. It can be reached at any time by calling 855-CGSUPRT (247-8778) or linking to the program website at www.cgsuprt.com.

3. Mishaps Involving Coast Guard Air Auxiliary. For class C and D mishaps involving the Coast Guard Air Auxiliary, also refer to the Auxiliary Operations Policy Manual, COMDTINST M16798.3 (series).

4. Mishaps Involving Non-Coast Guard Aircraft. Participation in a Military or Civil Aircraft Accident Safety Investigation, COMDTINST 5100.28 (series), and a joint DoD/USCG MOU detail the participatory relationships between the NTSB, FAA, USCG and DoD, relative to accident investigation. It provides for military participation in certain NTSB aircraft mishap investigations, NTSB or FAA participation in certain military aircraft mishap investigations, and the release of certain military aircraft mishap safety investigation information to the NTSB and the FAA.

5. Coast Guard and Civil Aviation. Regardless of what agencies are involved, free and uninhibited exchange of safety information is vital to the interest of mishap prevention. Title 49, United States Code, Section 1132 allows the NTSB to serve as the primary investigative agency for any mishaps involving both civil and Coast Guard aircraft or in instances where Coast Guard aircraft have played a role in civilian fatalities, casualties or property damage. Mishaps involving a violation of an FAA rule by Coast Guard personnel may be investigated by the NTSB.

6. Recovery and Salvage of Mishap Aircraft. The recovery and salvage of a mishap aircraft and the assignment of a salvage officer is the responsibility of the reporting custodian, normally the Commanding Officer of a Coast Guard aviation unit or Coast Guard cutter with a deployed aircraft. If circumstances dictate and the reporting custodian concurs, the salvage officer need not be a member of the reporting custodian's command. Headquarters support is available for coordinating assistance from other services or agencies, technical information, exceptional funding requirements, etc. which are beyond the capability of the individual unit or district. The Coast Guard Aeronautical Engineering Maintenance Management Manual, COMDTINST M13020.1 (series), further defines specific command, district, area, and headquarters responsibilities for the various elements of the salvage/recovery effort. It also contains a list of Reference material pertaining to helicopter salvage and recovery.

7. Voice/Flight Data Recorder. The purpose of installed Voice/Flight Data Recorders (VFDR) on Coast Guard aircraft is to provide information and data to Coast Guard mishap analysis boards. Custody and handling of a VFDR following a mishap shall be in accordance with the Safety and Environmental Health Manual, COMDTINST M5100.47 (series) and Commandant (CG-1131) guidance.

Use of VFDR data for maintenance troubleshooting is authorized in accordance with Safety and Environmental Health Manual, COMDTINST M5100.47 (series). Only the Commanding Officer can authorize aircraft flight without a VFDR.

C. MIDAIR COLLISION REPORTING REQUIREMENTS.

1. Midair Collision. A midair collision is an incident where two or more aircraft actually collide. Make a critical incident notification of all midair collisions, regardless of the amount of injury or damage, to the National Command Center via telephone (1-800-323-7233 or 1-202-372-2100) within 5 minutes of becoming aware of the mishap and to Commandant (CG-1131) within 12 hours via preliminary mishap report.
2. Serious Near Midair Collision. A serious near midair collision is an event where the possibility of collision existed and either aircraft took evasive action or bodily injury occurred. Make a critical incident notification of any serious near midair collision as soon as practicable to the National Command Center via telephone (1-800-323-7233 or 1-202-372-2100) through the chain of command. Report all serious near midair collisions without damage to Commandant (CG-1131) within 24 hours as Aviation Flight-Related mishaps. Damage during evasive maneuvering shall be reported within 24 hours as an Aviation Flight mishap. Serious near midair collisions with injuries or aircraft damage shall be classified in accordance with Safety and Environmental Health Manual, COMDTINST M5100.47 (series). Serious near midair collisions without injuries or aircraft damage shall normally be reported as Class D mishaps. Apply the HIPO label as appropriate for the mishap event.
3. Near Midair Collision. A near midair collision is an incident where the possibility of collision results from an aircraft passing within 500 feet of another aircraft (excluding normal formation or air intercept flights), or a pilot or crewmember of either aircraft reported that a possible collision hazard occurred between two or more aircraft (including Unmanned Aircraft Systems (UAS)). Report near midair events with no Coast Guard aircraft damage and no resulting injuries aboard Coast Guard aircraft as Class D Aviation Flight-Related mishaps.
4. Voice Report. Report events involving a Traffic Collision Avoidance System (TCAS) alert that results in taking evasive action as Class D Aviation Flight-Related mishaps.
5. Reporting Responsibility to the FAA. The following information shall be reported to the FAA for all actual and near midair collisions:
   - Type of flight plan.
   - Station altimeter setting used.
   - Detailed weather conditions at altitude or flight level.
   - Approximate courses of both aircraft, indicating if one or both aircraft were climbing or descending.
   - Reported separation in distance at first sighting, proximity at closest point horizontally and vertically, and length of time in sight prior to evasive action.

- Degree of evasive action taken, if any (from both aircraft, if possible).
- Injuries, if any.

Safeguarding of the Voice/Flight Data Recorder information upon landing for subsequent investigation may be warranted.

6. NTSB Involvement. Commandant (CG-1131) will request NTSB participation in all investigations of actual midair collisions between Coast Guard and non-Coast Guard aircraft.

7. Public Statements. Statements which might indicate responsibility for a midair collision or near midair collision shall not be made before completion of the investigation. Voluntary statements to the press are not encouraged. If any statement is given to the press, it shall be limited to the known facts concerning the incident.

D. FLIGHT SAFETY FOR NON-AIRCREW MISSION ESSENTIAL PERSONNEL.

1. Equipment. The PIC shall ensure all non-aircrew mission essential personnel are equipped with the appropriate protective clothing, flotation equipment, supplemental oxygen, or any other mission applicable safety equipment required by this Manual.

   Commanding Officers can authorize temporary deviations from the provisions of this Section for mission essential personnel when necessary to respond to urgent incidents requiring unusual levels of flight activity.

   Unit commanding officers shall ensure flight equipment is maintained in accordance with the manufacturer's standards or guidance of the Coast Guard Aviation Life Support Equipment (ALSE) Manual, COMDTINST M13520.1 (series).

2. Non-Aircrew Mission Essential Personnel with Frequent Periodic Flight Requirements. Frequent flying non-aircrew mission essential personnel have additional training and safety equipment requirements. Frequent periodic flight is defined as at least one of the following:

   - Planned flight every 90-days or less required by a policy to maintain a current qualification or competency.
   - Planned flight every 30-days or less for longer than six consecutive months to execute approved missions.
   - Planned flight every 7-days or less during surge operations lasting longer than one month.

   a. Required Orientation Training. In addition to the required aircraft orientation for all mission essential personnel described in Chapter 4 of this Manual, non-aircrew mission essential personnel with frequent periodic flight requirements shall have received orientation training in the following topics related to the applicable aircraft type and model:

      - Inflight emergency procedures
      - Ditching procedures
      - Use of aircraft safety equipment

- Use of personal protective equipment
- Emergency egress procedures

b. 75-Month Requirements. Non-aircrew mission essential personnel with frequent periodic flight requirements dispatched aboard rotary-wing, single-engine fixed-wing (including floatplanes and seaplanes), or airship aircraft that operate beyond emergency landing distance from land shall have successfully completed underwater egress training within the preceding 75 calendar months.

c. 24-Month Requirements. Non-aircrew mission essential personnel with periodic flight requirements dispatched aboard rotary-wing, single-engine fixed-wing (including floatplanes and seaplanes), or airship aircraft that operate beyond emergency landing distance from land shall have successfully completed aviation water survival training, and a swim test within the preceding 24 calendar months.

d. Calendar Year Requirements. Each calendar year, non-aircrew mission essential personnel with periodic flight requirements shall review inflight emergency procedures, ditching procedures, use of aircraft safety equipment, use of personal protective equipment, and emergency egress procedures related to the type and model aircraft authorized to fly aboard.

Each calendar year, non-aircrew mission essential personnel with periodic flight requirements dispatched aboard single-engine fixed-wing aircraft shall complete land survival training for the relevant area of operation.

3. Recording of Non-Aircrew Mission Essential Personnel Training. The member's unit shall maintain training records that document the dates of all training required by this Section. All records will be maintained in accordance with the Information and Life Cycle Management Manual, COMDTINST M5212.12 (series).

CHAPTER 9. ADMINISTRATIVE REQUIREMENTS

A. ADMINISTRATIVE ACTIONS FOLLOWING A MISHAP.

1. Administrative Actions Following Aircraft Mishaps. In addition to the mishap response actions described in Chapter 8 of this Manual and the mishap analysis governed by the Safety and Environmental Health Manual, COMDTINST M5100.47 (series), the Administrative Investigations Manual, COMDTINST M5830.1 (series) describes the standard procedure for investigating incidents in the Coast Guard.

2. Administrative Investigation. Administrative action, including documentation of a mishap or flight rule violation in a pilot's flight records, shall not be taken against a Coast Guard member based on the findings contained in a Safety/Mishap analysis. Administrative actions shall be based upon a separate investigation conducted in accordance with the Administrative Investigations Manual, COMDTINST M5830.1 (series).

3. Violation/Mishap Entries. Flight logbook entries shall be made for any Class A mishap, and will normally be made for Class B mishaps or when violations of flying regulations are found in the course of an administrative investigation. Commands contemplating administrative entries into a pilot's logbook or ALMIS record following any mishap or flight rule violation shall conduct an Administrative Investigation. Commandant (CG-711) shall determine whether a permanent logbook entry shall be made based upon the Administrative Investigation. The information to be inserted in a pilot's logbook or ALMIS record pertaining to a mishap or flight rule violation shall be specified by Commandant (CG-711).

   Entries in the Pilots Accident and Violation Record shall not be considered punitive. This record merely furnishes Commanding Officers with information concerning an individual pilot's mishap record or violations of flying regulations.

4. Legal Investigation. Investigations of aircraft incidents and ground accidents shall be conducted in accordance with Military Justice Manual, COMDTINST M5810.1 (series).

B. RECORDING OPERATIONAL FLIGHT DATA.

1. Employment Categories. All flights of Coast Guard aircraft shall be classified by employment categories as defined in the Operational Reporting, COMDTINST M3123.13 (series). The number of missions, resource hours, and employment hours shall be recorded in each employment category. Special care must be taken to ensure that employment category codes are selected which accurately reflect the mission area being supported by the flight. For example, transport of strike team personnel to an oil spill site should be coded Marine Environmental Protection, or transport of parts to repair a resource involved in a search and rescue case should be coded SAR Support.

2. Deployment Data. A deployment entry is required whenever an aircraft is away from home station for any period of time greater than 11.9 hours. Deployment data consists of the number of Days Away from Home Station (DAHS), or the number of Days Deployed Aboard Ship (DDAS). The From ZULU date and time are entered on the first flight record of the deployment.

The Thru ZULU date and time and the Days Deployed Aboard Ship figures are entered on the final flight record of the deployment.

3. Calculation of Flight Hours. Flight hours shall include the total of whole hours flown plus a decimal fraction representing any remaining minutes of flight. Compute the fractional hour by adding 3 to the remaining minutes and dividing by six; the result shall be rounded down to the nearest whole digit, then divided by 10. In the first hour, flights of 2 minutes or less shall be logged as 0.1 hours.

   For example: When flight time = 128 minutes, the fractional hour is 8 minutes; Add 3 minutes, (8+3 = 11). Divide 11 by 6 = 1 (rounded down to whole digit); divide by 10 to get 0.1 and add to the whole hours. Therefore total flight time is 2.1 hours.

4. Logging of Flight Time. Flight departure and arrival times shall be logged in Universal Coordinated Time (ZULU time).The following Instructions pertain to recording and logging of flight time:

   - Only pilots designated in type and model, or engaged in an authorized pilot training syllabus, may log pilot time in that type and model aircraft.

   - Night and instrument time shall be logged simultaneously with FP or CP time.

   - Individual flight time can be assigned to an Instructor Pilot performing instructional duties or a Pilot Flight Examiner performing a flight evaluation while not being seated in a pilot seat; flight time for such an event will be recorded as 3rd pilot time. An instructor or examiner cannot claim credit for instrument approaches, landings or operational maneuvers when acting as 3rd pilot.

   - Individual flight time for a given flight shall be the amount of time the individual was participating in the flight as an integral flight crewmember, technical observer or otherwise essential for the assigned mission, while that aircraft was accumulating flight time. Individual flight time may include time spent performing activities while outside the aircraft by a member of that aircraft's assigned flight crew, and which are in direct support of that aircraft's mission for that flight (e.g., Rescue Swimmer). An individual's flight time accumulation shall cease if the crewmember is left behind when the aircraft departs scene, and will commence again when the crewmember becomes involved as an integral flight crewmember with another aircraft.

5. Use of ALMIS. Enter data pertaining to the scheduling, operation, employment and maintenance of aircraft operated by the Coast Guard into the Asset Logistics Management Information System (ALMIS). Each air station is responsible for the timely and accurate entry of data into the ALMIS database. Furthermore, due to the sensitive and important nature of the information stored in the database, each unit shall provide security and limited access to the database. Each air station shall periodically review each member's ALMIS roles and permissions to ensure that personnel have the appropriate level of access.

In case the ALMIS system is unavailable, EAL Contingency Operations Instructions are presented in MPC 00EAL. The specific use of EAL Contingency Operations forms are addressed in Coast Guard Aeronautical Engineering Maintenance Management Manual, COMDTINST M13020.1 (series) and Coast Guard Aeronautical Engineering Maintenance Management Process Guide, CGTO PG-85-00-110-A.

6. Completing the Aircraft Flight Records. Complete an ALMIS flight record for every Coast Guard flight. The batching of multiple flights (i.e., all flights of a deployment or multi-day cross country) over a period of time on one flight record is not authorized.

   a. Preflight and Servicing Record. Maintenance personnel are responsible for entering an accurate record of preflight inspection and servicing, the current fuel load and installation of special mission equipment. The PIC is responsible for reviewing the preflight and servicing data, reviewing pertinent maintenance records, entering an accurate record of crew and passengers aboard the flight, entering flight plan or local clearance data, and for signing the preflight record.

   b. Flight Record. The PIC shall ensure that all flight record data fields are accurate and fully reflect events of the flight before signing the ALMIS flight record.

   c. Post-Flight Maintenance Record (Pilot Entries). It is the PIC's responsibility to ensure that all discrepancies that occur during an event after the PIC has signed for the aircraft are accurately recorded in the ALMIS Maintenance Record. Discrepancies are not to be grouped together. When no discrepancies exist, enter NONE in the first discrepancy block. The PIC shall record the number of start cycles and document the aircraft status at the end of the event.

   d. Event Status. Assign a status to each event at the end of each 24-hour period. The following are acceptable event status outcomes:

      - Success: the event was on-time and flown as scheduled.
      - Delay: the event departed more than 15 minutes after the scheduled takeoff time.
      - Abort: the event was terminated prior to completion but after PIC signed for the aircraft.
      - Cancel: the event was terminated prior to the PIC signing for the aircraft.

      Each status (except success) will also have a reason assigned to the outcome. Event status data are used to calculate a unit's dispatch reliability.

7. Marine Information for Safety and Law Enforcement (MISLE). Law Enforcement sighting reports shall be reported in accordance with the U.S. Coast Guard Maritime Law Enforcement Manual (MLEM), COMDTINST M16247.1 (series).

8. Review/Approval of Flight Records. All flight records shall be reviewed and approved by the Commanding Officer monthly. This authority may be delegated no lower than the Operations Officer or chief of TRADIV. Once flight records are reviewed, they become locked in ALMIS and may only be unlocked by the Commanding Officer or an authorized delegate.

9. Aviator Flight Logbooks. Until an approved electronic alternative is available, each Coast Guard aviator, student aviator, and other pilots assigned to a Coast Guard unit (e.g., exchange pilots) shall maintain a complete record of flight experience in an Aviators Flight Logbook. Use the current logbook published by the U.S. Navy. Refer to Appendix (E) of this Manual for specific guidance on use of the Aviator's Flight Logbook.

10. Policy for Producing an Electronic Certified Pilot Logbook. An electronic certified pilot flight logbook consists of all flight records for the pilot's period of duty in the Coast Guard and a summary page. The printed copy of the flight record summary page shall include:

    - A summary of all designations and qualifications held.
    - Total Pilot Time; as well as the following totals for each Coast Guard aircraft flown: Flight time, Aircraft Commander time, First Pilot time, Copilot time, Instructor Pilot time, Instrument time, Simulated Instrument time, Night time, NVG time, Instrument Approaches flown, and totals for day, night and NVG landings, and day, night and NVG shipboard landings.
    - The text of any accident or flight rule violation documented in the pilot's record.
    - The name of the certifying official for military flight time earned outside the Coast Guard; Military flight time earned outside the Coast Guard may be included in a pilot's total flight time only if certified by an operations officer of a Coast Guard aviation unit or by the Chief, Office of Aviation Forces (CG-711).

    The printed copy of the flight record summary shall be signed by the pilot and by the commanding officer of a Coast Guard aviation unit or by the Chief, Office of Aviation Forces, Commandant (CG-711) to indicate that the printout is a true and correct representation of flight activity.

C. MANAGEMENT OF FLIGHT PAY ENTITLEMENTS.

1. Command Responsibilities. Each aviation command shall manage the aircrew incentive pay and hazardous duty incentive pay entitlements, and has the following responsibilities:

    - Administer unit incentive pay in accordance with applicable Coast Guard Directives.
    - Advise all members on flight orders, in writing, when they are in a grace period, including the number of hours required to successfully complete the grace period without loss of pay.
    - Establish a unit flight pay audit team to conduct audits of flight pay records in accordance with the Management and Administration of Aviation Incentive Pays, COMDTINST 7220.39 (series).

- Assign one or more unit flight pay system managers, who will be trained to perform these duties.

2. Applicable Directives. The following are applicable Directives for aviation unit incentive pay management:
   - Coast Guard Pay Manual, COMDTINST M7220.29 (series)
   - Management and Administration of Aviation Incentive Pays, COMDTINST 7220.39 (series)
   - Enlistments, Evaluations, and Advancements, COMDTINST M1000.2 (series)
   - Officer Accessions, Evaluations, and Promotions, COMDTINST M1000.3 (series)
   - Personnel Pay Procedures Manual, PPCINST M1000.2 (series)
   - SDA User/Query Manual, PPCINST M5230.1 (series)
   - Special Duty Assignment Pay, COMDTINST 1430.1 (series)
   - Other Directives promulgated by Commandant to govern the flight pay system
3. Administration. Detailed instructions on issuance of flight orders and management and administration of aviation incentive pay are provided in applicable Coast Guard Directives.
   a. Syllabus Completion. A flight crewmember may not be placed on flight orders, marking eligibility for flight pay, until at least the initial aircrew training syllabus ground portion is complete.
   b. Tracking Flight Time. All members in flight pay status should track individual flight time. All members should keep personal logs of individual flight time, giving emphasis to tracking bank and grace periods.
   c. Administrative Oversight. Oversight shall be conducted within the ALMIS Electronic Asset Logbook (EAL). Flight Pay Administration is located under the Administration tab of all EAL screens and can be accessed only by personnel having Flight Pay Administrator permission. Administration will include documenting the following information: flight pay start and end dates, flight pay type, injury date, recovery date, and suspension date. Additionally, several flight pay reports are available within the Decision Support System (DSS) to assist in determining the flight status of personnel and the audit and calculation of flight pay.
4. Training. Units shall conduct periodic flight pay training for all personnel who currently or potentially could be on flight orders. Provide members with detailed instructions concerning their responsibilities for maintaining a personal flight time log. In addition, instruct them to inform the unit flight pay system manager when the member believes he/she has been underpaid or overpaid Aviation Incentive Pay (AvIP) or Hazardous Duty Incentive Pay (HDIP).
5. Special Duty Assignment Pay (SDAP). Qualified RS are authorized SDAP and shall be managed in accordance with the Special Duty Assignment Pay, COMDTINST 1430.1 (series).

D. DIRECTIVES AND PUBLICATIONS.

1. Overview. Coast Guard Aviation Operational Publications, including flight manuals, sub-manuals, and COMDTINST M3710 are assembled, changed, published, and distributed by the ATC Operational Publications Division (OPD) in accordance with Aviation Training Center Operational Publications Techniques and Procedures, ATCINST 3710.2 (series). The OPD works closely with each Standardization Division, ALC, Commandant (CG-1), (CG-4), (CG-6), (CG-7), and (CG-9) to ensure the latest aircraft upgrades and procedures are reflected in operational publications to enhance operator safety and reduce mishaps.

   Additional information on the OPD, to include Aviation Training Center Operational Publications Techniques and Procedures, ATCINST 3710.2 (series), can be found on the OPD portal page: https://cg.portal.uscg.mil/units/atc/Publications/default.aspx.

2. **COMMANDANT INSTRUCTIONS**. All COMDTINST M3710 series manuals will be updated by the OPD and distributed electronically by Commandant (CG-6). These manuals will be reviewed as required by the CG Directives System.

3. **OPERATIONAL PUBLICATIONS**. Coast Guard Operational Publications are flight manuals and sub-manuals used to disseminate technical aeronautical information, operating limits, and normal and emergency procedures required for the operation of aircraft and support equipment. Once approved and promulgated by Commandant (CG-711), they are printed via the Government Printing Office (GPO), distributed by the OPD, and uploaded to the Coast Guard enterprise database for access using the Aviation Mobile Device (AMD) and Aviation Technical Information Portal (ATIP)).

