



# Rescue and Survival Systems Manual



COMDTINST M10470.10H

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Commandant  
United States Coast Guard

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Subj: RESCUE AND SURVIVAL SYSTEMS MANUAL

- Ref: (a) *U.S. Coast Guard Maritime Law Enforcement Manual (MLEM)*, COMDTINST M16247.1 (series) (FOUO)  
 (b) *Deployable Specialized Forces Tactical Operations Manual*, COMDTINST 16600.7 (series) (FOUO)  
 (c) *U.S. Coast Guard Boat Operations and Training (BOAT) Manual, Volume I*, COMDTINST M16114.32 (series)  
 (d) *Coast Guard Configuration Management Policy*, COMDTINST 4130.6 (series)  
 (e) *Financial Resource Management Manual (FRMM)*, COMDTINST M7100.3 (series)  
 (f) *Supply Policy And Procedures Manual (SPPM)*, COMDTINST M4400.19 (series)  
 (g) *U.S. Coast Guard Personal Property Management Manual*, COMDTINST M4500.5 (series)  
 (h) *Helicopter Insertion and Extraction (HIE) Tactics, Techniques, and Procedures (TTP)*, CGTTP 3-95.3  
 (i) *U.S. Coast Guard Water Survival Training Program Manual*, COMDTINST M16240.4 (series)  
 (j) *U.S. Coast Guard Boat Operations and Training (BOAT) Manual, Volume III*, COMDTINST M16114.42 (series)  
 (k) *Uniform Regulations*, COMDTINST M1020.6 (series)  
 (l) *Ice Rescue and Operations (IROPS) Tactics, Techniques, and Procedures (TTP)* CGTTP 3-50.1E  
 (m) *Boat Crew Handbook - Rescue And Survival Procedures*, BCH16114.2 (series)

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NON-STANDARD DISTRIBUTION

1. PURPOSE. This Manual establishes policy, equipment standards, procedures and procurement authorization for the use, configuration, maintenance and logistics of rescue and survival equipment used by United States Coast Guard personnel operating on or near the water.
2. ACTION. All Coast Guard unit and training center 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. Rescue and Survival Systems Manual, COMDTINST M10470.10G is canceled.
4. DISCUSSION. The policies in this Manual apply to all Active Duty, Reserve, Auxiliary Facilities under orders, scheduled mission personnel, scheduled passengers, and unscheduled passengers embarked on Coast Guard and non-Coast Guard vessels, and shoreside personnel. Additionally, this Manual applies to operations conducted on or near the water where there is uncontrolled risk of entering the water.
5. DISCLAIMER. This guidance is not a substitute for applicable legal requirements, nor is it itself a rule. It is intended to provide operational guidance for Coast Guard personnel and is not intended to nor does it impose legally-binding requirements on any party outside the Coast Guard.
6. MAJOR CHANGES. Major changes to the Rescue and Survival Systems (R&SS) Manual are as follows:
  - a. Added link for field feedback and questions.
  - b. Added females are authorized to adjust their hair as needed to allow proper fit of any PPE.
  - c. Added female headband as an optional item to Standard Clothing Issue for Boat Crew.
  - d. Added R&SS Petty Officers shall review current contracts before submitting unit purchase requests for PPE, along with contract link on Office of Boat Forces Portal.
  - e. Added all units with inflatable PFDs shall conduct refresher training annually with all personnel authorized to wear an inflatable PFD.
  - f. Added Scheduled Mission Personnel Wear Requirements paragraph, including scheduled mission personnel shall wear the same standard-issue and cold weather PPE as required of boat crew.
  - g. Added units may create an electronic version of the Form AF-538.
  - h. Added Mustang Survival MD-3183 automatic/manual inflatable flotation chamber provides 20.5 pounds of buoyancy automatically, with a capacity of 35 pounds of buoyancy with additional manual inflation.
  - i. Added boat pyrotechnics kit section explaining the boat pyrotechnics kit consists of six (6) MK127A1 parachute illumination signals.

- j. Added Type III and Type V – to the Stearns Model I600 Type I PFD and standard Navy PFD with collar – as PFDs authorized for use by cutter personnel engaged in underway replenishment, towing, and abandon ship operations.
  - k. Added Ice Rescue PPE Maintenance Record in Appendices.
  - l. Removed requirement that the annual PPE inspection be entered into AOPS /TMT.
  - m. Added flight deck equipped cutters are authorized to use the J-Bar davit in conjunction with the helicopter hoisting stokes litter.
7. ENVIRONMENTAL ASPECT AND IMPACT CONSIDERATIONS. Environmental aspects and impact considerations were examined in the development of this Manual and have been determined to be not applicable.
- a. The development of this Manual and the general policies contained within it have been thoroughly reviewed by the originating office in conjunction with the Office of Environmental Management, Commandant (CG-47). This Manual is categorically excluded under current Department of Homeland Security (DHS) categorical exclusion DHS (CATEX) A3 from further environmental analysis in accordance with the U.S. Coast Guard Environmental Planning Policy, COMDTINST 5090.1 and the Environmental Planning (EP) Implementing Procedures (IP).
  - b. This Manual 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 policy in this Manual must be individually evaluated for compliance with the National Environmental Policy Act (NEPA) and Environmental Effects Abroad of Major Federal Actions, Executive Order 12114, Department of Homeland Security (DHS) NEPA policy, Coast Guard Environmental Planning policy, and compliance with all other applicable environmental mandates.
8. DISTRIBUTION. No paper distribution will be made of this Commandant Instruction Manual. An electronic version will be located on the Office of Boat Forces (CG-731) Portal site: <https://cg.portal.uscg.mil/units/cg731/SitePages/Manuals.aspx>, as well as CGPortal: <https://cg.portal.uscg.mil/library/directives/SitePages/Home.aspx>, and Internet: <http://www.dcms.uscg.mil/directives/>.
9. 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 have any significant or substantial change to existing records management requirements.

