U.S. Department of
Homeland Security

United States
Coast Guard

Air Operations Manual

COMDTINST M3710.1G

February 2013

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U.S. Department of Homeland Security

United States Coast Guard

COMMANDANT
United States Coast Guard

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COMDTCHANGE NOTE 3710

01 OCT 2014

COMMANDANT CHANGE NOTICE 3710

Subj: CH-1 TO COAST GUARD AIR OPERATIONS MANUAL, COMDTINST M3710.1G

1. PURPOSE. This Commandant Change Notice publishes a change to the Coast Guard Air Operations Manual COMDTINST M3710.1G.

2. ACTION. All Coast Guard unit commanders, commanding officers, officers-in-charge, deputy/assistant commandants, and chiefs of headquarters staff elements shall comply with the provisions of this notice. Internet release is authorized.

3. DIRECTIVES AFFECTED. With the addition of this Commandant Change Notice, the Coast Guard Air Operations Manual, COMDTINST M3710.1G is updated.

4. DISCLAIMER. This guidance is not a substitute for applicable legal requirements, nor is it itself a rule. This document is intended to provide operational requirements 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. This change clarifies the existing aviation policy. A full listing of all changes incorporated is posted on https://cgportal2.uscg.mil/units/cg711/comdtinst-3710/.

6. IMPACT ASSESSMENT. Specific impacts for each change are consolidated on the Change-1 List of Changes document posted on https://cgportal2.uscg.mil/units/cg711/comdtinst-3710/.

7. ENVIRONMENTAL ASPECT AND IMPACT CONSIDERATIONS.

   a. The development of this directive and the general policies contained within it have been thoroughly reviewed by the originating office and are categorically excluded under current USCG categorical exclusion (CE) #33 from further environmental analysis, in accordance with Section 2.B.2 and Figure 2-1 of the National Environmental Policy Act Implementing Procedures and Policy for Considering Environmental Impacts, COMDTINST M16475.1 (series). Because this Manual contains guidance on, and

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provisions for, compliance with applicable environmental mandates, Coast Guard categorical exclusion #33 is appropriate.

b. This directive will not have any of the following: significant cumulative impacts on the human environment; substantial controversy or substantial change to existing environmental conditions; or inconsistencies with any Federal, State, or local laws or administrative determinations relating to the environment. All future specific actions resulting from the general policies in this Manual must be individually evaluated for compliance with the National Environmental Policy Act (NEPA), Council on Environmental Policy NEPA regulations at 40 CFR Parts 1500-1508, DHS and Coast Guard NEPA policy, and compliance with all other environmental mandates.

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.uscg.mil/directives/, and CGPortal: https://cgportal2.uscg.mil/library/directives/SitePages/Home.aspx.

9. PROCEDURE. If maintaining a paper library, place this change notice inside the front cover and update the record of changes with the date completed. Remove and replace the following sections of Coast Guard Air Operations Manual, COMDTINST M3710.1G:

Remove	Replace with
Pages i to ii	CH-1 Pages i to ii
Pages 1-3 to 1-4	CH-1 Pages 1-3 to 1-4
Pages 1-13 to 1-14	CH-1 Pages 1-13 to 1-14
Pages 2-7 to 2-8	CH-1 Pages 2-7 to 2-8
Pages 3-3 to 3-6	CH-1 Pages 3-3 to 3-6
Pages 3-9 to 4-4	CH-1 Pages 3-9 to 4-4
Pages 4-11 to 4-36	CH-1 Pages 4-11 to 4-36
Pages 5-9 to 5-22	CH-1 Pages 5-9 to 5-22
Pages 7-9 to 8-40	CH-1 Pages 7-9 to 8-42
Pages 9-3 to 9-4	CH-1 Pages 9-3 to 9-4
Pages 10-1 to 10-6	CH-1 Pages 10-1 to 10-6
Glossary-3 to Glossary-18	CH-1 Glossary-3 to Glossary-20
Pages A-5 to A-14	CH-1 Pages A-5 to A-14
Pages D-1 to D-6	CH-1 Pages D-1 to D-6
Page D-11 to D-12	CH-1 Page D-11 to D-12
Pages E-3 to E-12	CH-1 Pages E-3 to E-12
Enclosure (1)	CH-1 Enclosures (1)
Enclosure (3)	CH-1 Enclosures (3)

10. RECORDS MANAGEMENT CONSIDERATIONS. This Manual has been thoroughly reviewed during the directives clearance process, and it has been determined 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.

11. FORMS/RECORDS. The forms referenced in this Manual are available in USCG Electronic Forms on the Standard Workstation or on the Internet: http://www.uscg.mil/forms/; CG Portal https://cgportal2.uscg.mil/library/forms/SitePages/Home.aspx; and Intranet at http://cgweb.comdt.uscg.mil/CGForms; CG Asset Logistics Management Information

System at http://cgweb.almis.uscg.mil/, and the Federal Aviation Administration Forms public website at http://www.faa.gov/forms/.

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

MARK E. BUTT /s/
Rear Admiral, U. S. Coast Guard
Assistant Commandant for Capability

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COMDTINST M3710.1G

FEB 19, 2013

COMMANDANT INSTRUCTION M3710.1G

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, including flights by Coast Guard personnel aboard non-Coast Guard aircraft. This manual is intended for use by operational commanders, unit commanding officers, Coast Guard personnel tasked with air operations, as well as customers of Coast Guard aviation.

2. ACTION. All Coast Guard unit commanders, commanding officers, officers-in-charge, deputy/assistant commandants, and chiefs of headquarters staff elements shall comply with the provisions of this Manual. Internet release is authorized.

3. DIRECTIVES AFFECTED. The Coast Guard Air Operations Manual, COMDTINST M3710.1F is cancelled. The Flight Safety for Non-Aircrew Coast Guard Personnel, COMDTINST 3700.1 is cancelled.

4. MAJOR CHANGES. Major changes to the manual are summarized below, however, due to the significant revision of this manual, a careful review is recommended. Major changes include: reorganization of all aviation designations and qualifications to a contemporary structure; inclusion of UAS, HC-144, HC-130J, and current model aircraft description and policies, addition of expanded mission qualifications (e.g. Advanced SAR – Vertical Surface, CBRNE, AUF PWCS, AUF CD, Fast Roping, Tactical Cover, ADDS); update of Chapter 5 to align with OMB and DHS directives; incorporation of Flight Safety for Non-Aircrew Coast Guard Personnel, COMDTINST 3700.1; expanded policies regarding non-aircrew Mission Essential Personnel; expanded safety guidance regarding non-aircrew personnel, and a general reformat and structure of the sections of the manual to enhance usability.

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

6. 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. Table E-3 of this Manual lists the specific designations and qualifications transferring

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from those described in the cancelled policy to the designations and qualifications described in the new policy promulgated in this manual. Until all designation and qualification syllabi are updated, the Table E-3 appropriate legacy designation or qualification syllabi can be used for members seeking to obtain a designation or qualification. However, for members maintaining designations and qualifications, the new periodic training requirements of this manual take immediate effect, which may not yet be updated in 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.

7. RECORDS MANAGEMENT CONSIDERATIONS. This Instruction has been thoroughly reviewed during the directives clearance process, and it has been determined there are 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 creates significant or substantial change to existing records management requirements.

8. ENVIRONMENTAL ASPECT AND IMPACT CONSIDERATIONS.

   a. The development of this directive and the general policies contained within it have been thoroughly reviewed by the originating office and are categorically excluded under current USCG categorical exclusion (CE) #33 from further environmental analysis, in accordance with Section 2.B.2. and Figure 2-1 of the National Environmental Policy Act Implementing Procedures and Policy for Considering Environmental Impacts, COMDTINST M16475.1 (series). Because this Manual contains guidance on, and provisions for, compliance with applicable environmental mandates, Coast Guard categorical exclusion #33 is appropriate.

   b. This directive will not have any of the following: significant cumulative impacts on the human environment; substantial controversy or substantial change to existing environmental conditions; or inconsistencies with any Federal, State, or local laws or administrative determinations relating to the environment. All future specific actions resulting from the general policies in this Manual must be individually evaluated for compliance with the National Environmental Policy Act (NEPA), Council on Environmental Policy NEPA regulations at 40 CFR Parts 1500-1508, DHS and Coast Guard NEPA policy, and compliance with all other environmental mandates.

9. DISCLAIMER. This document is intended to provide operational requirements for Coast Guard personnel and is not intended to nor does it impose legally-binding requirements on any party outside the Coast Guard.

10. FORMS/RECORDS. The forms called for in this manual are available in electronic format on CGPortal at https://cgportal.uscg.mil/delivery/Satellite/uscg, CG Asset Logistics Management Information System at http://cgweb.almis.uscg.mil/, and the Federal Aviation Administration Forms public website at http://www.faa.gov/forms/.

MARK E. BUTT /s/
Rear Admiral, U. S. Coast Guard
Assistant Commandant for Capability

RECORD OF CHANGES			
CHANGE NUMBER	DATE OF CHANGE	DATE ENTERED	BY WHOM ENTERED
CH-1	01 OCT 2014	01 OCT 2014	CG-711

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1. Overview of Coast Guard Air Operations

A. Mission of Coast Guard Aviation

A.1. Mission of Coast Guard Aviation

Official Coast Guard mission programs are listed in the Abstract of Operations Reports, COMDTINST 3123.7 (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), Military Readiness and other missions requiring operational response.

Various aircraft types 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.

A.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.

A.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 on-scene deviation from prescribed instructions or policy when, in the judgment of the pilot in command, 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.

A.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.

A.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

B.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.

B.2. Clearance

A Pilot in Command (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 (see 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.

B.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.

B.3.a. 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 C–130 aircraft are under the operational command 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).

B.3.b. 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.
B.3.c. 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.
B.4. 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) shall normally be assigned 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-CD AMC qualification prior to operational AUF-CD 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.

B.5. 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 Commandant (CG-41) and (CG-711) and no in-flight 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 development test and evaluation (DT&E)
- Development of operating procedures and training
- Crew performance and ergonomics
- Trial installation and operational test and evaluation (OT&E)
- Electromagnetic Interference (EMI)/Electromagnetic Compatibility (EMC) testing
- TEMPEST testing for COMSEC systems and equipment

The ACCB Process Guide is maintained by Commandant (CG-41).

C. Transportation

C.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 OMB Circular A-126, Improving the Management and Use of Government Aircraft and 41 CFR §300-304. This policy is interpreted by DHS Management Directive (MD) 0020.1 (series), Aviation Management and Safety, 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.

C.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

D.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.
D.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. 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.
D.2.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 PWCS missions.
D.2.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.
D.2.b.(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.
D.2.b.(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.
D.2.b.(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.

D.2.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: Drug and Migrant Interdiction, routine PWCS, routine Defense Readiness, Marine Environmental Protection, Living Marine Resources, and other Law Enforcement missions.
D.2.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.
D.2.e. Warranted Risk Table	The table 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 Missions Warranted Risk Reference Table

Missions	Activities and Functions	Warranted Risk Guidance (See Section 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.	Section D.2.b.1-3
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.	Section 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.	Section D.2.a, Section D.2.c
Drug Interdiction	Deploy cutters, aircraft and deployable specialized forces to conduct patrols, interdict and seize maritime drug trafficking vessels.	Section 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.	Section D.2.c
Defense Readiness	Provide forces to the Department of Defense (DoD) to perform joint military operations worldwide. 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.	Section D.2.a, Section 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.	Section D.2.d
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.	Section 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.	Section 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.	Section 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.	Section D.2.c

D.3. Forcible Evacuation of Vessels	See 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

E.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 8.
E.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, 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.
E.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.
E.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.
E.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, 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 8.
E.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 or area.

F. Guidance to Mission Planners

F.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 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.

F.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.

F.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.

F.4. Short Notice Missions 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. Although they are Headquarters units, strike teams request aviation support through their area command center. District units request aviation support through their own district command center.

F.5. Short Notice Missions 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.

F.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.

F.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.

F.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 7; for more detailed law enforcement capabilities, see 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).

1.A.(1). 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 C-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.
F.8.a. 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 C-144 can carry 40 passengers, up to 9,400 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.
F.8.b. 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 H-60 can land on National Security Cutters and some 270' cutters, and can perform helicopter in-flight refueling from any flight deck-equipped cutter to extend range.
F.8.c. 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 H-65 can land on any cutter with a flight deck and can perform helicopter in-flight refueling from those ships to extend range.
F.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.
F.10. Readiness	All Coast Guard air stations, except Air Station Washington, maintain at least one B-Zero 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-Zero aircraft are district or area assets. In the Pacific Area, all B-Zero 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-Zero status are controlled by the districts.

F.11. Airspace Restrictions

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.

F.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 non-CNS/ATM compliance results in 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.

F.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.

F.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.

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2. Flight Authorization and Clearance

A. Authority for the Coast Guard to Operate Aircraft

A.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 C.F.R. Chapters 300-304. Authority is also delegated under this Manual and other Coast Guard policies.
A.2. Policies and Reporting Requirements	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.
A.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

B.1. Mission Requirements Use	Use of Coast Guard aircraft to carry out official responsibilities as authorized or required by statute constitute Mission Requirements Use. All flights for Mission Requirements Use shall be justified, authorized and approved. 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 Abstract of Operations Reports, COMDTINST M3123.7 (series).
B.2. Required Use Transportation	Use of Coast Guard aircraft for Required Use Transportation 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.
B.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.
B.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 Coast Guard 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

C.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.

C.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.

C.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.

C.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.

D. Personnel Authorized to Pilot Coast Guard Aircraft

D.1. Coast Guard Aviators	Except for operational orientation flights as permitted in Chapter 5 of this Manual, only Coast Guard aviators designated qualified in type and model or in training to become qualified designated in type and model are authorized to manipulate the controls and pilot Coast Guard manned and unmanned aircraft.
D.2. Other Military Aviators	In an emergency, an air unit Commanding Officer may assign a properly qualified aviator of another Service as a pilot in a Coast Guard aircraft without prior authorization. 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 emergency conditions and an account of the circumstances leading to the assignment.
D.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

E.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 crew members 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.

E.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 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.

E.2.a. Pilot in Command Responsibility

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.

E.2.b. PIC 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 crew member doesn't know who is in command or fails to recognize the PIC's authority and act accordingly.

E.2.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.

E.2.c.(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.
E.2.c.(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.
E.2.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.
E.3. Crew Member 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 crew member present in a separate compartment shall be clearly identified to the other crew members in that compartment.
E.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-CD operations or Unmanned Aerial Systems operations. The AMC is normally the senior ranking Aircraft Commander assigned to the mission. For AUF-CD missions, the pilot shall hold an AUF-CD 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 E.2.a.

F. Flight Clearance Authority for Coast Guard Aircraft

F.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.
F.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.
F.2.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.
F.2.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.
F.2.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 disseminate operational guidance to units as soon as available. Units shall maintain a current copy of ESCAT in their operations center.
F.2.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.

F.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 Paragraphs F.3.a and F.3.b, is prohibited.
F.3.a. Minor Malfunctions and Non-Structural 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 non-structural 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.
F.3.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.
F.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

G.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.

G.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.

G.2.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.

G.2.b. Personnel Applicability

Refer to section 4.J Mission Essential Personnel, for additional requirements.

G.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.

3. Flight and Mission Planning

A. Flight Planning Procedures

A.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 be cognizant of the risk and gain based on all available information.
A.2. Performance Data	The PIC shall assess departure, destination and alternate field conditions and all enroute segments to ensure the flight complies with aircraft flight manual performance requirements.
A.2.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%) 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.
A.2.b. Enroute 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.
A.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.
A.3.a. 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.

A.4. 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 C.9 of this chapter.
A.5. 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 annual inventory of all station aircraft in accordance with the Weight and Balance Process Guide, CGTO PG-85-00-180.
A.6. NOTAMs	The PIC shall be familiar with all NOTAMS and temporary flight restrictions (TFRs) for the planned route of flight.
A.7. 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.
A.8. Air Defense Identification Zones	The PIC is responsible for coordinating entry into and operations within Air Defense Identification Zones.
A.9. 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.
A.10. Customs, Agriculture and Immigration	Commanding Officers shall ensure that all aircrews comply with applicable customs, immigration, public health, and agriculture regulations.

A.11. 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 ORM briefing to the designated Operations Officer or higher command authority prior to departure.
A.11.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.
A.11.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.
A.11.c. Formation Flight Plans	One flight plan may be filed for a formation of aircraft proceeding as a unit under visual meteorological conditions (VMC).
A.11.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.
A.11.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.
A.12. 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

B.1. Minimum Pilot Designation Requirements	All pilots must be designated in type. 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 (see Chapter 8).
B.1.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 Copilot (CP) • Two FPs Further guidance is provided below for assignment of pilot aboard two-pilot aircraft.
B.1.a.(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 B.1.c.
B.1.a.(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, see Chapter 4.
B.1.a.(3). Ferry Flights	For ferry flights, the minimum required pilot assignment consists of an AC and a CP.
B.1.a.(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.1.b. Short Range Recovery (SRR) Helicopters and Single-Pilot Fixed-Wing Aircraft	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 single pilot fixed-wing 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 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.
B.1.b.(1). Training Flights	For SRR helicopter and single-pilot fixed-wing 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 B.1.c.
B.1.b.(2). Maintenance Flights	For SRR helicopter and single-pilot fixed-wing 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, see Chapter 4.
B.1.b.(3). Ferry Flights	For SRR helicopter and single-pilot fixed-wing ferry flights, 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 model (A, B, C, etc.) of the aircraft.
B.1.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.

B.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 or training SAR missions, a second pilot in an SRR or single-pilot fixed-wing aircraft is not required to hold a SAR qualification and single pilot operations may be performed per Paragraph B.1.b of this chapter.
- 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 B.1.b of this chapter.
- For basic Fast Roping training missions, the second pilot is not required to hold a FR qualification.
- For CBRNE training missions, the second pilot is not required to hold a CBRNE qualification.

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

B.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.

B.3.a. H-60 and H-65 Minimum Aircrew

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

Table 3-1, H-60 and H-65 Minimum Aircrew Requirements

	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. CD or PWCS). The BA requirement can be fulfilled by the PM-A if he or she is BA qualified in type.

	BA	BH	FM	RS	FR	TAC-FR	PM-A	Comments
Fast Roping					•			
Tactical Fast Roping						•	•	For training events, requirement for PM-A may be waived at CO's discretion.
Non-personnel hoists (e.g. HIFR/ VERTREP)		•						
All other missions	•							A FM is required for all personnel hoists.

B.3.b. C-130H Minimum Aircrew

Minimum aircrew requirements for the C-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 annual functional check flight in accordance with Acceptance and / or Functional Check Flight Procedures, CGTO 1C-130-6CF

Table 3-2, C-130H Minimum Aircrew Requirements

	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.
CASPER Sensor operations	•	•		•	•	•	•		The BA or DM requirement can be fulfilled by the SSO if he or she is BA or DM qualified in type.
CASPER Tactical operations	•	•		•	•	•	•	•	The BA or DM requirement can be fulfilled by the SSO if he or she is BA or DM qualified in type.
Cargo			•	•		•			The R requirement can be fulfilled by a N. When carrying less than 500 lbs of non-palletized or non-wheeled 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.

B.3.c. C-130J Minimum Aircrew

Minimum aircrew requirements for the C-130J are prescribed in Table 3-3.

Table 3-3, C-130J Minimum Aircrew Requirements

	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 System Suite		•	•	•	•	When circumstances dictate, requirement for a second MSO may be waived at CO's discretion.
All other missions	•		•			When carrying more than 50 passengers, two qualified crewmembers shall be stationed in the cargo compartment during takeoff and landing. Additional RS, HS or FS for Medevac missions at CO's discretion.

B.3.d. C-144 Minimum Aircrew

Minimum aircrew requirements for the C-144 are prescribed in Table 3-4.

Table 3-4, C-144 Minimum Aircrew Requirements

	BA	DM	LM	MSO 1	MSO 2	Comments
SAR/Patrol	•	•				
Operations using Mission System Pallet	•	•		•	•	When circumstances dictate, requirement for a second MSO may be waived at CO's discretion.
Cargo	•		•			When carrying less than 500 lbs of non-palletized or non-wheeled cargo, a LM is not required.
All other missions	•					Additional RS, HS or FS for Medevac missions at CO's discretion.

B.3.e. HU-25 Minimum Aircrew

Minimum aircrew requirements for the HU-25 are prescribed in Table 3-5.

Table 3-5, HU-25 Minimum Aircrew Requirements

	BA	DM	SSO	Comments
SAR/Patrol	•	•	•	For Patrol, the requirement for BA and DM may be waived at CO's discretion.
Medevac	•		•	Additional RS, HS or FS for Medevac missions at CO's discretion.
All other missions			•	

B.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.

B.4.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.4.b. Responsibility of Flight Crew Members

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 crew member to engage only in those off duty activities that will allow the crew member to report to duty fully rested. It is impossible for the Commanding Officer or cognizant department head to be aware of how crew members use off duty time.

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

B.4.c. Aircrew Flight Scheduling Standards

Within any consecutive 24 hour period, avoid scheduling a flight crew member 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-crew member 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

	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 (except HU-25)	12	16
HU-25	10	14
Rotary-Wing Multi-Pilot (CBRNE)	3	6
Fixed-Wing Pressurized (CBRNE)	4	8

B.4.c.(1). Reverse Cycle Operations	Unless a flight crew member 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 Tables 3-6 and 3-7 apply to reverse cycle operations.
B.4.c.(2). Alert Duty Limits	Flight crew members 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 crew members 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.
B.4.c.(3). Strip Alert Duty Limits	Flight crew members shall not be assigned strip 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.
B.4.c.(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.
B.4.d. Post-Mission Rest Requirements	After a flight in which accumulated times total those in Table 3-7, a crew member 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)*
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 ferry and rotary-wing ferry operations, use fixed-wing standards.				

B.4.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.
B.4.e.(1). Seven-Day Duty Limits	A flight crew member shall be relieved from all duty (including collateral duties) for not less than 24 consecutive hours at least once during any eight consecutive days (192 hours). For example, a crew which commences duty status at 1600 on Wednesday must be relieved from all duty for at least 24 consecutive hours commencing no later than 1600 on the following Wednesday. A crew member who is deployed aboard ship may remain in a duty status indefinitely, provided he or she has 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, then the crew members shall be relieved from all duty for not less than 24 hours. If, when deployed, the flight hours or crew mission time in Table 3-7 on any given day are exceeded, the respective “HOURS OFF DUTY” standards apply.
B.4.e.(2). Seven-Day Hour Limit	A flight crew member shall not fly as a crew member more than 50 hours in any seven consecutive days.
B.4.e.(3). Thirty-Day Hour Limit	A flight crew member shall not fly as a crew member more than 125 hours during any 30 consecutive days.
B.4.e.(4). 365-Day Hour Limit	A flight crew member shall not fly as a crew member more than 1100 total military/civilian hours during any 365 consecutive days
B.4.e.(5). Cross-decking Aviation Detatchments (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.
B.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.
B.6. Medication	Personnel engaged in flight operations shall not take any medication/ supplement unless prescribed and/or approved by a flight surgeon in accordance with the Coast Guard Aviation Medicine Manual, COMDTINST M6410.3 (series) or current aeromedical policy letters on medication use.
B.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).

B.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.

B.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.

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.

B.10. Vision

Aviation personnel are required to have at least 20/20 vision while performing flight duties. Personnel using contact lenses during flight duties shall maintain a set of corrective eyeglasses on their person in the event of loss of a contact lens. 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

C.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.

C.2. Application of Actual and Forecast 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.

C.3. IMC and IFR Flight Plans

File an 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.