   Operational Publications will be reviewed, changed, or revised to reflect emerging procedural, safety, or system changes, and repromulgated per Aviation Training Center Operational Publications Techniques and Procedures, ATCINST 3710.2 (series), no later than 24 months after preceding promulgation, unless approved by Commandant (CG-711). The change management program is managed by the OPD in accordance with Aviation Training Center Operational Publications Techniques and Procedures, ATCINST 3710.2 (series).

4. **COAST GUARD TECHNICAL ORDER SYSTEM**. The CGTO system is the medium used to provide technical information and instructions to operate aviation systems and equipment.

   a. Coast Guard electronic Operational and Technical Manuals are available on the Aviation Technical Information Portal (ATIP). Use of electronic manuals from the ATIP website shall be the primary source for Coast Guard aviation material.

b. The OPD administers the Change Recommendation System for operational publications. It is the responsibility of all CGTO users to identify and notify the appropriate Standardization Division of errors. The Recommendation for Change of Publication, CG-847, will be used to correct errors or voids. A sample of this form can be found in the front matter of each flight manual and sub-manual as well as on the OPD portal page: https://cg.portal.uscg.mil/units/atc/Publications/default.aspx. The CG-847 must be approved by the unit's command prior to being forwarded to the applicable Standardization Division.

5. **ISSUANCE OF PUBLICATIONS**. Operational manuals, routine changes, and revisions will normally be distributed electronically. The OPD will keep a limited quantity of checklists on-hand and may issue them on a case-by-case basis for urgent operational use. Units may print flight manuals, sub-manuals, and checklists locally in accordance with United States Coast Guard Printing and Binding Regulations, COMDTINST 5600.6 (series), but they must be handled as FOUO material per Distribution Statements on Technical Documents, DoD Instruction 5230.24 (series), based on their respective distribution statements. Distribution statements can be found on the manual's cover page. Local printing shall not change font, format, or content. All air stations will be provided four copies of checklists per aircraft. All electronic CGTO updates will be managed by the OPD.

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GLOSSARY

AC Aircraft Commander

Actual Cost All costs associated with the use and operation of a DHS or other Government aircraft, in accordance with Attachment A of Improving the Management and Use of Government Aircraft, Office of Management and Budget (OMB) Circular A-126.

Actual Instrument Conditions Conditions external to the aircraft, which require the pilot to control the attitude of the aircraft primarily through reference to flight instruments. Time is credited to all pilots at flight control positions, but only the pilot logging first pilot time during an approach may be credited with that approach.

ADC Aircrew Dry Coverall

Adequate Crew Rest Facilities At a minimum, adequate crew rest facilities consist of an enclosed building, sheltering the crew from the elements, capable of maintaining a comfortable temperature/humidity environment, equipped with comfortable furniture, food/storage preparation capability, head facilities, water supply, lighting, and providing a comfortable noise level. NOTE: Adequate crew rest facilities for crews on alert duty for more than 12 consecutive hours must provide suitable sleeping quarters.

ADF Automatic Direction Finder

ADIZ Air Defense Identification Zone

ADS Air Drop System

ADS-B Automatic Dependent Surveillance - Broadcast

Aerial Port of Debarkation (APOD) A station which serves as an authorized port to process and clear aircraft and traffic for departure from the country where located.

Aerial Port of Embarkation (APOE) A station which serves as an authorized port to process and clear aircraft and traffic for entry into the country where located.

Aeromedical Space Available Patients Patients evaluated by competent medical authority and referred to another medical facility due to inadequate medical care in the local area, and whose travel would not otherwise be funded by the Coast Guard. This category is separate from that of the Military Space Available Travel Program.

AFMAN Air Force Inter-service Manual

AGL Above Ground Level

AIM Aeronautical Information Manual

Aircraft A device that is used or intended to be used for flight in the air (i.e., helicopters, airplanes, unmanned aircraft, airships and lighter than air vehicles).

Aircraft (DHS) Any aircraft owned, leased, chartered or rented and operated, or a commercial aircraft hired as Commercial Aviation Services (CAS), by an Organizational Element of the Department of Homeland Security. All Coast Guard aircraft are DHS aircraft.

Aircraft Category A broad classification of aircraft (i.e., fixed-wing or rotary-wing).

Aircraft Commander (AC) A pilot who has completed more training and flight hours than a First Pilot (FP). Always eligible to be assigned as Pilot-in-Command (PIC).

Aircraft Operating Hours Operating hours begin when an aircraft departs its unit on a specific sortie and ends when the aircraft returns to that unit. Normally, all time spent away from an assigned unit except maintenance and storage time will be included.

Aircrew Any person holding a pilot or aircrew designation, or in training to be designated, who performs inflight duties relating to the operation of the aircraft (e.g., Pilots, Copilots, Flight Engineers, Navigators, AMS, Basic Aircrew, Flight Surgeon, and UAS Pilot/Sensor System Operators).

Air Defense Identification Zone (ADIZ) The area of airspace over land or water, extending upward from the surface, within which the ready identification, the location, and the control of aircraft are required in the interest of national security.

Air Traffic Aircraft operating in the air or on the airport surface, exclusive of loading ramps and parking areas.

Air Traffic Control (ATC) A service operated by the appropriate authority to promote the safe, orderly, and expeditious flow of air traffic.

ALC Aviation Logistics Center

Alert Duty A person is on alert duty when in a ready status to proceed on a mission as soon as the need becomes known. Applies to BRAVO ZERO or STRIP ALERT status.

ALMIS Asset Logistics Management Information System

ALPHA Status Refer to Operating Status

AMC Air Mission Commander

AMD Aviation Mobile Device

AMO Aviation Medicine Officer

AMP Aviation Medical Provider

AMS Aviation Mission Specialist

Annual Requirements Annual requirements should be met within 12 calendar months, with expiration on the last day of the calendar month. Annual requirements may be extended to the end of the 15th calendar month with Commanding Officer approval.

AOR Area of Responsibility

APA Aeromedical Physician Assistant

APA-D Aeromedical Physician Assistant Designated

APO Asset Project Office

APOD Aerial Port of Debarkation

APOE Aerial Port of Embarkation

Approach with Vertical Guidance (APV) Term used to describe RNAV approach procedures that provide lateral and vertical guidance, but do not meet the requirements to be considered a precision approach.

APU Auxiliary Power Unit

Area Navigation (RNAV) A method of navigation that permits aircraft operations on any desired course within the limits of self contained system capability.

Armed Cover A properly trained crew equipped with a mounted automatic weapon or precision rifle system and capable of delivering precision fire in order to neutralize or suppress threats to a boarding team.

Armed Forces Reserve Personnel Includes personnel of the U.S. Coast Guard, Army, Navy, Marine Corps, and Air Force Reserves.

ASM Aviation Special Missions

ASRK Air-Sea Rescue Kit

AST Aviation Survival Technician

ATC Air Traffic Control or Aviation Training Center, Mobile, AL

ATON Aids to Navigation

ATTC Aviation Technical Training Center, Elizabeth City, NC

AUF Airborne Use of Force

AUF-NCV Airborne Use of Force - Noncompliant Vessel

Autorotation A rotary-wing aircraft flight condition in which the lifting rotor is driven entirely by action of the air when the rotary-wing aircraft is in motion.

AVDET Aviation Detachment

AvIP Aviation Incentive Pay

Aviator in Tactical Command A designated military aviator, senior to the PIC, in the aircraft's operational chain of command.

AWL Above Water Level

BA Basic Aircrew Member

Basic Hoist Evolution A non-personnel hoist; including HIFR

BH Basic Hoist aircrew qualification

BLOS Beyond Line of Sight

BRAVO Status Refer to Readiness Status

C2 Command and Control

C4ISR Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance

Calendar Year Requirement A training evolution which must be completed no less than once per year, from 1 January to 31 December.

Calibrated Airspeed The indicated airspeed of an aircraft, corrected for position and instrument error. Calibrated airspeed is equal to true airspeed in standard atmosphere at sea level.

CAP Civil Air Patrol

Cargo Materiel carried aboard an aircraft that is not standard mission equipment and is not personal equipment used by crewmembers for inflight duties. Crew overnight bags and passenger luggage is considered cargo for weight and balance purposes.

CASPER Sensor Use of aircraft sensor Electro-Optical and/or Infra-Red (EO/IR) systems by qualified operator.

CASPER Tactical Use of CASPER sensor equipment combined with operation of tactical work station via satellite communications capability to provide data link of information to a command center or other supported unit.

CATCH Computer Approach to Coupled Hover

CATP Cadet Aviation Training Program

CBR Chemical, Biological, and Radiological

CEDT Canine Explosive Detection Team

CFR United States Code of Federal Regulations

CGIS Coast Guard Investigative Services

CGTO Coast Guard Technical Order

CHARLIE Status Refer to Maintenance Status

CISM Critical Incident Stress Management

Clearance Permission to execute a definite aircraft movement

CO Commanding Officer

COA UAS Certificate of Authorization

Coast Guard Aircraft Any aircraft owned, leased, chartered or rented and operated, or a commercial aircraft hired as Commercial Aviation Services (CAS), by the Coast Guard.

Cocked An aircraft in a BRAVO ZERO (B-0) readiness status is said to have been cocked when the pre-engine start portion of an approved rapid response checklist has been completed but takeoff is not necessarily imminent. This is done to minimize launch time,refer to Strip and Special Alert.

Command Center Coast Guard district center which is responsible for coordinating all activities within the AOR. Has responsibility for prioritizing and authorizing operations of district assets. Formally known as RCCs or OPCENs.

Competent Medical Authority A military, civilian, or contract physician of the U.S. Coast Guard, Department of Defense, U.S. Public Health Service, or Department of Veterans Affairs.

Confined Areas An area that contains objects or obstacles that may be a strike hazard within one wingspan or rotor disk diameter in any direction and along the path of an aircraft.

Controlled Airspace An airspace of defined dimensions within which air traffic control service is provided to IFR flights and to VFR flights in accordance with the airspace classification.

CONUS Continental United States

Copilot A pilot who has completed the initial training and flight hours necessary to fly. Not yet eligible to be assigned as Pilot-in-Command (PIC).

Copilot Time That time a pilot spends at a flight control position of multi-piloted aircraft but is not the pilot operating the flight controls. For any flight, the total copilot time credited to pilots shall not exceed the aircraft time.

Coupled Approach An instrument approach performed by the autopilot which is receiving steering commands from onboard navigation equipment.

CP Copilot

Crash Equipment Aircraft fire fighting and rescue equipment appropriate for the aircraft being protected as specified by Safety and Environmental Health Manual, COMDTINST M5100.47 (series).

Crew Bags For weight and balance purposes, crew bags include personal equipment carried by crewmembers to perform inflight duties.

Crew Mission Hours Commences with the start of preflight duties and ends with the completion of postflight duties for each sortie. Crew mission time for multiple sorties is cumulative unless 10 hours of rest occurs between sorties. If adequate crew rest facilities are not available between multiple sorties, crew mission time shall continue to accrue.

Critical Engine The engine whose failure would most adversely affect the performance or handling qualities of an aircraft

CRM Crew Resource Management

DAHS Days Away from Home Station

DDAS Days Deployed Aboard Ship

Deadheading An aircrew member being transported to or from a staging area.

Decision Altitude The altitude measured above sea level at which a decision must be made, during a precision (e.g., ILS, MLS, PAR) instrument approach, to either continue the approach or to execute a missed approach.

Designation Certification that a pilot or aircrew member has met training and experience requirements to operate an aircraft day or night, cross-country, in all weather conditions for which the aircraft is certified.

DH Decision Height

DIFDEN Duty Involving Flying-Denied

DIFOPS Duty Involving Flying-Operations

DIFPRO Duty Involving Flying-Proficiency

Dispersants Substances used to remove oil from the surface of water, distributing it as small droplets into the water column where it is rapidly diluted by currents and converted into harmless products by natural biodegradation processes.

DIW Dead in the Water (i.e., a vessel without power)

DM Dropmaster

DME Distance Measuring Equipment

DoD Department of Defense

DOT Department of Transportation

DSS Decision Support System

Duty Signifies a person who is engaged in the performance of any official Coast Guard business, whether ground or flight. This includes time subject to immediate recall for aircrew or other assignment.

EAL Electronic Aircraft Logbook

EBD Emergency Breathing Device

Emergency Breathing Device Any underwater breathing device designed and authorized for aircraft egress.

EEZ Exclusive Economic Zone

ELT Enforcement of Laws and Treaties

EML Environmental and Morale Leave

Employment Hours The flight hours which are expended while benefiting a particular mission area.

Endurance An aircraft's ability to remain aloft for a period of time, limited by the amount of fuel an aircraft carries, the rate at which the fuel is burned, and by the requirement to maintain an adequate fuel reserve for landing.

ESCAT Emergency Security Control of Air Traffic

External Load A load that is carried, or extends, outside of the aircraft fuselage.

FAA Federal Aviation Administration

Familiarization Flights Refer to Orientation Flights

FBO Fixed Base Operator

FDC NOTAMs Flight Data Center Notice to Airman

FE Flight Engineer or Flight Examiner

FEB Flight Examining Board

Federal Traveler A person who travels on a Government aircraft and who is either a civilian employee in the Government service, a member of the uniformed or foreign services of the United States Government, or a contractor working under a contract with an executive agency.

Ferry Flight A flight from the original point of departure to the movement destination for the exclusive purpose of transferring the aircraft between two locations.

Ferry Pilot A Coast Guard aviator designated as Pilot-in-Command (PIC) of a ferry flight.

First Pilot (FP) A pilot who has completed more training and flight hours than a Copilot (CP). First Pilots are eligible to be assigned as Pilot-in-Command (PICs) on most, but not all, flights.

First Pilot Time That time actually spent operating the aircraft flight controls. When two pilots are at flight control positions, credit for first pilot time is given to whichever pilot is operating the flight controls. For any flight, the total first pilot time credited to pilots must equal the aircraft time.

Flight Crewmember Refer to definition of Aircrew Member.

Flight Examiner An instructor who has been designated, in writing, by the Commanding Officer to conduct ground and flight checks.

Flight Hours Flight hours comprise all time officially creditable to an individual aircraft. Flight hours begin when the aircraft first moves forward on its takeoff run or, in case of rotary-wing aircraft, when it takes off from the surface or flight deck. Flight hours end after airborne flight when the aircraft is on the surface and either the engines are stopped or a change is made in the pilot-in-command. If the engines are kept running for maintenance tests, or any other purposes and no further flight is intended, aircraft time shall end when the aircraft is stopped for such purpose.

Flight Information Publication (FLIP) Military publication that provides information on aeronautical procedures and airport facilities.

Flight Level A level of constant atmospheric pressure related to a reference datum of 29.92 inches of mercury. Each is stated in three digits that represents hundreds of feet. For example, flight level 250 represents a barometric altimeter indication of 25,000 feet; flight level 255, an indication of 25,500 feet.

Flight Verification Check An airborne functional check of components or systems whose failure would not adversely affect flight safety or seriously affect mission accomplishment.

Flight Visibility The average forward horizontal distance, from the cockpit of an aircraft inflight, at which prominent unlighted objects may be seen and identified by day and prominent lighted objects may be seen and identified by night.

FLIP Flight Information Publication

FM Flight Mechanic or Frequency Modulation

FOD Foreign Object Debris

FP First Pilot

FR Basic Fast Roping aircrew qualification or operation. Fast Roping operations are also referred to as Vertical Insertion.

FS Flight Surgeon

FST Flight Surgeon Trainee

FSB Flight Standards Board

Full Coach Fare The price of a coach fare available to the general public on a scheduled air carrier between the day that the travel was planned and the day the travel occurred.

GCS Ground Control Station

Government Aircraft Any aircraft owned, leased, chartered, rented or a commercial aircraft hired as Commercial Aviation Services (CAS), and operated by an Executive Agency.

GPS Global Positioning System

Ground Visibility The prevailing horizontal visibility near the earth's surface as reported by the United States National Weather Service or an accredited observer.

Hazardous Duty Incentive Pay (HDIP) Hazardous duty incentive pay is paid to flight crew and non-crewmembers and is administered in accordance with the Management and Administration of Aviation Incentive Pays, COMDTINST 7220.39 (series).

HDIP Hazardous Duty Incentive Pay

Helicopter A rotary-wing aircraft that, for its horizontal motion, depends principally on its engine driven rotors.

HF High Frequency Radio

HIFR Helicopter Inflight Refueling

HITRON Helicopter Interdiction Squadron

Hot Refueling Refueling an aircraft with the engine(s) and/or the auxiliary power unit operating.

IAS Indicated Airspeed

ICAO International Civil Aviation Organization

ICS Intercommunication System

IFF Identification, Friend or Foe

IFR Instrument Flight Rules

ILS Instrument Landing System

IMO International Maritime Organization

Indicated Airspeed The speed of an aircraft as shown on its pitot static airspeed indicator uncorrected for airspeed system errors.

Individual Flight Time Individual flight time comprises all time officially creditable to individual flight crewmembers, technical observers, and other mission essential non-crewmember personnel on flight orders.

INS Inertial Navigation System

Instructor Pilot A pilot who has been designated, in writing, by the Commanding Officer to conduct ground and flight syllabus instruction.

Instructor Pilot Time That time actually spent exercising control over a flight in which syllabus instruction or a flight check is given. Training given during normal operational flights is not instructor pilot time.

Instrument Flight Rules (IFR) Set of procedures that must be followed when flying in Instrument Meteorological Conditions (IMC).

Instrument Meteorological Conditions (IMC) Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling less than the minima specified for visual meteorological conditions.

Instrument Time That time a pilot occupies a flight control position while under actual instrument conditions or simulated instrument conditions, regardless of whether day or night. Flying On Top shall not be credited as instrument time unless conditions actually require reliance on instruments.

IP Instructor Pilot

IR Infrared

ISAR Inverse Synthetic Aperture Radar

Large Aircraft Aircraft of more than 12,500 pounds maximum certificated weight.

LE Law Enforcement

LM Loadmaster

LOS Line of Sight

LPC Low Pressure Chamber

LRE UAS Launch and Recovery Element

LRS Long Range Surveillance

MAB Mishap Analysis Board

Maintenance Status (Code Title: CHARLIE) Signifies aircraft that are inoperable because of required maintenance. This maintenance cannot be done as part of the normal preflight or postflight inspections, or in an amount of time that would not delay a BRAVO ZERO aircraft departure. The degree or Maintenance Status shall be assigned on the basis of total time estimated for repairs or to perform such work required to prepare the aircraft for Readiness Status, and will be stated using a Ready for BRAVO (RFB) date-time group (e.g., CHARLIE RFB 031200Z or 031200 (local)).

MATCH Manual Approach To Controlled Hover

MCE Mission Control Element

MDA Minimum Descent Altitude

MDA/DA Minimum Descent Altitude/Decision Altitude

MEA Minimum En route Altitude

MEDEVAC Medical Evacuation

MEP Marine Environmental Protection

MHz Megahertz

Minimum Descent Altitude The lowest altitude expressed in feet above sea level, to which descent is authorized on final approach or during circling to land maneuvering when executing a standard instrument approach procedure where no electronic glide slope is provided.

Mission Essential Personnel A person, approved by the unit Commanding Officer, on an aircraft whose skills or expertise are required to carry out or contribute to any authorized DHS or Coast Guard responsibility, mission, or function for which the aircraft is being operated (e.g., law enforcement personnel being transported to the location of a drug case, marine inspectors being transported to inspect offshore facilities, ATON personnel being transported to repair a light structure, or search teams). Mission essential personnel are not passengers.

Mission Expert Any person with specific expertise related to an aspect of a mission undertaken by Coast Guard aviation whose participation can increase safety or operational effectiveness. Mission experts are considered mission essential personnel for nonroutine missions.

Mission Requirements Use Activities that constitute the discharge of DHS or the Coast Guard's official responsibilities, which may include authorized assistance to other government agencies. Mission Requirements Use include, but are not limited to, the transport of troops and/or equipment, training, evacuation (including medical evacuation), intelligence activities, law enforcement (including transport of prisoners, detainees, and illegal aliens) and search and rescue.

Model A specific version of an aircraft type (e.g., HC-130H, MH-60J).

Monthly Requirement A training sequence that must be completed once in each calendar month (e.g., a sequence that was completed on 1 July must be repeated by 31 August).

MPC Maintenance Procedure Card

MRR Medium Range Recovery

MRS Medium Range Surveillance

MSL Mean Sea Level

MSO Mission System Operator

N Navigator

NAS National Airspace System

National Capital Region Consists of the District of Columbia; Montgomery, Prince George's, and Frederick Counties in Maryland; Arlington, Fairfax, Loudoun, and Prince William Counties in Virginia; and cities now or hereafter existing in Maryland or Virginia within the geographic area bounded by the outer boundaries of the combined area of the counties listed above.

NCV Noncompliant Vessel

NDB Nondirectional Beacon

Night Adapted A flight crewmember that has been placed in a night orientation for four or more nights. The flight crewmember must be afforded adequate crew rest facilities allowing 10 uninterrupted hours of daytime rest. Based on a shift of the body's internal clock per 24-hour period, the member should be adapted for continuous reverse cycle operations by night four and following. Refer to Appendix (B) for further guidance on night adaptation strategies.

Night Time The time a pilot occupies a flight control position inflight between the official time of sunset and sunrise (on the surface below the aircraft) regardless of whether visual or instrument conditions.

Night Vision Goggle (NVG) Time That time when a pilot occupies a flight control position inflight between official sunset and official sunrise (on the surface below the aircraft) and is using NVGs.

NLW Nonlethal Weapons

NMC Not Mission Capable

NMCM Not Mission Capable - Maintenance

NMCS Not Mission Capable - Supply (i.e., waiting for parts)

Non-Aircrew Member A person, other than an aircrew member, who is aboard an aircraft. Non-aircrew members are either mission essential personnel or passengers.