10. FORMS/REPORTS. The forms referenced in this Manual are available in USCG Electronic Forms on the Standard Workstation or on the Internet: <http://https://dcms.uscg.afpims.mil/Our-Organization/Assistant-Commandant-for-C4IT-CG-6/The-Office-of-Information-Management-CG-61/Forms-Management/>; CG Portal at <https://cg.portal.uscg.mil/library/forms/SitePages/Home.aspx>. Air Force forms may be found here: <https://www.e-publishing.af.mil/product-index/>.
11. REQUESTS FOR CHANGES. To recommend edits and changes to this Manual, please submit a formal request at the following link:  
<https://cg.portal.uscg.mil/communities/bfco/doctrine/SitePages/Home.aspx>.

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





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# PART 1 Introduction

## Section A. Purpose of this Manual

**Introduction** This Manual establishes Coast Guard Personal Protective Equipment (PPE) policy and requirements for all Coast Guard personnel and passengers conducting Coast Guard missions while embarked on Coast Guard boats as well as on non-Coast Guard boats. Additionally, this Manual applies to operations conducted on or near the water where there is uncontrolled risk of entering the water.

**Procedures** This Manual directs rescue and survival PPE issuance, maintenance, and wear requirements for the conduct of Coast Guard operations. Every effort has been made to identify the proper PPE to outfit and equip Coast Guard members for our full range of environmental and operational conditions. Situations may arise that are not anticipated by this Manual. Successful operations require the exercise of good safety practices, sound judgment and common sense at all levels of command.

**Deviation** When the need arises, special instructions or waivers may be issued by the Office of Boat Forces (CG-731). The operational environment or mission demands may require on-scene deviation from prescribed instructions or procedures when, in the judgment of the CO, OIC, or coxswain, such deviation is necessary for safety or preservation of life.

**NOTE** *~*

Units not required to have cold weather PPE required elsewhere in this Manual may operate underway in cold weather when, in the judgment of the CO or OIC, the risk of not having required equipment on the boat is outweighed by the benefits of getting underway without the prescribed equipment. When the decision is made by the CO/OIC to get underway without the proper PPE, this decision will be briefed to the Sector Commander/OPCON.

Such deviation must not be taken lightly and must be tempered by maturity, sound judgment, thorough Risk Management (RM), and a complete understanding of the capabilities of the unit, mission, and crew.



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## Section B. How to Use this Manual

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### Part Layout

The first page of each *Part* includes an *Introduction*, and an *In this Part* (which lists each chapter title).

The first page of each chapter includes an *Introduction*, an *In this Chapter*, and *References for this Chapter*, as applicable.

The first page of each section includes an *Introduction*, an *In this Section*, and *References for this Section*, as applicable.

In the left column of each page is the block title, which provides a descriptive word or phrase for the corresponding block of text across from it.

---

### Warnings, Cautions, and Notes

The following definitions apply to “Warnings, Cautions, and Notes” found throughout the Manual.

#### WARNING

Operating procedures, techniques or steps that must be followed to avoid personal injury or loss of life.

#### CAUTION!

Operating procedures, techniques or steps that must be carefully followed to avoid equipment damage.

#### NOTE

Operating procedures, techniques or steps that require additional emphasis.

### 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 situations or circumstances that should not be encountered.

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## Section C. Program Management

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**Program Manager** This Rescue and Survival Systems (R&SS) Manual is prepared and released under the authority of the Commandant, United States Coast Guard. The Office of Boat Forces (CG-731) is the R&SS Program Manager.

---

### Manual Recommendations and Questions

The Office of Boat Forces (CG-731) and Boat Forces and Cutter Operations (BFCO) Doctrine Staff have developed a formal process to allow the field to submit policy clarification questions, policy change recommendations or to seek guidance on references owned by CG-731. Questions and recommendations should be routed through the chain of command then electronically submitted by using the following link:

<https://cg.portal.uscg.mil/communities/bfco/doctrine/SitePages/Home.aspx/>.

As a secondary option, units may submit change recommendations via the chain of command to the Office of Boat Forces (CG-731) using the standard Memo format. The address for the Office of Boat Forces (CG-731) is:

COMMANDANT (CG-731)  
ATTN: RESCUE AND SURVIVAL SYSTEMS MANAGER  
US COAST GUARD STOP 7324  
2703 MARTIN LUTHER KING JR AVE SE  
WASHINGTON DC 20593-7324

---

### Personal Protective Equipment (PPE) Problem Reports

In an effort to track PPE trends and safety issues, there is a “Question and Recommendations” form on the portal page at the following link:

<https://cg.portal.uscg.mil/communities/bfco/doctrine/SitePages/Home.aspx/>

Personnel in the field are encouraged to use the portal page to report PPE problems for flaws in issued PPE to help CG-731 in the early identification and repair of equipment defects. Examples of problems that should be reported are:

- (01) PPE design flaws that compromise its integrity and/or function,
- (02) PPE problems causing significant safety issues.