C.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 non-operational 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.

C.5. RWAI Weather Requirements

For operational RWAI missions, there are no takeoff minimums. 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 target of interest aircraft shall maintain VFR cloud clearances in the training area. The minimum visibility for RWAI training missions is 3nm. The target of interest (TOI) altitude shall allow for a minimum of 1500 ft between the TOI aircraft and cloud bases. The minimum hard deck for training intercept is 1000' Above Ground Level (AGL).

C.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 C.10 of this chapter (Alternate Airport Minimums). 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.

C.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 2000 feet above the airport elevation
- Visibility is at least three statute miles

For rotary-wing aircraft:

- Ceiling is at least 1000 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

C.8. Destination Alternate Not Required

An alternate destination is required on all instrument flight plans except when the forecast weather at the first point of intended landing (for each point of intended landing on a stopover flight plan) meets the following conditions for the period one hour before to one hour after the ETA:

For fixed-wing aircraft:

- Ceiling is at least 2000 feet above the airport elevation
- Visibility is at least three statute miles

For rotary-wing aircraft:

- Ceiling is at least 1000 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

C.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 A.4 of this chapter.
C.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 non-standard 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. GPS approaches are not to be used when determining the lowest compatible circling minimums. 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) or if GPS is the only approach navigation aid, weather at the alternate must meet those allowing descent from the MEA, approach and landing under basic VFR.
C.11. Shipboard Operations	Weather criteria for conducting shipboard operations (including takeoff, landing, Vertical Replenishment (VERTREP), and Helicopter In-Flight Refueling (HIFR) are published in the Shipboard-Helicopter Operational Procedures Manual, COMDTINST M3710.2 (series).
C.12. Flight in Icing Conditions	Flight in icing conditions shall be conducted in accordance with the applicable aircraft flight manual.
C.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.

C.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.

4. Conduct of Aircraft Operations

A. Flight Discipline

A.1. Purpose

Flight discipline forms the foundation of safety and airmanship, and involves critical skills required to operate an airplane safely, with competence and precision. The complexity of the aviation environment demands a solid foundation of these skills, and a healthy, positive approach to combat human error.

A.2. Crew Duties

Flight crew shall adhere to their foremost and fundamental responsibility as Coast Guard officers, chief petty officers and petty officers. All crewmembers are duty bound to exercise CRM tenets without hesitation in any situation involving safety of flight or noncompliance with policy. Each crewmember is responsible for mission accomplishment through the effective and efficient completion of their designated crew duties per the appropriate flight manual. All crew members shall minimize “head down” activities and maintain a traffic watch during all evolutions, including taxi, except as necessary to accomplish required duties. To the maximum extent possible:

- Avoid activities that remove a crewmember from ICS for extended periods of time.
- Crew members should monitor the accomplishment of all normal procedures to provide back up for other members on the flight to ensure the accurate accomplishment of duties.
- Receipt of route clearances should be monitored by both pilots and by the Navigator in the C-130H.
- Programmed routes and all changes affecting flight path or performance calculations shall be briefed and checked by another crewmember when practicable.

A.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).

A.4. Standard Phraseology

The use of standardized phraseology promotes effective communication and reduces workload during critical phases of flight. Announce any changes in speed, altitude, flight path, configuration, or any other changes that affect the crew’s shared mental model. The standard phraseology detailed in Table 4-1 shall be used in all Coast Guard aircraft.

A.4.a. Autopilot and Flight Director Operations	For all multi-pilot operations, changes in autopilot status, flight director modes or reference settings shall be announced by the pilot flying and acknowledged by the pilot monitoring. Standard phraseology for autopilot and flight director operations shall be described in the aircraft flight manual.

Table 4-1, Standard Phraseology

Action	Pilot Flying	Pilot Monitoring
Visually acquired traffic	"Traffic in sight" or "negative contact"	"Traffic, _____" (Clock position, relative altitude, corrective action required)
Pilot with head down focusing attention inside the aircraft for other than normal scan duties	"Head down ___ side" and assumes see and avoid duties	"Head down ___ side for _____" (e.g. performance calculations, approach setup, duration, etc.)
Transfer of Controls	"Your Controls, _____" (state flight parameters or flight director status)	"My Controls" "My Controls"
Approaching level-off altitude	"_____ (current altitude, feet) for _____ (level-off altitude, feet)"	"_____ (feet) to go"
At Final Approach Fix	Verify altitude	"Final approach fix, descend to _____ feet"
___ ft above published instrument approach minimums (per flight manual or as briefed)	Verify altitude	"___ ft to go"…etc. (per flight manual or as briefed)
Runway environment in sight	"In sight, _____" (state intentions, i.e. Landing, Go Around)	"Runway in sight"
At Minimum Descent Altitude	"Minimums"	"Cleared to land" or "_____" (State specific clearance obtained)
Note: the below phrases do not apply to rotary wing aircraft, refer to appropriate flight manual:		
At Decision Altitude	"Minimums" "Go Around _____"(if required)	"Cleared to Land" or "Continue" or "Go Around _____" (state reason)
Missed Approach Point	"Go Around _____"	"Go Around _____" (state reason)

A.5. Sterile Cockpit Rule

The sterile cockpit rule minimizes distractions and specifically prohibits crew member performance of non-essential duties, activities, or conversations on the primary ICS channel 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 may engage in, nor may the PIC permit, any conversation or activity that could distract or interfere with a flight crewmember in the proper conduct of flight duties during a critical phase of flight. This rule does not preclude emergency procedure training. 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
- 1,000 ft prior to reaching assigned altitude during climb/descent under IFR
- Fixed-wing flight operations below 5,000 ft AGL, except when in cruise flight
- Hover operations
- Below 300 ft AGL/AWL during approach or departure from a hover
- As directed by the PIC

A.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.

A.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”).

A.8. Automation

Proper use of automation provides potential gains of safety and mission effectiveness through greater efficiency, increased precision, higher situational awareness and reduced crew workload. Therefore, pilots should use the highest level of automation appropriate for the situation. Aircrews shall be proficient in operating the aircraft at, and transitioning between all levels of automation.

The automation pyramid (Figure 4-1) depicts situational awareness and reduced workload benefits when aircrews use systems properly. Crews should operate at the level of automation consistent with the mission objectives. Normally, this will be at the higher levels of the pyramid and will create an environment where crews operate with the lowest workload and the highest level of situational awareness. However, automation lacks the flexible responses to unanticipated changes in flight path requirements. In these circumstances, a lower level of automation should lower workload and thereby preclude crews from becoming task saturated and losing situational awareness.

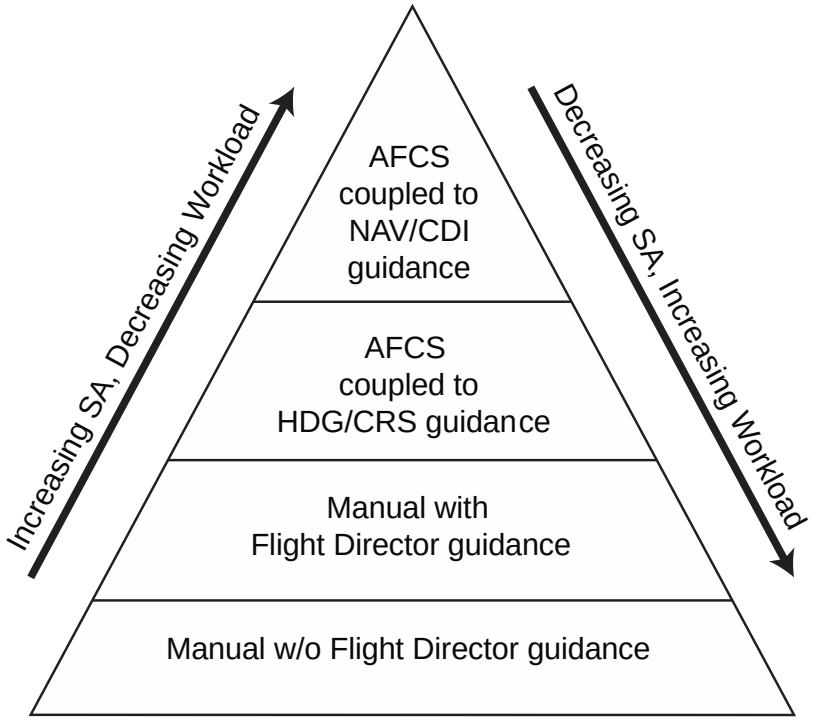

Figure 4-1, Automation Pyramid

A.8.a. Automation Complacency	Systems are not substitutes for vigilance and basic aircrew proficiency. Crew members shall perform normal systems monitoring duties in conjunction with utilizing advisories from automated alert systems. Aircrews shall practice hand-flying, basic chart reading and navigation skills to maintain proficiency to prepare for situations when automated systems fail.
A.9. Operating the Flight Controls	The Pilot in Command (PIC) of an aircraft shall determine who operates the controls during each phase of flight. The PIC must use sound judgment in assigning pilots of limited experience to handle the primary flight controls when marginal flight conditions exist or when potentially hazardous operations are undertaken.
A.9.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.

A.9.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.
A.10. Cockpit Strategic Napping	Cockpit strategic napping is authorized aboard the C-130, C-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 crew member seated in the flight engineer seat, jump seat or augmented crew position, only one may nap at a time; the remaining two crew members 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.
A.11. 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 and all pertinent checklists shall be carried on the aircraft and be available to the crew.
A.12. 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). All duty-standing pilots desiring to attend post-graduate education shall have command approval prior to enrollment.

B. Ground Operations

B.1. Starting Aircraft Engines	An aircraft engine shall not be started unless a pilot, either designated in type or in training for designation in type, or a crew member certified in writing by the Commanding Officer as being qualified to perform engine starts, occupies a pilot's seat.
B.2. Engaging Helicopter Rotors	A pilot designated in type shall occupy a pilot's seat whenever the rotor is engaged, or turning under power or during shut down.
B.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.
B.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.
B.5. Taxiing Aircraft	Only pilots designated in type, or in training for designation in type, or crew members designated in writing by the Commanding Officer as being qualified to perform taxiing operations, shall taxi a fixed-wing aircraft. Only pilots designated in type, or in training for designation in type, 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.
B.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.

B.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.

B.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.

B.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 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.

B.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).

B.10.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.10.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.
B.10.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 crew member not incapacitated shall assume this responsibility.

C. General Flight Rules

C.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.

C.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).

C.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. Non-certified 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 non-military 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 (waypoints, IFR enroute procedures, IFR terminal procedures, and IFR approach procedures) 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.

C.4. 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).
C.4.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.
C.4.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.4.c. ILS Approach Categories	Category II and III ILS approaches are not authorized.
C.4.d. Navigation Source Selection	When flying an instrument approach, the flying pilot’s primary navigation source shall be set to the navaid named in the approach title prior to commencing the final approach segment. Only the primary navigation source may provide navigational guidance during the final approach segment of a coupled approach.
C.4.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).
C.5. Simulated Instrument Flight	Simulated instrument flight in any Coast Guard aircraft is prohibited unless another pilot (other than the PF), qualified in type 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.

C.5.a. 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.

C.6. 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.

C.7. 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 ft AGL in IMC conditions or 500 ft AGL in VMC conditions:

- 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 ft AGL.

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

C.8. Special PIC Qualification Airports

When weather is less than 1000 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.

C.9. 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.

C.10. Transponders 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.

C.10.a. Call Sign and Transponder Codes for SAR and LE

Coast Guard aircraft shall use the “RESCUE” call sign defined in FAA Joint Order 7110.65 (series) 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.

C.10.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.

C.11. Occupation of Pilot Seats

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 who will perform the lookout duties of the absent pilot. At least one seat will always be occupied by a pilot qualified in type.

For the C-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.

C.12. In-Flight 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.
C.12.a. 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, crew members 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 and the nearest air traffic control facility. 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 Coast Guard Light Amplification by Stimulated Emission of Radiation (LASER) Hazard Control Policy, COMDTINST 5100.27 (series).
C.13. 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 Coast Guard Aeronautical Engineering Maintenance Management Manual, COMDTINST M13020.1 (series).
C.14. 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.
C.14.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.
C.14.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 2000 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 overflown for the conduct of an operational mission, in normal en route flights on airways, or in compliance with an approved traffic or approach pattern.

C.15. 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 2000 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. 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.
C.16. Air Defense Identification Zones	Adhere to all procedures for operating within or transiting Air Defense Identification Zones (ADIZ).
C.17. Position Reports	The Telecommunication Manual, COMDTINST M2000.3 (series), prescribes requirements for position reporting by Coast Guard aircraft.
C.18. Operations Over the 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.
C.18.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.
C.18.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.

C.19. IMC 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.

C.20. 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.

C.21. Use of Aircraft Exterior Lights

Lights Out operations may be conducted within US domestic airspace under the provisions of the FAA exemption contained in Enclosure (1), 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

D.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 crew members is permitted consistent with crew make-up for other operational training maneuvers.

D.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 Coast Guard 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.

D.3. Parachute Jumps

Commanding Officers may authorize training or operational parachute jumps from Coast Guard C-130 and C-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.

D.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 C-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 C-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.

D.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.

D.5.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.
D.5.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.
D.5.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.5.d. Night Formation Flights	Units designated by Commandant (CG-DCO) to perform TAC-FR, RWAI and AUF CD are authorized to fly night formation flights for training and operational missions.
D.6. Flight in 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.
D.7. RWAI Training Limits	Intercept training shall be conducted at a minimum of 1000 ft 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.
D.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. The text of the FAA exemption is shown in Enclosure (1). When radio communications cannot be established with the vessel, the aircraft first should establish identification, 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.

D.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.

D.10. Feathering Propellers/Securing Engines

Other than during C-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 6000 ft AGL.

D.10.a. C-130 Reduced Engine Operations

When dictated by mission requirements, two- or three-engine operation is permitted for C-130 aircraft, however no C-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 on-scene 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.

D.11. 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.

D.12. Shipboard Helicopter Operations

Shipboard helicopter operations include landings and takeoffs aboard suitably equipped vessels, VERTREP, and Helicopter In-Flight 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.

D.13. 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.

D.14. Hoisting Divers

Deploy tank-equipped civilian or military rescue divers using the same procedures as used for harness deployments of Coast Guard Rescue Swimmers. The divers must be outfitted with ACCB-approved hoist harnesses and must have completed a Commandant (CG-711) approved familiarization syllabus.

If a rescue diver is not equipped with the proper gear or has not completed the familiarization syllabus, deploy the diver via rescue basket only, without the tanks. An additional hoist will be required for delivery of the dive tanks and other required gear. When available, a qualified Rescue Swimmer should be deployed before diver deployments to assist divers and survivors in the water. Free fall deployments of rescue divers, with or without tanks, are prohibited.

D.15. 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).

D.16. 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 qualification syllabus within the preceding 15 calendar months.
D.17. Hoisting Canine Detection Teams	Hoisting canine detection teams is authorized. To deploy using the canine hoisting harness, the handler and canine must have completed the Commandant (CG-711) approved Canine Handler qualification syllabus within the preceding 15 calendar months. Approval authority for hoisting of Canine Detection Teams is the aviation unit Commanding Officer.
D.18. 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.
D.19. 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 1000 feet with a no-flare recovery, if crash equipment is not immediately available.
D.20. Single-Engine Maneuvers	Except for H-65s, helicopter practice single-engine maneuvers to a landing shall be conducted only at facilities that have crash equipment readily available.
D.21. Water Operating Cover Requirement (Training Operations)	For all rotary-wing training flights that include: prolonged over water hovering/hoists by helicopters without single-engine continued flight capability; rescue swimmer operations; or night approaches to the water including PATCH, MATCH, or CATCH, a cover vessel less than 160 feet in length, a ship-helicopter compatible vessel at FLIGHTCON 1, or a SAR-capable helicopter with effective two-way communications shall be underway/airborne in the immediate area. 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

E.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.

E.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

E.2.a. Loss of Useful Consciousness

Loss of useful consciousness adversely affects the probable survival time since the crew member 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.

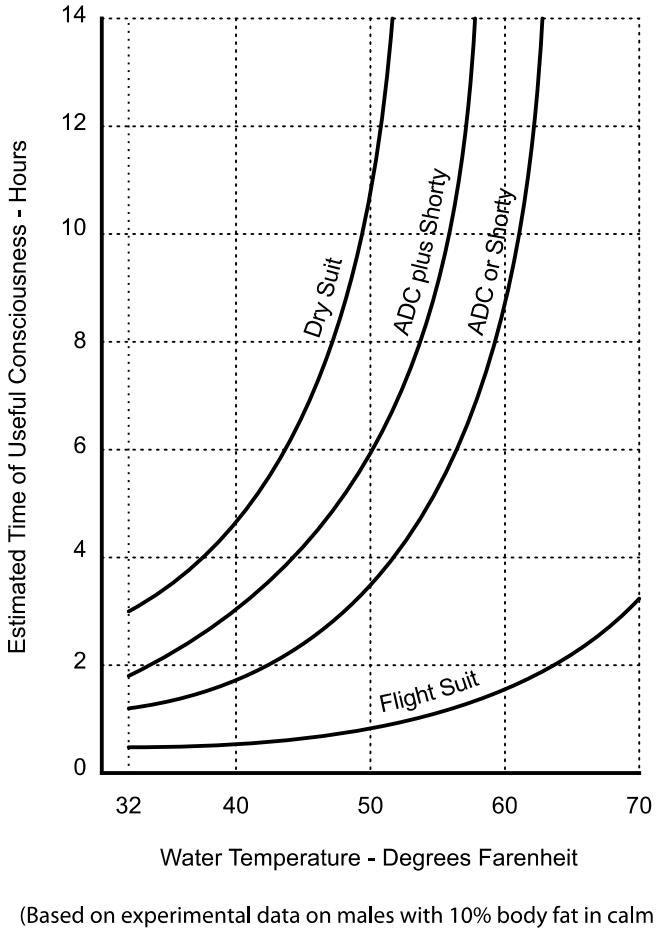

Figure 4-2, Probable Survival Time

E.2.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 4-2 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 4-2 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 4-2.

E.2.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.
E.3. Unescorted Operations	The maximum recovery time should not exceed the estimated time to loss of useful consciousness.
E.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

F.1. Overview	Various organizations request the participation of Coast Guard aircraft in local demonstrations and celebrations. Several provisions of the Coast Guard Public Affairs Manual, COMDTINST M5728.2 (series), are applicable as modified herein. Contact the District Ethics Office for current procedures for accepting gifts of travel expenses for Coast Guard personnel participating in air shows and static displays.
F.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.
F.2.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.
F.2.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, International Affairs (CG-DCO-I) for participation clearance.
F.2.b.(1). 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.
F.2.c. Exceptions to Public Affairs Manual Requirements	If any of the stipulations in the Public Affairs Manual, COMDTINST M5728.2 (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.
F.3. Policy	Organization sponsors requesting the participation of Coast Guard aircraft and participating Coast Guard aircrews are governed by the following policy.

F.3.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.
F.3.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.
F.3.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.
F.3.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.
F.3.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.
F.3.e.(1). Holiday Flyovers	Flyovers for the patriotic holidays are limited to one to four aircraft of the same type making a single pass.
F.3.e.(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.
F.3.e.(3). Joint Flyovers	Joint flyovers involving Coast Guard and DOD aircraft shall be governed by DOD policy.
F.3.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.

F.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 in-flight 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

F.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

G.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.
G.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.
G.2.a. Restrictions	There are no special restrictions on pilot/crew assignment for flight verification checks.
G.2.b. Weather	Flight verification checks should be conducted in VMC if the item to be checked is required for flight in IMC.
G.2.c. C-130 Maintenance Flights Downgraded to Flight Verification	For maintenance flights in C-130 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. • Feathering of propellers shall be accomplished at or above 1000 feet AGL and in VMC.
G.3. Maintenance Test Flights	Maintenance test flights include partial test flights after the completion of critical maintenance, or complete test flights when required. A C-130 annual functional check flight (FCF) is considered a test flight.

G.3.a. Pilot and Crew Assignment	The minimum number of crew members 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. Passengers shall not be carried. The PIC shall occupy a pilot seat throughout the flight and shall operate the primary flight controls during takeoffs and landings. Technical Observers may be included as part of the minimum number of crew members 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.
G.3.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).
G.3.c. Engine Shutdown or Propeller Feathering	Feathering of propellers or engine shutdowns shall be accomplished at or above 6000 feet AGL and in VMC in the vicinity of a suitable airport with crash equipment immediately available.
G.3.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.
G.3.e. Hover Checks	Hover checks for helicopters may be accomplished at any time at the discretion of the Commanding Officer.
G.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 shall be used.

H. Flight Violations

H.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).
H.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.
H.2.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).
H.2.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.
H.2.c. Administrative Requirements	Refer to Chapter 9 of this Manual for additional administrative requirements following a mishap or flight rule violation.

I. Passengers

I.1. Passengers	A passenger is any person transported on a Coast Guard aircraft other than a flight crew member 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.
I.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 (2).
I.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.
I.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.
I.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.
I.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.
I.7. Passenger Identification	Positive identification is required of all passengers.

I.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.

I.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

J.1. Mission Essential Personnel

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

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

J.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

J.3. Equipment and Training Requirements for Mission Essential Personnel

Equipment requirements are listed in Chapter 7. Training requirements for aircrew mission essential personnel are listed in Chapter 8. Training requirements for non-aircrew mission essential personnel are listed in Chapter 9.

J.3.a. 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

K.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.
K.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.
K.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.
K.3.a. Personal Defense Weapons Carried by CG Flight Crews	All flight crew members 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.
K.3.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 crew members who are qualified and current in accordance with the Ordnance Manual, COMDTINST M8000.2 (series).
K.3.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).

K.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.
K.4.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 decocked and holstered. All handguns with mechanical safety devices shall have those safeties engaged.
K.4.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.
K.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.
K.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 crew member 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 crew member for stowage. At no time are firearms, which are transported as cargo, to be hand carried by the custodian while in-flight. Firearms transported as checked baggage shall be adequately secured to be inaccessible to passengers while they are aboard the aircraft.

K.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).

K.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.

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.

K.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 Coast Guard Light Amplification by Stimulated Emission of Radiation (LASER) Hazard Control Policy, COMDTINST 5100.27 (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.

L. In-Flight Use of Portable Electronic Devices

L.1. General	Portable electronic devices that interface with or intentionally cause electromagnetic radiation within 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 list of approved devices for each aircraft type is maintained by the Aviation Logistics Center.
L.2. Transmitting Devices	Use of any device that is considered an intentional radiator or transmitter, such as radios, wireless devices such as Bluetooth, WiFi, etc. shall be turned off and stowed during flight unless specifically approved by ACCB.
L.2.a. Cellular Telephones	Cellular telephones and other devices with cellular capability may be carried aboard aircraft, but shall be turned off and stowed during flight. 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 phones shall be secured within a radio frequency-shielded pouch or security container.
L.3. Devices That Interface With Aircraft	Use of any electronic device that interfaces with the aircraft (via power, data, etc.) shall not be used on Coast Guard aircraft unless specifically approved by ACCB, except as provided in the “Medical Equipment” paragraph below.
L.4. Devices With Recording Capability	Portable devices 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.
L.4.a. Government-Issued Cameras	Government-issued cameras may be authorized for in-flight 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.
L.5. Devices Always Allowed	Small 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 approval.
L.6. Other Devices	Any other non-transmitting, non-interfaced, non-recording devices not specifically listed may be authorized by the Pilot in Command in cruise flight. The Pilot in Command shall prohibit the use of any device suspected of creating interference with any system on the aircraft.

L.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.