Non-Federal Traveler Any person who is a civilian (not employed by the Federal Government) or who is the spouse or dependent of a Coast Guard member or employee.

Nonofficial Passenger/Traveler Any person for whom the Federal Government is not authorized to pay or reimburse transportation or other travel expenses for a particular trip.

Non-Precision Approach Procedure A standard instrument approach procedure in which no electronic glide slope is provided.

NORAD North American Aerospace Defense Command

Not Mission Capable (NMC) When the aircraft is unable to operate due to: (1) maintenance work that was necessary but could not be performed due to unavailable supplies (NMCS); or (2) maintenance work that had to be performed with supplies available (NMCM).

NTSB National Transportation Safety Board

NVG Night Vision Goggles

OCONUS Outside Continental United States

ODO Operations Duty Officer

Official Purpose Activity to carry out or contribute to any authorized DHS or Coast Guard responsibility, mission, or function.

Official Transportation Authorized movement of persons in an official travel status on DHS aircraft. Such transportation includes movement to meet Mission Requirements Use, Required Use, and other requirements to carry out an authorized DHS or Coast Guard responsibility, mission or function.

Official Travel Approved travel that is paid for, or reimbursed, by the Federal Government, to carry out or contribute to any authorized DHS or Coast Guard responsibility, mission, or function. This definition includes, but is not limited to: active duty Uniformed Services personnel, Federal employees on official business (including those from other agencies on official Federal Government business), Reserve/National Guard members when in a duty status on official orders, and regular members of the Coast Guard Auxiliary in performance of Auxiliary activities, refer to Auxiliary Manual, COMDTINST M16790.1 (series).

OPBAT Operation Bahamas and Turks and Caicos

OPCEN Operations Center

OPCON Operational Control

Operational Missions All missions directly performing Coast Guard operations. For the purposes of this Manual, training, ferry, and maintenance flights are considered nonoperational flights.

Operating Status (Code Title: ALPHA) Status achieved when aircraft is performing a specific mission or task (e.g., an aircraft engaged in a specific search and rescue, law enforcement, administrative, patrol, training, test, ferry, logistics, or other operation). Aircraft temporarily deployed from their assigned station to another unit for other than SAR readiness or for duty under Navy operational control are in ALPHA status.

Orientation Flights Flights intended to afford firsthand opportunities to observe the missions of Coast Guard aviation, secondary to an assigned primary purpose of the flight and not used for point-to-point transportation.

Overseas Any country or place beyond the contiguous 48 states of the Continental United States (CONUS) is overseas for travel and transportation purposes.

P Pilot

PAR Precision Approach Radar

Passenger Any person transported on a Coast Guard aircraft other than the flight crewmembers and mission essential personnel.

PATCH Precision Approach to a Coupled Hover

PCS Permanent Change of Station

PDS Primary Duty Station

PED Portable Electronic Device

PFD Personal Flotation Device

PIC Pilot-in-Command

Pilot-in-Command (PIC) The pilot who has been assigned by proper authority to take charge of the aircraft and be responsible for a specific flight or mission. Normally, the PIC is the senior pilot in the aircraft holding the highest designation in type and model. In the case of UASs the PIC is the pilot controlling the aircraft, unless he or she is under instruction.

PM Pilot Monitoring; Interchangeable with legacy terms Safety Pilot (SP) or Pilot Not at Controls (PNAC) still referenced by other Coast Guard aviation documents.

PM-A Precision Marksman - Aviation

Positive Control Control of all air traffic, within designated airspace, by air traffic control.

Precision Approach Procedure Procedure in which an electronic glide slope is provided, such as ILS or PAR.

Program Hours Number of hours per year assigned to a particular type of aircraft based on budget considerations for operation and maintenance costs.

Prohibited Area Designated airspace within which the flight of aircraft is prohibited.

Public Aircraft Aircraft used only in the service of a government or political subdivision, not including government-owned aircraft carrying persons or property for commercial purposes.

PWCS Ports, Waterways, and Coastal Security

Qualification Certification that a pilot or aircrew member has met training and experience requirements to perform a particular mission.

QA Quality Assurance

R Radio Operator

RADAR Radio Detection and Ranging

Radar Operator RO

Range The maximum distance that can be covered on a single flight sortie.

RCC Rescue Coordination Center

Readiness Requirements The degree of readiness required of an air unit; prescribed by the operational commander.

Readiness Status (Code Title: BRAVO) Signifies aircraft in potential working status when not in Operating Status or Maintenance Status. An aircraft in Readiness Status shall be ready to proceed within a status period after receipt of orders or information requiring its movement. BRAVO ZERO shall be construed to mean that facilities (material and personnel) are ready to proceed with a minimum of delay. The crew of an aircraft in BRAVO ZERO status need not be kept in the immediate vicinity of the aircraft. The crew shall be readily available so that the aircraft can proceed within 30 minutes from the time of notice. Similarly, the crew of a BRAVO X aircraft must be able to proceed within X hours. The degree of Readiness Status shall be assigned solely on the basis of personnel availability and not for material or maintenance purposes.

Ready For BRAVO (RFB) An indication of the degree of Maintenance Status, which is assigned on the basis of total time, estimated for repairs or to perform such work required to prepare the aircraft for Readiness Status. The date and time when the repairs will be completed is part of this designation.

Reasonably Available Commercial airline or aircraft (including charter) available to meet the traveler's departure and arrival requirements within a 24-hour period unless the traveler demonstrates in writing that extraordinary circumstances require a shorter period.

Recovered Patient An individual discharged from treatment by a competent medical authority and who is physically able to travel unattended.

Remote Locations Geographic locations not reasonably accessible to regularly scheduled commercial airline service, specified by Area/District Commanders.

Reporting Custodian The unit assigned physical custody of aircraft to be used in performing that unit's mission.

Required Use Transportation Use of a Coast Guard aircraft for the transportation of a DHS or Coast Guard officer or employee where use of the aircraft is required because of predetermined, bona fide communications or security needs of the traveler's organization, or exceptional scheduling requirements.

Resource Hours Hours accumulated by an aircraft when operating, refer to Operational Reporting, COMDTINST M3123.13 (series).

Restricted Area Designated airspace within which the flight of aircraft, while not wholly prohibited, is subject to restriction.

Reverse Cycle Operations Repeated nights of scheduled sorties or unscheduled flight operations of the same flight crewmember requiring crew mission time from 0000 to sunrise (0600 rather than sunrise for extreme latitudes). Refer to Appendix (B) for further planning and scheduling guidance for reverse cycle operations.

RFB Ready For BRAVO

RM Risk Management

RNAV Area Navigation

RO Radar Operator

Rotary-Wing Aircraft A heavier-than-air aircraft that principally depends on the lift generated by one or more rotors for its support inflight.

Rotary-Wing Air Intercept (RWAI) Actions of specially trained and authorized Coast Guard rotary-wing aircraft and crews, to visually detect and close with other aircraft (fixed-wing, helicopters, etc.) to identify, communicate, determine intent and compel compliance with airspace restrictions.

RS Rescue Swimmer

RWAI Rotary-Wing Air Intercept

SAR Search and Rescue

SAREX Search and Rescue Exercise

SCUBA Self-Contained Underwater Breathing Apparatus

Semi-Annual Periods Six-month periods beginning on the first of January and the first of July of each calendar year.

Semi-Annual Requirement A training sequence or group of sequences that must be completed during each semi-annual period.

Senior Executive Branch Officials (SEBO) Civilian officials appointed by the President with the advice and consent of the Senate, and civilian employees of the Executive Office of the President (EOP).

Senior Federal Officials (SFO) Generally, senior Federal officials are persons employed by the White House and executive agencies, including independent agencies, at a rate of pay equal to or greater than the minimum rate of basic pay for the Senior Executive Service (SES). Exempted from this definition are active duty military officers. For the complete definition of senior Federal official, refer to Improving the Management and Use of Government Aircraft, OMB Circular A-126.

Sensor Systems Operator SSO

Simulated Instrument Conditions Conditions external to the aircraft are visual, but the pilot flies the aircraft solely by reference to instruments. Time and approaches are credited only to the pilot logging first pilot time.

Small Aircraft Aircraft of less than 12,500 pounds maximum certificated weight.

SOFT Safety of Flight Test

Space Available Transportation where additional seating is available on a Coast Guard aircraft that is already scheduled for an official purpose without degrading mission capability.

Space Required Passengers Any eligible person evaluated by competent medical authority and referred to another medical facility due to inadequate medical facilities in the local area.

Special Alert A special type of readiness status in which ready crews are capable of achieving takeoff within a launch window specified by TACON.

Special VFR Operations Aircraft operating in accordance with clearances within controlled airspace in meteorological conditions less than the basic VFR weather minima.

Squawk To transmit a specific IFF transponder code in a specific mode, as in Squawk Mode 3 Code 1277.

SRR Short Range Recovery

SSO Sensor Systems Operator

Strip Alert A special type of readiness status construed to mean that facilities are ready to proceed within a specified number of minutes from notice (i.e., less than 30 minutes, but not less than 15 minutes).

SWET Shallow Water Egress Training

TA Transportation Authorization

TACAN Tactical Aid to Navigation

TAC-FR Tactical Fast Roping aircrew qualification or operation

TACON Tactical Control

TAD Temporary Additional Duty (USCG)

TCAS Traffic Alert and Collision Avoidance System

TDY Temporary Duty (DoD)

Technical Observer A person other than an aviator or aircrew member who is needed for a flight because of special knowledge, experience, or skill, when these qualities are required in flight to more effectively accomplish Coast Guard missions. A Technical Observer can be either active duty, DoD, active duty Coast Guard, a Coast Guard civilian employee or a civilian technical expert.

Test Flight An airborne functional check to establish if an airframe or equipment, while subject to design environment, is operating properly.

TOI Target of Interest or Track of Interest (RWAI)

Total Pilot Time Total Pilot Time includes that time in an authorized aircraft or simulator in which a Coast Guard aviator or student pilot who is assigned duty involving flying -

- Serves as a required pilot flight crewmember;
- Receives training from an authorized instructor in an aircraft, flight simulator, or flight training device; or
- Gives training as an authorized instructor in an aircraft, flight simulator, or flight training device.

Transportation The act of moving personnel and/or cargo from point A to point B on a Coast Guard aircraft.

True Airspeed The airspeed of an aircraft relative to undisturbed air.

TSO Tactical System Operator

Type A specific kind of aircraft, such as MH-65, HC-27, HC-130, etc.

UAS Unmanned Aircraft System

UHF Ultra High Frequency radio

Unmanned Aircraft (UA) A component of a UAS; an aircraft operated without the possibility of direct human intervention from within or on the aircraft. This may be a rotary, fixed-wing, or lighter-than-air aircraft which is capable of flight without an on-board crew. UA can be operated autonomously or remotely, can be expendable or recoverable, and can carry a lethal or nonlethal payload. Ballistic or semi-ballistic vehicles, cruise missiles, artillery projectiles, torpedoes, mines, satellites,balloons, airships, aerostats and unattended sensors (with no form of propulsion) are not considered unmanned vehicles. Unmanned aircraft are the primary component of Unmanned Aircraft Systems (UAS).

Unmanned Aircraft System(s) (UAS) An unmanned aircraft and the equipment necessary for the safe and efficient operation of that aircraft.

Unmanned Aerial Vehicle A legacy term replaced by UA or UAS as applicable.

USAF United States Air Force

U.S. Uniformed Services Includes the Coast Guard, Army, Navy, Marines, Air Force, the Commissioned Corps of the U.S. Public Health Service, and the National Oceanic and Atmospheric Administration.

UTC Universal Coordinated Time (ZULU time)

Vertical Replenishment (VERTREP) The helicopter transfer of personnel or cargo by methods other than landing; such methods include external cargo sling and hoist.

VERTREP Vertical Replenishment

VFR Visual Flight Rules

VHF Very High Frequency radio

VIP Very Important Person

Visual Flight Rules (VFR) Set of procedures, which must be followed when flying in Visual Meteorological Conditions (VMC).

Visual Meteorological Conditions (VMC) Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling equal to or better than specified minima, allowing flight by visual reference to the ground to be safely conducted.

VMC Visual Meteorological Conditions

VOR Very High Frequency Omni-directional Range station

VS Vertical Speed; Vertical Surface

XO Executive Officer

Z ZULU Time or Universal Coordinated Time

APPENDIX (A). STANDARD ORGANIZATION OF COAST GUARD AIR UNIT

A. STANDARD UNIT ORGANIZATION.

1. Standard Organization. Coast Guard air units shall be organized and operated in accordance with the basic principles contained in United States Coast Guard Regulations 1992, COMDTINST M5000.3 (series). This appendix sets forth the minimum requirements for organizing, administering, and operating air units.

   Figure (A)-1 provides a standard organization for air units. Air units are authorized to make additions and deletions of functions and duties where necessary. All functions of the unit must be stated in the unit's organizational chart. Horizontal changes in the existing chart should be avoided.

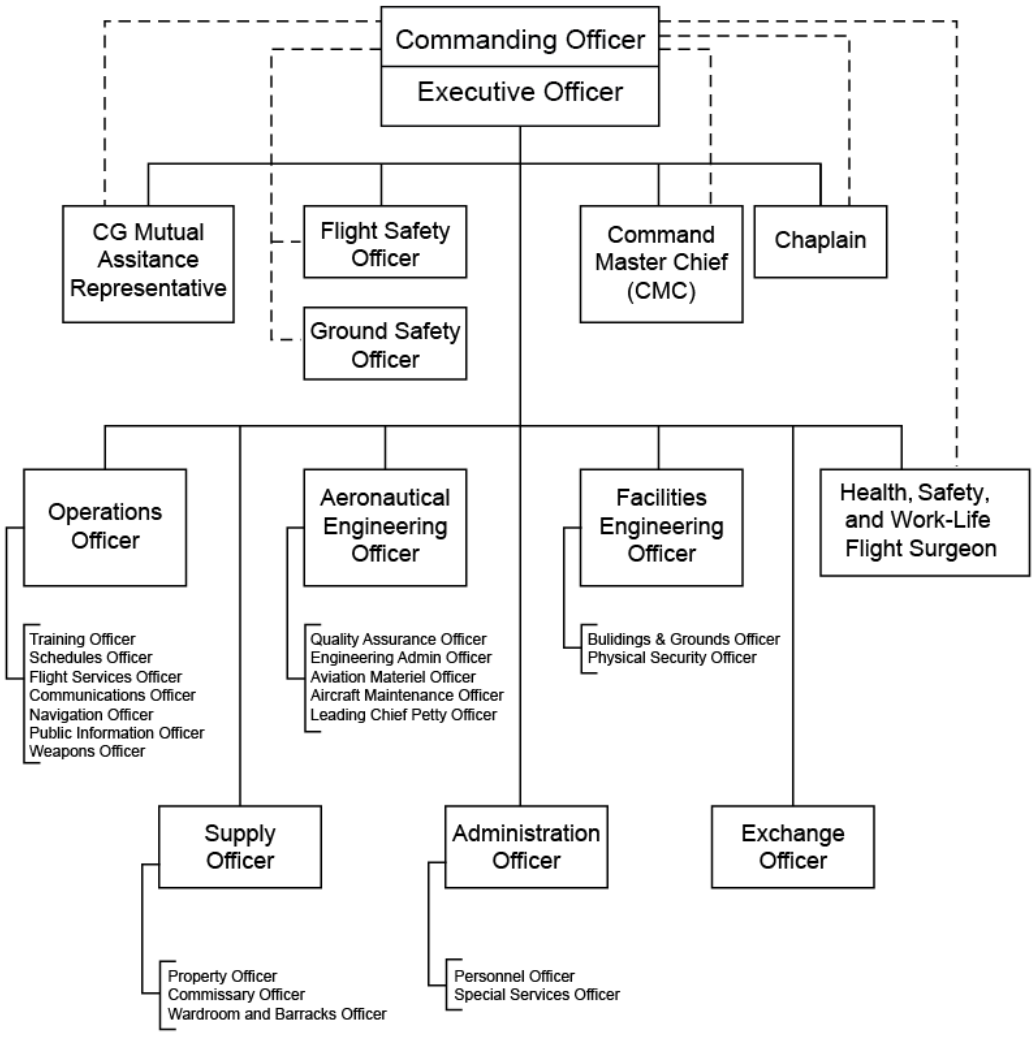

Figure (A)-1. Standard Unit Organization Chart

2. Department Heads. Department heads shall be commissioned officers or warrant officers. The Commanding Officer shall designate department heads and assistant department heads in writing.

3. Unit Organization Manual. Commanding Officers of air units shall promulgate an organization manual for their unit. The first Chapter shall cover any general principles desired, including the mission of the unit, and any other general information appropriate to the scope of the Chapter. The second Chapter shall cover department organization and detailed duties. The third Chapter shall cover watch organization as developed for the unit. The fourth Chapter shall cover the system of unit orders and instructions. Additional Chapters are authorized as necessary.

B. DUTIES.

1. Commanding Officer. Personnel who report directly to the Commanding Officer are indicated by a dotted line in Figure (A)-1. The duties of the Commanding Officer are as follows:

   - Perform the duties of the Commanding Officer as specified in Coast Guard Regulations.
   - Be responsible for the administration and direction of all activities of the unit.
   - Monitor flight proficiency and training of all assigned flight crewmembers, and ensure that personnel assigned to operational flight duty meet all appropriate minimum recurrent training requirements.
   - Monitor the accuracy of Aviation Incentive Pay (AvIP), Hazardous Duty Incentive Pay (HDIP), and Special Duty Assignment Pay (SDAP) paid to eligible assigned personnel. Assign one or more flight pay system manager(s) to assist in this effort.

2. Executive Officer. The duties of the Executive Officer are as follows:

   - Perform the duties of an Executive Officer as specified by Coast Guard Regulations.
   - Assist the Commanding Officer generally in administration of the functions of the unit.
   - Act as senior member of the Unit Safety and Health Committee.
   - Supervise the Master-at-Arms (MAA). The Master-at-Arms shall be a senior petty officer designated by the Executive Officer. The MAA shall perform those duties as specified by Coast Guard Regulations.
   - Act as president of Unit Permanent Mishap Board.

   a. Deputy Executive Officer. Large units may have a Deputy to assist the Executive Officer in their duties. The Deputy reports directly to the Executive Officer and is not in the Operations Officer or Aeronautical Engineering Officer's Chain of Command. The Operations Officer and Aeronautical Engineering Officer remain direct reports to the Executive Officer.

b. Coast Guard Mutual Assistance Representative. The Coast Guard Mutual Assistance Representative administers the Mutual Assistance Fund in accordance with applicable Directives.

c. Flight Safety Officer. The duties of the flight safety officer are as follows:

- Assist and advise the Commanding Officer in matters pertaining to flight safety.
- Act as a member of the Unit Safety and Health Committee and the Unit Permanent Mishap Board.
- Other duties as outlined in Safety and Environmental Health Manual, COMDTINST M5100.47 (series).
- Act as unit Laser Hazard Safety Officer per the duties outlined in Safety and Environmental Health Manual, COMDTINST M5100.47 (series).

d. Ground Safety Officer. The duties of the ground safety officer are as follows:

- Assist and advise the Commanding Officer in matters pertaining to ground safety.
- Coordinate the application of and unit conformance with safety and environmental standards.
- Act as a member of the Unit Safety and Health Committee.
- Other duties as outlined in the Safety and Environmental Health Manual, COMDTINST M5100.47 (series).

e. Chaplain. The duties of a Chaplain are:

- Perform the duties of chaplain as specified in Coast Guard Regulations.
- Assist the Commanding Officer in promoting unit well being.

f. Command Master Chief. A Command Master Chief (CMC) is the liaison between enlisted work force and command cadre.

3. Administration Officer. The duties of the administration officer are as follows:

- Perform the duties of the head of the department as specified by Coast Guard Regulations.
- Administer, under the direction of the Executive Officer, all functions pertaining to personnel.
- Provide educational services.
- Maintain general Directives files.
- Provide clerical and mail services.
- Provide special services, if not under the Exchange Officer.
- Provide medical services, including dental and sanitary services, if a medical officer is not assigned.

- Supervise wardroom and barracks activities.
- Supervise functions of Personnel Examining Board, Audit Board, and Inventory Board.

a. Personnel Officer. The personnel officer administers personnel accounting, orders, correspondence, files, and reports.

b. Special Services Officer. The special services officer provides special services such as housing, recreation, insurance, voting, bond sales, charity drives, and legal assistance.

c. Medical Administration Officer (if Medical Officer is not assigned). The medical administration officer:

- Coordinates medical and dental services.
- Supervises first aid program, including maintenance of medical kits in aircraft, boats, and vehicles.
- Conducts sanitary inspections of buildings and grounds with particular attention to the galley and food handlers.
- Ensures security of controlled substances.

4. Flight Surgeon or other Qualified Aviation Medicine Provider. The duties of the flight surgeon are described in Section 5.D.2 of the Coast Guard Aviation Medicine Manual, COMDTINST M6410.3 (series).