### NOTE

The above report link should NOT be used to report PPE problems resulting from normal wear and tear (i.e. hole in glove appearing after extended use).





# PART 2 General Policy

**Introduction** This Part contains the information necessary for the proper administration of the unit's R&SS program. It defines operational requirements, and directs specific policies related to procurement, required maintenance, procedures, and documentation necessary to meet Coast Guard personnel survivability and operational safety needs.

---

**In this Part** This Part contains the following Chapters:

Chapter	Topic	Page
1	<a href="#">Authority and Responsibility</a>	2-2
2	<a href="#">R&amp;SS Equipment Lifecycle Management</a>	2-11
3	<a href="#">General Issue and Inspection Policy</a>	2-16

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## CHAPTER 1

### Authority and Responsibility

---

**Introduction** This Chapter contains policy regarding Authority, Responsibility, Logistics, Maintenance and Disposal of R&SS equipment.

---

**In this Chapter** This Chapter contains the following sections:

Section	Topic	Page
A	<a href="#">Responsibilities and Requirements</a>	2-3
B	<a href="#">Systems and Equipment Configurations</a>	2-10

---



## Section A. Responsibilities and Requirements

### Overview

This Section describes a commands roles and responsibilities, minimum wear requirements for cutters and non-boat crew, training, Rescue and Survival Systems Petty Officer (R&SS PO) designation, and deviation without authorization.

### A.1. Command Responsibility

The chain of command shall ensure strict compliance with the PPE requirements directed in this Manual. All personnel will be categorized as one of five roles listed below in **Table 2-1**.

Role	Definition
Crewmember / Break-In Crewmember	Person that is filling a boat crew position.
Scheduled Mission Personnel	Person conducting a CG mission and not fulfilling crewmember role (e.g. Boarding Team Member, Inspectors, Investigators, Pollution Responders, and Training Teams).
Scheduled Passenger	Person not conducting a CG mission and not fulfilling crewmember role, yet whose passage was specifically anticipated (e.g. VIP, Boy Scouts).
Unscheduled Passenger	Person not specifically scheduled for movement, but placed on CG asset due to circumstances (e.g. SAR case survivor, prisoner).
Shoreside Personnel	Personnel conducting pierside inspections and line handlers.
<b>NOTE</b>	When being transferred by boat, Shoreside Personnel fall under Scheduled Passenger requirements.
<b>NOTE</b>	Personnel in other government agencies (OGA) shall follow their own agencies' PPE policies when operating on U.S.C.G platforms.

**Table 2-1  
 Role Definitions**



**A.2. Roles and Responsibilities**

Commanding Officers (CO), Officers in Charge, (OIC) and coxswains responsible for shore and cutter based boats have particular responsibilities and considerations when it comes to Rescue and Survival.

**A.2.a. Command Responsibility**

CO, OIC, and coxswains shall ensure that all CG personnel understand and comply with the following requirements:

- (01) The CO, OIC, or for Auxiliary facilities the Order-Issuing Authority (OIA) must carefully weigh the urgency of each mission. Mission planning for underway operations shall include an assessment of personnel survivability and risk management. This analysis shall be based on the possibility that personnel might be forced into a survival situation during any phase of the mission. If sea and weather conditions are unknown, CG personnel should always be prepared for the most adverse conditions by carrying extra thermal protection.
- (02) Personnel shall be appropriately outfitted for the environmental conditions expected to be encountered.
- (03) Personnel who have not completed applicable boat qualification tasks to use military specification pyrotechnics shall not wear equipment that contains MK 79 or MK 124 pyrotechnics. Each passenger shall be outfitted with a Personal Floatation Device (PFD) that contains a whistle and personal marker light or strobe light.

**A.2.a.1. Deviation from Female Grooming Standards**

Females are authorized to adjust their hair as needed to allow proper fit of any PPE. It is the responsibility of the individual unit COs, OICs, and member to make sure that a professional appearance is maintained and that any deviation is safe.

**A.3. Minimum Wear Requirements for Cutters**

PFDs are not required to be worn onboard cutters unless mandated in *U.S. Coast Guard Shipboard Regulations Manual*, COMDTINST M5000.7 (series) or directed by the CO/OIC.

**A.4. Minimum Wear Requirements Non-Boat Crew**

While performing designated non-boat crew roles, personnel shall wear at a minimum the required PPE listed in sub-paragraphs below.

**NOTE**

Coast Guard personnel onboard other government-agency platforms shall be in compliance with Coast Guard PPE requirements.



---

A.4.a. Scheduled Mission Personnel Wear Requirements

Scheduled mission personnel shall wear the same standard-issue and cold weather PPE as required of the boat crew. Commands may authorize personnel conducting marine safety missions to wear anti-exposure coveralls in lieu of a dry suit without a waiver. These marine safety personnel (e.g. Inspectors, Investigators, Pollution Responders) shall use Risk Management (RM) when conducting cold weather operations.