M. Aircraft Security and C4ISR Systems

M.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) • Operations Security (OPSEC) Program, COMDTINST M5510.24 (series) • Telecommunication Manual, COMDTINST M2000.3 (series) • EKMS Policy and Procedures for Navy Electronic Key Management System Tiers 2 & 3, EKMS-1 (Series) • Public Affairs Manual, COMDTINST M5728.2 (series) • 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)
M.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.
M.2.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.
M.2.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).
M.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.

M.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. 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.
M.4.a. Voice Recordings	Voice recordings are considered a form of Personally Identifiable Information 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). Recordings of communications over encrypted voice circuits shall be marked, handled and stored in accordance with Commandant Instructions appropriate for the level of classification of the circuit.

5. Passengers and Cargo

A. Basic Principles

A.1. Executive Branch Policy

The Office of Management and Budget (OMB) has issued overarching Executive Branch policy for improving the management and use of government aircraft in Improving the Management and Use of Government Aircraft, Circular No. A-126. In accordance with that directive, DHS has issued 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.

A.2. Use of Coast Guard Aircraft

Coast Guard aircraft shall not be used for political activities. Furthermore, commercial transportation shall be used for passengers and/or cargo to the maximum extent practicable.

A.3. Disclosure Statement Requirements

In accordance with the Federal Travel Regulations, specifically 41 C.F.R. § 301-70.909, civilian passengers shall be provided a copy of the disclosure statement contained in Enclosure (2).

A.4. 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 ITO) 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

A.5. Foreign Visits to CG Facilities

The Deputy Commandant for Operations, Directorate of International Affairs (DCO-I) administers the Foreign Visits Program to screen foreign nationals visiting USCG faculties. 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 20 days in advance. Commandant (CG-DCO-I) is available for guidance at HQSSMBDCOIFVP@USCG.MIL.

A.5.a. 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. 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.

B. Mission Requirements Use

B.1. Applicability	This section applies to personnel and cargo carried aboard flights that support the Coast Guard's official responsibilities described as Mission Requirements Use in Chapter 2 of this Manual.
B.2. Authority	For Mission Requirements Use, Commanding Officers of Coast Guard air stations and cutters with aircraft embarked or deployed have the authority to designate personnel or cargo aboard Coast Guard aircraft as mission essential. This authority may be delegated no lower than the Operations Officer.
B.3. Mission Essential Personnel or Cargo	Personnel or cargo are considered mission essential when their presence aboard Coast Guard aircraft is in direct support of the 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. 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.
B.4. 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 on whether to approve non-aircrew personnel to participate in a Mission Requirements Use flight.
B.4.a. Commander's AOR Overflight	An Area, District, Sector or Group Commander's 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.4.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.
B.4.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.

B.4.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. See Paragraph 5.A.5 for requirements of the Foreign Visit Program and Commandant (CG-DCO-I) flight concurrence.
B.4.e. General Schedule (GS) Employees	Coast Guard General Schedule (GS) employees whose presence in-flight is essential to accomplishing a Coast Guard mission are considered mission essential under this section
B.4.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 in-flight 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.
B.4.g. Prisoners and Guards	Prisoners and guards on an approved law enforcement or prisoner transfer mission are considered mission essential.
B.4.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. Required Use Transportation

C.1. Applicability	This section applies to transportation of Required Use passengers from the point of origin to a new location. Required Use transportation is the use of a Coast Guard aircraft for the transportation of an officer or employee of the Federal Government 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.
C.2. Authority	Authorization for transportation under the Required Use provision described in Chapter 2 is granted either in the form of a blanket approval or on a trip-by-trip basis. Once Required Use transportation has been approved for the principal official, then transportation aboard Coast Guard aircraft is also appropriate for staff members who are accompanying the official.
C.2.a. Blanket Approval	Blanket approval of Required Use transportation of DHS personnel may only be granted by the Secretary of DHS. The Secretary has made an administrative determination that all official travel on Coast Guard aircraft by the Secretary of DHS, Deputy Secretary of DHS, Commandant, Vice Commandant, Atlantic Area Commander and Pacific Area Commander qualifies as Blanket Required Use travel.
C.2.b. Trip-by-Trip Approval	The Judge Advocate General (TJAG) and Deputy Judge Advocate General (DJAG) of the Coast Guard may approve trip-by-trip Required Use transportation of Coast Guard personnel when requested in writing and in advance, through the chain of command. The office requesting transportation must provide sufficient evidence, in the form of a memorandum, to demonstrate a bona fide communications or security need or exceptional scheduling requirements. Requests shall be routed to Commandant (CG-094) through Commandant (CG-0944). The TJAG provides Commandant (CG-711) a copy of all written documentation approving Required Use transportation for filing with the flight record.
C.2.c. Required Use by Other Agency Officials	For personnel outside the Coast Guard, the senior or deputy legal official of the respective Department or Agency must approve Required Use 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.
C.3. Reporting Requirement	Any transportation of senior Federal officials, their spouses, dependents and any non-Federal travelers during a semiannual period shall be reported to Commandant (CG-711) using GSA form 3641. Reports shall be submitted by 15 January and 15 July.

D. Other Transportation for the Conduct of Official Business

D.1. Applicability

This section applies to transportation of passengers and cargo on official business other than Mission Requirements Use and Required Use from the point of origin to a new location.

Travel for a spouse, dependent or other non-Federal traveler providing a direct benefit or service to the Coast Guard, can be conducted using an Invitational Travel Order. Refer to the Invitational Travel Orders, COMDTINST 12570.3 (series) for guidance, including examples of travel that is in the best interest of the Federal Government.

For transportation of members of Congress, non-Federal travelers, or senior Federal officials and their spouses or dependents, the special approval and reporting requirements outlined in Section F also apply.

D.2. Transportation as Primary Purpose of Flight

Official transportation of personnel or cargo for the conduct of DHS or Coast Guard business that is not also Mission Requirements Use or Required Use travel shall be authorized as the primary purpose for flight only when:

- The actual cost of using a Coast Guard aircraft, based on the in-government rate listed in Coast Guard 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 a 24-hour period unless the traveler demonstrates in writing that extraordinary circumstances require a shorter period.

D.2.a. Authority

All official transportation as the primary purpose of flight that is not also Mission Requirements Use or Required Use travel shall have concurrence of the entity having OPCON of the aircraft. The transportation shall be approved in advance and in writing at least one organizational level above the person(s) traveling, but no lower than the following:

- Transporting passengers originating from the National Capitol Region (NCR) requires approval by the Vice Commandant.
- Transporting passengers originating from outside the NCR requires approval by the appropriate Area Commander.
- Transporting passengers originating from a Headquarters aviation unit (e.g. ALC) requires approval by Commandant (CG-711).

Transportation of cargo under this section shall be approved one organizational level above the unit requesting the transportation, with concurrence of the entity having OPCON of the aircraft.

D.2.b. Reporting Requirements

Headquarters, Area or District offices that coordinate flights under this section shall forward all documentation of cost justification to Commandant (CG-711). Air stations will provide Commandant (CG-711) all associated passenger manifests not recorded in ALMIS.

D.3. Transportation as Secondary Purpose of Flight	When a flight is scheduled to meet Mission Requirements or for Required Use travel, secondary use of the aircraft for other transportation for the conduct of agency business may be presumed to result in cost savings, so cost comparison is not required. Note: Transportation as Secondary Purpose of Flight in this manual equates to "Mission Use, Space Available" in the DHS Aviation Management and Safety, MD 0020.1 (series). Passengers and cargo may travel aboard Coast Guard aircraft on a space-available basis for Secondary Use transportation when: • The aircraft is already scheduled for use for an official purpose. The previously-scheduled official purpose shall be documented in the approved flight schedule. • Secondary Use transportation does not exceed minimum mission requirements, e.g. a larger aircraft than needed for the official purpose. • Secondary Use transportation results only in minor additional cost to the Government.
D.3.a. Authority	All official transportation as the secondary purpose of flight that is not also Mission Requirements Use or Required Use travel shall have concurrence of the entity having OPCON of the aircraft. The transportation shall be approved at least one organizational level above the person(s) traveling, but no lower than the following: • For flights originating in the National Capitol Region, Assistant Commandants in charge of headquarters directorates. • For flights originating outside the NCR, the Commanding Officer of a major command (e.g. Air Station or Sector). Transportation of cargo under this section shall be approved one organizational level above the unit requesting the transportation, with concurrence of the entity having OPCON of the aircraft.
D.3.b. Recurring Classes of Secondary Use Passengers	The Coast Guard may support the official transportation needs of other government agencies and other non-government entities on a space available basis or in conjunction with Mission Requirements Use flights. Several authorized categories of passengers are outlined below.
D.3.b.(1). 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. §141(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.

D.3.b.(2). 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.
D.3.b.(3). 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.3.b.(4). 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-0944) and info Commandant (CG-711). When space limitations preclude transporting all interested media personnel, consult the district, area, or headquarters public affairs offices.
D.3.b.(5). 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 Public Affairs Manual, COMDTINST M5728.2 (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.
D.3.b.(6). 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. See Paragraph 5.A.5 for requirements of the Foreign Visit Program and Commandant (CG-DCO-I) flight concurrence.

E. Non-Official Transportation

E.1. Applicability

This section applies to transportation that is not considered Mission Requirements Use, Required Use, or other transportation required for the conduct of agency business. While it is generally prohibited, transportation of non-official travelers may be allowed in specific circumstances described below.

For non-official transportation of members of Congress, non-Federal travelers, or senior Federal officials and their spouses or dependents, the special approval and reporting requirements outlined in section F also apply.

Transportation of non-official travelers aboard Coast Guard aircraft may be authorized so long as the transportation is unquestionably in the best interest of the Government, and:

- The aircraft is already scheduled for use for an official purpose (i.e. Mission Requirements Use or Required Use).
- Such additional transportation does not exceed minimum mission requirements, e.g. a larger aircraft than needed for the official purpose.
- Such additional transportation results only in minor additional cost, if any, to the Government.

E.1.a. Individuals in an Official Travel Status

Spouses and dependents may be transported on Coast Guard aircraft when they are in an official travel status (e.g. permanent change of station (PCS) status).

E.1.b. Individuals Authorized to Fly Military Space Available

Spouses and dependent travelers seeking transportation on Coast Guard aircraft for an unofficial purpose might be eligible to fly under the provisions of the Military Space Available program described in Chapter 6.

E.1.c. Reimbursable Travel

Non-official transportation other than Military Space Available travelers and personnel in an official travel status can be performed provided the Government is reimbursed at the full coach fare. When a non-official traveler flies on Coast Guard aircraft on a reimbursable basis, the office responsible for coordinating his or her travel shall:

- Calculate the commercial, full coach fare equivalent of the flight
- Notify the individual of this amount
- Instruct the individual to mail the payment, along with a description and the dates of travel, to Coast Guard Accounts Receivable – Other at: U.S. Coast Guard ART Fund, P.O. Box 70969 Charlotte, NC 28272-0967

E.2. Authority

Transportation of individuals in an official travel status and Military Space Available travel shall be approved by the Commanding Officer of the air station conducting the flight.

Reimbursable transportation under this section shall be routed through the chain of command and Commandant (CG-711) to the Vice Commandant (CG-09) for approval. If applicable, each request must also meet the special TJAG approval and reporting requirements in this chapter. Include the following information with each request:

- Description of the purpose of travel
- An approved Itinerary for the trip
- Reimbursement cost data
- Aircraft type involved
- Benefit to the interest of the Federal Government

F. Special Approval and Reporting Requirements

F.1. Applicability

This section applies to the transportation of members of Congress, non-Federal travelers, and senior Federal officials and their spouses or dependents. For non-official travel, the requirements in section E also apply. If the transportation in question is for Mission Requirements Use or Required Use, this section does not apply.

F.2. TJAG Approval Requirements

For all categories of transportation except Military Space Available travel, the Judge Advocate General (TJAG) or Deputy Judge Advocate General (DJAG) shall approve, in advance and in writing, all transportation aboard Coast Guard aircraft of the following categories of people:

- Senior Federal officials
- Spouse or dependents of senior Federal officials
- Non-Federal travelers

Route all requests via the chain of command to the DJAG, Office of General Law, Commandant (CG-0944). The DJAG forwards a copy of all written documentation approving passenger transportation to Vice Commandant (CG-09) and Commandant (CG-711).

In special emergency situations, an after-the-fact written approval by the DJAG is permitted. Notify Commandant (CG-711) and Commandant (CG-0944) of circumstances where advance written approval cannot be coordinated, as soon as practicable.

F.3. Other Agency Senior 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.

F.4. Reporting Requirement

Any transportation of senior Federal officials, their spouses, dependents and any non-Federal travelers during a semiannual period shall be reported to Commandant (CG-711). Reports shall be submitted by 15 January and 15 July.

F.5. Congressional Transportation

Coast Guard aircraft can be used for the transportation of Congressional travelers when such usage is in the best interest of the Federal Government. 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) via the most expeditious means. Commandant (CG-0921) will review and forward recommendations through Commandant (CG-711) to the Vice Commandant (CG-09) for endorsement. Once endorsed, the request will be sent for final approval to DHS Office of Legislative Affairs.

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.

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 Aviation Management and Safety, DHS MD 0020.1 (series).

G. OCONUS Aeromedical Transportation

G.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.

G.2. Eligibility Requirements

The following patients are considered Aeromedical Space Required:

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

The following patients are considered Aeromedical Space Available:

- Retired members of the U.S. Coast Guard or Department of Defense
- Dependents of retired members or deceased retired members
- Other personnel authorized care from the Coast Guard medical system

G.2.a. 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.

G.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. Any seats available after the Space Required and Aeromedical Space Available patients have been boarded may be filled by other personnel qualified for travel authorized in the Military Space Available Program described in Chapter 6.

G.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

H. Transportation of Cargo

H.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.
H.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.
H.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 Section D “Other Transportation for the Conduct of Official Business” in this chapter. Cost and/or schedule justification shall be recorded in the comments section of the flight record.
H.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 Section D “Other Transportation for the Conduct of Official Business” in this chapter.
H.5. Privately Owned Vehicles	The transportation of privately owned/leased vehicles, including automobiles, motorcycles and boats, is prohibited.
H.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).
H.6.a. 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 Chapter 3 of Preparing Hazardous Materials for Military Air Shipment, AFMAN 24-204 as necessary to meet response requirements.

I. Orientation Flights

I.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.

I.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.
- Orientation flights shall only be conducted in multi-engine 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.

I.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.

I.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.

I.4.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) • Foreign Exchange Pilots (not designated in type) assigned to Coast Guard aviation units • DHS Pilots and DOD Aviators on Active Duty • Coast Guard Aircrew (designated in type) • Flight Surgeons • Academy Cadet Aviation Training Program (CATP) and 1/c Aviation Intern personnel • Participants of all approved USCG commissioning and pre-commissioning programs
I.4.a.(1). Orientation Flight Restrictions	Orientation flights with participants operating the flight controls may be conducted aboard C-130, HU-25, C-144 and H-65 aircraft and are subject to the following restrictions: 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 C-130H, the second pilot shall remain on the flight deck. H-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.
I.4.b. 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.
I.4.c. Coast Guard Auxiliary	Coast Guard Auxiliary members on competent orders may participate in operational orientation flights.

I.4.d. Civil Air Patrol	Senior and cadet members of the Civil Air Patrol 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
I.4.e. U.S. Uniformed Services and DHS Members	Active and reserve members of the U.S. Uniformed Services and members of the Department of Homeland Security may participate in operational orientation flights.
I.4.f. 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.
I.4.g. 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. See Paragraph 5.A.5 for requirements of the Foreign Visit Program and Commandant (CG-DCO-I) flight concurrence.
I.4.h. 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.
I.4.i. 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.

I.4.j. 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. Only graduates of a formal helicopter rescue swimmer training program are permitted to perform free fall deployments. The candidate must have completed the Rescue Swimmer Training Survivor syllabus with a qualified RS within the previous 15 months. Members of the media that meet the criteria of Paragraph I.4.h. 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.
I.4.k. 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 the Vice Commandant (CG-09) 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.
I.4.l. Coast Guard Civilian Employees	Coast Guard civilian employees may participate in operational orientation flights if they will benefit from the exposure to Coast Guard missions provided by an orientation flight.
I.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

I.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

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6. Military Space Available Travel

A. USCG Military Space Available Travel Program

A.1. Overview

Title 10 CFR §2648-2651 authorizes a Military Space Available Travel Program. The statute is used as a guide for the Coast Guard Military Space Available Travel program. There may be minor differences between the Coast Guard and the DOD Military Space Available Travel programs. In those instances when the Coast Guard has chosen not to adopt new DOD policy an individual may be eligible to fly in a new category on DOD aircraft and may not have the same privilege on Coast Guard aircraft.

The USCG Military Space Available Travel Program covers routine military space available travel and the Environmental and Morale Leave (EML) Program. Commanding Officers of Coast Guard air units are authorized to approve and carry space available passengers in Coast Guard aircraft in accordance with the priority categories and conditions prescribed in this section.

B. General Guidelines

B.1. Eligibility	Military space available travel is limited to active duty and retired U.S. Uniformed Services personnel and their dependents, U.S. Uniformed Service reserve personnel, foreign military personnel on exchange duty with U.S. military components and their dependents, American Red Cross personnel assigned to U.S. military installations overseas, and U.S. citizen civilian employees of the Coast Guard, DHS, or DOD, stationed overseas only in those specific circumstances listed in this chapter.
B.2. Type of Travel	Transportation under this program is for nonofficial travel.
B.3. Cost and Reimbursement	Cost comparison and reimbursement is not required, unless otherwise specified herein.
B.4. Dependents	Dependents are not eligible for military space available flights within CONUS except where specifically authorized in this chapter. However, all individuals eligible for military space available transportation will be allowed to travel on aircraft to/from an overseas location when a CONUS leg segment (en route stop) is involved. For example, dependents may travel on a mission which operates from Kodiak to Elizabeth City even though an en route stop is made in Sacramento.
B.5. Aircraft	Only multi-engine fixed-wing aircraft may carry military space available passengers, and if carrying dependents, such aircraft shall be appropriately equipped to accommodate their needs.
B.6. Affecting Mission	Military space available transportation must not alter the schedule of the flight or the basic mission. In no event will military space available transportation serve as the basis for establishing mission requirements.
B.7. Required Documentation	Military space available passenger registers shall be maintained to those destination/en route points served by scheduled logistics flights. Registered passengers must be in a leave status and available to travel. Passengers who fail to accept a seat or who are not available to accept a seat when it is offered to any of their registered destinations on a flight whose scheduled departure has been posted for 24 hours will have their names removed from the register. Anyone whose name is removed may re-register, but will be placed at the bottom of the appropriate category on the register.

B.8. Prioritization and Availability

Eligible personnel are listed within each priority group of a category in no particular order and will be furnished space available transportation on a first-in, first-out basis within each priority group. All personnel in a higher priority group of a category will be offered transportation before anyone in a lower priority group of the same category is offered transportation.

The air station Commanding Officer may change the precedence for emergency or extreme humanitarian reasons, when requested by the sponsoring military service and the facts provided fully support such exception.

Reservations will not be made for any category of space available passenger, however, air stations may maintain a roster of applicants as a means of identifying such passengers. There is no guaranteed space for military space available passengers, nor is the Coast Guard obligated to continue an individual's travel or return him/her to his/her point of origin.

Eligible personnel must be physically capable of caring for themselves while enplaning, deplaning, and in-flight. An exception to this is permitted when a disabled individual is accompanied by a sponsor or dependent who is also eligible for military space available transportation and who can provide the assistance required.

B.9. Space Available Travel in Conjunction with Space Required Travel or to Restricted Tour Areas

Space available travel may not be used instead of space required travel for such movement as TDY, TAD, or PCS travel. Space available travel may be used in conjunction with space required travel as long as space available travel does not substitute for any single leg for which the traveler has a space required entitlement. For example, a Uniformed Services member may take leave with a TDY or TAD, as allowed by Service regulations, and may travel space available while on leave. Travel from the Primary Duty Station (PDS) to the TDY or TAD location shall be space required with the traveler in a duty status; any space available travel from the TDY or TAD duty location shall return to the TDY or TAD location, with the traveler in a leave status; and the final leg shall be space required from the TDY or TAD location to the PDS with the traveler in a duty status. Dependents may not use space available travel options in this regulation to accompany their sponsor on space required travel or to travel from a sponsor's restricted or any other unaccompanied tour location.

C. Eligible Travelers, Priorities, and Approved Geographical Travel Segments

C.1. Overview

Table 6-1 is based on Air Transportation Eligibility, DOD 4515.13R, Chapter 6, Space Available Travel. This table lists travelers who are eligible to travel on DOD aircraft according to the space available program outlined in the following paragraphs. "Traveler's Status and Situation" lists specific travelers and conditions under which space available travel may be authorized.

The approved geographical travel segments (i.e. origin and destination combinations) are C-C (CONUS to CONUS), O-O (overseas to overseas), C-O (CONUS to overseas), and O-C (overseas to CONUS).

A "yes" in the column headed by one of these abbreviations indicates that travel is authorized in that particular geographical travel segment for the particular type traveler cited in that item number, and subject to any limitations cited. Lack of a "yes" indicates travel is not authorized in that particular geographical travel segment.