5. Operations Officer. The duties of the Operations Officer are as follows:

- Perform the duties of the head of a department as specified by United States Coast Guard Regulations 1992, COMDTINST M5000.3 (series).
- Coordinate and control movements of aircraft and boats (and vehicles, when operationally employed); establish fuel loadings for aircraft and boats.
- Maintain aircraft and station emergency bills.
- Administer the program of operational readiness of aircraft and associated equipment.
- Manage and direct training of pilots and air crewmen; coordinate training syllabi, both flight and ground, in accordance with pertinent Commandant's Directives.
- Provide flight, communications, weather, navigation, and public information services as required.
- Supervise Flight Examining Board and Flight Standards Board.

a. Training Officer. The duties of the training officer are as follows:

- Assist the Operations Officer in planning, coordinating, and executing unit training program.
- Prepare unit training courses.
- Procure and maintain unit training aids.
- Maintain unit personnel training records.

b. Standardization Officer. The duties of the standardization officer are as follows:

- Advise Commanding Officer and Operations Officer on flight training and standardization issues.
- Manage pilot and aircrew training and standardization programs.
- Maintain unit pilot training records.
- Organize and chair unit Flight Standards Board.
- Maintain pilot upgrade and recurrent training syllabi.

c. Schedules Officer. The schedules officer prepares the daily flight schedule and pilot and operations duty officer watch schedules.

d. Flight Services Officer. The duties of the flight services officer are as follows:

- Provide services and equipment for search and flight planning.
- Provide access to weather briefing, aircraft clearance, and air traffic control services.
- Complete a weight and balance course approved by ALC; maintain weight and balance records, flight logs, reports, and records per Aircraft Weight and Balance Process Guide, CGTO PG-85-00-180-A.
- Maintain read and initial file.
- Maintain sufficient records to enable the preparation of such reports as the Operations Officer may require.

e. Communications Officer. The duties of the communications officer are as follows:

- Develop and maintain frequency plan for all unit communications systems; coordinate with operational partners to identify frequency requirements to include local ATC frequency requirements.
- Coordinate with District to ensure communications system software programs and data files accommodate the unit frequency plan and desired preset radio frequencies and addresses.
- Oversee and manage all communication systems software programs and data files in accordance with the Aviation C4ISR Information Manual, CGTO 12R2-4C4ISR-2.
- Attend Aviation Communications Administration course offered by Aviation Training Center (ATC) Mobile, AL. Additionally, ensure training by the Communications Center Leading Petty Officer is completed.
- Ensure current cryptographic keys are updated and available for use.
- Supervise the communications center and handling of message traffic.
- Administer communications procedures and training.
- Provide control of classified material and cryptographic devices.

f. Command Intelligence Officer (CIO).

(1) The air station CIO is the unit's full-time point of contact for integrating intelligence into aviation planning and operations. The senior permanently assigned intelligence member at the air station must serve as the CIO and is the subject matter expert (SME) and primary point of contact for all intelligence related issues. When no intelligence personnel are assigned, the command must designate a CDIO, E-5 or above, to fulfill the functions of a CIO. Commands shall reference the Coast Guard Intelligence Manual, COMDTINST M3800.6 (series), when designating the duties of a CIO/CDIO.

(2) In accordance with the Coast Guard Intelligence Manual, COMDTINST M3800.6 (series), intelligence personnel are not authorized to fill the role of Command Security Officer (CSO), Classified Material Control Officer (CMCO), Public Affairs Officer (PAO), or SIPRNet Manager.

g. Navigation Officer. The duties of the navigation officer are as follows:

- Maintain flight planning equipment and spaces.
- Ensure currency of charts and electronic navigation data.
- Provide current publications, navigation equipment, and records.
- Maintain Area Navigation (RNAV) database.
- Maintain flag locker.

h. Weapons Officer. Weapons Officer (for air stations with airborne use of force capabilities only) duties are:

- Direct the training, maintenance, security, and transportation for all operational and training missions requiring weapons and ammunition.
- Assist Operations Officer and XO in matters pertaining to weapons program.
- Ensure security, inventory, and maintenance of all weapons.
- Maintain library of Publications and Directives for unit weapons.
- Manage unit weapons training, safety, and testing.
- Manage unit Nonlethal Weapons (NLW) training, safety, and testing.
- Additional specific duties of the Weapons Officer are outlined in United States Coast Guard Regulations 1992, COMDTINST M5000.3 (series), and Chapter 2 of the Ordnance Manual, COMDTINST M8000.2 (series).

i. Public Information Officer. The duties of the public information officer are as follows:

- Provide public information services, including videos, slides, projectors, and articles cleared for release to the public.
- Provide photographic services.

- Establish channels and procedures for spot news coverage.

j. Auxiliary Aviation Liaison Officer. The duties of the Auxiliary Aviation Liaison Officer (AUXLO) are as follows:

- Provide managerial oversight to the Auxiliary Aviation program in regards to recurrent training, Auxiliary pilot, aircrew and observer qualification programs, survival equipment, etc.
- Ensure the Air Station and District Command Centers are aware of the Auxiliary Aircraft schedules and operations.
- Coordinate all Auxiliary patrols with the regional/squadron Auxiliary Aviation Coordinator (AAC).
- Mentor Auxiliary pilots and Observers by overseeing the Auxiliary Aviation program as directed by Auxiliary Aviation Program, COMDTINST 16798.1 (series).
- Provide input to the Operations Officer on Auxiliary Aviation capabilities during operational or contingency planning.
- Act as the primary point of contact for connectivity between the Auxiliary District Aviation Board, Auxiliary Flight Examining Board, District Staff Officer - Aviation (DSO-AV), and the Coast Guard.
- Assist the Flight Safety Officer in any Auxiliary aircraft mishap investigation.
- Ensure radio log contains entries for each Auxiliary mission.
- Ensure all necessary reports (safety patrols, logistics, SAR and MEP flights), log entries, statements and notifications concerning Auxiliary missions and mishaps are completed and forwarded as applicable.
- As applicable, provide the duty FS with a Ration Memorandum, Form CG-3123 for the meals consumed by Auxiliarists under orders.

6. Aeronautical Engineering Officer. The aeronautical engineering officer shall:

- Perform the duties of the head of a department as specified by Coast Guard Regulations.
- Manage the Aeronautical Engineering Department and be responsible to the Commanding Officer for the maintenance of aircraft, associated equipment and facilities.
- Administer the Aeronautical Engineering Department in accordance with controlling directives.
- Coordinate maintenance scheduling with Operations Department requirements.
- Establish programs for fuel and oil contamination prevention, foreign object damage prevention, and corrosion control.

a. Quality Assurance Officer. The duties of the quality assurance officer are as follows:

- Ensure the quality of maintenance of the unit's aircraft.
- Maintain a master library of all technical publications and Directives; review all incoming technical publications and Directives to determine their applicability to quality assurance; assist in preparation of local maintenance instructions, and ensure that each shop has available all current publications applicable to its work area.
- Review work orders, inspection sheets, aircraft maintenance records, and all logs and records pertaining to the aircraft for recurring discrepancies.
- Ensure that established and adequate procedures are observed for conducting ground tests and routine and special inspections; perform spot quality inspection checks; ensure that current standard procedures are observed by maintenance personnel in the repair and bench testing of components.
- Ensure all work guides, checklists, work cards, and maintenance forms used to define or control maintenance are complete and current.
- Participate in maintenance flights and ensure that pilots and crews are briefed prior to maintenance flights so that the purpose and objectives of the flights are clearly understood.
- Ensure that modifications to aircraft and aircraft components have been incorporated and ensure that support equipment meets calibration and safety requirements.
- Review maintenance records for trends to determine when discrepancies in any area are increasing or exceeding normal limits.
- Approve or reject completed work based on appropriate standards.
- Spot check equipment received for use, or returned for repair, to ensure that its condition, identification, packaging, preservation and configuration are satisfactory and, when applicable, that shelf life limits have not been exceeded.
- Establish qualification requirements for quality assurance inspectors and collateral duty quality assurance inspectors; review the qualifications of personnel assigned to these positions and maintain a record of all designated inspectors.
- Maintain weight and balance records and conduct an inventory of all station aircraft in accordance with the Aircraft Weight and Balance Process Guide, CGTO PG-85-00-180-A; complete a weight and balance training course approved by ALC prior to assuming weight and balance responsibilities.

b. Engineering Administration Officer. The duties of the engineering administration officer are:

- Provide administrative and clerical services for the Aeronautical Engineering Department; establish and control a system for correspondence receipt, distribution, reply, and filing; ensure submission of all required reports; prepare and distribute internal maintenance directives, schedules, and information; and maintain aircraft logbooks and historical records.
- Distribute all nontechnical information and publications.
- Supervise and coordinate engineering administrative responsibilities with other departments as required.
- Establish engineering training requirements; coordinate with the Operations Department, Aeronautical Engineering Department training requirements and assist in obtaining necessary school quotas; program and provide adequate on-the-job training, and coordinate aircrew training with Operations.

c. Aviation Materiel Officer. The duties of the aviation materiel officer are:

- Maintain liaison with the Supply Department and provide technical advice for procuring and requisitioning aeronautical engineering supplies and allowance list spares.
- Compile and analyze maintenance usage data, Not Mission Capable-Supply (NMCS), Not Mission Capable-Maintenance (NMCM), Not Mission Capable-Depot Level Maintenance (NMCD), experience, and recommend changes to stocking list when justified.
- Inventory aircraft upon receipt and transfer and ensure that proper inventory log entries are made.
- Be responsible for procurement, custody, issue, and condition of all general and special tools required by the Aeronautical Engineering Department.
- Request, receive, identify, classify, store, and issue all special aviation material required by the Aeronautical Engineering Department.
- Assist the Supply Department in maintaining a complete inventory of materiel required in the operation of the Aeronautical Engineering Department and initiate immediate replacement to established stocking levels.
- Periodically spot-check aviation materiel in supply to ensure that shelf life has not expired.
- Estimate budgetary needs and administer funds allotted for procurement of material and services; establish internal methods and procedures by which maintenance personnel can obtain required materiel to support the maintenance effort.

- Initiate action for survey in the event of loss, damage, or destruction of accountable items.
- Ensure that all Class 265 materiel is carefully screened and a positive determination is made that repair of such materiel is beyond unit or local repair capability; ensure that materiel is properly tagged, packaged, and expeditiously processed.

d. Aircraft Maintenance Officer. The duties of the aircraft maintenance officer are:

- Direct preventive and corrective maintenance of aircraft, related equipment, and shop facilities.
- Plan, schedule, and control all phases of maintenance; perform progress checks on all work assigned; maintain aircraft maintenance status board and keep cognizant personnel informed of aircraft status; request required material from Aviation Materiel for performance of aircraft and equipment maintenance; establish a system to ensure delivery of necessary items at the required time and place.
- Ensure that maintenance instructions are prepared when required.
- Ensure prompt and safe movement of aircraft to facilitate the maintenance effort; prepare necessary aircraft parking plans.
- Maintain all ground support equipment including compliance with inspection requirements.
- Provide aircraft line maintenance including aircraft preflight, aircraft postflight, aircraft servicing, and transient maintenance.
- Conduct Foreign Object Damage (FOD) prevention program.
- Fuel and defuel aircraft; manage the aviation fuel facilities.
- Coordinate the training of all personnel involved in aircraft ground handling and aircraft ground support equipment operation; provide aircraft security including tie-downs and chocks.
- Accomplish required aircraft run-up, aircraft washing, and aircraft interior cleanup.
- Process repairable material to serviceable status.
- Ensure that all materiel and equipment is properly stored, secured, and accounted for.
- Ensure that precision measurement equipment is calibrated and certified in accordance with current Directives.
- Prepare Unsatisfactory Report of Aeronautical Material (UR) in rough and forward to Engineering Administration.
- Initiate requests for shop materiel required, periodically review shop usage, and establish inventory reorder points.

e. Leading Chief Petty Officer (LCPO). The duties of the LCPO include, but are not limited to:

- Serve as Senior Enlisted Advisor for the Aviation Engineering Department.
- Supervise the Aviation Engineering Administration staff.
- Ensure Aviation Engineering Department Instructions and Standing Orders are current and enforced.
- Brief and indoctrinate incoming personnel.
- Coordinate monthly Chief Petty Officer, Watch Captain and Workforce/Duty Section assignment meetings.
- Oversee flight orders, AvIP, SDAP, and operational/technical qualification programs for assigned enlisted personnel.
- Be aware of and proactive regarding the general welfare of the aviation enlisted personnel assigned to the unit.

7. Facilities Engineering Officer. The duties of the facilities engineering officer are:

- Perform the duties of the head of a department as specified by Coast Guard Regulations.
- Oversee unit environmental compliance program.
- Administer program for maintenance and repair of buildings, grounds, boats, and vehicles including aviation fueling facilities and fuel trucks.
- Provide physical security services including fire fighting and crash rescue equipment and services.
- Administer boat and vehicle operator training and qualification program.

a. Buildings and Grounds Officer. The duties of the buildings and grounds officer are:

- Conduct a program for progressive preventive and corrective maintenance of all structures.
- Supervise the upkeep of grounds.
- Supervise the station's maintenance force, including use of tools, equipment, and shops.

b. Physical Security Officer. The duties of the physical security officer are:

- Maintain fire fighting equipment such as trucks, hydrants, hoses, extinguishers, and crash kits in buildings, vehicles, boats, and on grounds.
- Administer physical security program, including supervision of the gate and security watches.
- Provide identification, parking, and traffic control for vehicles.
- Supervise Government vehicle driver examinations.

c. Boats and Vehicles Officer. The duties of the boats and vehicles officer are:

- Maintain boats assigned to the air station.
- Provide boat operator training.
- Maintain station vehicles.

8. Supply Officer. The duties of the supply officer are as follows:

- Perform the duties of the head of a department as specified by Coast Guard Regulations.
- Procure, stock, and issue supplies and equipment.
- Prepare and maintain required fiscal and supply records and reports.
- Operate the unit mess.
- Supervise Survey Boards.
- Supervise wardroom and barracks activities if these duties are not assigned to the Administration Department.

a. Property Officer. The duties of the property officer are:

- Maintain master record of plant property.
- Maintain and supervise station allowance lists.
- Provide accountability for property issued on custody.
- Dispose of excess and surveyed property.

b. Commissary Officer. The duties of the commissary officer are:

- Provide commissary services, including receipt and preparation of food and galley equipment.
- Ensure cleanliness and sanitation in galley and commissary.
- Prepare commissary reports, inventories, and requisitions.
- Carry out such Instructions as are promulgated in the Financial Resource Management Manual, COMDTINST M7100.3 (series) and United States Coast Guard Regulations 1992, COMDTINST M5000.3 (series).
- Direct the training of subsistence specialists.

c. Wardroom and Barracks Officer. The duties of the wardroom and barracks officer are:

- Supervise cleanliness and orderliness of officers' wardroom, mess room pantry, and sleeping spaces.
- When so appointed by the Commanding Officer, act as mess treasurer and carry out functions as specified in pertinent instructions.
- Supervise the Master-at-Arms (MAA).

d. Exchange Officer. The Exchange Department organization must be tailored to the specific Exchange responsibilities of the unit. Coast Guard Non-Appropriated Fund Instrumentalities (NAFI) Manual, COMDTINST M7010.5 (series), is the controlling authority and shall be used as a guide to Exchange Department organization.

C. WATCH ORGANIZATION AND DUTIES.

1. Senior Duty Officer. The Senior Duty Officer (SDO) is the command's senior officer on watch. As the senior officer of the watch organization, the SDO shall be responsible for the operation, administration, and security of the unit outside of normal working hours. Specific duties of the SDO shall be defined in Air Station Instructions.

2. Operations Duty Officer. The Operations Duty Officer (ODO) is normally a commissioned officer that shall act as assistant to the SDO. Specific duties of the ODO shall be defined in Air Station Instructions.

3. Enlisted Personnel Watches and Duties. Because of their varying size and local conditions, air units are not required to establish all of the following watches. In the interest of standardization, whenever these watches are established, they shall be titled as listed. Duties pertaining to each watch shall be specified in Air Station Instructions.

   - Officer of the Day (OOD)
   - Junior Officer of the Day (JOOD)
   - Duty Master-at-Arms (MAA)
   - Engineering CPO
   - Watch Captain (The senior member of the enlisted aviation duty section)
   - Gate Watch
   - Switchboard Watch
   - Radio Watch
   - Security Watch
   - Duty Section

4. Standard Watch Organizational Chart. Each air unit shall maintain a watch organization chart.

5. Duty Schedule. Each air unit shall publish a duty schedule which lists the personnel assigned to each watch position.

   - The duty schedule shall include the names of personnel assigned to aircraft ready crews.
   - The selection of properly qualified personnel for assignment to aircraft ready crews is a command function. The integrity of ready crews shall be carefully maintained. Changes in ready crew assignments shall be made only with approval of the Commanding Officer or a designated representative.

D. UNIT ORDERS AND INSTRUCTIONS.

1. Operations and Emergency Bills. The following operations and emergency bills shall be promulgated as appropriate:
   - Fire
   - Field Crash
   - Water Crash
   - Search and Rescue
   - Disaster Control
   - Communications
   - Hurricane or Destructive Storm Evacuation Plan
   - Pre-mishap Plan
   - Recovery and Salvage Plan
2. Instructions. Instructions shall be promulgated by the Commanding Officer to standardize procedures, express policy, establish doctrine, and comply with Directives of higher authority. Each command shall establish numbered Directives in accordance with the provisions of Commandant Instructions. All personnel must be thoroughly familiar with all Unit Instructions pertaining to their duties, watches, and routine.
3. Notices. Unit notices shall be issued as necessary to announce events of short-lived or passing interest or to direct attention to existing Directives. Notices shall be numbered in accordance with the provisions of Commandant Instructions.

E. RECOMMENDED MANAGEMENT PRACTICES.

1. Overview. The preceding Paragraphs of this Appendix specify the organization of Coast Guard air units. This required organization has been developed from experience and encompasses many practices presently employed at Coast Guard air units. This Section deals with recommended practices. Adoption of these specific management practices is not mandatory. Their use has been helpful at many air units and they may be used at the discretion of the Commanding Officer. If these practices are not used as specifically outlined, the subject matter should be covered adequately in some other manner.
2. Inspection of Operational Equipment. The manner and frequency of inspection of aircraft, boats, vehicles, fire/crash trucks, and certain items of aircraft and station emergency equipment are specified in other Directives. Only by frequent routine inspections can the Commanding Officer be assured that his operational equipment is in fact ready for use in accomplishing the mission of the unit.
   a. Daily Inspection. An Operational Equipment Status Board should be maintained in the operations center to show the status of aircraft, boats, crash trucks, and other equipment desired.

b. Periodic Inspection. A more detailed inspection of aircraft, boats, crash trucks, and other equipment as desired should be conducted weekly. This inspection should be made by officers or chief petty officers, using an established inspection form, and should include examination of the structure, regular equipment, rescue equipment, and safety equipment.

3. Use of Unit Checklists. Unit checklists provide some assurance that specific required actions will be taken, particularly under the stress of operational emergencies. Unit checklists should be promulgated for routine use by cognizant personnel.

a. Search and Rescue (SAR) Checklists. SAR checklists are used for dispatching units in response to emergencies, organizing searches, conducting communications and harbor checks, and ensuring required actions are performed in any SAR case. The Initial SAR Check sheet, Appendix G-3 of the U. S. Coast Guard Addendum to the United States National Search and Rescue Supplement (NSS) to the International Aeronautical and Maritime Search and Rescue Manual (IAMSAR) COMDTINST M16130.2 (series), should be used, if the unit is receiving the initial notification of a SAR incident.

b. MEDICO/MEDEVAC Checklists. The MEDICO/MEDEVAC Check sheet, Appendix G-7 of the U. S. Coast Guard Addendum to the United States National Search and Rescue Supplement (NSS) to the International Aeronautical and Maritime Search and Rescue Manual (IAMSAR) COMDTINST M16130.2 (series), should be used, when gathering patient information, obtaining advice, securing authorization papers, and other matters pertaining to MEDICO cases.

c. Daily Routine Checklists. Daily routine checklists are used for ensuring prompt and timely actions by the ODO, OOD, JOOD, switchboard watch, and other personnel actively involved in the daily routine of the unit.

d. Tickler Files. Tickler files are used to make a positive check on the timely submission of the units recurring reports and other correspondence.

e. Pre-mishap Plan Checklists. Pre-mishap plan checklists are used to ensure that all actions required by the unit pre-mishap plan are accomplished in a timely fashion.

f. Pilot Status Report. A pilot status report should be established to post information on each pilot's aircraft qualifications, total pilot time, monthly and semi-annual pilot hours, and instrument approach statistics.

g. Training Status Reports. Training status reports, for posting information on the training status of both pilots and aircrew members, should be established in the training office.

h. Destructive Weather Plan. The primary purpose of a destructive weather plan is to provide protection for equipment while maintaining an acceptable SAR readiness before and after destructive weather.

4. Aircraft Logistics Center. The Aircraft Logistics Center (ALC) shall be included in the Fifth CG District destructive weather plan.

5. Aviation Training Center. Aviation Training Center (ATC) Mobile, AL shall be included in the Eighth CG District destructive weather plan.

APPENDIX (B). FITNESS OF AIRCREW PERSONNEL

A. FITNESS OF AIRCREW PERSONNEL.

1. General. Certain adverse physiological or psychological factors can be responsible for causing mishaps, both in the air and on the ground. These adverse factors include: fatigue, improper diet, poor physical condition, improper or excessive use of tobacco, alcohol or drugs, minor illness, mental or emotional stresses, and insufficient or irregular sleep. Although such factors probably cannot be completely eliminated in aviation personnel, it is important that the existence of these factors be recognized and that appropriate action is taken to minimize their effects. Particular emphasis should be placed on the needs of deployed aircrews that are operating in unfamiliar environments and often on unusual cycles. The Risk Management Instruction, COMDTINST 3500.3 (series), establishes responsibilities and procedures for endurance risk assessments using the Risk Factor Assessment (RFA) tool.