---

A.4.b. Scheduled Passenger Wear Requirements

Scheduled passengers shall wear a PFD. Scheduled passengers in cold weather shall wear anti-exposure coveralls or a drysuit.

---

A.4.c. Unscheduled Passenger Wear Requirements

Unscheduled passengers shall wear a PFD when possible.

---

**A.5. Chemical, Biological, Radiological, and Nuclear (CBRN) PPE Deviation Authorization**

All units that have been trained and equipped are authorized to use CBRN PPE per *United States Coast Guard Countering WMD Capabilities Manual (CWMD Manual)*, COMDTINST 3400.51 (series) during any known or suspected Chemical/Biological (CB) threat, regardless of the PPE requirements listed in this manual. However, if environmental conditions meet the requirements of a dry suit in accordance with Table 2-2 or 2-3, layers I and II should be worn if practical.

---

**A.6. Deviation without Authorization**

Members shall not add additional items or deviate from their equipment lists. Members shall verify they are in compliance with either References (a) or (b), depending on the mission they are performing. Compliance with this Manual and References (a) and (b) ensure such factors as equipment weight and bulk will not adversely affect performance, thermal stress, mission accomplishment, or safety.

**NOTE** 

Any deviations to weight requirements established in References (a) or (b) shall be routed through the Office of Boat Forces (CG-731).

---



### A.7. Training

Commands shall train each member required to wear or use PPE in the following:

- (01) What/When PPE is necessary,
- (02) How to properly don, doff, adjust and wear PPE,
- (03) PPE limitations,
- (04) Proper care, maintenance, storage and disposal of PPE,
- (05) Ability to recognize defective or damaged PPE and remove from service.

Members shall demonstrate an understanding of the training specified, and the ability to use PPE properly before being allowed to perform work requiring the use of PPE.

#### NOTE

All units with inflatable PFDs shall conduct refresher training, in accordance with Personal Qualification Standards (PQS), annually with all personnel authorized to wear an inflatable PFD. This training should include characteristics of the PFD, modes of inflation, and actions to take if the PFD does not inflate.

### A.8. Rescue and Survival Systems Petty Officer (R&SS PO) Designation

In accordance with Reference (c), CO and OIC shall designate, in writing, a R&SS PO, E-5 or above, who possesses the judgment, professionalism, and maturity required to handle the administrative demands that come with managing the unit's rescue and survival equipment. The R&SS PO is responsible for the administration of the requirements detailed in this Manual, and is effectively the unit's expert for this equipment; however, it is not intended that this individual personally inspect or maintain all equipment, but ensures that inspection and maintenance requirements are completed accurately and on-time.

#### NOTE

CO/OIC shall designate at least one Auxiliarist recommended by the Flotilla Commander in writing as the Rescue and Survival Systems Officer within each flotilla to manage PPE issuance, training, and maintenance. Ordering Issue Authority (OIA) shall train and guide the designated flotilla members on how to conduct maintenance of rescue and survival equipment.



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## Section B. Waivers and Documentation

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### Overview

This Section describes hypothermia protective device waivers and documentation, outer garment comparison, permanent PPE unit waiver requests, Deployable Special Forces (DSF) pyrotechnics waivers and documentation.

### B.1. Hypothermia Protective Device Waivers and Documentation

CO and OIC, on a single mission basis only, may waive the requirement for wearing any hypothermia protective device (e.g. not wearing Layer II under drysuit, allowing them to wear only Operational Dress Uniforms (ODUs) in drysuit weather, etc.) only after a determination that the risk associated with crew performance degradation, thermal stress, and environmental considerations are offset by the benefits associated with the waiver. **Figure 2-1** is provided to assist with risk management decisions associated with waiver consideration. Documentation of the factors used to grant a waiver for wearing hypothermia protective devices shall be logged in the unit logbook and signed (written or electronically) by the unit CO/OIC for each waiver granted. The Officer of the Day (OOD), coxswain, Assault Force Commander (AFC) or Deployable Team Leader (DTL) shall initial inside the waiver log when an oral waiver has been granted by the CO/OIC. The CO/OIC shall sign the waiver at earliest opportunity. Executive Officer/ Executive Petty Officer (XO/XPO) may sign the waiver log if acting under "By Direction" authority. However, the waiver provision is not an authorization to justify granting blanket waivers in unit standard operating procedure. Cutter operational smooth log or other unit equivalents may be used in lieu of waiver log, provided information is recorded.

Units shall record all waivers with the following information: date, boat number, or aircraft type and unit, coxswain or AFC/DTL, air and water temperature, sea state, wind speed, mission, PPE required, PPE being worn, OOD/coxswain or AFC/DTL signature, and CO/OIC signature (written or electronic). In each case covered by a waiver, the CO/OIC shall decide whether waived equipment shall be carried aboard the boat while underway.

### NOTE

During ATON missions, boat crew may use an anti-exposure coverall in lieu of a dry suit when air and water temperatures are both below 50 degrees at the discretion of the OIC.



### B.2. Outer Garment Comparison

Figure 2-1 below illustrates the comparison of outer garment and how proper PPE increases survival probability when worn properly.