Table 6-1, Eligible Space Available Travelers, Priorities, and Approved Geographical Travel Segments

Reference Number	Traveler's Status and Situation	C-C	O-O	C-O and O-C
Category 1				
Emergency Leave Unfunded Travel				
Transportation by the most expeditious routing only for bona fide immediate family emergencies, as determined by Leave and Liberty Policy and Procedures, DOD Directive 1327.06 and Service regulations, for the following travelers:				
1.1	Uniformed Services members with emergency status indicated in leave orders	Yes		
1.2	Civilians, U.S. citizens, stationed overseas, employees of: (1) The Uniformed Services; or (2) NAF activities and whose travel from the CONUS, Alaska, or Hawaii was incident to a PCS assignment at NAF expense		Yes	Yes
1.3	Dependents of members of the Uniformed Services when accompanied by their sponsor		Yes	
1.4	Dependents, accompanied or unaccompanied, of members of the Uniformed Services who are assigned and domiciled in the CONUS			Yes
1.5	Dependents of members of the Uniformed Services, non-command sponsored, residing overseas with the sponsor, one-way only to emergency destination		Yes	C-O Yes O-C No
1.6	Dependents, command sponsored, of: (1) U.S. citizen civilian employees of the Uniformed Services stationed overseas; (2) U.S. citizen civilian employees of the DOD stationed overseas and paid from NAF; or (3) American Red Cross full-time, paid personnel, serving with a DOD Component overseas		Yes	Yes

Reference Number	Traveler's Status and Situation	C-C	O-O	C-O and O-C
1.7	Professional Scout Leaders, and American Red Cross full-time, paid personnel, serving with a DOD Component overseas		Yes	Yes
1.8	Dependents of retired Uniformed Services members who die overseas. Travel is authorized for the purpose of accompanying the remains of the deceased retired member from overseas to the CONUS. Return travel is authorized if accomplished within one year of arrival in the CONUS. Documentation certified by DOD mortuary affairs personnel shall be presented to air terminal personnel, and shall be in the dependents' possession during travel.			Yes
Category 2				
Environmental and Morale Leave (EML)				
EML leave is granted with an EML program, as prescribed in Leave and Liberty Policy and Procedures, DOD Directive 1327.06, established at an overseas duty station where adverse environmental conditions require special arrangements for leave in more desirable places at periodic intervals. Except as noted, unfunded EML travel is subject to the space available program rules and guidance outlined in Air Transportation Eligibility, DOD 4515.13R, Chapter 6, section C6.1. Funded EML travel is discussed in DOD 4515.13R, Chapter 2, Subparagraph C2.2.3.1.14 and JFTR Paragraphs U5245 and U7207. Unfunded EML travelers may travel in Category II status to only one EML destination for each set of EML orders. This does not preclude several approved EML destinations being included in a single set of EML orders as long as procedures are in effect to ensure that the individual is provided Category II status only for travel to and from the first authorized EML destination actually reached. Subsequent space available travel, e.g. from the EML destination to a third location and return, or from the third location to another EML location, may only be provided in Category III status. When traveling under EML orders, dependents who are 18 years of age or older may travel unaccompanied by their sponsor. Dependents who are under 18 years of age traveling under EML orders must be accompanied by an EML eligible parent or legal guardian who is traveling in an EML status.			
2.1	Sponsors in an EML status and their dependents traveling with them, also in an EML status. "Sponsors" includes: (1) Uniformed Services members. (2) U.S. citizen civilian employees of the Armed Forces who are eligible for Government funded transportation to the United States at tour completion (including NAF employees). (3) American Red Cross full-time, paid personnel on duty with a DOD Component overseas. (4) USO professional staff personnel on duty with the Uniformed Services. (5) DODDS teachers during the school year and for employer approved training during recess periods.		Yes	Yes

Reference Number	Traveler's Status and Situation	C-C	O-O	C-O and O-C
Category 3				
Ordinary Leave, Close Blood or Affinitive Relatives, House Hunting Permissive TDY/TAD, Medal of Honor Holders, Foreign Military, and Others				
3.1	Uniformed Services members in a leave or pass status other than emergency leave (use Category I), environmental and morale leave (use category II), or excess appellate leave, for which space available travel is not authorized. This includes members of the Reserve components on active duty, in a leave or pass status.	Yes	Yes	Yes
3.2	Dependents of a member of the Uniformed Services when accompanied by their sponsor in a leave status other than emergency leave (use Category I), environmental and morale leave (use Category II), or excess appellate leave, for which space available travel is not authorized.		Yes	Yes
3.3	Close blood or affinitive relatives who are permanent members of the household and dependent upon a Military Service member, a DOD civilian employee, or American Red Cross employee serving with a DOD Component overseas, when the sponsor is authorized transportation of dependents at Government expense. Travel must be with the sponsor's or his or her dependent's PCS move.		Yes	Yes
3.4	Dependent spouses of military personnel officially reported in a missing status under 37 CFR §551, and accompanying dependent children and parents, when traveling for humanitarian reasons and on approval on a case-by-case basis by the Head of the Service concerned (Chief of Staff of the Army, the Chief of Naval Operations, the Commandant of the Coast Guard, the Chief of Staff of the Air Force, and the Commandant of the Marine Corps) or their designated representative. Travelers shall present an approval document from the Service concerned.	Yes	Yes	Yes
3.5	Uniformed Services members traveling under permissive TDY/TAD orders for house hunting incident to a pending PCS.	Yes	Yes	Yes
3.6	One dependent when accompanying a Uniformed Services members traveling under permissive TDY/TAD orders for house hunting incident to a pending PCS.	Yes	Yes	Yes
3.7	Medal of Honor recipients. Except for active duty, traveler shall present a copy of the Medal of Honor award certificate.	Yes	Yes	Yes
3.8	Dependents of Medal of Honor recipients when accompanied by their sponsor.		Yes	Yes

Reference Number	Traveler's Status and Situation	C-C	O-O	C-O and O-C
3.9	Command sponsored dependents of Uniformed Services members accompanying their sponsor on approved circuitous travel. Commanders authorized to publish circuitous travel orders for members under current policy of their Uniformed Service, where extenuating circumstances prevail, may approve requests for space available travel of their dependents within and between overseas areas and the CONUS, incident to approved circuitous travel of the member.		Yes	Yes
3.10	Foreign cadets and midshipmen attending U.S. Service academies, in a leave status. Native countries of foreign cadets and midshipmen must be identified in the leave authorization.			Yes
3.11	Civilian U.S. Armed Forces patients who have recovered after treatment in medical facilities and their accompanying nonmedical attendants. Travel is permitted by the most expeditious routing to return the recovered patient and nonmedical attendant to the overseas post of assignment. (During the death or extended hospitalization of the patient, the nonmedical attendant retains the space available travel authority to return to the patient's overseas post of assignment.		Yes	C-O Yes O-C No
3.12	Foreign exchange Service members on permanent duty with the Department of Defense, when in a leave status.	Yes	Yes	Yes
3.13	Dependents of foreign exchange Service members on permanent duty with the Department of Defense when accompanying their sponsor.		Yes	Yes
Category 4				
Unaccompanied Dependents on EML and DODDS Teachers on EML During Summer				
4.1	Dependents traveling under the EML Program, unaccompanied by their sponsor ("Sponsor" as defined in reference number 2.1).		Yes	Yes
4.2	DODDS teachers or dependents (accompanied or unaccompanied) traveling under the EML Program during the summer break.		Yes	Yes
Category 5				
Permissive TDY (Non-house Hunting), Foreign Military, Students, Dependents, and Others				
5.1	Military personnel traveling on permissive TDY/TAD orders other than for house hunting.	Yes	Yes	Yes

Reference Number	Traveler's Status and Situation	C-C	O-O	C-O and O-C
5.2	Dependents (children) who are college students attending in residence an overseas branch of an American (U.S.) university located in the same overseas area in which they reside, command sponsored, stationed overseas with their sponsor who is: (1) A member of the Uniformed Services; (2) A U.S. citizen civilian employee of the Department of Defense (paid from either appropriated funds or NAF); or (3) An American Red Cross full-time, paid employee serving with the Department of Defense. Unaccompanied travel is permitted from the overseas military passenger terminal nearest their sponsor's permanent duty station to the overseas military passenger terminal nearest the university, and to return during school breaks. Students must present written authorization from an approving authority and only one round trip each year is authorized. Unused trips may not be accumulated from school year to school year.		Yes	
5.3	Dependents, command sponsored, stationed overseas with their sponsor who is: (1) A member of the Uniformed Services; (2) A U.S. citizen civilian employee of the Department of Defense (paid from either appropriated funds or NAF); or (3) An American Red Cross full-time, paid employee serving with the Department of Defense. Unaccompanied travel is permitted to and from the nearest overseas military academy testing site to take scheduled entrance examinations for entry into any of the U.S. Service academies.		Yes	
5.4	Dependents of active duty U.S. military personnel stationed overseas who, at the time of PCS, were not entitled to transportation at Government expense. Travel is to accompany or join their sponsor at his or her duty station. Travel may be unaccompanied and is limited to travel from the APOE in the CONUS, Alaska, or Hawaii to the overseas APOD serving the sponsor's duty station. Before travel, approval of the overseas major commander is required.			C-O Yes O-C No
5.5	Non-command sponsored dependents, acquired in an overseas area during a military member's current tour of assigned duty, not otherwise entitled to transportation at Government expense. Travel must be with the member's PCS, may be unaccompanied, and is limited to travel from the overseas APOE to the APOD in the CONUS, Alaska, or Hawaii. Member's PCS orders are required for travel. Command regulations pertaining to the acquisition of dependents must have been followed.			C-O Yes O-C No

Reference Number	Traveler's Status and Situation	C-C	O-O	C-O and O-C
5.6	Unaccompanied spouses of Uniformed Services members stationed in overseas areas in response to written requests from school officials or when deemed essential, authorized, and directed in writing by the sponsor's commander for personal consultation on matters about the needs of family members attending school at an overseas location away from the Uniformed Service member's PDS.		Yes	
5.7	Command-sponsored dependents of Uniformed Services members, accompanied or unaccompanied, who are stationed overseas. Travel restrictions may apply to certain overseas destinations as determined by the appropriate unified commander. Documentation signed by the sponsor's commander verifying command sponsorship shall be presented to air terminal personnel, and shall be in the dependents' possession during travel. This documentation is valid for one round trip from sponsor's PCS duty location. Dependents under 18 years of age must be accompanied by an eligible parent or legal guardian.		Yes	Yes
Category 6				
Retired, Dependents, Reserve, ROTC, NUPOC, and CEC				
6.1	Retired Uniformed Services members.	Yes	Yes	Yes
6.2	Dependents of retired Uniformed Services members, when accompanying their sponsor.		Yes	Yes
6.3	Dependents, command sponsored, stationed overseas with their sponsor who is: (1) A member of the Uniformed Services; (2) A U.S. citizen civilian employee or the Department of Defense (paid from either appropriated funds or NAF); or (3) An American Red Cross full-time, paid employee serving with the Department of Defense. Unaccompanied travel is permitted to the U.S. for enlisting in one of the Armed Forces when local enlistment in the overseas area is not authorized. If an applicant for Military Service is rejected, return travel to the overseas area may be provided under this eligibility.		Yes	Yes
6.4	Authorized Reserve component members and authorized Reserve component members entitled to retired pay at age 60, traveling in the CONUS and directly between the CONUS and Alaska, Hawaii, Puerto Rico, the U.S. Virgin Islands, Guam, and American Samoa (Guam and American Samoa travelers may transit Hawaii or Alaska); or traveling within Alaska, Hawaii, Puerto Rico or the U.S. Virgin Islands.	Yes		

Reference Number	Traveler's Status and Situation	C-C	O-O	C-O and O-C
6.5	NUPOC, CEC, and ROTC students of the Army, Navy or Air Force receiving financial assistance or enrolled in advanced training, in uniform, during authorized absences from the school. Travel is authorized within and between the CONUS, Alaska, Hawaii, and the U.S. territories.	Yes		
6.6	Newly commissioned ROTC officers who are awaiting call to extended active duty. Travel is authorized within and between the CONUS, Alaska, Hawaii, and the U.S. territories.	Yes		

D. Environmental and Morale Leave Program

D.1. Overview

District commanders are authorized to establish Environmental and Morale Leave (EML) programs subject to approval by Commandant (CG-DCO). Whenever such EML programs encompass travel via Coast Guard aircraft, the provisions of this section are applicable and prior approval of the district's governing instruction and any changes to that instruction by Commandant (CG-DCO) are required. EML participants are authorized to travel on a space available basis (Category II, Priority 2; Category IV, Priority 2) aboard those Coast Guard aircraft which meet the criteria for carrying space available passengers. Travel may be to any location served by Coast Guard aircraft. Travel within CONUS under an EML program is prohibited.

D.2. Designated Overseas Areas

EML travel is limited to those eligible personnel stationed in the following geographical areas:

- All of Alaska except for the immediate vicinity of Anchorage
- American Samoa, Guam, Japan, Iwo Jima, Marcus Island, Johnston Island, Wake, Saipan, Yap, Midway, Kure, Manila, and Okinawa
- Guantanamo Bay, Cuba, and all locations within the defined limits of Sector San Juan

D.3. Authorized Personnel

Personnel in the following groups are eligible for EML travel. All personnel will be governed by a single directive issued by the District Commander responsible for the applicable geographical area:

- All active duty Uniformed Services personnel, without regard to grade, accompanied or unaccompanied.
- Accompanied or unaccompanied command sponsored dependents of active duty members. Dependents under age 13 traveling under this provision must be accompanied by a parent or guardian.
- Full-time paid personnel of the American Red Cross serving with the U.S. Armed Forces at a designated overseas activity.
- U.S. citizen civilian employees of the Coast Guard, DHS or DOD stationed overseas.

D.4. Annual Leave

Annual leave programs are conducted to provide periods of respite from the working environment to enhance performance, motivation, and morale.

Where adverse environmental conditions exist which would offset the full benefit or ordinary leave programs, supplemental programs are necessary. Therefore, military personnel and/or their dependents who are stationed at designated overseas activities may be provided air transportation privileges on a space available basis for purposes of taking ordinary leave in a more desirable location.

D.5. Travel Opportunities

Travel opportunities will be afforded on an equitable basis to officer and enlisted personnel and their accompanying dependents without regard to rank, grade, or branch of service. District commanders shall ensure that the administrative controls permit all eligible military personnel and dependents to participate.

D.6. Coast Guard Aircraft

Coast Guard aircraft will not be scheduled primarily for this program, and the privilege extended by the provisions of this section must not result in more than minor additional cost in funds for flying hours to the government.

D.7. Restrictions

The following restrictions apply to EML travel:

- Participants are restricted to two trips per year.
- Military members must be in a leave status.
- Participants shall not exceed the maximum baggage allowance of 50 pounds per passenger. Excess baggage will not be accepted. Pets are not authorized.
- Theater or international restrictions shall be complied with.
- All directives and requirements pertaining to passports, visas, foreign customs, and immunizations shall be complied with.
- Participants shall have sufficient personal funds available to defray the cost of the return trip to home base via commercial transportation if space available transportation cannot be provided.

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7. Equipment

A. Mission Configurations

A.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.
A.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.
A.3. SAR Capability	To the maximum extent practical, aircraft shall carry detection aids and rescue equipment to maintain a SAR response capability while engaged in other missions.
A.4. Fixed-Wing Aircraft	The following mission configurations apply to C-130H and C-130J Long Range Surveillance (LRS) aircraft, and HU-25 and C-144 Medium Range Surveillance (MRS) aircraft except where noted otherwise.
A.4.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, M13520.1 (series) and Aviation Life Support Equipment Systems Process Guide, CGTO PG-85-00-310 (series). 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

A.4.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
A.4.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
A.5. Rotary-Wing Aircraft	The following mission configurations apply to H-60 Medium Range Recovery (MRR) aircraft and H-65 Short Range Recovery (SRR) aircraft except where noted otherwise.
A.5.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, M13520.1 (series) and Aviation Life Support Equipment Systems Process Guide, CGTO PG-85-00-310 (series). 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

A.5.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
A.5.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 non-compliant vessel from operating under its own power or from maneuvering freely • Apply deadly force In addition to the above, AUF-CD aircraft shall be capable of day and night warning shots and disabling fire. If directed by the operational commander, AUF-PWCS shall be capable of day and night warning shots and disabling fire.
A.5.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.
A.5.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

B.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 Aviation Life Support Equipment (ALSE) Manual, COMDTINST M13520.1 (series) and the Aviation Life Support Equipment Systems Process Guide, CGTO PG-85-00-310 (series). Use of other protective clothing items is prohibited unless specifically authorized by Commandant (CG-711).
B.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.
B.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 in-flight 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. Rescue swimmers 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.
B.4. Flight Gloves	Rotary-wing flight crews shall wear fire retardant flight gloves when engaged in all ground and flight operations. Fixed-wing flight crews (with the exception of Air Station Washington) shall wear fire retardant gloves during all ground operations, takeoffs, and landings. 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.

B.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.

Rescue Swimmers shall wear the Rescue Swimmer helmet during deployments to and recovery from the water or vessel. The Rescue Swimmer helmet or Flight helmet shall be worn during deployments to and recovery from land, vertical surface, or platform 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, C-130 and C-144 Dropmasters (DMs) and personnel assisting in drops must wear approved cranial protection and eye protection during drop operations.

B.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 7-1 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 7-1.

Table 7-1, Anti-Exposure Garment Requirements per Water/Air Temperature

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

B.6.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.6.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.
B.7. Underwear and Socks	Underwear for flight suits shall be 100% 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% 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.
B.8. Kneepads	Kneepads shall be available aboard rotary-wing aircraft.
B.9. Ballistic Vests	Ballistic protection shall be worn by aircrew on all training and operational AUF missions when firearms are carried. Unit commanding officers shall direct the wearing of ballistic vest trauma plate based upon an operational risk assessment for the particular mission.
B.10. CBRNE Ensemble	Chemical, biological, radiological, nuclear and enhanced conventional weapons (CBRNE) ensemble shall be worn by aircrew when conducting CBRNE missions.

C. Flotation Equipment

C.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.
C.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. 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.
C.2.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.
C.2.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.
C.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

D.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 FL 180 unless a comprehensive briefing by competent aviation medical authority is obtained immediately prior to the flight. This is to reacquaint crew members 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.

D.2. Pressurized Aircraft

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

- In pressurized aircraft operating above FL 180, oxygen masks shall be readily available for use by all aircrew members.
- In pressurized aircraft operating above FL 350, 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 FL 410, one pilot at the controls shall be wearing and using an oxygen mask.
- In pressurized aircraft operating above FL 250, 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

E.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.
E.1.a. Exceptions	Exceptions to safety belt requirements may be granted by the pilot in command for: • Required in-flight crew duties • Crew and passenger movement when above 1000 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 C-130 aircraft during takeoff and landing when required for training or standardization checks. C-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.
E.1.b. Safety Harness (Gunner's Belt)	Crew members 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"). C-130 crew members are not required to wear safety harnesses when removing the flight deck overhead escape hatch.
E.1.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.
E.1.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" and "THIS RESTRAINT IS CERTIFIED FOR USE IN MOTOR VEHICLES AND AIRCRAFT".

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

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8. Flight Crew Member Designations, Qualifications and Training

A. Designation and Qualification of Pilots and Aircrew

A.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 crew member 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.
A.1.a. 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.
A.2. 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).
A.3. 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.
A.3.a. Awarding Aviation Designation Insignia	Designated flight crew members shall be awarded 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 Enlisted Accessions, 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.

A.3.b. Rescinding Aviation Insignia	Rescind Coast Guard aviator insignia in accordance with Officer Accessions, Evaluations and Advancements, COMDTINST M1000.3 (series) and enlisted aircrew member insignia in accordance with Enlisted Accessions, Evaluations and Advancements, COMDTINST M1000.2 (series). Rescind Helicopter Rescue Swimmer and Aviation Mission Specialist insignia 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.
A.4. 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; and Flight Engineer (FE) and Navigator (N) for the C-130H.
A.5. Training Required to Obtain a Designation	Use Commandant (CG-711) approved flight syllabi for all pilot and flight crew member 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.5.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 Chamber 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 in which designation is sought) • Training in installed survival gear • Training in use of ICS and terminology
A.5.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
A.5.c. Designation Standardization Check Flight	Complete a designation standardization check flight in the type of aircraft in which the member is to be designated. This check shall be given by an instructor assigned to an ATC Mobile Training Branch or by a unit Flight Examiner.

A.6. 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.6.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.
A.6.b. 15-Month Requirements	Each member shall have completed a designation standardization check in each aircraft type in which a designation is held and CRM refresher training within the preceding 15 calendar months. The designation standardization check may be completed in conjunction with any 15-month qualification standardization checks.
A.6.c. Calendar Year Requirements	Each pilot and air crew 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 in which a member is designated) • OPSEC/COMSEC Training • Operational Hazard Awareness Training (Note: Lapses upon PCS) • Physiological Training
A.6.d. Semiannual Requirements	A Commandant (CG-711) approved recurrent training syllabus, if promulgated, shall be completed once per semiannual period. Unit commanding officers may add content as necessary to address local operational requirements.
A.6.e. Six-Month Requirements	Each crewmember shall have performed the duties of his or her designated crew position in-flight at least once within the preceding six calendar months.

A.7. 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 (in-flight 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 (in-flight 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.
A.8. Redesignation	If a flight crew member does not complete periodic training requirements, or fails an evaluated event, 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.8.a. Redesignation after not completing periodic requirements	If a member has no flights in the aircraft type 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 crew members 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.
A.8.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.
A.9. 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.

A.10. 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 in-flight qualification standardization check

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 semiannual 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.

A.11. 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.11.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.

A.11.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.

A.12. Proration of Semiannual Flight Requirements

Semiannual minimum flight requirements for designation and qualifications may be prorated for flight crew members who are not available for flying duty for a portion of that semiannual 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. Semiannual requirements for individuals gaining a designation or qualification within that semiannual period may also be prorated. The semiannual requirement is the amount determined from Table 8-1. 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 8-1, Proration of Semiannual Minimums

Consecutive Days Absent	**Reduction of Months Counted**
0-14 days	No reduction
15-45 days	1 month
46-75 days	2 months
76-105 days	3 months
106-135 days	4 months
136-165 days	5 months
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
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

B.1. Purpose

The following requirements must be met by pilots to obtain and maintain pilot designations, in addition to the requirements for all designations.

B.2. Copilot

To be designated a Copilot (CP), an aviator must demonstrate proficiency in performing duties of Copilot for the aircraft type 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 HU-25 or 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, 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
- Complete a written closed-book examination promulgated by the applicable ATC Mobile Training Branch
- 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

B.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 for which the designation is being sought. These duties shall include transportation of cargo, HAZMAT and passengers as applicable to the aircraft type 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, the member shall:

- Be recommended for the FP designation by the unit Operations Officer or the cognizant ATC Mobile Training Branch
- 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 Branch
- Pass a designation standardization check flight with an ATC Mobile Flight Examiner or unit FEB pilot

B.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, 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 Branch
- Pass a designation standardization check flight with a unit FEB pilot or an 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.

B.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 (series). 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.

B.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.

B.6.a. 12-Year Requirements

Each pilot of a pressurized aircraft shall have completed Low Pressure Chamber training within the preceding 12 calendar years.

B.6.b. 15-Month Requirements	Each pilot shall have completed the following within the preceding 15 calendar months: • An instrument check in each category in which a designation is held • A night procedures check in each aircraft type in which a designation is held • A proficiency simulator course for each aircraft type 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.
B.6.c. Semiannual Requirements (DIFOPS)	While minimums specified below are to be conducted within a semiannual 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 semiannual period to ensure constant proficiency. The Semiannual minimum requirements outlined in Table 8-2 below shall be completed by pilots in DIFOPS status for each aircraft type in which a designation is held.

Table 8-2, Semiannual Minimums for DIFOPS Pilots

	Requirement	Remarks
Pilot time (AC/FP)	48 hours	• Up to 12 hours of this requirement may be completed in an approved simulator.
Pilot Time (CP)	24 hours	• Not less than 24 hours first pilot time.
Night Time	6 hours	• NVG time may be counted as night time. • Up to one-half of this requirement may be completed in an approved simulator.
NVG Time	4 hours	• At least one NVG flight shall have been completed within the preceding 180 days. • Not required for HU-25 and C-37A. • Up to one-half of this requirement may be completed in an approved simulator.
Airways Training Flight	1	• May be accomplished in approved flight simulator. • Completion of an Instrument Check during semiannual period fulfills this requirement.
Instrument Approaches	6 precision and 6 non-precision	• When practical, actual or simulated approaches shall be flown to approach minimums. • 3 precision and 3 non-precision approaches shall be hand-flown (without the use of the autopilot). • 3 precision and 3 non-precision approaches shall be accomplished in the automated (coupled) mode. • 2 precision and 2 non-precision approaches shall be accomplished at night. • Ship-Helo OPS w/ TACAN, ADF or RADAR-assisted approaches can fulfill non-precision requirements. • At least 1 non-precision approach shall be flown using GPS in GPS Approach certified aircraft. • 2 precision and 2 non-precision approaches must be made without reference to a heads-up display. • At least two approaches shall be flown to a landing at night (fixed-wing only). • One circling approach (fixed-wing only). • Up to one half of approach requirements may be accomplished in an approved flight simulator.
Missed Approach	2	• Fly a published missed approach procedure. • May be accomplished in approved flight simulator.
Landings	5	• Four landings shall be performed at night; in NVG-capable aircraft approved for aided landings, two shall be performed NVG-aided and two unaided. • At least one landing must be conducted to a full stop at night.
Autorotations	5	• Rotary-wing Only. • Not required for H-65. • May be accomplished in approved flight simulator.

B.6.d. Semiannual Requirements (DIFPRO)

Pilots on DIFPRO orders shall maintain a current CP designation in not more than one type aircraft. The Semiannual minimum requirements outlined below shall be completed by pilots in DIFPRO status:

Flight Time – 24 hours minimum, 50 hours maximum.