2. Aviation Medicine Staffing. A flight surgeon remains the gold standard for aviation operational requirements. FSTs, AMOs, and APA-Ds will be considered acceptable in meeting requirements for aviation medicine duties. Table (B)-1 lays out the minimum aviation staffing requirements for units. Since the flight surgeon is considered the expert and most qualified AMP, only a fully qualified FS may serve as the senior medical officer on a mishap analysis board, an Aeromedical Consultation Advisory Board, serve as the Aviation Standards Medical Officer, or serve as the Commander PSC reviewer. There will be a FS for each Regional Practice who will serve as a resource for aviation medicine issues and questions for their region

Table (B)-1. Minimum Aviation Medicine Staffing Requirements

District	Clinic	Unit	FS	APA**	APA-D	AMO
D1	Cape Cod	AIRSTA Cape Cod	1	1		
D5	Atlantic City	AIRSTA Atlantic City			1*	
	TRACEN Cape May					1
	Elizabeth City	ATTC/AirSta/ALC	1		1	
	NCR	AIRSTA Washington			1*	
	Base NCR		1			
D7	Miami	AIRSTA Miami	1	1		
	Clearwater	AIRSTA Clearwater	1	1	1	
	Jacksonville	HITRON	1			
	Savannah	AIRSTA Savannah			1*	
	Borinquen	AIRSTA Borinquen	1	1		

Table (B)-1. Minimum Aviation Medicine Staffing Requirements Continued

District	Clinic	Unit	FS	APA**	APA-D	AMO
D8	Mobile	ATC Mobile	2	1		
	New Orleans	AIRSTA New Orleans			1*	
	Houston/ Galveston	AIRSTA Houston	1	1		
	Corpus Christi	AIRSTA Corpus Christi	1			
D9	Detroit	AIRSTA Detroit	1			
	Traverse City	AIRSTA Traverse City			1*	
D11	McKinleyville	Sector/AIRSTA Humboldt Bay	1			
	San Francisco	AIRSTA San Francisco			1*	
	Sacramento	AIRSTA Sacramento	1			
	Ventura	AIRSTA Ventura			1*	
	San Diego	AIRSTA San Diego	1			
D13	North Bend	Sector North Bend	1			
	Astoria	Sector Columbia River	1	1		
	Port Angeles	AIRSTA Port Angeles	1			
D14	Barbers Point	AIRSTA Barbers Point			1*	
	Honolulu	Base Hono	1			
D17	Kodiak	AIRSTA Kodiak	2	2		
	Sitka	AIRSTA Sitka	1	1		

These are collaborative, not solo, practice sites. Criteria defined in Coast Guard Aviation Medicine Manual, COMDTINST M6410.3 (series).

NOTE:

* APA-Ds assigned to collaborative practice should be selected via a board process. See Coast Guard Aviation Medicine Manual, COMDTINST M6410.3 (series), for further information.

** APA to APA-D training billets.

The AMP's evaluation, Commissioned Officers' Effectiveness Report (COER) for Public Health Service officers, and the Officer Evaluation Report (OER) for CG officers, will be the usual mechanism for recommending placement or removal of an AMP by either the Health, Safety, and Work-Life Directorate, or the CG unit's command. When the staffing standard is not able to be met by available qualified personnel, alternates will be recommended and approved through a process of collaboration between COMDT (CG-112), (CG-711), and the relevant District or Area Commander. COMDT (CG-11) retains final authority.

3. Command Action. The following are command responsibilities:

   - Observing, in letter and spirit, the maximum utilization factors for aircrews prescribed in this Manual.
   - Arranging watch duties so that crews on alert duty are able to sleep with a minimum of interruption from telephone calls, administrative matters, machinery noises and other disturbances.
   - Ensuring that all aircrew personnel clearly understand the effects of fatigue, distraction, emotional stress, improper diet, overindulgence, and insufficient sleep; advising aircrew personnel of their duty and responsibility to bring any such conditions which might affect safety of flight to the attention of the Commanding Officer, and to request grounding, if necessary, until such factors are corrected
   - The Coast Guard monitors and controls crew mission days, flight time, and other fatigue related factors as a risk management tool. Crew utilization standards are not designed to hinder operational commanders in mission planning or execution. Scheduling and rest guidance should be viewed as long term risk management and loss control parameters designed to minimize injury and damage and to preserve limited capital and personnel resources for future operational use.
   - Familiarity with policies, responsibilities and guidelines set forth in Coast Guard Aviation Medicine Manual, COMDTINST M6410.3 (series) and the Risk Management Instruction, COMDTINST 3500.3 (series).

4. Individual Responsibility. Flight Surgeons and Aviation Physician Assistants (APA) require full awareness of each aviator's physical, mental, and behavioral health to ensure fitness for aviation duties. All received care must be reported to the FS/APA.

   All designated aviation personnel are expected to exhibit professionalism, maturity, and concern for self and others. Aviation personnel are encouraged to seek help or care for physical, mental, or behavioral health matters; however, it is necessary for aviation medicine providers to be made aware in order to address fitness for duty and preserve safety of flight. Personnel receiving the above types of care from any source outside of their designated aviation medicine provider without that provider's knowledge are prohibited from participation in all flight, ground, or maintenance related activities. To resume flight duties, personnel shall report to their aviation medicine provider for clearance.

5. Sleep and Rest. Human factor studies have identified fatigue as a significant factor impacting aircrew judgment and operational performance. Fatigue is alleviated and mental alertness is restored by proper sleep. Irregular and insufficient sleep patterns can create both immediate and long term (or chronic) fatigue. Noise, poor climate control, bright light, excitement, worry, daytime sleep period, or any other condition that is not conducive to restfulness will diminish the benefits of sleep. While the optimum amount of sleep varies among individuals, the normal standard for flying personnel is eight continuous

hours in every 24-hour period. Factors such as excessive fatigue, illness, and emotional stress tend to increase this standard. Mishap experience and studies indicate that any decrease in a flight crewmember's ability to sleep will impact normal performance functions and increases the likelihood of error. Since influence of increased error becomes particularly significant during operations at night and in poor weather, flights, watch standing requirements, and collateral duties should be assigned with due regard to providing adequate crew rest for such assignments.

B. REVERSE CYCLE OPERATIONS.

1. Reverse Cycle Operations Overview. Traditionally, the Coast Guard has structured crew rest limits based on the air station Search and Rescue ready crew model. Within this paradigm, reverse cycle operations are limited to isolated late night SAR cases, with the crew allowed restorative sleep immediately upon relief. Typically, relief crews respond to tasking the following night if needed. Transitioning to night vision goggles, increased red-zone missions (0300 to sunrise), night-capable sensor packages and demands for round the clock deployed law enforcement response require a safe protocol that satisfies operational requirements yet accounts for the body's strong natural desire for rest during hours of darkness. Particularly alarming is human factors science that indicates increased mental and physical impairment the third night of reverse cycle operations.

   a. Reverse Cycle Operations - Planning Considerations. Operational Commanders must evaluate the probable mission benefits against increased reverse cycle operations fatigue risk. For shipboard operations, cutter requirements for daylight boardings concurrent with reverse cycle flight operations may quickly burnout the cutter crew and AVDET, yielding elevated risks for both evolutions. Augmenting of officer and enlisted AVDET members is highly recommended to allow continued asset deployment and proper crew rotation/rest (i.e., two nights on/one night off). Shipboard experience indicates best results when the entire cutter shifts routines. This provides balance of sufficient daylight for aircraft and cutter maintenance and training and desired nighttime operations. Most effective is a 1400 to 1500 Reveille and 0400 Taps.

   b. Night Vision Goggle Operations. While night vision goggles may enhance detection capability, they offer little identification capability. Similarly, reverse cycle operations should be planned during lunar cycles that best enhance night vision goggle capabilities.

      (1) Crew Rest Facilities. Any safe reverse cycle operations require suitably isolated crew rest facilities. The shipboard environment provides many challenges for uninterrupted rest during daylight. Rotation of the entire cutter schedule (not just the AVDET) appears to foster a better (but not ideal) rest environment for cutter and AVDET personnel. Crews deploying to ashore forward operating bases should carefully consider rest facilities and deploy with any required equipment (i.e., black out curtains, provisions for food preparation when restaurants are closed, etc.). Crew berthing

should be arranged by similar mission scheduling to minimize disruptions.

(2) Maintenance Considerations. Safe cutter-based helicopter maintenance during reverse cycle operations should be considered. Since the aircrew work day may be during hours of darkness, aircraft spotting and routine maintenance may be completed on a dark deck, with flashlights, perched on ladders/check stands/aloft on the aircraft. It may be advantageous for some AVDET members to remain day oriented to complete aircraft maintenance in daylight. Any test flight will require a re-adaptation to daytime.

c. Reverse Cycle Operations - Personal Coping Strategies. Seek daylight exposure after awakening from sleep at approximately 1500, but not before. Doing so will help the body assume a 1500 sunrise. During prescribed wakeful periods after sunset, remain within a brightly lit space (with levels equivalent to a suitably lighted shop/hangar space) to initiate daylight response. Ensure necessary night vision adaptation period. Once night adapted, maintain a consistent sleep period, beginning just prior to or soon after sunrise (to minimize exposure to light) and ending about 1500.

(1) Maintaining Night Adaptation. Consistent, reliable scheduling is one of the best tools for fostering safe reverse cycle operations. Be consistent with meal periods, reflecting a breakfast orientation upon awakening in mid-afternoon and appropriately sequenced meals to follow.

Once night adapted, when possible maintain consistent flight mission times or within a specific operational window (e.g., 2200 to 0400). Minimize flights between 0300 to sunrise or 0600 whichever comes first. The 0300 to sunrise period is a crew endurance red-zone period where alertness is at a low point, even under night adaptation.

If a supplemented crew is provided, assure consistent wakefulness during off time. Given the fragile nature of night adaptation, easily reversed by a single 24 hours of daylight activity, crews must be diligent to stay in a night schedule when adapted, regardless of duty scheduling. Environmental factors such as collateral duty requirements, family demands, off-duty demands, etc. must adhere to the night schedule for the member to remain safely adapted.

(2) Sleep Disruptions. Consider any disruption in the continuity of sleep (phone call, beeper call, noisy environment, etc.) as a bad night and make arrangements to nap during the day, and sleep-in at the earliest opportunity to compensate for the sleep loss.

Sleep-in the day after a sleep loss or a bad night (less than seven hours or a disrupted sleep period makes for a bad night). Consider that personnel are more susceptible to develop chronic fatigue when working nights, even if an adaptation protocol is in place.

Do not delay compensating for sleep loss or a bad night. The resulting sleep debt may cause fatigue at unexpected times of the work period (in this case nighttime).

(3) Pre-Mission Sleep. When possible, reduce the period of sustained wakefulness (time from sleep until present) before flights to below eight hours. That is, encourage crews to nap one to two hours before missions if their period of sustained wakefulness is approaching eight hours. Maintain a seven to eight hour sleep period. Use naps in the evening to reduce sleep loss, if daily sleep duration is less than seven hours.

(4) Sleep Environment. Optimize the sleep environment by reducing light, noise, and controlling temperature. Sleep is most restorative if taken in a dark, quiet, and cool/well ventilated environment. Consider sleeping arrangements where occupants have similar sleep schedules to minimize disruptions from activity in the berthing areas.

(5) Alertness Indicators. Factor alertness into each mission risk analysis. Try to avoid missions during the red zone (0300 to sunrise), and keep red zone missions as short as possible. Use crew resource management and maintain a lively chat in the cockpit at all times. Do not allow periods of silence during the red zone, or the crew is at risk of falling asleep. Also consider that susceptibility to make wrong decisions and to experience spatial disorientation is exacerbated by sleep loss.

d. Reverse Cycle Operations - Suggested Operational Scheduling. No Reverse Cycle Operational Doctrine is suited to all mission scenarios. The suggested protocols below have been tested and proven an effective template for some reverse cycle operations. The first template assumes a short period (two nights maximum) pulse into night operations with the crew remaining daytime oriented. The second template assumes a dedicated effort to night adapt for a prolonged reverse cycle operation. Both protocols assume isolated crew rest facilities.

(1) Short-Term Reverse Cycle Operations. Short-Term Reverse Cycle Operations is repeated nights of scheduled or unscheduled employments of a single crew during the hours of 0000 to sunrise. If these operations are sustained and continuous, and continue for longer than two weeks, the crew shall use the Long-Term Reverse Cycle Operations guidance in Paragraph (B).B.1.d.(2). Repeated nights of scheduled or unscheduled operational launches can be especially fatiguing to a crew, particularly if the crew is remaining in a Daytime orientation due to the short period of night operations. Unless the crew has night adapted by adhering to the Long-Term Reverse Cycle Operations protocol below and reached Night 4 and Following, the following guidance is suggested:

Night 1: Crew Utilization limits listed in Chapter 3 of this Manual apply. If the crew retires after the sortie, seek to gain as much uninterrupted sleep as possible. If the sortie was during the red zone (0300 to sunrise), the crew should be provided a minimum of 10 hours crew rest after mission completion before subsequent tasking. Upon awakening, observe daylight to activate normal physiological cycles. Nap if possible in late afternoon. Seek to limit the period of sustained wakefulness prior to the next sortie to less than eight hours. If possible, retire at normal bedtime prior to Night 2 responses.

Night 2: If a launch occurs 0000 to sunrise the second night, the crew should be limited to 4.0 hours of cutter-based flight operations (including training flights). Crew Utilization limits listed in Chapter 3 of this Manual apply to shore-based operations. If the crew retires after the sortie, seek to gain as much uninterrupted sleep as possible. If the sortie was during the red zone (0300 to sunrise), the crew should be provided a minimum of 10 hours crew rest after mission completion before subsequent tasking. Upon awakening, observe daylight to activate normal physiological cycles. Nap as possible in late afternoon. Seek to limit period of sustained wakefulness prior to next sortie to less than 8 hours.

Night 3: The crew should not respond to launch tasking from 0000 to sunrise. The crew must attain 24 hours of crew rest before assuming alert status from 0000 to sunrise (returning to Night 1 above if necessary).

(2) Long-Term Reverse Cycle Operations. Long-Term Reverse Cycle Operations is the sustained and continuous employment of a single crew during the hours of 0000- sunrise for periods lasting greater than two weeks. The sequence integrates the maximum daily shift of the body's clock of 90 minutes. As such, requires a minimum of four nights to potentially shift the body's clock from 0000 to 0600 bedtime. Once begun, the crew must consistently adhere to night adaptation strategies to facilitate nighttime orientation. Specifically, seek to retire prior to sunrise and sleep until 1300 to 1500. Due to the detrimental effect daylight has on reorienting the body's cycles, avoid sunlight exposure until after 1500. The sequence is as follows:

Night 1: A maximum of 4.0 hours of cutter-based flight operations. The Crew Utilization limits of Chapter 3 of this Manual apply to shore-based operations. If operation of crew and aircraft occurred earlier in the day (i.e., transport to forward operating base or cutter), assure the Crew Utilization limits of Chapter 3 of this Manual are not exceeded. Leverage napping to reduce sustained wakefulness to less than eight hours before nighttime sortie. Upon final landing, the crew is placed in Reverse Cycle Crew Rest Status until 1600 the following day.

Night 2: A maximum of four hours of cutter-based flight operations. The Crew Utilization limits of Chapter 3 of this Manual apply to shore-based operations. Upon final landing, the crew is placed in Reverse Cycle Crew Rest Status until 1600 the following day.

Night 3: No flight operations. Crew maintains Reverse Cycle measures during off day/night. Coverage of AOR to be provided by another crew or asset.

Night 4 and Following: Unrestricted night operations. The Crew Utilization limits of Chapter 3 of this Manual apply. Planned aircraft recovery 30 minutes prior to sunrise. Upon final landing crew is placed in Reverse Cycle Crew Rest Status until 1600 the following day.

Ramp Down: A full 24 hours off. Daylight only operations for the following 24 hours. After that point operations are limited only by the Crew Utilization limits of Chapter 3 of this Manual.

Table (B)-2. Long Term Reverse Cycle Adaptation Plan

Cycle	Sleep Schedule	Avoid Daylight and/or Artificial Bright Lights	Seek Artificial Bright Light Exposure	Alertness Levels Impact
First 3 days of rotation from daytime to nighttime work schedule	From sunrise to NLT 1500	From 0300 to 1500	From sunset to 0300 Exposure periods should be at least 15 minutes every two hours.	Low during 1st day. Improving on 2nd and 3rd day, but with lowest points after 0300.
From 4th day of rotation onwards	From sunrise to NLT 1500	From sunrise to 1500	From sunset to bedtime or sunrise (whichever comes first)	Lowest after 0300 to bedtime; Best from 1500-2300; Mid-level between 2300-0300

NOTES: All times are local in this table. Seek bright artificial light exposure as follows:

- On the Ground: At least 1,000 Lux (equivalent to four 100 watt incandescent light bulbs) measured at eye level. Alternatively, monochromatic green or blue light sources of at least 300 Lux at eye level can be used.
- During flight: Monochromatic green or blue light sources of at least 300 Lux at eye level should be used. In all cases, light exposure should not be applied directly to the eyes.

CAUTION

The light source should be approximately 20 to 30 inches away from your eyes such that it bathes your face from the side.

e. Reverse Cycle Crew Rest Status. Operational Commanders must be sensitive to the high risk imposed on night-adapted crews responding to daytime missions. Realize that frequent disruptions will place crews in a constant state of jet-lag and severely compromise endurance and safety.

f. Reverse Cycle Operations - Sunrise/Sunset Abnormalities. Operations at extreme latitudes introduce widely varied solar cycles. Gain exposure to light (real or artificial) upon waking at 1300 to 1500 until 0300. Maintain constant bedtimes of approximately 0600 to 1500.

g. Reverse Cycle Operations - Summary. Regardless of the Reverse Cycle Operations protocols of this Manual, the deployed Aircraft Commander is tasked with evaluating the readiness of his/her crews in meeting assigned missions. Operational commanders should be cognizant that fatigue is difficult to self-diagnose and therefore avoid operations contrary to sound judgment. Even by adhering to the above doctrine, crews may still fail to reach advantages of night adaptation and therefore decline missions due to inadequate crew rest.

2. Diet. The optimum diet is based on the individual's caloric needs and the adequate provision of essential nutrients. The caloric value of food consumed for a given period should balance the heat eliminated by the individual during that same period. The assistance of a flight surgeon, qualified aviation medicine provider, or dietitian should be obtained in calculating these values, especially in hot or cold climates. A medical officer should always be consulted when using a special diet, whether for gaining or losing weight. The regularity with which meals are consumed is as important as the type of food. Adequate provision for meals is essential to flight safety.

3. Exercise. Exercise requirements are more uncertain than any of the other factors discussed in this appendix. Although needs vary from individual to individual and from situation to situation, some form of physical exercise is necessary to keep the body in good condition. Physical fitness programs are encouraged at aviation units to ensure operational readiness.

4. Alcohol. Alcohol is a well recognized central nervous system depressant. It is one of the most frequently used and abused drugs in our society. Even small amounts of alcohol in the blood can seriously impair judgment, reflexes, muscular control and also reduce the restorative effects of sleep. The level of alcohol in the body varies with the frequency and amount of alcohol intake, the length of time following cessation of drinking and an individual's body weight. A zero alcohol level is essential for aviation personnel to meet the rigorous demands of flight operations. Detectable blood alcohol or symptomatic hangovers are causes for grounding of flight crew personnel or for restricting the activities of maintenance personnel not actually involved in flight operations. Although some personnel may completely metabolize all alcohol well within the twelve hour limit, this time span allows an adequate margin of safety before resuming flight operations.

5. Tobacco. The nicotine contained in tobacco is a quick acting poison. Excessive smoking causes depression of the nervous system and impairment of vision. The carbon monoxide resulting from the combustion of tobacco is absorbed by the bloodstream in preference to oxygen, resulting in a lowering of altitude tolerance. Tobacco smoke also irritates the respiratory system.

6. Caffeine. The drug caffeine, contained in coffee, tea and many soft drinks, can produce an adverse effect on the body. The amount of caffeine contained in just two cups of coffee appreciably affects the rates of blood flow and respiration. In small amounts, coffee can be considered a nervous system stimulant. Excessive amounts may produce nervousness, inability to concentrate, headaches, and dizziness. Individuals accustomed to daily intake of caffeine may develop headaches and experience a loss of sharpness if daily intake is stopped or significantly curtailed. Caffeine withdrawal syndrome may impact flight safety.

7. Drugs, Medications and Nutritional Supplements. Self-medication in any form by flying personnel can be extremely hazardous. Even relatively common medicines, such as aspirin, antihistamines, cold tablets, and tranquilizers can seriously impair the coordination and concentration required in flight. Detailed information on the use of medications and nutritional supplements by aviation personnel is found in the Medications Aeromedical Policy Letter on the Commandant (CG-1121) Aviation Medicine page https://cg.portal.uscg.mil/units/cg1121/SitePages/Home.aspx. Approved over-the-counter medications may be used for acute, episodic use in the treatment of MILD, non-disqualifying conditions.

8. Minor Illness. The common cold, digestive upsets, and other minor illness, which do not seriously handicap individuals in other pursuits, may produce intolerable impairments in flying personnel. Inflammation accompanying a cold can cause extreme discomfort during altitude changes and can result in permanent injury. Distention caused by gas in the stomach or intestines may create symptoms varying in intensity from mild discomfort to incapacitating pain.