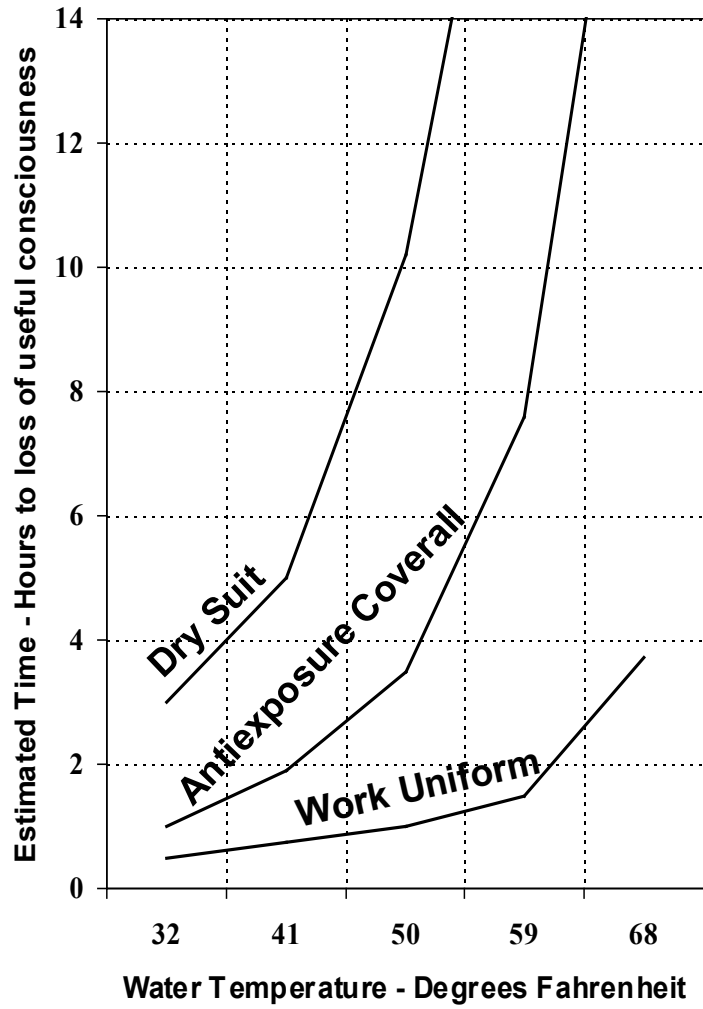


Figure 2-1  
Outer Garment Comparison





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**B.3. Permanent  
PPE Unit  
Waivers Request**

Units requesting a permanent PPE waiver shall route the request through their Operational Commander to CG-731.

---

**B.4. DSF  
Pyrotechnics  
Waivers and  
Documentation**

There are certain times when transporting or storing pyrotechnics is not feasible due to circumstances beyond a DSF unit's control. DSF CO's are authorized to waive the pyrotechnics requirements for each deployment that is hindered by the transport and storage of pyrotechnics. All available means shall be exhausted prior to the DSF CO's authorization of a waiver. All waivers shall be documented in the PPE waiver log in accordance with section B.1. above (e.g. pyrotechnics can't be brought because of transportation restriction). DSF CO's may delegate waiver authority in writing to AFC/ DTL when deployed away from home unit. All waivers shall be documented in the PPE waiver log in accordance with section B.1. above, (e.g. pyrotechnics can not be brought because of transportation restriction).

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## Section C. Systems and Equipment Configurations

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**Overview** This Section describes systems and equipment configuration, as well as the configuration control board.

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**C.1. Systems and Equipment Configurations** The equipment and system configurations identified in this Manual are found to be the most compatible with Coast Guard operations. Deviations or modifications to configurations of the equipment or systems identified in this Manual are prohibited unless specifically authorized by the Office of Boat Forces (CG-731), and are usually promulgated using a Boat Forces Policy Letter to the field.

---

**C.2. Configuration Control Board** The Office of Boat Forces (CG-731) leads the Rescue and Survival Systems Configuration Control Board (R&SS CCB), which consists of the R&SS Program Manager, the Boat Forces Advisory Council (BFAC) members, and the Office of Safety and Environmental Health (CG-113). Additional members may be added as needed. Any unit desiring to modify existing PPE, or conduct testing and/or development of new PPE is required to obtain written permission from the CCB, in accordance with Reference (d). This safeguard is intended to ensure adequate safety and systems testing standards, as well as to eliminate redundant efforts while leveraging lessons learned.

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## CHAPTER 2

### R&SS Equipment Lifecycle Management

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**Introduction** This Chapter contains Lifecycle Systems Management policy regarding the Logistics, Maintenance and Disposal of R&SS equipment.

---

**In this Chapter** This Chapter contains the following sections:

Section	Topic	Page
A	<a href="#">Logistics</a>	2-12
B	<a href="#">Property Management and Disposal</a>	2-15

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## Section A. Logistics

---

**Overview** This Section describes the procurement policies, PPE storage, maintenance, Maintenance Proceedure Card (MPC) source, system of entry, and maintenance documentation instructions.

---

**A.1. Acquisitions Policy Statement** PPE is procured under the statutory authority of 29 U.S.C. § 668 and 14 U.S.C. § 2707 and is managed in accordance with Reference (e). General safety equipment/PPE item selection criteria is based on 29 C.F.R. § 1910.132(a) (29 U.S.C. §§ 653, 655, 657). Lifesaving/ personnel survivability equipment and clothing selection criteria are based on Title 46 C.F.R., Part 160 and other CG policies.