Night Time – 2.0 hours (NVG time may be counted as night time)

Instrument Approaches:

- Precision – four (two must be at night)
- Non-Precision – four (two must be at night)
- One precision and one non-precision must be to a landing at night. (fixed wing only)

Up to one-half of these requirements may be completed in an approved flight simulator.

C. Pilot Qualifications

C.1. Purpose

The following requirements must be met by pilots to obtain and maintain the qualifications outlined below.

C.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 8-3 shall be completed each semiannual period. Completion of Table 8-3 requirements within the semi-annual period may be applied to more than one qualification.

Table 8-3, Helicopter Over Water Semiannual Requirements

	Frequency	Remarks (apply to each row)
Coupled Approach to a Hover	6	• At least four shall be completed at night; at least two shall be NVG-aided and two shall be unaided. • 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 H-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	

C.3. Basic SAR Qualification

The Basic SAR qualification authorizes a pilot to assist in the performance of SAR planning, communications, and procedures; and to create a foundational skill set for the performance of critical SAR maneuvers in preparation for the advanced SAR qualification.

The Basic SAR qualification is specific to aircraft type and may be completed in conjunction with any aircraft transition or redesignation course.

C.3.a. Requirements to Maintain Basic SAR Qualification

Each pilot must perform copilot SAR duties on a recurrent training syllabus at least once per semiannual period to maintain the basic SAR qualification. Additionally, each helicopter pilot shall complete the helicopter over water requirements listed in Table 8-3 each semiannual period. Completion of the Advanced SAR qualification semiannual requirements listed in Table 8-4 is encouraged but not required.

C.4. Advanced SAR Qualification

The Advanced SAR qualification authorizes a pilot to act as pilot in command for SAR missions and conduct helicopter in-flight 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.

C.4.a. Prerequisites for Advanced SAR Qualification	Prior to beginning the Advanced SAR syllabus, a pilot shall be Basic SAR qualified and complete the residence course SAR Coordination and Execution (recommended) or the on-line course “SAR Fundamentals”, both offered by the National SAR School. 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 on-scene coordinator, as appropriate for type.
C.4.b. Requirements to Maintain Advanced SAR Qualification	Each pilot shall have completed a SAR Procedures Check within the preceding 15 calendar months. Complete the SAR tasks on a recurrent training syllabus at least once per semiannual period. Train in an offshore environment if possible. Helicopter pilots shall complete the helicopter over water requirements listed in Table 8-3 each semiannual period. Complete the requirements in Table 8-4 each semiannual 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 8-4, Advanced SAR Qualification Semiannual Requirements

Rotary-Wing Requirements

	Frequency	Remarks
Boat Hoists	6	• Three hoists shall be completed at night; one shall be NVG-aided and two shall be unaided. • 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; two shall be NVG-aided and two shall be unaided. • One shall be a direct deployment and one shall be a deployment to a boat

Fixed-Wing Requirements

	Frequency	Remarks
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 (ASRK-24, ASRK-16 or ASRK-Modified) Delivery	2	• Rescue kit delivery is not required for HU-25. • 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.

C.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.
C.5.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 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.
C.5.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 15 calendar months.
C.6. CBRNE Qualification	A chemical, biological, radiological, nuclear and enhanced conventional weapons (CBRNE) qualification authorizes a pilot to operate an aircraft while wearing the specialized CBRNE personal protective equipment.
C.6.a. Requirements to Maintain CBRNE Qualification	Each CBRNE qualified pilot shall have performed one CBRNE mission or training flight within the preceding 15 calendar months.
C.7. Shipboard-Helicopter Qualification	A shipboard-helicopter qualification authorizes a helicopter pilot to conduct shipboard landings and helicopter in-flight 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). In addition, pilots who do not hold an advanced SAR qualification shall demonstrate proficiency in hoisting HIFR equipment and performing HIFR operations.
C.7.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 who do not hold an advanced SAR qualification shall perform one HIFR evolution each semiannual period. If underway HIFR is not possible, land-based simulated HIFR with a training rig will meet this requirement. Failure to meet the shipboard-helicopter recurrent training requirements and/or not performing the mission for more than six months, suspends the qualification. This however does not require a notification letter to Commandant (CG-711) as described in Section 8.H.3.a of this manual. The member 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.
C.8. Basic AUF PWCS Qualification	A basic AUF PWCS qualification authorizes a helicopter pilot to perform left-seat duties for AUF PWCS profiles described in the Maritime Security and Response Operations (MSRO) Manual, COMDTINST M16600.6 (series).

C.8.a. Prerequisites for Basic AUF PWCS Qualification	To be eligible for a basic AUF PWCS qualification, a pilot must have at least 500 hours rotary-wing pilot time, and 50 hours NVG time.
C.8.b. Requirements to Maintain Basic AUF PWCS Qualification	Each pilot shall have completed an in-flight Basic AUF PWCS qualification standardization check within the preceding 15 calendar months. Each basic AUF PWCS qualified pilot shall complete the following each semiannual period: • 2 PWCS tactics flights, at least one of which using NVGs • Helicopter over water requirements listed in Table 8-3
C.9. Advanced AUF PWCS Qualification	An advanced AUF PWCS qualification authorizes a helicopter pilot to perform all duties for AUF PWCS profiles described in the Maritime Security and Response Operations (MSRO) Manual, COMDTINST M16600.6 (series). The advanced AUF PWCS qualification signifies knowledge of AUF PWCS procedures and limitations, and of the policies and procedures contained in the Coast Guard Maritime Law Enforcement Manual (MLEM), COMDTINST M16247.1(series).
C.9.a. Prerequisites for Advanced AUF PWCS Qualification	To be eligible for the advanced AUF PWCS 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 • 1000 hours of total pilot time in military aircraft • 500 hours rotary-wing pilot time • 50 hours NVG time
C.9.b. 15-month Requirements to Maintain Advanced AUF PWCS Qualification	Each advanced AUF PWCS qualified pilot shall have completed the following within the preceding 15 calendar months: • In-flight Advanced AUF PWCS qualification standardization check • An Advanced AUF PWCS open-book test • Receive an AUF operational law briefing • Review evidence-gathering techniques outlined in Coast Guard Maritime Law Enforcement Manual (MLEM), COMDTINST M16247.1 (series).
C.9.c. Semiannual Requirements to Maintain Advanced AUF PWCS Qualification	Each advanced AUF PWCS qualified pilot shall complete the following each semiannual period: • 2 PWCS tactics flights, at least one of which using NVGs • 2 PWCS aerial gunnery flights, at least one of which using NVGs • Helicopter over water requirements listed in Table 8-3
C.10. AUF CD Qualification	An AUF CD qualification authorizes a helicopter pilot to perform single- and multi-aircraft AUF counter-drug missions.

C.10.a. Prerequisites for AUF CD Qualification	To be eligible for the AUF-CD 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 • 1000 hours of total pilot time in military aircraft • 500 hours rotary-wing pilot time • 50 hours NVG time
C.10.b. 15-month Requirements to Maintain AUF CD Qualification	Each AUF CD qualified pilot shall have completed the following within the preceding 15 calendar months: • An in-flight AUF CD qualification standardization check • A counter-drug open-book test • Receive an AUF operational law briefing • Review evidence-gathering techniques outlined in Coast Guard Maritime Law Enforcement Manual (MLEM), COMDTINST M16247.1 (series).
C.10.c. Semiannual Requirements to Maintain AUF CD Qualification	Each AUF CD qualified pilot shall complete the following each semiannual period: • 6 CD tactics flights, at least three of which using NVGs • 2 AUF CD aerial gunnery flights, at least one of which using NVGs • Helicopter over water requirements listed in Table 8-3
C.11. AUF-CD Air Mission Commander Qualification	An AUF CD Air Mission Commander qualification is judgment intensive and builds upon the AUF-CD qualification. Only the Commanding Officer of an aviation unit authorized by Commandant (CG-DCO) to perform AUF-CD operations or ATC Mobile may issue this qualification.
C.11.a. Prerequisites for AUF-CD Air Mission Commander Qualification	To be eligible for the AUF-CD Mission Commander qualification, the member must be AUF-CD qualified, recommended for AUF-CD Air Mission Commander syllabus by the Operations Officer, and complete the following prerequisites: • 30 days (minimum) deployed as an AUF-CD qualified pilot • A counter-drug 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-CD operations, and other operational aspects such as Shipboard Helicopter operations.
C.12. 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.

C.12.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
C.12.b. Requirements to Maintain FR Qualification	Each FR qualified pilot shall have completed an in-flight FR qualification standardization check within the preceding 15 calendar months. An FR qualified pilot shall complete 6 fast-rope deployments each semiannual 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 semiannual 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 8-3 each semiannual period.
C.13. 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.
C.13.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 • 1000 hours of total pilot time in military aircraft • 500 hours rotary-wing pilot time • 50 hours NVG time
C.13.b. Requirements to Maintain TAC-FR Qualification	Complete the following to maintain the TAC-FR qualification: • In-flight TAC-FR qualification standardization check within the preceding 15 calendar months. • Helicopter over water requirements listed in Table 8-3 each semiannual period • The requirements in Table 8-5 below each semiannual period

Table 8-5, Pilot TAC-FR Semiannual Requirements

	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.

C.14. 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, CG TTP 3-90.1, Hook & Climb Tactics, Techniques and Procedures, CG TTP 3-95.1 and Helicopter Insertion and Extraction Tactics, Techniques and Procedures, CG TTP 3-95.4.
C.14.a. Prerequisites for Tactical Cover Qualification	To be eligible for the Tactical Cover qualification, a pilot must be Advanced AUF PWCS qualified.
C.14.b. Requirements to Maintain Tactical Cover Qualification	Each pilot shall have completed an in-flight Tactical Cover qualification standardization check within the preceding 15 calendar months. Tactical Cover qualified pilots shall complete the over land approaches, over water approaches, tactical exercise and NVG formation flight requirements of Table 8-5.
C.15. 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.
C.15.a. Prerequisites for RWAI Qualification	To be eligible for the RWAI qualification, a pilot must be designated a First Pilot or higher.
C.15.b. Requirements to Maintain RWAI Qualification	Each RWAI qualified pilot shall have completed: • An in-flight RWAI qualification standardization check within the preceding 15 calendar months. • Three RWAI RT flights from the right seat (at least two shall be NVG aided) and one RWAI operational exercise from either seat each semiannual period. Table 8-6, contains the minimum maneuvers for an RWAI RT flight. The semiannual RWAI operational exercise shall include vectors from an ADS (Air Defense Sector) and should include 3 evolutions. Completion of an ATC Mobile RWAI P-Course may count as an exercise. • 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 8-6, RWAI RT Flight (right seat) Requirements

	Frequency	Remarks
Intercepts	5	• At least 1 shall be head-to-head • At least 1 shall be abeam • At least 1 shall be to a static TOI
Movement to signal position	1	

C.15.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 in-flight RWAI qualification standardization check within the preceding 15 calendar months. • Complete a minimum of 24 intercepts, a minimum of 18 intercepts using NVGs each semiannual 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 8-6.
C.16. 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).
C.17. 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.
C.17.a. Requirements to Maintain ADDS Qualification	Within the preceding 15 calendar months, the member must have performed one ADDS mission or exercise, consisting of deploying and stowing the booms in-flight and performing the ADDS checklists.

D. Aircrew Designations

D.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.

D.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 of aircraft in which the designation is sought

D.3. C-130H Flight Engineer

To obtain a C-130H Flight Engineer (FE) designation, a member must have held a C-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) C-130 Flight Engineer course.

D.3.a. 15-Month Requirements

Each C-130H Flight Engineer shall have completed a proficiency simulator course within the preceding 15 calendar months.

D.4. C-130H Navigator

The Navigator (N) designation authorizes a C-130H crew member 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.

D.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.

To obtain an AMS designation, the member must complete the Commandant (CG-711) approved syllabus for the type of aircraft in which the designation is sought.

D.6. Flight Surgeon

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.

D.6.a. Semiannual Requirements	Flight surgeons shall obtain a minimum of 24 hours of flight time per semiannual period, to include at least four hours of night time, of which at least two hours shall be NVG-aided.

E. Aircrew Qualifications

E.1. Purpose	Aircrew qualifications, other than pilot qualifications, establish crew positions to perform Coast Guard missions.
E.2. Basic Hoist Qualification	A Basic Hoist (BH) qualification authorizes a Basic Aircrew member to perform non-personnel hoists.
E.2.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 of aircraft for which the qualification is being sought.
E.2.b. Requirements to Maintain Basic Hoist Qualification	Each Basic Hoist qualified aircrew member shall have completed a Basic Hoist standardization check within the preceding 15 calendar months. Additionally, each BH shall have conducted at least one basic hoist evolution within the preceding semi-annual period.
E.3. Flight Mechanic Qualification	A Flight Mechanic (FM) qualification authorizes a rotary-wing crew member to perform hoist evolutions including Rescue Swimmer Operations and to hoist survivors during day & night conditions using approved life support equipment.
E.3.a. Prerequisites for Flight Mechanic Qualification	Prior to beginning the Flight Mechanic syllabus the member must be designated as Basic Aircrew in the type of aircraft for which the qualification is being sought.
E.3.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 15 calendar months • Conduct at least one boat hoist evolution within the preceding 90 days. For District 9 and District 17 units when boats are not available for more than 90 days due to winterization, land hoist or rescue swimmer deployments may meet this requirement with Commanding Officer authorization. • Complete the requirements listed in the Flight Mechanic Semiannual Requirements, Table 8-7 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 8-7, Flight Mechanic Semiannual Requirements

	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

E.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.
E.4.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 of aircraft for which the qualification is being sought.
E.4.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 15 calendar months.
E.5. Rescue Swimmer Qualification	The Rescue Swimmer (RS) qualification authorizes a crew member 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.
E.5.a. Prerequisites for Rescue Swimmer Qualification	To be eligible for the RS qualification for the type 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 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)
E.5.a.(1). 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.

E.5.b. Requirements to Maintain Rescue Swimmer Qualification	The following are required to maintain the RS qualification: • Complete a RS qualification standardization check within the preceding 15 calendar months • Complete the requirements listed in the Coast Guard Helicopter Rescue Swimmer Manual, COMDTINST M3710.4 (series) • 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 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 Branch 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. 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 Section 4.J.2 of this Manual. Qualified Rescue Swimmers may log deployments regardless of the type of helicopter from which they are deployed.
E.6. 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.
E.6.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.
E.6.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 15 calendar months.
E.7. 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.
E.7.a. Prerequisites for FR Qualification	To be eligible for the FR qualification the member must hold a Flight Mechanic qualification in the type of aircraft for which the FR qualification is being sought.

E.7.b. Requirements to Maintain FR Qualification	Each FR-qualified Flight Mechanic shall have completed an FR qualification standardization check within the preceding 15 calendar months. An FR qualified Flight Mechanic shall complete 6 fast-roping evolutions each semiannual 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).
E.8. 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.
E.8.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 of aircraft for which the TAC-FR qualification is being sought.
E.8.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 15 calendar months. Semiannual training requirements to maintain this qualification are outlined in Table 8-8 below.

Table 8-8, Flight Mechanic TAC-FR Semiannual Requirements

	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	

E.9. Precision Marksman – Aviation Mission Qualification	A Precision Marksman – Aviation (PM-A) mission qualification authorizes an aircrew member to employ airborne use of force during AUF profiles described in Maritime Security and Response Operations (MSRO) Manual, COMDTINST M16600.6 (series). Qualification shall be completed in accordance with Precision Marksman Policy and Standards Manual, COMDTINST M16601.18 (series). PM-A qualification is mission-specific, and a separate Commandant (CG-711) approved syllabus is required for each mission qualification (e.g. PWCS or CD).
E.9.a. Prerequisites for PM-A 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 PM-A qualification are described in Precision Marksman Policy and Standards Manual, COMDTINST M16601.18 (series).

E.9.b. Requirements to Maintain PM-A Mission Qualification	Precision Marksmen are required to comply with the requirements of this section and sustainment requirements outlined in Precision Marksman Policy and Standards Manual, COMDTINST M16601.18 (series).
E.9.b.(1). 15-month Requirements to Maintain PM-A Mission Qualification	Each PM-A shall have completed the following within the preceding 15 calendar months: • An in-flight PM-A mission qualification tactics standardization check • An in-flight PM-A mission qualification aerial gunnery standardization check • Review airborne use-of-force, operational law and evidence gathering techniques
E.9.b.(2). 180-day Requirements to Maintain PM-A (PWCS) Mission Qualification	Each PM-A (PWCS) shall have completed one Day PWCS Tactics Flight and one NVG PWCS Tactics Flight within the preceding 180 days. The PM-A (PWCS) mission qualification PWCS tactics standardization check may count toward this requirement. Tactics flights can be completed in the Aircrew Weapons Trainer.
E.9.c. 90-day Requirements to Maintain PM-A Mission Qualification	Each PM-A shall have completed the items in Table 8-9 within the preceding 90 days. Units with Day-Only authorization need not comply with NVG requirements in this table. If the 90 day period is reached while the member is deployed, the qualification may remain in effect until no more than 30 days after returning to home station to allow for completion of any lapsed requirements.

Table 8-9, PM-A 90-Day Training Requirements

	Events	Remarks
Day Offshore Aerial Gunnery Flight	1	Complete a flight specific to mission qualification, to include area and precision weapons. Blank ammunition does not meet this requirement.
NVG Offshore Aerial Gunnery Flight	1	
Day CD Tactics Flight (CD only)	1	Complete a flight specific to mission qualification. May be completed in the aircrew weapons trainer at ATC Mobile.
NVG CD Tactics Flight (CD only)	1	

E.9.d. Aerial Gunnery Flight Requirement for Deployed PM-A CD	If a deployed PM-A CD has not completed an aerial gunnery flight within the preceding 7 days, an aerial gunnery flight shall be completed prior to the next operational AUF CD mission.
E.10. Precision Marksman – Aviation Tactical Cover Mission Qualification	A Precision Marksman – Aviation Tactical Cover (PM-A TC) mission qualification authorizes a mission qualified PM-A to perform AUF tactical cover for missions such as TAC-FR and hook and climb operations described in Aviation Special Missions (ASM) Tactics, Techniques and Procedures, CG TTP 3-90.1, Hook & Climb Tactics, Techniques and Procedures, CG TTP 3-95.1, and Helicopter Insertion and Extraction Tactics, Techniques and Procedures, CG TTP 3-95.4.

E.10.a. Prerequisites for PM-A TC Qualification	To be eligible for the PM-A TC qualification, a member must be PM-A mission qualified.
E.10.b. Requirements to Maintain PM-A TC Mission Qualification	Each PM-A TC qualified member is required to maintain a PM-A mission qualification.
E.10.b.(1). 180-day Requirements to Maintain PM-A TC Qualification	Each PM-A TC member shall have completed an operational exercise in which the member provides AUF tactical cover to a delivery asset within the preceding 180 days.
E.11. RWAI Aircrew Qualification	The RWAI Aircrew qualification authorizes a Basic Aircrew member to perform RWAI aircrew tasks.
E.11.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 of aircraft for which the qualification is being sought.
E.11.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 15 calendar months.
E.12. CBRNE Qualification	A Chemical, Biological, Radiological, Nuclear and Enhanced Conventional Weapons (CBRNE) qualification authorizes a member to perform aircrew duties while wearing the specialized CBRNE personal protective equipment.
E.12.a. Requirements to Maintain CBRNE Qualification	Within the preceding 15 calendar months, the member must have performed one CBRNE mission or training flight.
E.13. Radio Operator Qualification	The Radio Operator (R) qualification authorizes a C-130H crew member to assist the pilots in performing communication duties.
E.13.a. Prerequisites for Radio Operator Qualification	To be eligible for the Radio Operator qualification the member shall be designated as Basic Aircrew in the type of aircraft for which the qualification is being sought.
E.13.b. Requirements to Maintain Radio Operator Qualification	Each Radio Operator shall have completed a Radio Operator qualification standardization check within the preceding 15 calendar months.
E.14. SSO Qualification	The Sensor System Operator (SSO) qualification authorizes aircrew to operate sensor and communications equipment aboard the C-130H, HU-25A, HU-25 C (plus), or HU-25D. A separate SSO qualification is required for each aircraft model.
E.14.a. Prerequisites for SSO Qualification	To be eligible for the SSO qualification the member should complete the SSO ground school at ATC Mobile and shall be designated as Basic Aircrew or Aviation Mission Specialist in the type of aircraft for which the qualification is being sought.

E.14.b. 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 15 calendar months. • C-130H Sensor Systems Operators shall complete the recurrent training requirements outlined in the C-130H Training Manual, CGTO-1C-130-1-A. • HU-25 Sensor Systems Operators shall demonstrate proficiency in vectoring the aircraft to a radar-detected target at least once every semiannual period.
E.15. TSO Qualification	The Tactical System Operator (TSO) qualification authorizes aircrew to operate data communications equipment aboard the C-130H.
E.15.a. Prerequisites for TSO Qualification	To be eligible for the TSO qualification the member must complete the TSO ground school and be designated as Basic Aircrew or Aviation Mission Specialist in the type of aircraft for which the qualification is being sought.
E.15.b. Requirements to Maintain TSO Qualification	Tactical Systems Operators shall complete the recurrent training requirements outlined in the C-130H Training Manual, CGTO-1C-130-1-A. Additionally, each TSO shall have completed a TSO qualification standardization check within the preceding 15 calendar months.
E.16. MSO Qualification	The Mission System Operator (MSO) qualification authorizes aircrew to operate sensor and communications equipment aboard the HC-130J and HC-144.
E.16.a. 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 of aircraft for which the qualification is being sought.
E.16.b. Requirements to Maintain MSO Qualification	Each MSO shall have completed an MSO qualification standardization check within the preceding 15 calendar months. Semiannual training requirements to maintain this qualification are outlined in Table 8-10 below.

Table 8-10, MSO Semiannual Requirements

Required Task	Frequency	Remarks
Establish HF secure voice	2	
Establish Track Exchange	2	
Complete MILSATCOM/DAMA operation	2	
Complete Secure STE-III operation	2	
Complete Mission Radar Operations	2	Classify and vector pilots to target
Develop and share COE / GCCS Polygon / SAR Tools overlay with other two GPs	2	
Review captured DVR recordings in-flight	2	Review radar and EO/IR
EO/IR operations	2	Classify and vector pilots to target

E.17. Loadmaster Qualification	The Loadmaster (LM) qualification authorizes aircrew of the C-130H, C-130J, and C-144 to load, transport and offload cargo within the limits specified by the aircraft flight manual.
E.17.a. Prerequisites for Loadmaster Qualification	To be eligible for the Loadmaster qualification the member must be designated as Basic Aircrew in the type of aircraft for which the qualification is being sought.
E.17.b. Requirements to Maintain Loadmaster Qualification	The member shall complete one cargo loading exercise to include on-loading, securing and offloading cargo and completing all required documentation each semiannual period. Additionally, each Loadmaster shall have completed a Loadmaster qualification standardization check within the preceding 15 calendar months.
E.18. Dropmaster Qualification	The Dropmaster (DM) qualification authorizes aircrew of the C-130H, C-130J, C-144 and HU-25 to perform aerial delivery of approved equipment.
E.18.a. Prerequisites for Dropmaster Qualification	To be eligible for the Dropmaster qualification the member must be designated as Basic Aircrew in the type of aircraft for which the qualification is being sought.
E.18.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 15 calendar months. • Each Dropmaster shall conduct one Aerial Delivery System delivery each semiannual period. • For all aircraft except the HU-25, each Dropmaster shall conduct one Air-Sea Rescue Kit delivery each semiannual period.
E.19. ADDS Qualification	The Aerial Dispersant Delivery System (ADDS) qualification authorizes C-130 aircrew to perform ground handling and in-flight operation of the ADDS.
E.19.a. Requirements to Maintain ADDS Qualification	Within the preceding 15 calendar months, the member must have performed one ADDS mission or exercise, consisting of loading the pack on the ground deploying and stowing the booms in-flight and performing the ADDS checklists.