9. Mental and Emotional Illness. The safe and effective operation of aircraft requires close attention, ability to ignore distractions and a high degree of emotional control. Inflight emergencies often demand rapid, accurate decisions and skillful actions. Attention to the job-at-hand can be dangerously diverted by concern over non-task-related problems. The aircrew member who is preoccupied with personal, domestic, or other problems, or who exhibits signs of poor mental attitude or emotional instability, should not be permitted to fly. An aircrew member who encounters these problems should report them to his or her Commanding Officer and request to be grounded. All persons in authority, particularly Commanding Officers, flight safety officers, and flight surgeons or other qualified aviation medicine providers, must be constantly alert for signs of mental and emotional problems among aviation personnel.

10. Simulator Sickness. The experience of symptoms such as nausea, disorientation, and sweating has occurred in fighter, attack, patrol, and helicopter simulators. Symptoms of simulator sickness may occur during simulator flight and last several hours after exposure. In some cases, the onset of symptoms has been delayed as much as 18 hours. These symptoms have occurred in both motion-base and fixed base simulators to pilots and other aircrew as well as instructors. Preliminary data suggest that more experienced flight personnel are at greater risk and that simulator exposure can cause perceptual sensory rearrangement which may compromise safety. Flight personnel exhibiting symptoms of simulator sickness following simulator exposure should abstain from same day flying duties. Individuals who have experienced simulator sickness in the past have a greater probability of reoccurrence and should not be scheduled to fly for 24 hours following simulator exposure.

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APPENDIX (C). COAST GUARD AUXILIARY AVIATION

A. COAST GUARD AUXILIARY AVIATION OVERVIEW.

1. General. This appendix is provided for background information purposes. The Auxiliary Operations Policy Manual, COMDTINST M16798.3 (series) is the primary regulation governing the employment of Auxiliary aircraft. The Coast Guard Air Station Commanding Officer has the sole Order Issuing Authority (OIA) to assign Auxiliary aircraft aviation missions.

   Using Auxiliary Aviation in conjunction with Coast Guard Aviation will increase the capability of any Coast Guard District, Sector, or Air Station. It is a force multiplier for Coast Guard Aviation. In this regard it is helpful to review the Auxiliary Aviation Mission Statement:

   Assist the Coast Guard in all areas authorized by the Commandant by performing any Coast Guard function, power, duty, role, or operations authorized by law. It shall be the responsibility of the Coast Guard Auxiliary to provide aircraft which meet all current Federal Aviation Regulations along with trained and qualified crews to accomplish these tasks.

2. Aircraft. Currently, the Coast Guard Auxiliary Aviation branch is comprised of a variety of aircraft. These aircraft range in size from 2-seat single engine to twin engine cabin class aircraft. Obviously, these aircraft represent a range of capabilities. The order issuing authorities must be cognizant of this fact. They are urged to maintain close contact with the Auxiliary pilots to familiarize them with the capabilities/limitations of the aircraft and pilots in their Area of Responsibility. Unlike Coast Guard Aviation, Auxiliary Aviation does not have an equitable spread of aircraft throughout the country. The aircraft available in any given district is directly related to membership population and the kind of aircraft those members offer for use and fly.

3. Communications. Virtually all Auxiliary aircraft are equipped with two VHF-AM transceivers. In addition, all Auxiliary aircraft are required to be equipped with a VHF-FM radio. The Auxiliary air observer operates the VHF-FM radio on mission flights.

   Auxiliary aircraft operating under approved orders shall use the telephony designator COAST GUARD AUXAIR in air/ground communications and the three-letter identifier CGX when filing flight plans. Use of COAST GUARD AUXAIR while not under approved orders is prohibited.

4. Navigation. Most Auxiliary aircraft are equipped with two VORs, an ADF, Localizer, ILS, and DME. In addition, some Auxiliary aircraft are equipped with weather radar, storm scopes, an HSI, and RNAV. With the proliferation of low cost panel mounted and hand held GPS units, most Auxiliary aircraft have VFR GPS capability.

5. Pilots. As with aircraft, Auxiliary pilots represent a range of capabilities. The Auxiliary has pilots with a Private Pilot license and 200 hours total time and pilots holding an Airline Transport Pilot license and thousands of hours. Auxiliary pilots are not required to have an instrument rating. Order Issuing authorities should be aware of which pilots are instrument rated and which are not.

Consult the Auxiliary Operations Policy Manual, COMDTINST M16798.3 (series) for specific Auxiliary pilot designation and minimum pilot training requirements.

6. Training. All Auxiliary pilots and observers must receive training in water survival techniques, emergency egress procedures, and use of survival equipment on an annual basis. In addition, Auxiliary pilots must meet the training requirements contained in the Auxiliary Operations Policy Manual, COMDTINST M16798.3 (series).

B. MISSIONS.

1. Search and Rescue. With most Auxiliary aircraft being fixed-wing, the Auxiliary role in this mission is mainly to search. Upon location of a distressed vessel or the object of a search, Auxiliary aircraft should be prepared to stay on scene, fuel permitting, until a Coast Guard air or surface asset arrives. The Coast Guard asset will become Onscene Commander and assign any further tasking to the Auxiliary aircraft.

2. Pollution Response. Auxiliary aircraft are excellent platforms for use in the pollution response role. Auxiliary aircraft provide the District with a dedicated resource that if used correctly, can effectively enhance spill detection and response. Pollution response flights can be performed by aircraft as a dedicated mission or in conjunction with a normal Auxiliary safety patrol.

3. Aids to Navigation. The relatively high speed of Auxiliary aircraft maximize the amount of navigation aids that can be surveyed versus using a vessel to perform the same task. Potential problems with navigation aids discovered from the air can be checked further by visits from Coast Guard or Auxiliary surface craft.

4. Chart Updating. The use of Auxiliary aircraft is ideal for the chart updating mission. Auxiliary pilots and observers can identify objects that need to be added or deleted from nautical or aeronautical charts. More specific information can be gathered on the object during a ground or water based follow-up survey.

5. Living Marine Resources (LMR) and Marine Protected Species (MPS) Patrols. Some air stations are tasked with flying agents from the National Marine Fisheries Service on LMR/MPS patrols. To fully complete this mission, the Auxiliary aircraft should be configured for offshore operations. When configured for offshore operations, Auxiliary aircraft are excellent platforms for this mission.

6. Law Enforcement. Although the Auxiliary has no law enforcement authority, Auxiliary aircraft can be a useful tool for overt surveillance and information gathering. As with virtually any other Coast Guard mission, the LE mission can be conducted with a normal safety patrol or as a dedicated mission. Auxiliary aircraft should record and report any unusual activity detected during the course of a patrol. A thorough debrief of Auxiliary personnel should be conducted by the air station or group LE Officer upon their return.

7. Ice Patrols. Auxiliary aircraft are an effective tool in detecting ice buildups in the Northeast Rivers and the Great Lakes. Districts where ice is a problem during the winter should take advantage of the benefits of Auxiliary air in the Ice Detection mission.

8. Logistics/Passenger Transport. Auxiliary Air can be used as effectively in this role as Coast Guard Air can be. Air Station Commanding Officer order issuing authority should exercise due care in assigning the proper pilot and aircraft to match the appropriate logistics or transport flight.

9. Area Familiarization. Use Auxiliary aviation in this role as a cost effective way of familiarizing Sector and District personnel with their Area of Responsibility (AOR). Many questions can be answered by viewing the AOR from the air.

10. Intelligence Collection. In accordance with the Coast Guard Intelligence Manual, COMDTINST M3800.6 (series), the use of Auxiliary aircrews and aircraft for intelligence collection is strictly prohibited. Auxiliary aircrews shall be neither sensitized to intelligence collection requirement nor tasked to perform collection activities. Units should direct questions or concerns about this policy to the servicing District Intelligence (dri/di) and Legal (dl) staff.

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APPENDIX (D). UNMANNED AIRCRAFT SYSTEMS

A. OVERVIEW OF OPERATIONS.

1. Applicability. In general, aviation policies outlined in this Manual pertaining to manned aircraft also apply to Unmanned Aircraft Systems (UAS). This appendix contains additional or alternate flight regulations that differ from those governing manned flight, and shall be followed during the preparation for, and conduct of, Coast Guard UAS operations. Additional UAS policy is currently being developed for incorporation and this appendix may need to be changed or waived by Commandant (CG-711) to reflect the realities of UAS operations.

2. UAS Categories. USCG definitions of UAS categories are predicated on range and C2 link capabilities similar to our manned aircraft, whereas the FAA and DoD definitions are often predicated on size and weight.

   Short Range (SR) UAS are man-portable systems only authorized to operate within Visual-Line-of-Sight (VLOS). Typically these are battery-powered small UAS with endurances of 0.5 - 3 hours and operating altitudes up to 1,200 feet AGL.

   Medium Range (MR) UAS operate Beyond-Visual-Line-of-Sight (BVLOS) but within radio line-of-sight control. They provide on-demand support for the tactical commander. Typically MR-UAS have an endurance of 12+hours and operate at altitudes up to 5,000 feet AGL.

   Long Range (LR) UAS operate via satellite control link Beyond-Line-of-Sight (BLOS). They provide wide-area surveillance for the strategic commander. Typically LR-UAS have an endurance of 24+hours and operate at altitudes up to 50,000 feet MSL (FL500).

3. Partnering With Other Agencies. Coast Guard crewmembers operating other agencies' UAS including those in an assigned or detached duty status, shall adhere to those agencies' regulations and operating procedures unless otherwise dictated by a Memorandum of Understanding or Agreement.

4. Initiating Operations. Before conducting UAS operations, a flight clearance shall be obtained from CG-711. CG-711 is the final authority in determining flight clearance requirements (i.e., AVCERT, IFC, Spectrum, etc.). The request for flight clearance shall be submitted no less than six months prior to the intended start of flight operations. Requests shall include: CONOPS, system/payload specifications, shipboard certification (if deployed or controlled from a shipboard facility), airspace access, collision avoidance plan, spectrum authorization, privacy documentation, operator certifications, and communications plan as applicable. Units are prohibited from purchasing or contracting for any UAS unless authorized by CG-711. The U.S. Coast Guard Research and Development Center and Commandant (CG-9) are exempt from this restriction to support future acquisitions.

5. National Airspace System. Prior to operating any UAS within the National Airspace System (NAS) outside of special use airspace, CG-711 or delegated unit shall determine which method is most appropriate for airspace access; operating under FAA Part 107 rules, applying for an FAA COA, or leveraging the Coast Guard's blanket FAA COA for operations in Class G airspace.

The COA process establishes mandatory provisions to ensure that the level of safety for domestic UAS flight operations is equivalent to that of manned aviation. A COA is unique to the intended mission and specifies the time period, location, circumstances, and conditions under which the UAS must be operated. COAs are not required for UAS operations within special use airspace or Due Regard operations beyond 12NM from shore.

6. General Precautions. UAS operations shall be conducted with consideration of the potential hazards presented if control of the aircraft is lost. Whenever practicable, UAS should be operated at an altitude and course that minimizes danger to personnel and property on the surface. In addition, due consideration shall be given to avoiding other aircraft in flight.

7. Deviations. The Pilot-in-Command (PIC) may deviate from this regulation only in response to inflight emergencies. Should a deviation occur from this regulation, FAA, ICAO, or host country regulations, the PIC shall report details of the incident directly to CG-711 within 24 hours.

8. Mishaps. For mishaps involving Coast Guard UAS, make all notifications and complete analysis in accordance with the Safety and Environmental Health Manual, COMDTINST M5100.47 (series).

B. AUTHORITY AND CONTROL OF FLIGHTS.

1. Personnel Authorized to Pilot Coast Guard UAS. Only DHS, DoD, or contracted personnel designated in type and model, or training in type and model, are authorized to manipulate the flight controls and operate Coast Guard UAS. Whenever a nondesignated pilot is operating the UAS (e.g., during initial training), a UAS instructor pilot shall also occupy the Ground Control Station (GCS) and be prepared to assume control.

2. Pilot-in-Command. Pilot-in-Command (PIC) responsibility for UAS operations exists from aircraft preflight or the time the GCS is powered up with the intent for flight, until the unmanned aircraft is safely on deck and powers down the GCS, or is relieved by a qualified PIC who has received a thorough mission brief while the aircraft is airborne.

3. Air Mission Commander. A UAS Air Mission Commander (AMC) is a non-flying qualified UAS pilot who has completed an approved syllabus that may be assigned to support long endurance flights, multiple missions within one sortie, or any mission that requires multiple crew changeovers.

   - The AMC controls access to the GCS during all ground and flight operations. He or she ensures that all non-crewmembers, regardless of rank or authority, minimize interaction with UAS crewmembers, especially during demanding phases of flight and crewmember changeovers.
   - The AMC maintains consistency throughout the mission by ensuring crew compliance with the authorized mission plan, procedures for any subsequent mission changes, and crewmember assignment and sequencing.
   - The AMC ensures that each crewmember performs the appropriate changeover brief before being relieved.

More than one AMC may be required during a sortie to comply with Crew Mission Time limits.

SR-UAS and MR-UAS missions may not require an AMC.

4. Displays and Demonstrations. Operation of UAS in public demonstrations, except for static displays, is prohibited unless expressly authorized by CG-711.

   Aerobatics shall not be performed unless required for system test or evaluation.

5. Transfer of Crewmember Duties and Responsibilities. PIC authority and other crewmember duties may be transferred to another appropriately designated or qualified crewmember while the unmanned aircraft is airborne. Such transfers may only be authorized by the AMC or PIC (when AMC not assigned).

   The oncoming crewmember shall not assume the duties and responsibilities of his or her crew position until he or she has been fully briefed and is prepared to assume those duties. Simultaneous transfer of more than one crew position shall be avoided.

C. MISSION PLANNING.

1. Standard Operating Procedures. All UAS shall be operated in accordance with their respective operator's manual, IFC, AVCERT, and applicable regulations.

2. Minimum Equipment List. All components and associated equipment listed in the Minimum Equipment List (MEL) of the applicable UAS flight manual are required to be operational for the safe, effective operation of UAS. This list includes all essential air, ground, and ground support components for the UAS. Deviations may be approved by CG-711 via waiver process.

3. Airports and Operating Areas. Land-based UAS shall use military airfields to the maximum extent practicable. Joint-use airfields may be used with specific approval from FAA or other controlling authorities. The PIC is responsible for ensuring that airfield facilities, servicing, and safety are adequate for the UAS involved. This does not preclude UAS from operating from nontraditional launch and recovery zones such as closed airports or runways. Local agreements with host facilities shall be observed.

   In planning and flying the course to, in, and from operating areas, the PIC shall select and adhere to courses and altitudes that minimize the possibility of UAS descending into a populated area due to a system malfunction.

4. Launch and Recovery. For UAS that are launched and recovered via runway, the PIC shall ensure the proposed airfield is suitable for use. For UAS that are launched and recovered by other methods (e.g., catapult or hand-launched, net, hook, cable, or water recovered), a thorough survey of the proposed launch and recovery zones shall be accomplished prior to flight. Consider the following factors for all launch and recovery methods:

   - Runway length, width, and surface requirements as identified in the applicable UAS operator's manual and unit Standard Operating Procedures (SOP).
   - Launch and recovery zone requirements as identified in the applicable UAS operator's manual and unit SOP.

- UAS launch and recovery zones shall include suitable flight termination points and avoid populated areas and potential obstacles, such as high-tension wires, towers, etc.
- Availability of approved approach and departure corridors.
- Line-of-Sight (LOS) and Beyond-Line-of-Sight (BLOS) distances to mission areas and GCS hand-over requirements, if required.
- High concentrations of transmitters, receivers, or other equipment that may interfere with UAS command, control, and data links.
- Operations Security (OPSEC) and Communications Security (COMSEC) measures.
- De-confliction of UAS parking plans and flight traffic patterns with those identified for manned aircraft operations.
- Availability of Ground Support Equipment (GSE). In addition to the physical limitations of cables and other GSE, personnel should also consider other factors such as safety, security, and noise abatement.
- Host airfield regulations for both manned and UAS operations.

5. Alternate Recovery Location. Most UAS will not have an alternate airfield. If no alternate recovery location is available, the PIC shall determine/select an offshore or uninhabited ditching site that minimizes risk to persons or property.

6. Fuel/Battery Reserves. The minimum UAS fuel/battery reserve shall be at least that required for 20 minutes of flight after reaching the alternate recovery location. If an alternate recovery location is not available, UAS fuel/battery reserve shall allow transit to planned ditching site.

   SR-UAS are exempt from a 20 minute reserve because of their inherently limited battery endurance. SR-UAS shall be operated with a minimum battery life required to return to the operator and/or the alternate recovery location.

   Meteorological factors, mission requirements, airspace restrictions, and any known or expected traffic delays shall be considered when computing additional reserves.

7. Icing. UAS flights shall avoid areas of known or forecast icing unless specified in the applicable flight manual.

8. Turbulence. UAS flights shall avoid areas of known light turbulence unless specified in the applicable flight manual.

9. Domestic Airspace. UAS-equipped units should assist local ATC facilities in understanding their system and mission requirements, and jointly develop local procedures and/or agreements to access the NAS or special use air space. In addition, UAS-equipped units shall jointly develop airport operating procedures with servicing ATC facilities as required. At a minimum, these procedures shall address:

   - Ground operations
   - Flight clearances

- Takeoff and departure
- Approach and landing
- Go-arounds and missed approaches
- Airport traffic patterns
- No-fly areas
- Flight termination points/locations

10. Operations in Sovereign Airspace. Operations conducted in sovereign airspace must follow the procedures negotiated with the country claiming that airspace.

11. Operations over the High Seas. As state aircraft, Coast Guard UAS are required to operate Due Regard, or in accordance with appropriate international authorities, when operating outside the NAS.

    Unless operated within visual line-of-sight of the pilot or observer(s) with direct communications to the pilot, current UAS capabilities do not satisfy the option to maintain VMC as a means to conduct flight under Due Regard as specified in DoD General Planning (GP) Flight Information Publication (FLIP), Chapter 8, or DoDI 4540.01, Operations Not Conducted Under ICAO Procedures.

    The PIC/AMC shall ensure that at least one of the following conditions are satisfied to enable safe separation from other aircraft:

    - UAS shall be operated in VMC and the PIC/AMC or a visual observer must maintain continuous and direct line-of-sight visual observation of the UAS surrounding airspace (binoculars may be employed).
    - Aircraft must be operated under continuous surveillance by, and in communication with, a surface or airborne facility providing the surveillance.
    - Equipped with a Government Certified system that is sufficient to provide separation between the UAS and other aircraft.

    Alternative means or conditions for achieving Due Regard will be subject to approval by CG-711.

    Airborne or surface-based radars aboard any DoD or DHS asset may satisfy the UAS surveillance option to conduct Due Regard operations only if the platform and radar operator are FAA certified or military certified by NAVAIR and/or CG-711 to provide separation services. UAS equipped with FAA approved air-to-air detection systems that provide traffic separation and collision avoidance may also satisfy the provisions to conduct Due Regard operations.

12. Minimum Pilot Assignment. An aircraft commander designated in type shall be assigned as PIC for all LR-UAS flight and ground operations.

13. Minimum Aircrew Assignment Requirements. Table (D)-1 prescribes the minimum aircrew required in addition to the minimum pilot requirements in this Chapter for Coast Guard UAS operations. Commanding Officers or PICs may require additional crewmembers based on unit or mission needs.

Table (D)-1. UAS Minimum Aircrew Requirements

Mission Type	SSO	RO	Observer	Comments
Operational missions	•	•	•	RO/SSO not required if UAS has no dedicated RO/SSO position. Observer not required in Class A airspace or when operating BLOS.
All other missions	•		•	SSO not required if UAS has no dedicated SSO position. Observer not required in Class A airspace or when operating BLOS.

14. Flight Scheduling and Crew Rest. Flight scheduling standards and crew rest requirements outlined in Chapter 3 of this Manual apply to UAS operations except for the differences described in this appendix. If unmanned and manned aircraft operations are conducted during the same 24-hour period, both manned and unmanned hours count toward individual flight hours and crew mission hours. Manned airframe scheduling standards and crew rest limits apply.

15. Flight Scheduling Standards. Within any 24 consecutive hours, a flight crewmember should not be scheduled to exceed the hourly limits shown in Table (D)-2. Flights which are scheduled for the maximum time allowed should not be extended except for urgent mission requirements.

    A new 24-hour period will begin any time a flight crew or non-crewmember has completed ten hours rest, regardless of duty status. However, deadhead time shall not be calculated as part of rest time.

    UAS crewmembers should not normally be scheduled to operate manned and un-manned aircraft within the same 24-hour period unless urgent operational requirements exist.

Table (D)-2. UAS Flight Scheduling Standards per 24-Hour Period

Mission	Individual Flight Hours	Crew Mission Hours
Land-Based UAS	10	14
Shipboard UAS	8	12

16. Rest Breaks. UAS crewmembers may fly no more than four consecutive hours without a minimum 30-minute rest break. However, it is highly recommended that they are relieved every two hours to minimize the effects of fatigue.

17. Post-Mission Rest Requirements. After a flight in which accumulated times total those in Table (D)-3, a crewmember shall be required to take no less than the indicated number of off-duty hours before being assigned as an aircrew member. These rest requirements shall be applied whenever an aircraft is safely on the ground or flight deck, regardless of engine or rotor operation or intent for further flight. Individual flight hours and crew mission hours, listed in Table (D)-3, are cumulative unless 10 hours of rest are completed between

sorties, regardless of duty status. If adequate crew rest facilities are not available between multiple sorties, crew mission time shall continue to accrue. Off duty time must allow a minimum of 8 hours of bed rest.