---

**A.2. Procurement Policies** R&SS equipment listed in this Manual are procured in accordance with References (e) and (f), or the applicable MPC. Equipment on Headquarters managed contracts shall only be procured following the provisions on those contracts. Equipment on General Services Administration (GSA) schedules shall be procured from among all qualified GSA vendors. Any PPE referenced in the MPC is an option, but the PPE can be different from the stock number provided, so long as it meets the salient characteristics in this Manual and the word “or equivalent” is next to the items in the MPC.

To identify salient characteristics for consumable and expendable items that feature the word “or equivalent” in the MPC and whose salient characteristics are not listed in this Manual, look up the listed part number on the MPC.

Items purchased as “or equivalent” should be close to the same price as what is on the MPC because the Office of Boat Forces (CG-731) will not provide additional funding.

R&SS POs shall review current contracts before submitting unit purchase requests for PPE. R&SS contracts can be found on the Current Contracts page of the Office of Boat Forces Portal:

<https://cg.portal.uscg.mil/units/cg731/SitePages/RnSS%20Contracts.aspx>.

**NOTE**

Units are not authorized to replace R&SS equipment that has been discontinued by a manufacturer simply to have the newest model of a particular item. Units shall continue to use R&SS equipment that is serviceable unless directed by the Office of Boat Forces (CG-731), (e.g., manufacturer safety recall). Once an item is no longer serviceable, it shall be replaced with the most up-to-date item listed in the applicable MPC.

**NOTE**

Boat Forces units shall use object class code 3131 for all R&SS program purchases.



---

**A.3. PPE Storage**

All PPE discussed in this Manual should be stored in a climate-controlled environment.

---

**A.4. Maintenance**

Initial build-up, inspection and periodic maintenance activities ensure that rescue and survival equipment function properly during its life cycle. Specific guidance is provided on MPCs.

Conduct regularly scheduled preventive maintenance of PPE in accordance with the MPC. Damaged PPE shall be repaired or replaced immediately.

**NOTE** 

PPE that does not have an MPC allocated to an item shall be built up and maintained IAW the manufactured publication. The maintenance shall be logged and documented IAW A.7 Maintenance Documentation Instructions in this section.

---

**A.5. MPC Source**

MPCs can be found at the Naval Engineering Technical Information Management System (CG-LIMS) portal site:  
[http://cgweb.netims.uscg.mil:7012/STIP/STIP\\_EE/login.xhtml](http://cgweb.netims.uscg.mil:7012/STIP/STIP_EE/login.xhtml).

**WARNING** 

Failure to comply with the directed build up, inspection or periodic maintenance of equipment or systems may result in injury or loss of life.

---

**A.6. System of Entry**

The Asset Logistics Management Information System (ALMIS) tracks the maintenance schedule and will hyperlink to CG-LIMS for the MPC. For MPCs not in ALMIS that direct you to “record maintenance action by completing appropriate signoff,” units shall use the maintenance record located in **APPENDIX A** or units may create an electronic version, which, at a minimum, shall:

- (01) Contain the same information as the official form,
- (02) Be stored on shared public drive,
- (03) Be digitally signed.

Non-modernized units shall use the maintenance record located in **APPENDIX A** for all required record maintenance.

CG-BSX shall ensure up-to-date MPCs are available to Auxiliarists to help facilitate the completion of preventative maintenance and build-up procedures. Because Auxiliary PPE is not recorded in ALMIS, paper or electronic maintenance records are required to be maintained for each piece of equipment. **APPENDIX A** contains the only maintenance records that are authorized to be used.

---



**A.7.  
Maintenance  
Documentation  
Instructions**

For the equipment maintenance record, enter the name of the item on the first line. Model and Serial Number are also required. When performing scheduled and unscheduled maintenance to the item, record the inspection date, and type (W – Weekly (7 days), M – Monthly (31 days), Q – Quarterly (92 days), S – Semiannually (184 days), A – Annually (365 days), P – Post Use, and MX for maintenance-only activities and initial in-service date). There are no grace periods for inspection frequencies. Maintenance shall be completed before the end of the inspection interval. New inspection interval starts at the completion of previous inspection. If the inspection cannot be completed, then the items must be removed from service and built back up. Remarks section shall always be filled out. Minimum remarks shall include MPC number and revision date. For other than scheduled inspections, when circling “MX,” specify the action taken in the Remarks section. Attach additional forms or work orders if necessary. If the item is sent to a servicing facility, ensure the Inspection Facility block is recorded. A servicing facility stamp may be used in this block. Templates can be found in [APPENDIX A](#) through [APPENDIX G](#).

Individual maintenance records are not required for bulk PPE issued to students at training centers or cutter AMIO PFDs, abandon ship PFDs and survival suits. Maintenance for these PPE items may be recorded on a consolidated record that includes count and maintenance completed indicator.

Lot numbers and sub-assembly serial numbers can be recorded on page one of multiple page documents. Repeating this information on subsequent pages is not necessary providing a running total of pages exist for that item at the bottom right of the page. Lots or serial numbers that are replaced must be corrected in this section and noted in the Remarks block.