F. Instructors and Examiners

F.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 crew members are expected to provide mentoring and to share their knowledge and experience with junior flight crew members.

F.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.

F.2.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 for at least six months
- 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

F.2.b. Requirements to Maintain Instructor Qualification

Each member shall have completed an instructor qualification standardization check within the preceding 15 calendar months.

The following requirements shall be completed each semiannual 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 semiannual period. Loadmaster Instructors may complete their semiannual syllabus or flight checks in the aircraft without actually being in flight.
- 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.

F.2.c. Flight Syllabus Instruction

Only qualified Instructors, designated in the type of aircraft, position, and training being conducted, shall perform the flight portion of initial and upgrade syllabus instruction except as provided below:

- PM-A Instructors assigned to the ATC Mobile Aviation Special Missions Branch may provide initial and upgrade instruction for PM-A syllabus flights aboard any helicopter approved for CG AUF missions.
- Instructors assigned to the ATC Mobile Sensors/C4ISR Training Branch 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 Branch qualified in HU-25 or HC-130H mission systems may provide initial and upgrade instruction on the operation of either the HU-25 or HC-130H mission system.
- Instructors assigned to the ATC Mobile Sensors/C4ISR Training Branch who are expert 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.

When an Instructor is aboard who does not hold a current designation in type, sufficient designated personnel shall be carried to meet the minimum crew requirements outlined in Chapter 3.

F.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.

F.3.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.
F.3.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.
F.4. Duties and Responsibilities of Training Branches	Training Branches 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 Branches shall provide subject matter experts as directed by Commandant (CG-711) for aircraft accident analysis.
F.4.a. Training Curricula	Training Branches 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 crew member, the skills necessary to complete each duty and performance standards by which successful completion can be evaluated. Training Branches 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.
F.4.b. Aircraft Operating Guidance	Training Branches 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 Branches 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 Branches shall maintain close liaison with other units and agencies that operate similar aircraft and have comparable flight crew designations.
F.4.c. Standardization Visits	Training Branches shall conduct evaluations of aviation standardization programs. Representatives of the Training Branches 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 crew members • 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 annual standardization trend report for fleet awareness with copies forwarded to FC-A and CG-711

G. Periodic Training Events and Evaluations

G.1. Purpose

This section describes the minimum content of periodic training events and evaluations. Frequency of these events is prescribed elsewhere in this chapter.

G.2. Low-Pressure Chamber Training

Low pressure chamber (LPC) training shall provide crew members the ability to identify personal reactions to an oxygen-deprived environment, and perform corrective action when those reactions are experienced.

Initial training shall be conducted in an LPC. Recurrent LPC training may be accomplished by attending Dynamic Hypoxia Training (DHT) utilizing the Reduced Oxygen Breathing Device (ROBD). DHT includes didactic presentations discussing the types of hypoxia, signs and symptoms, situations which could lead to hypoxia, treatment, and countermeasures. The training utilizes the ROBD to simulate altitude-induced hypoxia and provides the aviator an opportunity to be able to recognize the symptoms that they could experience with hypoxia.

To schedule recurrent DHT using the ROBD, USCG personnel should contact the nearest Navy Aviation Survival Training Center which can be located from the Navy Survival Training Institute website: http://www.med.navy.mil/sites/nmotc/nsti/Pages/default.aspx.

G.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.

G.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.

G.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.
G.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 crew members shall successfully tread water or drown proof for a period of two minutes.
G.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.
G.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.
G.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.

G.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.)

G.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.

G.12. Physiological Training

Physiological training shall familiarize aircrews with ways the human body responds to the flight environment. A Flight Surgeon or an aviation physiologist 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

G.13. CRM Training

Crew resource management (CRM) training is aimed at reducing human error mishaps by improving individual and crew performance. CRM training shall be conducted in accordance with Safety and Environmental Health Manual, COMDTINST M5100.47 (series). When possible, CRM training sessions shall include a mixture of pilots and aircrew members. Initial and refresher CRM training courses shall emphasize the following objectives:

- Determining and analyzing one's own personality traits as they relate to aircrew interaction and problem solving
- Improving personal and crew communication skills
- Developing and improving participation as an individual and crew member in a positive and assertive manner
- Developing and enhancing individual and crew situational awareness skills
- Identifying hazardous trends and attitudes through analysis of past human factor mishaps
- Presenting a risk management methodology that can help individuals and crews identify and prevent or mitigate hazardous situations
- Use and management of advanced cockpit technology and automation

G.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 Branch, 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 crew member 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.

G.14.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 satisfactorily complete a standardization check flight and a closed-book and open-book (if given) examination within 30 days of the flight on critical aircraft systems, emergency procedures and limitations. Satisfactory completion shall be defined as a score of 80%.
- Recurrent designation standardization checks for AMS and all fixed wing BA may be conducted on the ground; standardization checks for Air Station Washington pilots may be conducted in an approved flight simulator; all others shall be conducted in-flight.
- All fixed-wing pilots and aircrew shall don and use oxygen equipment.

G.14.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.
G.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)
G.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.
G.16.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).
G.16.b. Instrument Check Flight	An instrument check flight shall be completed either in-flight or in an approved simulator and shall be given by an instructor assigned to an ATC Mobile Training Branch 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, enroute and arrival procedures • Holding procedures • Two precision approaches • Two non-precision approaches • Circling approach (fixed-wing only) • Published missed approach • Landing from an instrument approach 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.

G.17. Night Procedures Check Flight

A night procedures check flight shall be completed in-flight and shall be given by an examiner assigned to an ATC Mobile Training Branch 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

G.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 C-130E/H/J and C-37
- Flight simulators approved by the FAA for the C-130 and C-37 (Gulfstream V)

H. Administration of Designations, Qualifications and Training

H.1. Unit Training Program	Unit training programs shall be established to prepare flight crew members for designation and to maintain desired skills through recurrent training.
H.1.a. Scheduling of Periodic Training	Periodic training intervals represent the maximum time between events. An event having a 15-month completion interval shall be scheduled within 12 months after its most recent completion, to the greatest extent practicable. 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.
H.1.b. Written Examinations	Units shall administer written tests to satisfy the examination requirements prescribed for designations and qualifications. Examinations developed by ATC Mobile Training Branches shall be used to the maximum extent possible; units may add content as necessary to address local operational requirements. 80% shall be considered the minimum score to satisfactorily pass all examinations.
H.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 crew member. All aviators in a DIFPRO status are responsible for maintaining their own training records.
H.2.a. Designation and Qualification	Each issuance, revocation or change of designation or qualification shall be documented in ALMIS.
H.2.b. Coast Guard Competency Listings	The unit Servicing Personnel Office (SPO) or 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).
H.2.c. Check Flight and Qualification Letters	Unit Flight Examining Boards shall maintain records of all check flights administered and qualifications issued or renewed.
H.2.d. Small Arms Firing Reports	Precision Marksman – Aviation Instructors shall complete a Combined Small Arms Training Report, Form CG-3029 for each course of fire or instruction performed. Copies of Combined Small Arms Training Report, Form CG-3029 shall be kept in each PM-A's training record.

H.3. Compliance With Training Requirements

All flight crew members require thorough training to function as efficient members of a safe and effective flight team. To ensure crew members 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.

H.3.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 crew member 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.

H.3.b. Failure to meet Other Flight Crew Member 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 crew member concerned, whenever a flight crew member 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 crew member shall not fly as a member of a Coast Guard aircrew 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.
H.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 crew members 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 are encouraged to advise the board on matters pertaining to human performance, when applicable.
H.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 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.
H.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).

9. Aviation Safety

A. Safety Program

A.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.
A.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 is vital to safe operations.
A.2.a. Command Emphasis	Effective aviation safety requires continuous command emphasis and leadership example. 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.
A.2.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).
A.2.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 doctor, 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

B.1. Mishap Response

Coast Guard aviation has three separate processes which address mishaps: a mishap analysis board, an administrative investigation, and an aviator evaluator board. Mishap analysis is governed by the Safety and Environmental Health Manual, COMDTINST M5100.47 (series). Administrative investigations and aviator evaluator boards are addressed in Chapter 10 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.

B.2. Flight Restrictions Following Aircraft Mishaps

Aircrew personnel shall be temporarily grounded following involvement in any Class A or B mishap. 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). Critical Incident Stress Management intervention or crisis support may be warranted and is at the discretion of the Commanding Officer.

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.

B.2.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.2.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), 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 (CGSUPRT) 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.
B.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).
B.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.
B.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.

B.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 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.

B.7. Voice and Flight Data Recorder

The purpose of installed Voice and 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

C.1. Midair Collision

A midair collision is an incident where two or more aircraft actually collide. Regardless of the amount of damage, midair collisions shall be immediately reported to Commandant (CG-1131), and the National Command Center (800-323-7233) via telephone through the chain of command. A preliminary message of report shall be submitted within 12 hours of the incident, using the guidelines in the Safety and Environmental Health Manual, COMDTINST M5100.47 (series).

C.2. Serious Near Midair Collision

A serious near midair collision is an incident where a possibility of a collision occurs, and evasive action and/or bodily injury occurs as a result. Make a report of a serious near midair collision as soon as practicable to the National Command Center (800-323-7233) via telephone through the chain of command, followed by an aviation flight-related Class D Mishap report per safety reporting requirements. Serious near midair collisions shall be treated as an aviation flight related Class D Mishap for Safety reporting requirements.

C.3. Near Midair Collision

A near midair collision is an incident where a possibility of collision occurs as a result of proximity of less than 500 feet to another aircraft (excluding normal formation or air intercept flight), or a report is received from a pilot or a flight crew member stating that a collision hazard existed between two or more aircraft. Near midair collisions shall be treated as an aviation flight related Class D Mishap for safety reporting requirements.

C.4. Voice Report

A pilot experiencing a near, serious near, or actual midair collision shall make an immediate voice report to the nearest FAA communications facility. Items to be reported are:

- Date and Time (UTC) of incident
- Location of incident and altitude
- Identification and type of reporting aircraft, aircrew destination, name and home base of pilot
- Identification and type of other aircraft, aircrew destination, name and home base of pilot

C.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.

C.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.
C.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

D.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).

D.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

D.2.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:

- In-flight emergency procedures
- Ditching procedures
- Use of aircraft safety equipment
- Use of personal protective equipment
- Emergency egress procedures

D.2.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.

D.2.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.2.d. Calendar Year Requirements	Each calendar year, non-aircrew mission essential personnel with periodic flight requirements shall review in-flight 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.
D.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).

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10. Administrative Requirements

A. Administrative Actions Following a Mishap

A.1. Administrative Actions Following Aircraft Mishaps

In addition to the mishap response actions described in Section 9 of this manual and the mishap analysis governed by the Safety and Environmental Health Manual, COMDTINST M5100.47 (series), the Administrative Investigation Manual, COMDTINST M5830.1 (series) describes the standard procedure for investigating incidents in the Coast Guard.

A.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).

A.3. Violation/ Mishap Entries

Flight logbook entries will normally be made whenever a mishap meets Class A or B thresholds, 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.

A.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

B.1. Employment Categories

All flights of Coast Guard aircraft shall be classified by employment categories as defined in the Abstract of Operations Reports, COMDTINST 3123.7 (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.

B.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.

B.3. 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, or engaged in an authorized pilot training syllabus, may log pilot time in that type 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 crew member, 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 crew member is left behind when the aircraft departs scene, and will commence again when the crew member becomes involved as an integral flight crew member with another aircraft.

B.3.a. 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.
B.4. 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 Aeronautical Engineering Maintenance Management Manual, COMDTINST M13020.1 (series) and Coast Guard Aeronautical Engineering Maintenance Management Process Guide, CGTO PG-85-00-110.
B.5. 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.
B.5.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.5.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.
B.5.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.

B.5.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.
B.6. 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).
B.7. 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.
B.8. 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. See Appendix E of this Manual for specific guidance on use of the Aviator's Flight Logbook.
B.9. 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 (CG-711) to indicate that the printout is a true and correct representation of flight activity.

C. Management of Flight Pay Entitlements

C.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.

C.2. Applicable Directives

The following are applicable directives for aviation unit incentive pay management:

- U.S. Coast Guard Pay Manual, COMDTINST M7220.29 (series)
- Management and Administration of Aviation Incentive Pays, COMDTINST 7220.39 (series)
- Enlisted Accessions, Evaluations and Advancement, 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)
- Other directives promulgated by Commandant to govern the flight pay system

C.3. Administration

Detailed instructions on issuance of flight orders and management and administration of aviation incentive pay are provided in applicable Coast Guard directives.

C.3.a. Syllabus Completion

A flight crew member may not be placed on flight orders, marking eligibility for flight pay, until at least the initial aircrew training syllabus ground portion is complete.

C.3.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.3.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.
C.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 Career Incentive Pay (ACIP) or Hazardous Duty Incentive Pay (HDIP).

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GLOSSARY

AC	Aircraft Commander
ACIP	Aviation Career Incentive Pay
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, 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
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.
AET	Aviation Electronics Technician
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 in-flight 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	See Operating Status
AMC	Air Mission Commander
AMS	Aviation Mission Specialist
AMT	Aviation Maintenance Technician
AOR	Area of Responsibility
APOD	Aerial Port of Debarkation
APOE	Aerial Port of Embarkation
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 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
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
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	See 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 in-flight duties. Crew overnight bags and passenger luggage is considered cargo for weight and balance purposes.
CASB	Commandant's Aviation Safety Board
CASPER Sensor	Use of aircraft sensor electro-optical and/or infrared (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
CBRNE	Chemical, Biological, Nuclear, Radiological and Enhanced conventional weapons
CFR	United States Code of Federal Regulations
CGTO	Coast Guard Technical Order
CHARLIE Status	See Maintenance Status
CISM	Critical Incident Stress Management
Clearance	Permission to execute a definite aircraft movement
CMH	Crew Mission Hours
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. (See also "Strip 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 Fire Safety, Prevention and Emergency Response Services, COMDTINST M11320.1 (series).
Crew Bags	For weight and balance purposes, crew bags include personal equipment carried by crewmembers to perform in-flight 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
DCA	Direct Commission Aviator
DDAS	Days Deployed Aboard Ship
DSS	Decision Support System
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.
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
DMB	Datum Marker Buoy
DME	Distance Measuring Equipment
DOD	Department of Defense
DOT	Department of Transportation
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
Emergency Breathing Device	Any underwater breathing device designed and authorized for aircraft egress.
ELT	Emergency Locator Transmitter or 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	See "Orientation Flights"

FE	Flight Engineer
FEB	Flight Examining Board
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 Pilots 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.
FL	Flight Level (in hundreds of feet; e.g. FL 180 = 18,000 feet.)
Flight Crew Member	See 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 in-flight, 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

FLIR	Forward Looking Infrared
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
FSB	Flight Standards Board
FSO	Flight Safety Officer or Flight Services Officer
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	UAS 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.
GSO	Ground Safety Officer
Hazardous Duty Incentive Pay	(HDIP) Hazardous duty incentive pay is paid to flight crew and non-crew members 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 In-flight Refueling
HITRON	Helicopter Interdiction Squadron
Hot Refueling	Refueling an aircraft with the engine(s) and/or the auxiliary power unit operating.
IAP	Instrument Approach Procedures

IAS	Indicated Airspeed
ICAO	International Civil Aviation Organization
ICS	Intercommunication System
IFF	Identification, Friend or Foe
IFR	Instrument Flight Rules
IFT	Individual Flight Time
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 crew members, technical observers, and other mission essential non-crew member 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/UV	Infrared and Ultraviolet
ISAR	Inverse Synthetic Aperture Radar
ITO	Invitational Travel Order
KIAS	Indicated Airspeed expressed in Knots
KTAS	True Airspeed expressed in Knots

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 an RFB (Ready for BRAVO) date-time group (e.g. CHARLIE RFB 031200Z or 031200 (local)).
MATCH	Manual Approach To Controlled Hover
MCE	UAS 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
Military Space Available Travel	Travel on Coast Guard aircraft for the secondary purpose of transportation which is extended to specified categories of personnel between specified locations in seats not required for aircraft Mission Requirements Use personnel, Required Use passengers, or other official passengers.
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 non-routine 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. C-130H, H-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	US National Airspace System
National Capital Region	Consists of the District of Columbia; Montgomery, Prince George's, and Frederick Counties in Maryland; Arlington, Fairfax, Loudon, 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.
NDB	Non-directional Beacon

Night Adapted	A flight crew member that has been placed in a night orientation for four or more nights. The flight crew member 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. See Appendix B for further guidance on night adaptation strategies.
Night Time	The time a pilot occupies a flight control position in-flight 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 in-flight between official sunset and official sunrise (on the surface below the aircraft) and is using NVGs.
NLW	Non-Lethal 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 the spouse or a dependent of a member of the armed forces, and not otherwise in an official travel status (i.e. a civilian who has been issued an invitational travel order is in an official travel status, and is not considered a Non-Federal traveler for air transportation purposes).
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.
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 (see Auxiliary Manual, COMDTINST M16790.1 (series)).
OPAREA	Operating Area
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 non-operational 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.
OSC	On Scene Coordinator
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 crew members and mission essential personnel.
PATCH	Precision Approach to a Coupled Hover
PCS	Permanent Change of Station
PDS	Primary Duty Station

PED	Personal 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. In the case of UASs the PIC is the pilot controlling the aircraft, unless he or she is under instruction.
PM	Pilot Monitoring; Interchangable 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.
PUI	Pilot Under Instruction
PWCS	Ports Waterways Coastal Security
Qualification	Certification that a pilot or aircrew member has met training and experience requirements to perform a particular mission.
R	Radio Operator
RADAR	Radio Detection and Ranging
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. See the Abstract of Operations Reports, COMDTINST M3123.7 (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 crew member requiring crew mission time from 0000 to sunrise (0600 rather than sunrise for extreme latitudes). See Appendix B for further planning and scheduling guidance for reverse cycle operations.
RFB	Ready For BRAVO
RNAV	Area Navigation
RO	UAS Radar Operator
ROBD	Reduced Oxygen Breathing Device

Rotary-Wing Aircraft	A heavier-than-air aircraft that principally depends on the lift generated by one or more rotors for its support in-flight.
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.
Rotary-Wing Air Intercept (RWAI) Alert	A special type of readiness status in which ready crews are capable of achieving takeoff within a launch window specified by TACON.
RS	Rescue Swimmer
RVR	Runway Visual Range
RSVM	Reduced Vertical Separation Minimum
RWAI	Rotary-Wing Air Intercept
SAR	Search and Rescue
SAREX	Search and Rescue Exercise
SARFND	Search and Rescue Fundamentals Course
SCUBA	Self-Contained Underwater Breathing Apparatus
Semiannual Periods	Six-month periods beginning on the first of January and the first of July of each calendar year.
Semiannual Requirement	A training sequence or group of sequences that must be completed during each semiannual 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.
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.
SLDMB	Self-Locating Datum Marker Buoy
Small Aircraft	Aircraft of less than 12,500 pounds maximum certificated weight.
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 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)
TAS	True Airspeed
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.
TO	Technical Observer
TOI	Target of Interest

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 H-65, HU-25, HC-130, etc.
UAS	Unmanned Aircraft System
UHF	Ultra High Frequency radio
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)
VA	Veterans Administration
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
XO	Executive Officer
Z	ZULU Time or Universal Coordinated Time

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A. Standard Organization of Coast Guard Air Units

1. Standard Unit Organization

1.A. Standard Organization

Coast Guard air units shall be organized and operated in accordance with the basic principles contained in the 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.

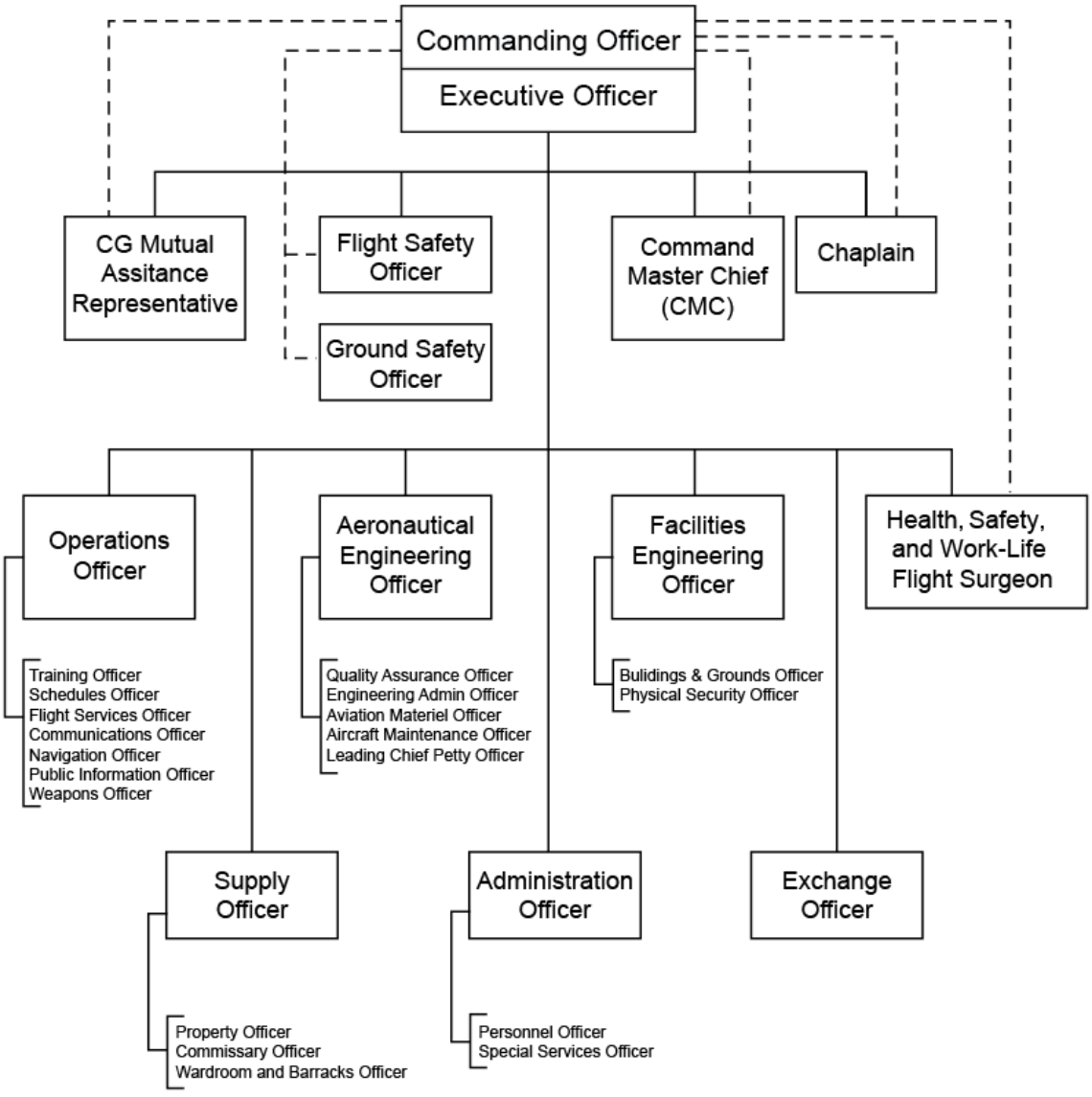

Figure A-1, Standard Organization of Aviation Units

1.B. Department Heads	Department heads shall be commissioned officers or warrant officers. The Commanding Officer shall designate department heads and assistant department heads in writing.
1.C. 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.