Table (D)-3. UAS Post-Mission Rest Requirements

Land-Based UAS		Shipboard UAS		Hours Off Duty
Individual Flight Hours	Crew Mission Hours	Individual Flight Hours	Crew Mission Hours	
8.0-9.9	12.0-12.9	8.0-8.9	12.0-12.9	10 (12) *
10.0-11.9	13.0-14.9	9.0-9.9	13.0-13.9	12 (18) *
12.0+	15.0+	10.0+	14.0+	15 (24) *
NOTE: Alternate Off Duty Standards (*) are to be used if the individual flight hours or crew mission hours in this table are achieved for two or more consecutive days.				

18. Seven-Day Duty Limits. A UAS crewmember who is deployed aboard ship may remain in a duty status indefinitely, provided he or she has not exceeded an average of eight flight hours per day for the previous seven days (including days prior to deployment) and has not exceeded individual flight hours or crew mission hours in Table (D)-3. If, when deployed, the flight hours or crew mission time in Table (D)-3 on any given day are exceeded, the respective Hours Off Duty standards apply. When deployed, if the average flight hours per day exceed eight, then the crewmembers shall be relieved from all duty for not less than 24 hours after seven days.

19. Fourteen-Day Duty Limits. No UAS crewmember may fly more than 80 total hours during any 14 consecutive day period.

Contractors are recommended to follow USCG Crew Rest requirements.

D. CONDUCT OF OPERATIONS.

1. Flight Discipline. Since GCS configurations may vary greatly between different UAS types and models, Crew Resource Management skills serve as a critical safety and standardization measure. Depending on the system and mission, a GCS may be in a trailer, a vehicle, a building, another aircraft, or aboard ship. As such, multiple distractions may be encountered by the UAS crew. To minimize this, an OPCEN or similar facility shall serve as a communications buffer between the GCS and command and control authority (District, JIATF, etc.). Typically, a unit Operations Duty Officer (ODO) or other responsible designee will occupy this facility and be responsible for logging flight activities and coordinating with the command and control authority, other agencies, and Air Traffic Control, and shall assist the PIC as required.

2. Access to Ground Control Station. During UAS operations, limit access to the GCS to authorized crewmembers and approved by the AMC or PIC. If the GCS is enclosed, it shall have two levels of access: Sterile and Restricted.

3. Sterile Ground Control Station. Implement a sterile GCS during critical phases of ground and flight operations, or when directed by the AMC or PIC. The critical ground operations phase is from aircraft staging to takeoff and

from approach to landing until engine shutdown. During these critical phases of ground and flight operations, the following procedures shall be in effect:

- GCS occupancy is exclusively limited to the AMC, PIC, SSO, RO, and technicians/maintenance personnel (if applicable).
- Access into and out of the GCS shall be prohibited unless approved by the AMC or PIC.
- Signs indicating that sterile GCS is in effect shall be placed outside all access doors.
- GCS communications (e.g., cell phones, telephones, intercom), including communications to or from the OPCEN, shall be limited to mission essential information.

a. Restricted Ground Control Station. A restricted GCS shall be implemented during noncritical phases of ground and flight operations. The noncritical ground operations phase is prior to engine start and after engine shutdown. During these noncritical phases of ground and flight operations, the following procedures will be in effect:

- GCS occupancy is limited to the AMC, PIC, SSO, RO, technicians/maintenance personnel (if applicable), and other personnel approved by the AMC or PIC. Visitors will normally observe operations from the OPCEN, but case-by-case exceptions may be granted by the AMC or PIC.
- Signs indicating that restricted GCS is in effect shall be placed outside all access doors.
- Requests for entry into the GCS will be made to the AMC or PIC, preferably before the pre-mission brief. If approved, the AMC or PIC will coordinate access with the ODO.
- GCS communications (e.g., cell phones, telephones, intercom), including communications to/from the OPCEN, shall be limited to mission essential information.
- Any crewmember may invoke sterile GCS procedures at any time.

b. Other Ground Control Station Configurations. Although not preferable, some GCSs might be located in open work areas, such as within a ship's Combat Information Center (CIC). In this case, the ship's Tactical Action Officer or other designee will limit distractions to the UAS crew, especially during critical phases of flight such as takeoff and landing or as otherwise deemed by the PIC.

4. Taxi Signals. When necessary, use standard taxi signals by ground personnel for all taxi operations. If confusion exists at any time, suspend taxi operations until positive radio communication is established.

5. Compliance with Directives. In addition to the general flight rules outlined in Chapter 4 of this Manual, the PIC shall comply with all provisions contained in an FAA-approved COA for the specific mission and published state and local flying rules, restrictions, and ATC Instructions concerning UAS operations.

6. Lighting Requirements. UAS shall be illuminated to at least the minimum standards required by the FAA or host nation in which the flight operations occur. Anti-collision lights shall be on when engines are operating, except when there may be other hazards to safety or mission requirements dictate otherwise. Position lights shall be on between official sunset and sunrise unless mission requirements dictate otherwise.

7. Minimum Altitudes. Altitudes shall comply with the operating limitations of FAA Part 107, FAA COA, controlling agency procedures (within special use airspace), host nation authorities, or ICAO regulations as appropriate.

8. Formation Flights with UAS. Formation flights of multiple UAS are prohibited. Although not a normal mode of operation, manned and unmanned aircraft may be required to fly in formation for several purposes. These include, but are not limited to:

   - Chase aircraft to provide see-and-avoid capability for UAS operating without a COA in the NAS.
   - Inflight damage assessment of UAS.
   - Public affairs/photo opportunities.

   Mixed (manned and unmanned) formations may only be authorized by the Commanding Officer(s) of the unit(s) to which the aircraft are attached. Additionally, manned aircraft may take part in any formation prescribed in its specific operator's manual, but under no circumstances will it assume flight lead or operate forward of any unmanned aircraft. Formation flight will be thoroughly pre-briefed by all crewmembers and operational commanders (or their designees), with emphasis on operational risk management.

9. Maintenance Test Flight Conditions. Maintenance test flights shall be conducted in conditions (weather, VMC/IMC, GPS availability, etc.) that accommodate safe operation of the UAS, including the use of all available control links and navigation systems. Maintenance tests for flight controls, navigation systems, power train, takeoff/recovery systems, or other critical components shall be conducted in the vicinity of the launch location or a suitable recovery area. Consideration should be given to performing maintenance flights in segregated airspace as defined by the appropriate controlling authority.

10. Airspace Deconfliction. The PIC shall ensure sufficient traffic deconfliction exists between manned and unmanned aircraft in the operating area. During missions involving several aircraft, a Coast Guard command or Joint Operations Center may be able to provide the appropriate level of coordination between operating agencies.

E. DESIGNATIONS, QUALIFICATIONS, AND TRAINING.

1. Authorized Instructors and Examiners. Coast Guard UAS crews may receive initial and recurrent instruction from other government agency or contract instructors designated or qualified in type.

   In cases of prototype, experimental, or research UAS for which no formal instruction is available, the training services of the UAS manufacturer shall be utilized to brief and familiarize the UAS operators with the aircraft.

2. Pilot Designations. LR-UAS pilots will be designated as Aircraft Commanders (AC) upon successful completion of the initial training syllabus. Prior to beginning training to become a LR-UAS AC, a pilot must have held an AC designation in a manned Coast Guard aircraft.

   SR-UAS and certain MR-UAS PICs are exempt from maintaining this qualification.

3. Mission Control Element (MCE) and Launch and Recovery Element (LRE) Pilot Designations. Some UAS types require pilots to be designated separately for the mission phase and the launch and recovery phase. In this case, pilots are initially designated Mission Control Element (MCE) pilots, and may receive further training to become Launch and Recovery Element (LRE) pilots. The level of designation shall be indicated on the pilot's AC designation letter.

   a. An MCE pilot is an Aircraft Commander who is authorized to act as PIC during the mission phase only.

   b. An LRE pilot is an Aircraft Commander who is authorized to act as PIC during all phases of flight.

4. Requirements to Maintain Pilot Designations. Each LR-UAS pilot shall maintain DIFPRO minimums in their manned aircraft if designated as a copilot with no mission qualification(s) in their manned aircraft. LR-UAS pilots shall maintain DIFOPS minimums in their manned aircraft if designated as a First Pilot (FP) or AC in their manned aircraft.

   SR-UAS and certain MR-UAS PICs are exempt from maintaining DIFPRO minima.

5. Instrument Rating. An instrument rating in a manned aircraft is sometimes required to operate a UAS in the NAS as specified in applicable FAA COAs. A current copilot designation in a manned fixed or rotary-wing aircraft meets this requirement. Manned instrument requirements for UAS operations outside the NAS are subject to ICAO and/or host nation flight regulations.

   SR-UAS & certain MR-UAS PICs are exempt from maintaining DIFPRO minima.

6. Sensor System Operator Designation. A UAS Sensor System Operator (SSO) is an essential flight crewmember who operates sensor payload(s) and may assist the pilot with communications, navigation, checklists, UAS configuration and cockpit management. To be designated a UAS SSO, a crewmember shall maintain, at a minimum, a Basic Aircrew (BA) designation (or its equivalent) in a manned DHS, OGA, DoD, USCG Auxiliary, or USAF Civil Air Patrol aircraft. In addition to the requirements to obtain and maintain

a qualification outlined in Chapter 7 of this Manual, each SSO shall have completed a UAS SSO qualification standardization check within the preceding 12 calendar months.

SR-UAS and certain MR-UAS SSOs are exempt from maintaining BA designation.

7. Radar Operator Qualification. A UAS Radar Operator (RO) qualification authorizes a crewmember to operate the radar payload aboard a UAS. To be a UAS RO, a crewmember shall maintain, at a minimum, a BA designation (or its equivalent) in a manned DHS, OGA, DoD, USCG Auxiliary, or USAF Civil Air Patrol aircraft. In addition to the requirements to obtain and maintain a qualification outlined in Chapter 7 of this Manual, each RO shall have completed a UAS RO qualification standardization check within the preceding 12 calendar months.

   SR-UAS and certain MR-UAS BAs are exempt from maintaining BA designation.

8. Visual Observer. A designated person who assists the PIC in the duties associated with collision avoidance and situational awareness. The observer may be a ground-based observer, chase plane, ADC, or anyone the PIC dictates.

9. Pilot Logbooks. To ensure accurate accounting of both manned and unmanned flight time, a separate logbook shall be maintained for UAS operations.

10. Computation of Flight Time. With the extended flight time capability of some UAS, flying hour computation for the UAS may differ from that of the UAS crewmembers. Flying time starts when a fixed-wing UAS begins to move forward on the takeoff roll (or takeoff launch for rail launch operations) or when a rotary-wing UAS lifts off the ground. Flying time ends when the UAS has landed and the engines are stopped. However, flying hour computation for the individual crewmembers will be logged only for that portion of the inflight operations during which he/she is actually performing crew duty functions on the UAS and/or any of its mission/sensor systems.

11. Periodic Training Requirements. Periodic minimum training requirements for each UAS type and crew position shall be promulgated by the UAS training branch and approved by CG-711.

12. Pilot Warm-Up Requirements. Any pilot who has not performed as a UAS pilot-in-command (in actual flight or in GCS simulation mode) during the previous 30 days shall complete an approved warm-up flight with a current PIC prior to any further UAS flight operations.

13. Aircrew Warm-Up Requirements. Any crewmember who has not performed as a UAS SSO or RO (in actual flight or in GCS simulation mode) during the previous 30 days shall complete an approved warm-up flight with a current and qualified SSO or RO prior to any further UAS flight operations.

14. Approved Simulators. UAS flight simulators operated by USCG, DoD, DHS, and those approved by the FAA are authorized simulators for the purposes of this Manual.

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APPENDIX (E). PILOT FLIGHT LOGBOOK

A. LOGBOOKS.

1. General. This guide is intended to assist Coast Guard Aviators in properly filling out paper flight logbooks, Aviators Flight Log Book, U.S. Navy Form OPNAV-3760-31. These guidelines represent minimum standards for filling out a flight logbook. Each aviator may use personal discretion when deviating from these guidelines to ensure a proper flight record is kept. It is the aviator's responsibility to maintain each section of the logbook and certify its accuracy by signing the Pilots block in the bottom right corner of each page. All logbook entries shall be made in ink. All entries shall be neatly printed or stamped with all signature blocks properly signed.
2. Simulator Activity. Log simulator time and simulator approaches on separate pages from flight time, starting from the back of the book and moving forward. Do not include simulator time in total accumulated pilot flight time.
3. Entry Errors. Draw a single line through any errors, initialed and a correct entry made on the next line or appropriate space. If errors are discovered after the monthly log entries are completed, a line entry for corrections may be entered at any time, with associated details of the correction listed.
4. Source of Pilot Time. Pilot Time shall be the flight time entered exactly as recorded in the flight records section of the ALMIS Electronic Aircraft Logbook.
5. The Aviator's Responsibility. Each aviator shall ensure his/her logbook is closed out, and certified correct on a monthly basis. Submit the logbook to the Commanding Officer, or authorized deputy, for approval and signature semi-annually.
6. Flight Logbook Repository. Do not carry current flight logbooks in the aircraft, but keep in a common repository within an area under the cognizance of the unit Operations Officer.

   All aviators in a DIFPRO status will maintain control of their own logbooks. It is the responsibility of the aviator to keep his or her logbook up-to-date in accordance with this Manual.
7. Ownership of Flight Logbook. Flight logbooks become the personal property of the individual upon separation from the Coast Guard. Flight logbooks of deceased personnel shall be handled in accordance with Instructions of Casualty Affairs Office, pending revision of Coast Guard records schedule.

B. ENTRY INSTRUCTIONS.

1. General. Entries on pages that are listed as Optional are not required to be filled in by aviators. If these pages are kept up-to-date, they shall be kept following the enclosed guidelines.
2. Designations and Qualifications. For pilots, each issuance, change, or revocation of a designation or qualification shall be recorded on the Qualifications and Achievements pages of the logbook and signed by the Commanding Officer of the issuing command. Check flights such as STAN, INST, SAR, etc., shall be recorded when completed and signed by no lower than the Operations Officer or TRADEP at ATC Mobile, or CG-711 for DIFPRO

pilots. When a subsequent book is started, it is not required to duplicate stamps in the new logbook. If the pilot does not complete requirements for a designation or qualification, the logbook shall be stamped with the affected designation or qualification, and then lined out and dated. The logbook shall be stamped for the day the minimums were completed. (This may be completed at the end of the semi-annual period)

Table (E)-1. Qualifications and Achievements

Qualifications and Achievements (Example)		
Qualification	**Date**	**Signature**
STD Instrument Rating	12 JUN 2001	
MH-65D Copilot	31 AUG 2001	
Basic SAR Qual	15 DEC 2001	
MH-65D STAN I Check	02 FEB 2002	
MH-65D STAN II Check	08 FEB 2002	
MH-65D First Pilot	22 APR 2003	

3. Personal Changes. Entries are optional.

4. Summary of Total Flight Record. Entries are optional. Entries should include total flight time of all previous aircraft flown prior to starting a new logbook. All prior flight time from previous services shall be entered here. Prior simulator time should be carried over as a row separate from the aircraft model flight time. Carry these over each time a new logbook is started.

Table (E)-2. Summary of Total Flight Record

Summary of Total Flight Record (Example)					
Aircraft Model	**Pilot-Time**	**Aircraft Model**	**Pilot-Time**	**A/C Model**	**A/C CDR**
T-34C	102.8				5.5
TH-57	110.3				4.2
HH-60J	1200.3				950.2
HH-60J Sim	16.0				

5. Flight Record Summary, Total and for 12 Months Preceding This Log. Entries are optional. Entries should be copied from the previous logbook. The first column should include total accumulated flight time to date of opening of the new book. Simulator time is not included in this total. The remaining columns should include flight time from the previous 12 months. (Example: If the book is being started on June 1, 1992, the monthly columns would represent the flight time from Jan-May 1992 and June-Dec 1991.)

FLIGHT RECORD SUMMARY, TOTAL AND FOR 12 MONTHS PRECEDING

ITEM	TOT ACC	20- JAN	20- FEB	20- MAR	20- APR	20- MAY	20- JUN	20- JUL	20- AUG	20- SEP	20- OCT	20- NOV	20- DEC
TOTAL PILOT TIME	1800.2												
FIRST PILOT	900.1												
COPILOT	900.1												
A/C COMDR	1450.2												
SPEC CREW	876.3												
* *													
* *													
* *													
* *													
BOLTERS	N/A												
CATAPULTS	3000												

Figure (E)-1. Flight Record Summary

6. Summary of Pilot Time by Month, Model, Etc. Entries are optional. Entries should include model of aircraft flown, individual years and breakdown of monthly total flight time from this logbook. Year Totals are by calendar year. There shall be separate line entries for each type and model of aircraft flown and separate line entries for each simulator type and model.

SUMMARY OF PILOT TIME BY MONTH, MODEL, ETC (EXAMPLE)

YEAR AND ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN MAR	APR JUN	JUL SEP	OCT DEC	YEAR TOTAL
2000 HH65A	30.1	22.3	19	26.7	18	22.5	23	24.6	14	21	14.8	15	70.4	67.2	61.6	50.8	250
2000 HU25A	12.9	12	11.9	21	13	16.9	18	11.8	14	17.9	21	10	56.7	50.9	43.8	48.6	180
2001 HH65A	23.9	22	17.5	13	19.2	22	21.4	24	20.1	18	14.5	19	63.3	54.2	65.5	51.5	235.5
2001 HU25A	16	14	23.8	20	12	16.9	25	16.9	22	15.7	17.9	21	53.8	58.8	63.9	54.6	231.1

Figure (E)-2. Summary of Pilot Time by Month, Model, etc.

7. Monthly Log Entries. Monthly log entries are depicted in Figure (E)-3. The month and year are entered at the top of each page. A solid line shall be drawn at the bottom of each page, after the last entry for that month, to close out that page. The line shall be drawn diagonally from left to right starting just below the DAY entry of the last flight and ending just above the CERTIFIED A CORRECT RECORD block on the right.

   a. Day, Model, and Serial Number. The DAY, MODEL, and SERIAL NUMBER blocks are filled in with information from each individual flight. The day is the number of the day in the month, the model is the specific model of aircraft flown and the serial number is the tail number of the aircraft flown. Entries shall be recorded in chronological sequence.

   b. Kind of Flight Code. The KIND OF FLIGHT column is optional and reserved for employment category(ies) for each flight as entered into ALMIS.

   c. Pilot Time. The TOTAL PILOT TIME, FIRST PILOT and COPILOT columns shall be flight time recorded exactly as entered into ALMIS. The A/C COMDR column shall be designated for A/C flight time (time logged as pilot-in-command).

   d. Special Crew Time. Entries in the SPECIAL CREW TIME column are for Instructor Pilot time. Line through the words SPECIAL CREW and replace with IP at the top of the column.

   e. Instrument Time. Entries under INSTRUMENT TIME shall be recorded exactly as entered into ALMIS.

   f. Night Time. Entries under NIGHT TIME shall be recorded exactly as entered into ALMIS. This column shall also be used to record NVG time. Split the individual block into an upper and lower half and record Night Time in the upper half and NVG Time in the lower half.

   g. Carrier Columns. Entries under the three CARRIER columns shall be used for recording operational maneuvers such as pump drops, hoists, Rescue Swimmer deployments, autorotations, etc. The Operational Codes listed in Paragraph (E).C. of this appendix shall be used. The number of iterations shall be recorded in the ARR column, the Operational Code for the maneuver shall be recorded in the TandG column, and the condition (D for Day, N for Night, and G for NVG) shall be recorded in the BOL column. If more room is required to record the maneuvers completed on a specific flight, use the next line available.

   h. FCL Column. Use the FCL column to record ship landings, with the number of landings completed followed by the condition (D for Day, N for Night, and G for NVG).

   i. Sea/Land Column. The SEA/LAND column is for non-shipboard landings. The number of landings completed shall be recorded followed by the condition (D for Day, N for Night, G for NVG). Fixed-wing aviators may precede the condition code with a T for a Touch and Go landing or an F for a full stop landing (e.g., 1TD for a Touch and Go, Day).

j. Catapult Column. The CATAPAULT column is reserved for recording takeoffs, entries are optional.

k. STD INST APPR Column. The three STD INST APPR COMPL columns are for both Actual and Simulated Instrument Approaches flown. The NO column is for the number of approaches flown, the TYPE column is for the type of approach and the S column is for designating whether the approach was flown under day or night conditions, coupled or uncoupled. Specific codes to be used in these columns are listed in Paragraph (E).C. of this appendix.