---



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## Section B. Property Management and Disposal

---

### Overview

This Section describes property management and disposal.

---

### B.1. Property Management

R&SS and equipment shall be managed in accordance with this Manual, as well as [References listed in the letter of promulgation](#). R&SS equipment is managed as Direct Turnover Material unless otherwise specified in this Manual. PPE that is issued on Form AF-538 is considered expended. Expended PPE that is returned need not be tracked, but may be reissued if serviceable. PPE that has never been issued is considered inventory and shall be tracked.

Only limited amounts of inventory should be maintained by the unit. If a unit keeps an inventory of equipment it shall be managed in accordance with Reference (g). CO/OICs may procure additional allowance items as necessary.

---

### B.2. Property and Record Disposal

R&SS equipment and PPE that is no longer serviceable shall be disposed of in accordance with Reference (g). Particular caution must be exercised when considering use of Defense Reutilization Marketing Office (DRMO) functions to prevent expended and/or unreliable equipment from being repurposed in life-saving capacities. Furthermore, PPE with Coast Guard marking shall not be transferred to DRMO.

Paper and electronic records of disposed R&SS equipment, PPE, and recreated documents (e.g. AF-538, Standard and Cold weather maintenance records) shall be retained for a minimum of 90 days then local destruction is authorized.

---



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## CHAPTER 3

### General Issue and Inspection Policy

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**Introduction** This Chapter contains policy regarding issuance, wear, documentation and reclamation of Personal Protective Equipment (PPE).

---

**In this Chapter** This Chapter contains the following sections:

Section	Topic	Page
A	<a href="#">Protective Clothing and Equipment Policy</a>	2-17

---



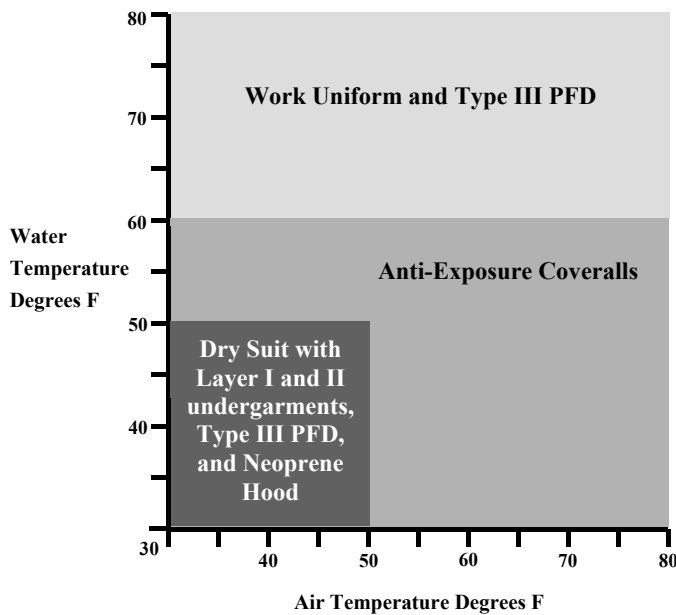


## Section A. Protective Clothing and Equipment Policy

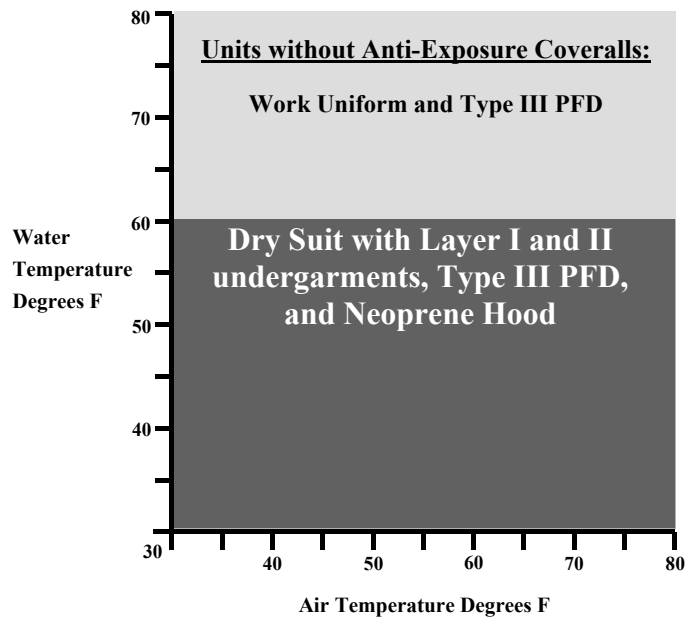
**Overview** This Section describes required equipment, minimum cold-weather equipment tables, ready service locker, and government property and personal issue documentation.

**A.1. Required Minimum Cold-Weather Equipment Tables** The following tables reflect the minimum required equipment for boat crews and scheduled mission personnel. Additional protection may be worn at the boat crew individual’s discretion. Use either table as follows:

- (01) Draw a horizontal line across the table that is equal to the water temperature for the mission.
- (02) Draw a vertical line up the table that is equal to the air temperature for the mission.
- (03) Don the equipment identified in the shaded area where the lines intersect.