2. Duties

2.A. 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 crew members, and ensure that personnel assigned to operational flight duty meet all appropriate minimum recurrent training requirements. • Monitor the accuracy of Aviation Career Incentive Pay (ACIP), 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.B. 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
2.B.(1). Coast Guard Mutual Assistance Representative	The Coast Guard Mutual Assistance Representative administers the Mutual Assistance Fund in accordance with applicable directives.
2.B.(2). 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 safety hazard officer per the Coast Guard Light Amplification by Stimulated Emission of Radiation (LASER) Hazard Control Policy, COMDTINST 5100.27 (series)

2.B.(3). 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)
2.B.(4). 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
2.B.(5). Command Master Chief	A Command Master Chief (CMC) is the liaison between enlisted work force and command cadre.
2.C. 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
2.C.(1). Personnel Officer	The personnel officer administers personnel accounting, orders, correspondence, files, and reports.
2.C.(2). Special Services Officer	The special services officer provides special services such as housing, recreation, insurance, voting, bond sales, charity drives, and legal assistance.
2.C.(3). 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

2.D. Flight Surgeon	The duties of the flight surgeon are described in Section 5.D.2 of the Coast Guard Aviation Medicine Manual, COMDTINST M6410.3 (series).
2.E. 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
2.E.(1). 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
2.E.(2). 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
2.E.(3). Schedules Officer	The schedules officer prepares the daily flight schedule and pilot and operations duty officer watch schedules.

2.E.(4). 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. • Maintain read and initial file • Maintain sufficient records to enable the preparation of such reports as the Operations Officer may require
2.E.(5). 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 • 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
2.E.(6). 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

2.E.(7). 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 Non-Lethal Weapons (NLW) training, safety, and testing • Additional specific duties of the Weapons Officer are outlined in USCG Regulations, COMDTINST M5000.3 (series), and Chapter 2 of the Ordnance Manual, COMDTINST M8000.2 (series)
2.E.(8). 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

2.E.(9). 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

2.F. 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

2.F.(1). 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 annual inventory of all station aircraft in accordance with the Aircraft Weight and Balance Process Guide, CGTO PG-85-00-180; complete a weight and balance training course approved by ALC prior to assuming weight and balance responsibilities

2.F.(2). 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

2.F.(3). 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

2.F.(4). 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

2.F.(5). 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, ACIP, 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
2.G. 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
2.G.(1). 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
2.G.(2). 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

2.G.(3). 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
2.G.(4). 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
2.G.(5). 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
2.G.(6). 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 Accounting Manual, COMDTINST M7300.4 (series) and United States Coast Guard Regulations 1992, COMDTINST M5000.3 (series) • Direct the training of subsistence specialists
2.G.(7). 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)
2.G.(8). 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.

3. Watch Organization and Duties

3.A. 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 station instructions.

3.B. 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 station instructions.

3.C. 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 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

3.D. Standard Watch Organizational Chart

Each air unit shall maintain a watch organization chart.

3.E. 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.

4. Unit Orders and Instructions

4.A. 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
4.B. 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.
4.C. 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.

5. Recommended Management Practices

5.A. 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.
5.B. 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.
5.B.(1). 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.
5.B.(2). 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.
5.C. 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.
5.C.(1). 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 Checksheet, 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.
5.C.(2). Medico/ Medevac Checklists	The MEDICO/MEDEVAC Checksheet, 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.
5.C.(3). 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.

5.C.(4). Tickler Files	Tickler files are used to make a positive check on the timely submission of the units recurring reports and other correspondence.
5.C.(5). 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.
5.C.(6). Pilot Status Report	A pilot status report should be established to post information on each pilot's aircraft qualifications, total pilot time, monthly and semiannual pilot hours, and instrument approach statistics.
5.C.(7). 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.
5.C.(8). 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.
5.D. Aircraft Logistics Center	The Aircraft Logistics Center (ALC) shall be included in the Fifth CG District destructive weather plan.
5.E. Aviation Training Center	Aviation Training Center Mobile, AL (ATC) shall be included in the Eighth CG District destructive weather plan.

B. Fitness of Aircrew Personnel

1. Fitness of Aircrew Personnel

1.A. 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.

1.B. 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)

1.C. 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.

1.D. 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 crew member'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.

2. Reverse Cycle Operations

2.A. 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–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.
2.A.(1). 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 1400-1500 Reveille and 0400 Taps.
2.A.(2). 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.
2.A.(2).a. 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.A.(2).b. 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.

2.A.(3). 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.
2.A.(3).a. 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.A.(3).b. 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).
2.A.(3).c. 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.
2.A.(3).d. 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.

2.A.(3).e. Alertness Indicators	Factor alertness into each mission risk analysis. Try to avoid missions during the red zone (0300-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.
2.A.(4). 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.
2.A.(4).a. 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-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 the next Section. 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-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-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-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-sunrise. The crew must attain 24 hours of crew rest before assuming alert status from 0000-sunrise (returning to "Night 1" above if necessary).

2.A.(4).b. 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 1300-1500. 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-1, Long Term Reverse Cycle Adaptation Plan

	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

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 20-30 inches away from your eyes such that it bathes your face from the side.

2.A.(5). 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.
2.A.(6). 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 1300-1500 until 0300. Maintain constant bedtimes of approximately 0600-1500.
2.A.(7). 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.B. 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 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.
2.C. 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.
2.D. 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.
2.E. 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.
2.F. 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.

2.G. 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 http://www.uscg.mil/hq/cg1/cg112/cg1121/aviation_med.asp. Approved over-the-counter medications may be used for acute, episodic use in the treatment of MILD, non-disqualifying conditions.
2.H. 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.
2.I. 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. In-flight 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, must be constantly alert for signs of mental and emotional problems among aviation personnel.
2.J. 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.

C. Coast Guard Auxiliary Aviation

1. Coast Guard Auxiliary Aviation Overview

1.A. 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.”

1.B. 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.

1.C. 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.

1.D. 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.

1.E. 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.

1.F. 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).

2. Missions

2.A. 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 On-Scene Commander and assign any further tasking to the Auxiliary aircraft.
2.B. Pollution Response	Auxiliary aircraft are excellent platforms for use in the pollution response role. Auxiliary aircraft provide the MSO 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.
2.C. 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.
2.D. 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.
2.E. 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.
2.F. 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.
2.G. 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.
2.H. 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.
2.I. 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.

D. Unmanned Aircraft Systems

1. Overview of Unmanned Aircraft Systems Operations

1.A. 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.
1.B. Partnering With Other Agencies	Coast Guard crewmembers operating other agencies' UAS shall adhere to those agencies' regulations and operating procedures.
1.C. Initiating UAS Operations	Before conducting UAS flight operations, obtain flight clearance from Commandant (CG-711). The request for flight clearance shall be submitted no less than six months prior to the intended start of flight operations. Requests shall include: the purpose, system/payload specifications, shipboard certification (if deployed or controlled from a shipboard facility), airspace access, collision avoidance plan, operators employed and communications plan as applicable.
1.C.(1). FAA Certificate of Authorization	Prior to operating any UAS within the National Airspace System (NAS) outside of special use airspace, CG-711 shall submit a Certificate of Authorization (COA) application in accordance with FAA Notice N8900.207. The COA process establishes mandatory provisions to ensure that the level of safety for UAS flight operations is equivalent to that of manned aviation. A COA is unique to the intended mission and specifies the time period, circumstances, and conditions under which the UAS must be operated. Per FAA Notice N8900.207, COAs are not required for UAS operations within special use airspace or Due Regard UAS operations beyond 12NM from shore.

2. Authority and Control of Unmanned Flights

2.A. 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 non-designated 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.B. UAS Pilot in Command Authority and Responsibility

Pilot in Command responsibility for UAS operations exists from aircraft preflight or the time the PIC powers up the GCS with the intent for flight, until the 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.

2.C. UAS Air Mission Commander

A UAS Air Mission Commander (AMC) is a UAS aircraft commander that may be assigned as necessary to long endurance flights, multiple missions within one sortie, or any mission that requires multiple crew changeovers.

- The AMC controls access to the Ground Control Station during all ground and flight operations. He or she ensures that all non-crew members, regardless of rank or authority, minimize interaction with UAS crew members, 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 also ensures that each crew member 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.

2.D. Transfer of UAS Crew Member Duties and Responsibilities

Pilot in Command authority and other crew member duties may be transferred to another appropriately designated or qualified crew member while the aircraft is airborne. Such transfers may only be authorized by the AMC or the senior UAS detachment pilot.

The oncoming crew member 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.

3. Unmanned Aircraft Systems Mission Planning

3.A. UAS 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.

3.B. Airports

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 non-traditional launch and recovery zones such as closed airports or runways. Local agreements with host facilities shall be observed.

3.C. UAS 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

3.D. 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.

3.E. 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. Meteorological factors, mission requirements, airspace restrictions, and any known or expected traffic delays shall be considered when computing additional reserves.
3.F. Icing	UAS flights shall avoid areas of known or forecast icing unless specified in the applicable flight manual.
3.G. Turbulence	UAS flights shall avoid areas of known moderate or greater turbulence unless specified in the applicable flight manual.
3.H. 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
3.I. UAS Operations in Sovereign Airspace	Operations conducted in sovereign airspace must follow the procedures negotiated with the country claiming that airspace.
3.J. 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. Current UAS capabilities do not satisfy the option to maintain VMC as a means to conduct flight under “Due Regard” as specified in GP Chapter 8, “Operations Not Conducted Under ICAO Procedures”. Surface-based radars aboard National Security cutters may satisfy the radar option to conduct Due Regard operations only if the cutter and radar operator are FAA certified or military certified by NAVAIR and Commandant (CG-711) to provide separation services.

3.K. VFR Flights	UAS operations in controlled airspace shall be conducted under VFR. When operating in visual meteorological conditions (VMC), UAS pilots are required to see and avoid other air traffic and ground obstacles. However, UAS do not currently have the capability to see and avoid, and may require visual observers or chase aircraft to provide airspace deconfliction. UAS operations in the NAS shall, to the maximum extent practical, be conducted inside restricted areas, warning areas, or in military-controlled class D airspace. When operating VMC elsewhere within the NAS, an FAA-approved COA will specify traffic avoidance procedures and shall be coordinated per FAA Notice N8900.207.
3.K.(1). UAS Takeoff Weather Minimums	Land and shipboard UAS takeoffs shall be conducted in VMC. Pilots shall also comply with additional instructions per FAA-approved COA, controlling agency procedures within special use airspace, or international authorities when operating outside the NAS.
3.K.(2). UAS Cruise Flight	Unless operational necessity dictates, maintain VMC at all times when below 18,000 feet MSL. If inadvertent instrument meteorological conditions (IMC) are encountered, the pilot shall make every effort to exit IMC as soon as practicable. Pilots shall also comply with additional instructions per FAA-approved COA, controlling agency procedures within special use airspace, or international authorities when operating outside the NAS.
3.K.(3). UAS Landing Weather Minimums	Land and shipboard UAS landings shall be conducted in VMC. Pilots shall also comply with additional instructions per FAA-approved COA, controlling agency procedures within special use airspace, or international authorities when operating outside the NAS.
3.L. Minimum Pilot Assignment	An aircraft commander designated in type shall be assigned as PIC for all UAS flight and ground operations.
3.M. 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 crew members based on unit or mission needs.

Table D-1, UAS Minimum Aircrew Requirements

	SSO	RO	Comments
Operational missions	•	•	RO not required if UAS has no dedicated RO position. SSO not required if UAS has no dedicated SSO position.
All other missions	•		SSO not required if UAS has no dedicated SSO position.

3.N. 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.

3.N.(1). UAS Flight Scheduling Standards

Within any 24 consecutive hours, a flight crew member 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-crew member has completed ten hours rest, regardless of duty status. However, deadhead time shall not be calculated as part of rest time.

Table D-2, UAS Flight Scheduling Standards Per 24-Hour Period

	Individual Flight Hours	**Crew Mission Hours**
Land-Based UAS	10	14
Shipboard UAS	6	10

3.N.(2). Rest Breaks

UAS crew members 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.

3.N.(3). Post-Mission Rest Requirements

After a flight in which accumulated times total those in Table D-3, a crew member 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	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)*
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.				

3.N.(4). UAS Seven-Day Duty Limits

A UAS crew member who is deployed aboard ship may remain in a duty status indefinitely, provided he or she has not exceeded an average of six 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 six, then the crew members shall be relieved from all duty for not less than 24 hours after seven days.

3.N.(5). UAS Fourteen-Day Duty Limits	No UAS crew member may fly more than 80 total hours during any 14 consecutive day period.

4. Conduct of Unmanned Aircraft Operations

4.A. UAS 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, Air Traffic Control, and shall assist the PIC as required.
4.A.(1). Access to UAS Ground Control Station	During UAS operations, limit access to the GCS to authorized crew members and approved by the AMC or PIC. If the GCS is enclosed, it shall have two levels of access: Sterile and Restricted.
4.A.(2). 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. The critical flight operations phase is all flight activity below 10,000 feet AGL, except for cruise flight below this altitude. 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.

4.A.(2).a. Restricted Ground Control Station	A restricted GCS shall be implemented during non-critical phases of ground and flight operations. The non-critical ground operations phase is prior to engine start and after engine shutdown. The non-critical flight operations phase is all flight activity at or above 10,000 feet AGL. During these non-critical 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.
4.A.(2).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.B. Starting UAS Engines	In addition to guidance in Chapter 4.B of this Manual, a designated SSO shall occupy the SSO seat for all engine starts if required by the specific UAS flight manual.
4.C. Taxi Signals	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.
4.D. Compliance with Directives	In addition to the general flight rules outlined in Chapter 4 of this Manual, Pilots in Command of UAS shall comply with all provisions contained in an FAA-approved Certificate of Authorization (COA) for the specific mission and published state and local flying rules, restrictions, and ATC instructions concerning UAS operations.
4.E. Minimum Altitudes	Altitudes shall comply with FAA-approved COA, controlling agency procedures within special use airspace, or international authorities when operating outside the NAS.

4.F. 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
- In-flight 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 crew members and operational commanders (or their designees), with emphasis on operational risk management.

4.G. 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.

5. Unmanned Aircraft Systems Designations, Qualifications and Training

5.A. 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.
5.B. UAS Pilot Designations	Because UAS are typically single-pilot aircraft, newly qualified pilots will be assigned as PIC, and are therefore designated as Aircraft Commanders upon successful completion of the initial training syllabus. Prior to beginning training to become a UAS Aircraft Commander, a pilot must have held an AC designation in a manned Coast Guard aircraft.
5.B.(1). MCE and 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. An MCE pilot is an Aircraft Commander who is authorized to act as pilot in command during the mission phase only. An LRE pilot is an Aircraft Commander who is authorized to act as pilot in command during all phases of flight.
5.B.(2). Requirements to Maintain UAS Pilot Designations	Each UAS pilot shall maintain DIFPRO minimums in their manned aircraft, if designated as a copilot with no mission qualification(s) in their manned aircraft. UAS pilots shall maintain DIFOPS minimums in their manned aircraft if designated as an FP or AC in their manned aircraft.
5.C. UAS Instrument Rating	An instrument rating in a manned aircraft is typically required to operate a land- or ship-based 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 land- or ship-based UAS operations outside the NAS are subject to ICAO and/or host nation flight regulations.
5.D. UAS Sensor System Operator Designation	A UAS Sensor System Operator (SSO) is an essential flight crew member 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 crew member shall maintain, at a minimum, a Basic Aircrew designation in a manned Coast Guard aircraft. In addition to the requirements to obtain and maintain a qualification outlined in Chapter 8 of this Manual, each SSO shall have completed a UAS SSO qualification standardization check within the preceding 15 calendar months.
5.E. UAS Radar Operator Qualification	A UAS Radar Operator (RO) qualification authorizes a crew member to operate the radar payload aboard a UAS. To be a UAS RO, a crew member shall maintain, at a minimum, a Basic Aircrew designation in a manned Coast Guard aircraft. In addition to the requirements to obtain and maintain a qualification outlined in Chapter 8 of this Manual, each RO shall have completed a UAS RO qualification standardization check within the preceding 15 calendar months.

5.E. UAS Radar Operator Qualification	A UAS Radar Operator (RO) qualification authorizes a crew member to operate the radar payload aboard a UAS. To be a UAS RO, a crew member shall maintain, at a minimum, a Basic Aircrew designation in a manned Coast Guard aircraft. In addition to the requirements to obtain and maintain a qualification outlined in Chapter 8 of this Manual, each RO shall have completed a UAS RO qualification standardization check within the preceding 15 calendar months.
5.F. UAS Pilot Logbooks	To ensure accurate accounting of both manned and unmanned flight time, a separate logbook shall be maintained for UAS operations.
5.G. 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 Commandant (CG-711).
5.H. UAS 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.
5.I. UAS 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.
5.J. 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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E. Pilot Flight Logbook

1. Logbooks

1.A. 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.
1.B. 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 flight time.
1.C. 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 detailis of the correction listed.
1.D. 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.
1.E. 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 semiannually.
1.F. 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.
1.G. 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.

2. Entry Instructions

2.A. 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.B. Designations and Qualifications

For pilots, each issuance, change, or revocation of a designation, shall be recorded on the Qualifications and Achievements pages of the logbook and signed by the Commanding Officer of the issuing command. The periodic renewal of instrument, designation standardization and qualification standardization checks shall be recorded and signed by no lower than the Operations Officer or chief of TRADIV. When a subsequent book is started, it is not required to duplicate stamps in the new logbook. All new designations shall be placed in the new book. Each logbook shall have a qualification stamp on this page EVERY period the pilot has met his or her requirements. If the pilot does not complete qualification minimums for a particular period, line out the qualification that was not met. The logbook shall be stamped for the day the minimums were completed. (This may be completed at the end of the semiannual period.)

Qualifications and Achievements (Example)		
Qualification	**Date**	**Signature**
STD INST RATING	12 JUN 2001	
MH65C COPILOT	31 AUG 2001	
BASIC SAR QUAL	15 DEC 2001	
MH65C STAN I CHECK	02 FEB 2002	
MH65C STAN II CHECK	08 FEB 2002	
MH65C FIRST PILOT	22 APR 2003	

Figure E-1, Qualifications and Achievements

2.C. Personal Changes

Entries are optional.

2.D. 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.

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
H-60J Sim	16.0				

Figure E-2, Summary of Total Flight Record

2.E. 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-3, Flight Record Summary, Total and for 12 Months Preceding

2.F. 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 make/model of aircraft flown and separate line entries for each simulator type.

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-4, Summary of Pilot Time by Month, Model, etc.

2.G. Monthly Log Entries	Monthly log entries are depicted in Figure E-5. 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.
2.G.(1). 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.
2.G.(2). Kind of Flight	The KIND OF FLIGHT column is optional and reserved for employment category(ies) for each flight as entered into ALMIS.
2.G.(3). 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).
2.G.(4). 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.
2.G.(5). Instrument Time	Entries under INSTRUMENT TIME shall be recorded exactly as entered into ALMIS.

2.G.(6). 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.

2.G.(7). 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 Section 3 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 T&G 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.

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 FIRST PILOT	PILOT TIME CO-PILOT	PILOT TIME A/C COMDR.	SPECIAL CREW TIME	INSTRUMENT TIME ACT	INSTRUMENT TIME SIM	NIGHT TIME	LANDINGS CARRIER ARR	LANDINGS CARRIER T&G	LANDINGS CARRIER BOL	LANDINGS FCL	LANDINGS SEA/LAND	CATAPULT	STD INST. APPR. COMPLETED 180	STD INST. APPR. COMPLETED TYPE	STD INST. APPR. COMPLETED S	REMARKS
4	H-65C	6501	39	1.6	.8	.8	1.6			.5						2FD		1	UL	D	Trainer LT Jones
5	H-65C	6521	3	2.1	1.3	.8	2.1		.7			1	HB	D							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		1FG					
TOTAL THIS PAGE				5.7	2.7	3.0	3.7		.7	.5	2.0					2d/3n/11g					
BROUGHT FORWARD		945.7		52.0	26.3	25.7	14.4		2.0	.5	1.0/3.5					11d/8n					
TOTAL TO DATE		951.4		57.7	29.0	28.7	18.1		2.7	1.0	1.0/5.5					13d/11n/1g					
*See page 2 for codes.		TOTAL ACCUM. PILOT TIME		TOTALS, THIS FISCAL YEAR					TOTALS, THIS FISCAL YEAR												

Pilot-time report submitted through last (or _____) day of this month; noted by (initial.)

CERTIFIED A CORRECT RECORD:

Pilot

Approved:

C.O. or authorized deputy

Figure E-5, Monthly Log Entries

2.G.(8). 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).

2.G.(9). 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).

2.G.(10). CATAPULT Column	The CATAPAULT column is reserved for recording takeoffs, entries are optional.
2.G.(11). 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 Section 3 of this appendix.
2.G.(12). 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.
2.G.(13). Totals	The TOTAL THIS PAGE line is for totaling all flight time and information for that page from the columns above. 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 assigned 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 Flight Time is brought forward). The TOTAL THIS PAGE time for each month shall include all aircraft and simulator time for each aircraft qualification. It is the responsibility of each pilot to compile his or her flight time, and if dual qualified, place it in the SUMMARY OF PILOT TIME BY MONTH, MODEL section in the front of the book.
2.G.(14). BROUGHT FORWARD	The BROUGHT FORWARD line is information brought forward from the previous month’s TOTAL TO DATE line. At the beginning of every semiannual 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.
2.G.(15). APPROVED Block	The Commanding Officer signs the APPROVED block at the end of each semiannual period, when the aviator is transferred, or when the Commanding Officer is transferred. The Commanding Officer can delegate this authority no lower than the Operations Officer or Chief of TRADIV.
2.H. Flight Clothing Record	Entries not required.

2.I. 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 semiannual period. The appropriate periods may be changed in the quarter column due to PCS transfer of the aviator or the Commanding Officer.

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 semiannual period of the new logbook. This signature authenticates the previous number of accidents and/or violations.

If the aviator or Commanding Officer is transferred outside the normal semiannual period, the entries shall be entered and signed for the period from the previous semiannual 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

	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-6, Accident and Flight Rule Violation Record

2.J. 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 PCS of the Commanding Officer
- Upon insertion of an entry in the pilot's Accident and Flight Violation Record
- At the end of each semiannual 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 semiannually. All other DIFPRO pilots shall submit their logbooks to unit Commanding Officers for approval and signature semiannually.

3. Operational and Instrument Codes

3.A. Operational and Instrument Codes

The tables below list codes for logging operational and instrument flight maneuvers associated with a flight event.