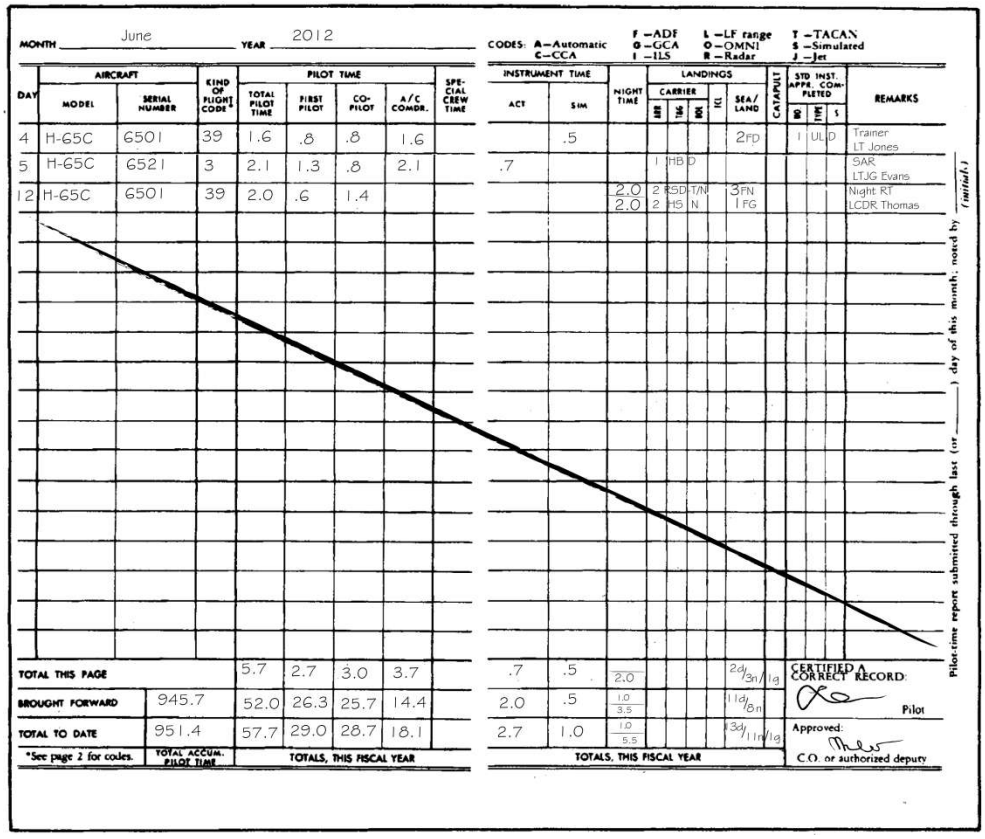
l. Remarks. The REMARKS column is for information regarding the flight not already logged. Typically this information would include Unit Case Number for SAR cases, RT, and the appropriate number for standardized recurrent trainers, whether the flight was a STAN, SAR or Instrument Check, etc. The name of the other pilot or the word Solo shall be recorded at the bottom of the block.

m. Totals. The TOTAL THIS PAGE line is for totaling all flight time and information for that page from the columns above, regardless of aircraft model. If the flight time entries for a month exceed the number of lines available on one page, a second page shall be used. In this case, on the line just above the TOTAL THIS PAGE line, print CONTINUED ON NEXT PAGE. If more than one page is used for a month, it is necessary to total each page. In that case, the TOTAL THIS PAGE, BROUGHT FORWARD, and TOTAL TO DATE lines shall also be filled in. The PILOT block shall be signed on all pages for the month.

The TOTAL TO DATE line is for adding the TOTAL THIS PAGE line to the BROUGHT FORWARD line. These numbers shall be forwarded to the next month's BROUGHT FORWARD line (except for January and July when only the Total Accumulated Pilot Flight Time is brought forward).

n. Brought Forward. The BROUGHT FORWARD line is information brought forward from the previous month's TOTAL TO DATE line. At the beginning of every semi-annual period, this line will commence with all 0's except for the Total Accumulated Pilot Time Block. This block is continuously brought forward from the previous TOTAL TO DATE flight time.

o. Approved Block. The Commanding Officer signs the APPROVED block at the end of each semi-annual period or when the aviator is transferred. The Commanding Officer can delegate this authority no lower than the Operations Officer or Chief of TRADIV.



MONTH June YEAR 2012

CODES: A—Automatic C—CCA; F—ADF G—GCA I—ILS; L—LF range O—OMNI R—Radar; T—TACAN S—Simulated J—Jet

DAY	AIRCRAFT MODEL	AIRCRAFT SERIAL NUMBER	KIND OF FLIGHT CODE*	PILOT TIME TOTAL PILOT TIME	PILOT TIME PILOT	PILOT TIME CO-PILOT	PILOT TIME A/C COMDR.	SPECIAL CREW TIME	INSTRUMENT TIME ACT	INSTRUMENT TIME SIM.	NIGHT TIME	LANDINGS CARRIER	LANDINGS SEA/LAND	CATAPULT	STD INST. APPR. COMPLETED	REMARKS
4	H-65C	6501	39	1.6	.8	.8	1.6			.5			2FD		1 ULD	Trainer LT Jones
5	H-65C	6521	3	2.1	1.3	.8	2.1		.7			1 HBD				SAR LTJG Evans
12	H-65C	6501	39	2.0	.6	1.4					2.0	2 RSD T/N	3FN			Night RT LCDR Thomas
											2.0	2 HS N	1 FG			
TOTAL THIS PAGE				5.7	2.7	3.0	3.7		.7	.5	2.0		2d/3n/1g			CERTIFIED A CORRECT RECORD:
BROUGHT FORWARD		945.7		52.0	26.3	25.7	14.4		2.0	.5	1.0 / 3.5		11d/8n			Pilot
TOTAL TO DATE		951.4		57.7	29.0	28.7	18.1		2.7	1.0	1.0 / 5.5		13d/11n/1g			Approved:
*See page 2 for codes.		TOTAL ACCUM. PILOT TIME		TOTALS, THIS FISCAL YEAR					TOTALS, THIS FISCAL YEAR							C.O. or authorized deputy

Pilot-time report submitted through last (1st ____) day of this month, noted by (initial)

Figure (E)-3. Monthly Log Entries

8. Flight Clothing Record. Entries not required.

9. Accident and Flight Rule Violation Record. Entries shall include year, number of flight violations and/or accidents for each period. The signature blocks shall be signed by the Commanding Officer or an authorized representative.

   Normally there is one signature per semi-annual period. The appropriate periods may be changed in the quarter column due to PCS transfer of the aviator.

   The top section, Summary Incidents Prior to this Book and Subsequent, shall have all zeros entered for first logbooks. For subsequent logbooks, the appropriate year and number of accidents/violations shall be entered from the previous logbook up to and including the last six years. The top signature block shall be signed concurrently at the end of the first semi-annual period of the new logbook. This signature authenticates the previous number of accidents and/or violations.

   If the aviator is transferred outside the normal semi-annual period, the entries shall be entered and signed for the period from the previous semi-annual period to the date of transfer. This is done by lining out the month in the quarter column and writing in the proper departing month. The next line will then have an adjusted period with a corrected beginning month.

ACCIDENT AND FLIGHT RULE VIOLATION RECORD

[redacted]	PERIOD		NUMBER		SIGNATURE
	YEAR	QUARTER	ACCI-DENTS	RULE VIOL	
SUMMARY INCIDENTS PRIOR TO THIS BOOK AND SUBSEQUENT 1-1-50	1994	[redacted]	0	0	SIGNATURE ON RECORD IN PREVIOUS LOG BOOK AUTHENICATED
	1995		0	0	
	1996		0	0	
	1997		0	0	
	1998		0	0	
	1999		0	0	
YEAR IN WHICH THIS LOG BOOK BEGAN	20___	Jan-Mar	0	0	
		Apr-Jun	0	0	
		Jul-Sep	0	0	
		Oct-Dec	0	0	
REMAINING PERIOD COVERED BY THIS LOG BOOK	20___	Jan-Mar	0	0	
		Apr-Jun	0	0	
		Jul-Sep	0	0	
		Oct-Dec	0	0	
	20___	Jan-Mar			
		Apr-Jun			
		Jul-Sep			
		Oct-Dec			
	20___	Jan-Mar			
		Apr-Jun			
		Jul-Sep			
		Oct-Dec			
		Jan-Mar			

Figure (E)-4. Accident and Flight Rule Violation Record

10. Review/Approval of Flight Logbook. The Commanding Officer (or his/her designee) shall review, approve the flight time record, and sign the Accident and Flight Violation Record of an Aviators Flight Logbook in the following circumstances:

    - Upon PCS of the aviator
    - Upon insertion of an entry in the pilot's Accident and Flight Violation Record
    - At the end of each semi-annual period

    Negative entries are required. This authority may be delegated no lower than the Operations Officer or Chief of TRADIV. All CGHQ aviators in a DIFPRO status shall submit their logbooks to Commandant (CG-711) for approval and signature semi-annually. All other DIFPRO pilots shall submit their logbooks to unit Commanding Officers for approval and signature semi-annually.

C. OPERATIONAL AND INSTRUMENT CODES.

1. Operational and Instrument Codes. The tables below list codes for logging operational and instrument flight maneuvers associated with a flight event.

Table (E)-3. Operational Codes

Code	Description	Code	Description
DARSK16	Drop - ASRK-16	HCSL	External Cargo/Sling
DARSK16-S	Drop - ASRK-16 (Simulated)	HDW	Hoist - Dead in Water
DARSK24	Drop - ASRK-24	HDWTL	Hoist - Dead in Water (Trail Line)
DARSK24-S	Drop - ASRK-24 (Simulated)	HFR	Hoist - FR Deployment
DARSKMOD	Drop - ASRK-Modified	HFR-T	Hoist - FR Deployment (Training)
DARSKMOD-S	Drop - ASRK-Modified (Simulated)	HFRM	Hoist - FR Deployment Maritime
DC	Drop - Can	HFRM-T	Hoist - FR Deployment Maritime (Training)
DC-S	Drop - Can (Simulated)	HIFR	Helicopter Inflight Refueling
DP	Drop - Pump	HL	Hoist - Litter
DP-S	Drop - Pump (Simulated)	HP	Hoist - Pump
DR	Drop - Raft	HS	Hoist - Sling
DR-S	Drop - Raft (Simulated)	ML	Cargo Loading Exercise
EEOL	Engine Out Landing Drill	MO	Other * Explain in Remarks
EHE	Hoist Emergency Drill	NCV	AUF-NCV Tactics Flights
ELC	Lost COMMS Drill	PADDS	ADDS Mission or Exercise
ERSE	Rescue Swimmer Emergency Drill	PAR	Autorotation
ESMK	Smoke/Fire Elimination Drill	PAV	Aircraft Vectoring
HB	Hoist - Basket	PAW	Airways Training

Table (E)-3. Operational Codes Continued

Code	Description	Code	Description
PC	CATCH	PSSORT	RT-1 Sensor System Operator
PCIASVS	Simulated Total CATCH	PTRKEX	Establish Track Exchange
PCIMC	Coupled IMC Approach using view-limiting device	PTSORT	RT-1 Tactical System Operator
PCITO	Coupled Instrument Takeoff	PVSE	Vertical Surface Evolution
PCITOIMC	Coupled Instrument IMC Takeoff using view-limiting device	P130RT1	RT-1 Operational Procedures
PCOE	COE/GCCS Polygon/SAR Tolls Overlay with 2GPs	P130RT2	RT-2 Emergency Procedures
PCPSAR	Copilot SAR Duties	P130RT3	RT-3 Day Landings/Approaches
PDVRREV	Review Captured DVR Recordings Inflight	P144RT1	144 Day Instrument
PEOIROP	EO/IR Operations	P144RT2	144 Night Instrument
PHA	Inst Letdown Procedure (HelipIt Asst)	P144RT3	144 Overwater Operations
PHFSV	Establish HF Secure Voice	P144RT4	144 Emergency Procedures Review
PIF	Instructor Flight	P144RT5	144 Additional Review Items
PM	Match	P27RT1	27 Operational Procedures
PMA	Published Missed Approach	P27RT2	27 Emergency Procedures
PMILSAT	MILSATCOM/DAMA Operation	P27RT3	27 Day Landings and Approaches
PMIMC	Manual IMC Approach using view-limiting device	P27RT4	27 Night Landings, Approaches, and Operational Procedures
PMITO	Manual Instrument Takeoff	P60RT1	60 Day Land
PMITOIMC	Manual Instrument IMC Takeoff using view-limiting device	P60RT2	60 Day Water
PMSNRADOP	Mission Radar Operations	P60RT3	60 Night/Night Vision Goggle
PP	Patch	P60RT4	60 Night Water
PRT2	RT-2 Emergency Procedures	P60RT5	60 CAAS/Search Procedures Day or Night
PRT3	RT-3 Day Landings and Approaches	P60RT6	60 Instrument
PRT4	RT-4 Night Landings, Approaches, and Operational Procedures	P60RT7	60 Confined/Rough Area/External Load Operations
PRV	Radar Vector	P60RT8	60 Max Performance
PSECSTE	Secure STE-III Operation	P65RT1	65 Day Land

Table (E)-3. Operational Codes Continued

Code	Description	Code	Description
P65RT2	65 Day Water	SQ9SSOSC	SSO Standardization Check
P65RT3	65 Night/Night Vision Goggle	SRWAIC	RWAI Standardization Check
P65RT4	65 Night Water	SSARC	SAR Procedures Check
P65RT5	65 Instrument/Cross Country (PAW)	SSC	Standardization Check
P65RT6	65 Ship/Helo Operations (Optional)	STCOVER	Tactical Cover Standardization Check
P65RT7	65 Confined Area/External Load Ops (Optional)	STFRC	TAC-FR Standardization Check
RLA	Lives Assisted (Using RS)	TAOL	Tactical Approaches Over Land
RLS	Lives Saved (Using RS)	TAOW	Tactical Approaches Over Water
RSB	Swimmer Direct Deployment - Boat (Real)	TAUFEX	AUF Tactical Cover Operational Exercise
RSB-T	Swimmer Direct Deployment - Boat (Training)	TAUFPWCS	AUF-PWCS Tactics Flights
RSD	Swimmer Direct Deployment Sequence (Real)	TEX	Tactical Exercise
RSD-T	Swimmer Direct Deployment Sequence (Training)	TGF	Gunnery Flight
RSF	Swimmer Free (Real)	TIHHL-T	Intercept - Hovering Helicopter L Seat (Training)
RSF-T	Swimmer Free (Training)	TIHHR-T	Intercept - Hovering Helicopter R Seat (Training)
RSS	Swimmer Sling (Real)	TIHL-T	Intercept - Oncoming L Seat (Training)
RSS-T	Swimmer Sling (Training)	TIHR-T	Intercept - Oncoming R Seat (Training)
SAUFNCV	AUF-NCV Standardization Check	TIOLR-T	Intercept - Other L/R Seat (Training)
SFRC	Fast Roping Standardization Check	TIONO-T	Intercept - OP EX NORAD (Training)
SINSTC	Instrument Check	TNCVTF	NCV Tactics Flight
SNPC	Night Procedures Check	TOGF	Offshore Gunnery Flight
SQ9LRESC	LRE Standardization Check	TRWAI	Intercept - RWAI (Real)
SQ9MCESC	MCE Standardization Check	TRWAILT	RWAI Recurrent Training L-seat
SQ9ROSC	RO Standardization Check	TRWAIRTF	RWAI RT Flight

Table (E)-3. Operational Codes Continued

Code	Description	Code	Description
UGLS	GLS Approach	URCP	Unmanned Rack Configuration and Presets
UHA	Unmanned Handover (P or Crew Hot Seat)	USEQ	Unmanned Launch Sequence
ULN	Unmanned Landing Nose (Day TV or IR)	UTO	Unmanned Takeoff
ULP	Unmanned Landing Payload (Day TV or IR)	UTP	Track Moving Person (alone or on vehicle)
UM4	Unmanned 4 Waypoint Mission Build (LRE/MCE)	UTV	Track Moving Vehicle (Car, Boat)
UM6	Unmanned 6 Waypoint Mission Build (LRE/MCE)	UTX	Unmanned Taxi (before or after flight)

Table (E)-4. Instrument Approach Codes

Code	Description	Code	Description
CN	CIR Non-precision	CNLHG	CIR Non-precision to Landing HUD GPS
CNA	CIR Non-precision Coupled	CPA	CIR Precision Coupled
CNAG	CIR Non-precision Coupled GPS	CPAG	CIR Precision Coupled GPS
CNAH	CIR Non-precision Coupled HUD	CPAH	CIR Precision Coupled HUD
CNAHG	CIR Non-precision Coupled HUD GPS	CPAHG	CIR Precision Coupled HUD GPS
CNAL	CIR Non-precision Coupled to Landing	CPAL	CIR Precision Coupled to Landing
CNALG	CIR Non-precision Coupled to Landing GPS	CPALG	CIR Precision Coupled to Landing GPS
CNALH	CIR Non-precision Coupled to Landing HUD	CPALH	CIR Precision Coupled to Landing HUD
CNALHG	CIR Non-precision Coupled to Landing HUD GPS	CPALHG	CIR Precision Coupled to Landing HUD GPS
CNG	CIR Non-precision GPS	CPG	CIR Precision GPS
CNH	CIR Non-precision HUD	CPH	CIR Precision HUD
CNHG	CIR Non-precision HUD GPS	CPHG	CIR Precision HUD GPS
CNL	CIR Non-precision to Landing	CPL	CIR Precision to Landing
CNLG	CIR Non-precision to Landing GPS	CPLG	CIR Precision to Landing GPS
CNLH	CIR Non-precision to Landing HUD	CPLH	CIR Precision to Landing HUD

Table (E)-4. Instrument Approach Codes Continued

Code	Description	Code	Description
CPLHG	CIR Precision to Landing HUD GPS	P	Precision
CUL	CIR Uncoupled to Landing	PA	Precision Coupled
N	Non-precision	PAG	Precision Coupled GPS
NA	Non-precision Coupled	PAH	Precision Coupled HUD
NAG	Non-precision Coupled GPS	PAHG	Precision Coupled HUD GPS
NAH	Non-precision Coupled HUD	PAL	Precision Coupled to Landing
NAHG	Non-precision Coupled HUD GPS	PALG	Precision Coupled to Landing GPS
NAL	Non-precision Coupled to Landing	PALH	Precision Coupled to Landing HUD
NALG	Non-precision Coupled to Landing GPS	PALHG	Precision Coupled to Landing HUD GPS
NALH	Non-precision Coupled to Landing HUD	PG	Precision GPS
NALHG	Non-precision Coupled to Landing HUD GPS	PH	Precision HUD
NHG	Non-precision HUD GPS	PHG	Precision HUD GPS
NL	Non-precision to Landing	PL	Precision to Landing
NLG	Non-precision to Landing GPS	PLG	Precision to Landing GPS
NLH	Non-precision to Landing HUD	PLH	Precision to Landing HUD
NLHG	Non-precision to Landing HUD GPS	PLHG	Precision to Landing HUD GPS

ENCLOSURE (1). DISCLOSURE OF PERSONS FLYING ABOARD FEDERAL GOVERNMENT AIRCRAFT

Generally, an aircraft used exclusively for the U.S. Government may be considered a public aircraft as defined in 49 U.S.C. 40102 and 40125, unless it is transporting passengers or operating for commercial purposes. A public aircraft is not subject to many Federal aviation regulations, including requirements relating to aircraft certification, maintenance, and pilot certification. If a U.S. Government agency transports passengers on a Government aircraft, that agency must comply with all Federal aviation regulations applicable to civil aircraft. If you have questions about the status of a particular flight, you should contact the agency sponsoring the flight.

You and your family have certain rights and benefits in the unlikely event you are injured or killed while riding aboard a Government aircraft. Federal employees and some private citizens are eligible for workers' compensation benefits under the Federal Employees' Compensation Act (FECA). When FECA applies, it is the sole remedy. For more information about FECA and its coverage, consult with your agency's benefits office or contact the Branch of Technical Assistance at the Department of Labor's Office of Workers' Compensation Programs at (202) 693-0044. These rules also apply to travel on other Government-owned or operated conveyances such as cars, vans, or buses.

State or foreign laws may provide for product liability or third-party causes of actions for personal injury or wrongful death. If you have questions about a particular case or believe you have a claim, you should consult with an attorney.

Some insurance policies may exclude coverage for injuries or death sustained while traveling aboard a Government or military aircraft or while within a combat area. You may wish to check your policy or consult with your insurance provider before your flight. The insurance available to Federal employees through the Federal Employees Group Life Insurance Program does not contain an exclusion of this type.

If you are the victim of an air disaster resulting from criminal activity, Victim and Witness Specialists from the Federal Bureau of Investigation (FBI) and/or the local U.S. Attorney's Office will keep you or your family informed about the status of the criminal investigation(s) and provide you or your family with information about rights and services, such as crisis intervention, counseling and emotional support. State crime victim compensation may be able to cover crime-related expenses, such as medical costs, mental health counseling, funeral and burial costs, and lost wages or loss of support. The Office for Victims of Crime (an agency of the Department of Justice) is authorized by the Antiterrorism Act of 1996 to provide emergency financial assistance to state programs, as well as the U.S. Attorney's Office, for the benefit of victims of terrorist acts or mass violence.

If you are a Federal employee:

- If you are injured or killed on the job during the performance of duty - including while traveling aboard a Government aircraft or other government-owned or operated conveyance for business purposes, you and your family are eligible to collect workers' compensation benefits under FECA. You and your family may not file a personal injury or wrongful death suit against the United States or its employees. However, you may have cause of action against potentially liable third parties.

You or your qualifying family member must normally also choose between FECA disability or death benefits, and those payable under your retirement system (either the Civil Service Retirement System or the Federal Employees Retirement System). You may choose the benefit that is more favorable to you.

If you are a private citizen not employed by the Federal Government:

- Even if you are not regularly employed by the Federal Government, if you are rendering personal service to the Federal Government on a voluntary basis or for nominal pay, you may be defined as a Federal employee for purposes of FECA. If that is the case, you and your family are eligible to receive workers' compensation benefits under FECA, but may not collect in a personal injury or wrongful death lawsuit against the United States or its employees. You and your family may file suit against potentially liable third parties. Before you depart, you may wish to consult with the department or agency sponsoring the flight to clarify whether you are considered a Federal employee.

If there is a determination that you are not a Federal employee, you and your family will not be eligible to receive workman's compensation benefits under FECA. If you are traveling for business purposes, you may be eligible for workman's compensation benefits under state law. If the accident occurs within the United States, or its territories, its airspace, or over the high seas, you and your family may claim against the United States under the Federal Tort Claims Act or Suits in Admiralty Act. If you are killed aboard a military aircraft, your family may be eligible to receive compensation under the Military Claims Act, or if you are an inhabitant of a foreign country, under the Foreign Claims Act.