Table E-1, Operational Codes

Code	Description
DARSK16	Drop - ASRK-16
DARSK16-S	Drop - ASRK-16 (Simulated)
DARSK24	Drop - ASRK-24
DARSK24-S	Drop - ASRK-24 (Simulated)
DARSKMOD	Drop - ASRK-Modified
DARSKMOD-S	Drop - ASRK-Modified (Simulated)
DC	Drop - Can
DCHUTE	Drag Chute Landing and Retrieval
DC-S	Drop - Can (Simulated)
DFF	Drop-Freefall
DFF-S	Drop-Freefall (Simulated)
DP	Drop - Pump
DP-S	Drop - Pump (Simulated)
DR	Drop - Raft
DR-S	Drop - Raft (Simulated)
EDE	Air Deflector Extension Drill
EEOL	Engine Out Landing Drill
EFE	Flap Extension (Manual) Drill
EFM	Fuel Sys Malfunction Drill
EGEX	Gear Extension (Manual) Drill
EHE	Hoist Emergency Drill
ELC	Lost Comms Drill
EO2M	O2 Mask Drill
ERS	Rescue Swimmer Emergency Drill
ESMK	Smoke/Fire Elimination Drill
FSSO	Flight Surgeon Shipboard Ops
GREV	Ground Evacuation Actual
GREV-S	Ground Evacuation Simulated
HB	Hoist - Basket
HCSL	External Cargo/Sling
HDW	Hoist - Dead in Water
HDWTL	Hoist - Dead in Water (Trail Line)
HFR	Hoist - FR Deployment
HFRM	Hoist - FR Deployment Maritime
HFRM-T	Hoist - FR Deployment Maritime (Trng)
HFR-T	Hoist - FR Deployment (Trng)
HIFR	Helicopter In-Flight Refueling
HL	Hoist - Litter
HOTR	Hot Refuel Actual
HOTR-S	Hot Refuel Simulated
HP	Hoist - Pump
HS	Hoist - Sling
HVD	Vertical Delivery - Hoist (Real)
HVD-T	Vertical Delivery - Hoist (Trng)
HVIF	Vertical Delivery - FASTROPE (Real)
HVIF-T	Vertical Delivery - FASTROPE (Trng)
ML	Cargo Loading Exercise
MO	Other * Explain in Remarks
P130DMRT	RT-1 Dropmaster (C130)
P130NAVRT	RT-1 Navigator (C130)
P130RT1	RT-1 Operational Procedures
P130RT2	RT-2 Emergency Procedures
P130RT3	RT-3 Day Landings and Approaches
P130RT4	RT-4 Night Landings, Approaches and Operational Procedures
PADDS	ADDS Mission or Exercise
PAR	Autorotation
PAV	Aircraft Vectoring
PAW	Airways Training
PC	CATCH
PCIASVS	Simulated Total CATCH
PCIMC	Coupled IMC Approach using view-limiting device
PCITO	Coupled Instrument Takeoff
PCITOIMC	Coupled Instrument IMC Takeoff using view-limiting device
PCOE	COE/GCCS Polygon/SAR Tolls Overlay with 2GPs
PCPSAR	Copilot SAR Duties
PDVRREV	Review Captured DVR Recordings In-Flight
PEOIROP	EO/IR Operations
PHA	Inst Letdown Procedure (HelipIt Asst)
PHFSV	Establish HF Secure Voice
PIF	Instructor Flight
PM	MATCH
PMA	Published Missed Approach
PMILSAT	MILSATCOM/DAMA Operation
PMIMC	Manual IMC Approach using view-limiting device
PMITO	Manual Instrument Takeoff
PMITOIMC	Manual Instrument IMC Takeoff using view-limiting device
PML	Inst Letdown Procedure (Manual)
PMSNRADOP	Mission Radar Operations
PNVGLRT	NVG Land Recurrent Training Flight
PP	Patch
PRT1	RT-1 Operational Procedures
PRT2	RT-2 Emergency Procedures
PRT3	RT-3 Day Landings and Approaches
PRT4	RT-4 Night Landings, Approaches and Operational Procedures
PRV	Radar Vectors
PSECSTE	Secure STE-III Operation
PSR	Survivor Relocation Pattern
PSSORT	RT-1 Sensor System Operator
PTRKEX	Establish Track Exchange
PTSORT	RT-1 Tactical System Operator
PVSE	Vertical Surface Evolution
RLA	Lives Assisted (Using RS)
RLS	Lives Saved (Using RS)
RSB	Swimmer Direct Deployment to Boat (Real)
RSB-T	Swimmer Direct Deployment to Boat (Trng)
RSD	Swimmer Direct Deployment Sequence (Real)
RSD-T	Swimmer Direct Deployment Sequence (Trng)
RSF	Swimmer Free (Real)
RSF-T	Swimmer Free (Trng)
RSS	Swimmer Sling (Real)
RSS-T	Swimmer Sling (Trng)
RSV	Swimmer Vertical (Real)
RSV-T	Swimmer Vertical (Trng)
SAAUFPWCS	Advanced AUF PWCS Standardization Check
SAGC	AG Standardization Check
SAUFC	AUF Standardization Check
SAUFCD	AUF CD Standardization Check

Table E-1, Operational Codes (Continued)

Code	Description
SBAUFPWCS	Basic AUF PWCS Standardization Check
SFRC	Fast Roping Standardization Check
SGC	NVG Procedures Check
SINSTC	Instrument Check
SNPC	Night Procedures Check
SQ9LRESC	LRE Standardization Check
SQ9MCESC	MCE Standardization Check
SQ9ROSC	RO Standardization Check
SQ9SSOSC	SSO Standardization Check
SRWAIC	RWAI Standardization Check
SSARC	SAR Procedures Check
SSC	Standardization Check
STC	Tactics Procedures Check
STCOVER	Tactical Cover Standardization Check
STFRC	TAC-FR Standardization Check
STVIC	TVI Standardization Check
TAG	Aviation Gunner (perform as)
TAOL	Tactical Approaches Over Land
TAOW	Tactical Approaches Over Water
TAUFCD	AUF CD Tactics Flights
TAUFEX	AUF Tactical Cover Operational Exercise
TAUFPWCS	AUF PWCS Tactics Flights
TAVIEX	AVI Exercise
TCDTF	CD Tactics Flight
TEX	Tactical Exercise
TFF	Formation Flight
TGF	Gunnery Flight
TIHHL-T	Intercept-Hovering Helicopter L Seat (Trng)
TIHHR-T	Intercept-Hovering Helicopter R Seat (Trng)
TIHLM-T	Intercept - Oncoming L SEAT MIN CUES (Trng)
TIHL-T	Intercept - Oncoming L SEAT (Trng)
TIHRM-T	Intercept - Oncoming R SEAT MIN CUES (Trng)
TIHR-T	Intercept - Oncoming R SEAT (Trng)

Code	Description
TIOLR-T	Intercept - OTHER L/R Seat (Trng)
TIONO-T	Intercept - OP EX NORAD (Trng)
TJTF	Judgmental Tactics Flight
TMC	Mission Commander
TOGF	Offshore Gunnery Flight
TPRMTAR	Precision Rifle Moving Target
TPRSTAR	Precision Rifle Stationanry Target
TPSG	Position: Signal Position
TPWCSTF	PWCS Tactics Flight
TRWAI	Intercept - RWAI (Real)
TRWAILT	RWAI Recurrent Training Flight L Seat
TRWAINVG	RWAI NVG Recurrent Training Flight
TRWAIRT	RWAI Recurrent Training Flight R Seat
TRWAI-T	Intercept - RWAI (Trng)
TSRSTAR	Shoulder-Fired Rifle Stationary Target
TTA	Tactical Approaches
TTF	Tactics Flight
TTVI	Tactical VI boat or land (Real)
TTVI-T	Tactical VI boat or land (Trng)
UGLS	GLS Approach
UHA	Unmanned Handover (P or Crew Hot Seat)
ULN	Unmanned Landing Nose (Day TV or IR)
ULP	Unmanned Landing Payload (Day TV or IR)
UM4	Unmanned 4 Waypoint Mission Build (LRE/MCE)
UM6	Unmanned 6 Waypoint Mission Build (LRE/MCE)
URCP	Unmanned Rack Configuration and Presets
USEQ	Unmanned Launch Sequence
UTO	Unmanned Takeoff
UTP	Track Moving Person (alone or on vehicle)
UTV	Track Moving Vehicle (Car, Boat)
UTX	Unmanned Taxi (before or after flight)
WA02	Walk Around 02 Bottle Actual
WA02-S	Walk Around 02 Bottle Simulated

Table E-2, Instrument Approach Codes

Code	Description
N	NON-PREC
P	PRECISION
U	UNCOUPLED
CN	CIR NON-PREC
CP	CIR PRECISION
CU	CIR UNCOUPLED
NL	NON_PREC TO LNDG
PL	PRECISION TO LNDG
UL	UNCOUPLED TO LNDG
CNL	CIR NON-PREC TO LNDG
CPL	CIR PRECISION TO LNDG
CUL	CIR UNCOUPLED TO LNDG
CNA	CIR NON-PREC COUPLED
CNAG	CIR NON-PREC COUPLED GPS
CNAH	CIR NON-PREC COUPLED HUD
CNAHG	CIR NON-PREC COUPLED HUD GPS
CNAL	CIR NON-PREC COUPLED TO LNDG
CNALG	CIR NON-PREC COUPLED TO LNDG GPS
CNALH	CIR NON-PREC COUPLED TO LNDG HUD
CNALHG	CIR NON-PREC COUPLED TO LNDG HUD GPS
CNG	CIR NON-PREC GPS
CNH	CIR NON-PREC HUD
CNHG	CIR NON-PREC HUD GPS
CNLG	CIR NON-PREC TO LNDG GPS
CNLH	CIR NON-PREC TO LNDG HUD
CNLHG	CIR NON-PREC TO LNDG HUD GPS
CPA	CIR PRECISION COUPLED
CPAG	CIR PRECISION COUPLED GPS
CPAH	CIR PRECISION COUPLED HUD
CPAHG	CIR PRECISION COUPLED HUD GPS
CPAL	CIR PRECISION COUPLED TO LNDG
CPALG	CIR PRECISION COUPLED TO LNDG GPS
CPALH	CIR PRECISION COUPLED TO LNDG HUD
CPALHG	CIR PRECISION COUPLED TO LNDG HUD GPS
CPG	CIR PRECISION GPS
CPH	CIR PRECISION HUD
CPHG	CIR PRECISION HUD GPS
CPLG	CIR PRECISION TO LNDG GPS
CPLH	CIR PRECISION TO LNDG HUD
CPLHG	CIR PRECISION TO LNDG HUD GPS
NA	NON-PREC COUPLED
NAG	NON-PREC COUPLED GPS
NAH	NON-PREC COUPLED HUD
NAHG	NON-PREC COUPLED HUD GPS
NAL	NON-PREC COUPLED TO LNDG
NALG	NON-PREC COUPLED TO LNDG GPS
NALH	NON-PREC COUPLED TO LNDG HUD
NALHG	NON-PREC COUPLED TO LNDG HUD GPS
NG	NON-PREC GPS
NH	NON-PREC HUD
NHG	NON-PREC HUD GPS
NLG	NON-PREC TO LNDG GPS
NLH	NON-PREC TO LNDG HUD
NLHG	NON-PREC TO LNDG HUD GPS
PA	PRECISION COUPLED
PAG	PRECISION COUPLED GPS
PAH	PRECISION COUPLED HUD
PAHG	PRECISION COUPLED HUD GPS
PAL	PRECISION COUPLED TO LNDG
PALG	PRECISION COUPLED TO LNDG GPS
PALH	PRECISION COUPLED TO LNDG HUD
PALHG	PRECISION COUPLED TO LNDG HUD GPS
PG	PRECISION GPS
PH	PRECISION HUD
PHG	PRECISION HUD GPS
PLG	PRECISION TO LNDG GPS
PLH	PRECISION TO LNDG HUD
PLHG	PRECISION TO LNDG HUD GPS

FAA Exemptions

U.S. Department
of Transportation
**Federal Aviation
Administration**

800 Independence Ave., S.W.
Washington, D.C. 20591

March 22, 2013

Exemption No. 10055A
Regulatory Docket No. FAA-2002-11723

Captain Matthew Sisson
U.S. Coast Guard
Office of Aviation Forces
2100 2nd Street, SW.
Washington, DC 20593-7359

Dear Captain Sisson:

This letter is to inform you that we have granted your petition to extend Exemption No. 10055. It explains the basis of our decision, describes its effect, and lists the conditions and limitations of the exemption.

The Basis for Our Decision

By letter posted February 6, 2013, you petitioned the Federal Aviation Administration (FAA) on behalf of the United States Coast Guard (USCG) and the USCG Auxiliary (USCGA) for an exemption from §§ 91.117(b) and (c), 91.119(c), 91.155(a), 91.159(a), and 91.209(a) and (b) of Title 14, Code of Federal Regulations (14 CFR) to allow the USCG to conduct air operations in support of drug law enforcement and drug traffic interdiction without meeting part 91 provisions governing: (1) aircraft speed; (2) minimum safe altitudes; (3) cruising operations for flights conducted under visual flight rules (VFR); and (4) use of aircraft lights.

In your petition, you indicate that there has been no change in the conditions and reasons relative to public interest and safety that were the basis for granting the original exemption.

The FAA has determined that good cause exists for not publishing a summary of the petition in the Federal Register because the requested extension of the exemption would not set a precedent, and any delay in acting on this petition would be detrimental to the USCG and the USCGA.

AFS-13-210-E

Our Decision

The FAA has determined that the justification for the issuance of Exemption No. 10055 remains valid with respect to this exemption and is in the public interest. Therefore, under the authority provided by 49 U.S.C. 40113 and 44701, which the FAA Administrator has delegated to me, I grant your petition, subject to the following conditions and limitations.

Conditions and Limitations

1. The pilot of an aircraft engaged in operations authorized herein is not relieved from the see-and-avoid requirements of § 91.113, "Right-of-way rules: except water operations," or any other requirement of 14 CFR not specifically relieved under this exemption.

2. Operations under this exemption are authorized only to the extent necessary for interdiction aircraft to obtain positive identification of, and maintain visual contact with, a suspect aircraft, vessel, or vehicle, search and rescue aircraft to accomplish the assigned USCG mission, or operations in support of homeland security missions including the airborne use of force, vertical insertion, and rotary wing intercepts.

3. Relief from the provision of §§ 91.117(b) and (c) is granted only to the extent necessary to conduct aircraft operations in support of drug law enforcement, drug traffic interdiction missions, or assigned homeland security missions. Operations may be conducted without meeting the requirements of §§ 91.117(b) and (c), provided a dedicated observer having the sole responsibility to assist the pilot in detecting and avoiding other aircraft is onboard the aircraft. Operations may be conducted without meeting the requirements of §§ 91.117(b), provided the USCG pilot:

    a. Establishes radio communication with the appropriate air traffic control (ATC) facility before entering the affected airspace;

    b. Complies with any instructions or clearances from the ATC controller; and

    c. Maintains radio communication with the appropriate ATC facility for the duration of the operations within that airspace. The use of the ATC advisory (ATCA) service, when available, is highly recommended. This grant of exemption, however, should not be construed as obligating any ATC facility to provide traffic advisory service. The receipt of ATC traffic service does not relieve the USCG pilot from the responsibility to see and avoid other aircraft.

4. Relief from the provisions of § 91.119(c) is granted only for operations involving drug law enforcement, drug traffic interdiction, maritime law enforcement missions, homeland security missions, or search and rescue missions. Operations may be conducted without meeting the requirements of § 91.119(c), provided that the USCG

aircraft are operated no closer than 200 feet from the suspect and no closer than 500 feet from any other person, vessel, vehicle, or structure.

5. Relief from the provision of § 91.155(a) is granted only to the extent necessary to conduct aircraft operations in support of drug law enforcement, drug traffic interdiction missions or assigned homeland security missions. Operations may be conducted without meeting the requirements of § 91.155(a) provided:

   a. A dedicated observer having the sole responsibility to assist the pilot in detecting and avoiding other aircraft is onboard the aircraft;

   b. Establishes radio communication with the appropriate ATC facility before entering the affected airspace;

   c. Complies with any instructions or clearances from the ATC controller; and

   d. Maintains radio communication with the appropriate ATC facility for the duration of the operations within that airspace. The use of the ATCA service, when available, is highly recommended. This grant of exemption, however, should not be construed as obligating any ATC facility to provide traffic advisory service. The receipt of ATC traffic advisory service does not relieve the USCG pilot from the responsibility to see and avoid other aircraft.

6. Relief from the provisions of § 91.159(a) is granted only to the extent necessary to conduct drug law enforcement, drug traffic interdiction missions, homeland security missions, or search and rescue missions. Operations may be conducted without meeting the requirements of § 91.159(a) provided that a dedicated onboard observer assists the pilot in seeing and avoiding other aircraft.

7. Relief from the provisions of § 91.209 is granted only for those aircraft engaged in drug law enforcement, drug traffic interdiction, maritime law enforcement operations, or homeland security missions. This relief is granted only when one of the following alternative means of deriving air traffic information is used:

   a. Primary radar equipment capable of detecting all aircraft operating within the vicinity of the interdiction aircraft; or

   b. Spotter aircraft operating in a position to visually detect other aircraft in the vicinity of the interdiction aircraft. Interdiction aircraft must maintain two-way radio communication with the spotter aircraft or the primary radar surveillance aircraft. The purpose of communication is to receive air traffic information regarding other aircraft operating in the vicinity and for advising the interdiction aircraft pilot of potential collision hazards. Only the USCG interdiction aircraft are authorized to operate without lighted position lights. Any other aircraft used by the petitioner as spotter aircraft or primary radar

surveillance aircraft must be operated in compliance with all of § 91.209. Interdiction aircraft must operate the aircraft's position lights to the maximum extent practicable and may only operate without lights when necessary to avoid detection by those engaged in criminal activities.

8. The pilot in the interdiction aircraft:

   a. Must establish two-way radio communication with the appropriate ATC facility before entering the airspace areas;

   b. Must maintain two-way radio communication while within the affected ATC facility airspace area;

   c. Must comply with all instructions and clearances from ATC; and

   d. If available, should be receiving ATCA service from that ATC tower.

9. The petitioner must ensure that all aircraft used to conduct operations under this exemption are equipped with an operable transponder with automatic altitude reporting capability (Mode C) that is transmitting on the appropriate code or as assigned by ATC.

10. The petitioner must ensure that all pilots and crewmembers who will conduct aircraft operations under the authority of this exemption are thoroughly briefed and have a complete understanding of the conditions and limitations of this exemption.

11. Operation authorized herein must be performed:

    a. In airspace that overlies the coastline of the United States and territorial waters; and

    b. While operating in flight conditions of not less than one statute mile visibility and maintaining clear of clouds.

12. Notwithstanding the provisions of this exemption, the pilot in command may deviate from the conditions and limitations of this exemption, provided the reason for that deviation is the rescue and aid of persons or the protection and saving of property, and it can be performed without causing undue hazard to persons or property on the surface.

The Effect of Our Decision

Our decision extends the termination date of Exemption No. 10055 to March 31, 2016 unless sooner superseded or rescinded.

Sincerely,

/s/
John M. Allen
Director, Flight Standards Service

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Disclosure for 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.

Table E-3, Aviation Designations and Qualifications

This table describes how the legacy designations and qualifications equate to the new designations and qualifications. Members holding the legacy designation or qualification in the column 1 list AND current on the applicable periodic training requirements will transfer to the applicable designation and mission qualification(s) of the promulgated policy listed in column 2.

Column 1 Legacy CI M3710.1F Designations / Qualifications	Column 2 New CI M3710.1G Designations / Qualifications
Core Designations	
Copilot (CP) designation	CP designation
First Pilot (FP) designation	FP designation
Aircraft Commander (AC) designation	AC designation
Civilian Contract Pilot (CCP) designation	Appropriate designation (CP, FP, AC)
Basic Aircrew (BA) designation	BA designation
Aviation Mission Specialist (AMS) designation	AMS designation
Flight Surgeon (FS) designation	FS designation
Flight Engineer (FE) designation	FE designation
HC-130H Navigator (N) designation	N designation
Pilot Mission Qualifications	
CP designation at a SAR unit	CP designation with the Basic SAR qualification
FP designation at a SAR unit	FP designation with the Basic SAR qualification; Note: Until promulgation of the Advanced SAR qualification syllabi, R/W FP may continue to act as PIC for SAR hoisting if the minimums in Table 8-3 and Table 8-4 are maintained.
AC designation at a SAR unit	AC designation with the Advanced SAR qualification
AC designation at a SAR unit, having completed the Advanced Helicopter Rescue School (AHRS) training or local Vertical Surface syllabus	AC designation with the Advanced SAR - Vertical Surface qualification
Shipboard-Helicopter (SHIP-HELO) designation	SHIP-HELO qualification
Airborne Use of Force - AUF PWCS (Left Seat) designation	Basic AUF PWCS qualification
AUF PWCS (Right Seat) designation	Advanced AUF PWCS qualification
AUF CD designation	AUF CD qualification
Basic Vertical Insertion (BVI) designation	Basic Fast Roping (FR) qualification
Advanced Vertical Insertion (AVI) - Note: this designation no longer exists	Basic Fast Roping (FR) qualification
Tactical Vertical Insertion (TVI); Note: TVI is now split into 2 separate quals	Tactical Fast Roping (TAC-FR); Note: this qual no longer includes proving tactical cover
Tactical Vertical Insertion (TVI); Note: TVI is now split into 2 separate quals	Tactical Cover qualification
Rotary-Wing Air Intercept (RWAI) designation	Rotary-Wing Air Intercept (RWAI) qualification
Fixed-Wing Air Intercept (FWAI) designation	Fixed-Wing Air Intercept (FWAI) qualification

Table E-3, Aviation Designations and Qualifications (Cont)

Qualifications applicable to both Pilot and Aircrew	
Any designation having completed training on proper wearing of CBRNE ensemble	Same designation with the CBRNE qualification
Any designation completing an Aerial Dispersant Delivery System (ADDS) mission or exercise within the previous 15 months	Same designation with the Aerial Dispersant Delivery System (ADDS) qualification
Instructor designation	Instructor qualification
Examiner designation	Examiner qualification
Aircrew Mission Qualifications	
Hoist Qualified Basic Aircrew (HQBA) designation	BA designation; HQBA designation no longer exists.
HQBA designation AND having also received initial night hoist training	BA designation with the Basic Hoist (BH) qualification
Flight Mechanic (FM) designation	BA designation with the Flight Mechanic (FM) qualification
FM designation, AND completed the Advanced Helicopter Rescue School (AHRS) or local vertical surface training	BA designation with the Flight Mechanic - Vertical Surface (FM-VS) qualification
Flight Mechanic (FM) designation, current in the Basic Vertical Insertion (BVI) periodic training requirements	BA designation with the FM and Basic Fast Roping (FR) qualifications
Flight Mechanic (FM) designation, current in the Tactical Vertical Insertion (TVI) periodic training requirements	BA designation with the FM and Tactical Fast Roping (TAC-FR) qualifications
Rescue Swimmer (RS) designation	BA designation with the Rescue Swimmer (RS) qualification
RS designation, AND completed the Advanced Helicopter Rescue School (AHRS) or local Vertical Surface training	BA designation with the Rescue Swimmer - Vertical Surface (RS-VS) qualification
PWCS AUF Aviation Gunner (AG) designation	BA or AMS designation with the Precision Marksman - Aviation (PM-A) PWCS qualification
CD AUF AG designation	BA or AMS designation with the PM-A (CD) qual
Counterterrorism (CT) AG designation, current in the AUF CT recurrent training requirements	BA or AMS designation with the PM-A (PWCS) and the PM-A Tactical Cover (PM-A TC) mission qualification
Radio Operator (R) designation	AMS designation with the Radio Operator (R) qualification
Avionicsman (AVI) designation - No longer exists.	BA designation; Note: AVI no longer exists
Sensor System Operator (SSO) designation	BA or AMS designation with the Sensor System Operator (SSO) qualification
Tactical System Operator (TSO) designation	BA or AMS designation with the Tactical System Operator (TSO) qualification
Mission System Operator (MSO) designation	BA or AMS designation with the Mission System Operator (MSO) qualification
Loadmaster (LM) designation	BA designation with the Loadmaster (LM) qual
Dropmaster (DM) designation	BA designation with the Dropmaster (DM) qual