**Table 2-2  
50/50 Box**



**Table 2-3  
Flat 60 Box**



---

## A.2. Ready Service Locker

A Ready Service Locker is a stockpile of shared PPE and equipment that can be used by scheduled mission personnel during each mission. It may also be used to store returnable items that can be checked out by personnel who do not frequently wear the items, such as scheduled mission personnel. All PPE placed in service that is maintained in the Ready Service Locker shall be labeled with a unit-generated serial number in accordance with the MPC. Each unit shall generate a local record for equipment issued out to personnel. The local record shall note equipment condition upon issue and return, and who the PPE was issued to.

Ready Service Locker may contain the returnable items in [Table 2-4](#).

---

## A.3. Government Property and Personal Issue Documentation

All Coast Guard PPE requires special procedures for accounting, inspection, and documentation.

---

### A.3.a. Government Property

All PPE items required by the policies listed in this Manual remain Coast Guard property.

---

### A.3.b. Inspection

The protective clothing and equipment identified in this Manual are subject to inspection and associated maintenance procedures to ensure high quality is maintained, and prolong product longevity. Each section identifies inspection and maintenance requirements for the clothing or equipment discussed. Personnel issued PPE are responsible for maintaining that issue, including performing the required inspection and associated maintenance. Prior to each use, personnel who are issued PPE shall inspect each item for any discrepancies that would compromise integrity. Discrepancies shall be corrected prior to use. Seawater rapidly degrades protective clothing and equipment. After each use, protective clothing and equipment shall be fresh-water rinsed, at a minimum, to remove all traces of seawater and allowed to completely dry before stowage.

## NOTE

Maintaining good PPE condition and maintenance is a shared responsibility between the wearer and the R&SS PO. Each wearer must maintain, take due care of, and identify any equipment failures or deficiencies with the assistance of the R&SS PO.

---



A.3.c. Issue

This Manual in conjunction with Reference (e) provides authority to individually issue PPE. The guidelines for accountability of personally issued protective clothing and equipment contained in this Manual shall be strictly followed.

Unit CO/OICs shall issue all required PPE at the same time. The only exception are as follows:

Members reporting to cold weather units during warm months are authorized to issue only standard PPE when all required cold weather PPE is not available. This allows members to get underway for training and other operations. Once available, all required PPE shall be issued.

Member reporting to a cold weather unit during the winter and the unit does not have their standard issue PPE, the unit may issue the cold weather PPE allowing the member to get underway for training and other operations. The unit is required to issue all the standard issue PPE prior to its required wear.

Individuals shall be responsible for the replacement of any issued PPE that is damaged or lost due to negligence. See Reference (g) for disciplinary actions and pecuniary liability.

A.3.d. Issue  
Documentation  
and  
Accountability

Personal Clothing and Equipment Record, Form AF-538, shall be used to document all issuances of personal PPE items. All PPE shall be documented on an AF-538. Accountability is maintained by the issuing command through periodic inventory inspections and documented annually on Form AF-538. These annual inventory inspections are useful in determining unit needs for maintaining an inventory of protective clothing and equipment for issue, recurring replacement costs associated with personally issued clothing and equipment, and to ensure that periodic inspection and associated maintenance procedures are being accomplished. The unit's R&SS PO shall perform the annual inventory inspection.

A.3.d.1.  
Electronic AF-  
538

Units may create an electronic version of the Form AF-538, which, at a minimum, shall:

- (04) Contain the same information as the official Form AF-538,
- (05) Be stored on shared public drive,
- (06) Be digitally signed.

**APPENDIX F** contains a sample of a filled out electronic AF-538. An electronic AF-538 can be found on the RSS Information page of the Office of Boat Forces Portal:

<https://cg.portal.uscg.mil/units/cg731/SitePages/RSS%20Information.aspx>.



A.3.e.  
Personal  
Clothing and  
Equipment  
Record, Form  
AF-538

Lines 1 through 20 of the AF-538 form are used to identify each item issued by article name, serial number (if applicable), quantity issued, size, and date of issue or turn-in. If a member is issued two separate sizes of a PPE item (e.g. medium rain jacket and small rain pants) then each piece can be documented in same block of the size column on the AF-538 (e.g. M/S). Any mistakes can be corrected by lining through and initialing next to the error. If a block is not used, mark through it with horizontal or vertical lines that are typed or handwritten.

Use lines 23 through 27 to identify the unit and the individual receiving the issue. Users shall enter their Employee Identification Number (EMPLID), not their Social Security Number (SSN), in block 25.

Section 28 on the second page shall be used to document annual inventory inspections and shall be signed by the individual performing the inspection and the individual accountable for the items. Block 28 is not to be signed upon initial issue, but for annual inventory only. Maintain form AF-538 files in a controlled area.

R&SS POs may use an additional page 1 of the Form AF-538 as a continuation page for listing all PPE that is issued.

**APPENDIX G** contains a blank Form AF-538.

A.3.f.  
Personnel  
Transfer

It is required that personal clothing and equipment issued to personnel be transferred with personnel to cutters and shore units when permanent change of unit occurs. If the new assignment does not require the use of boat crew clothing and equipment, all returnable items issued shall be returned to the issuing command prior to personnel transfer. For example, if members are going from a cold-weather unit to a warm-weather unit, they will not take their cold-weather PPE.

Members are authorized to hand-carry issued PPE when transferring. The AF-538 shall remain with the PPE and the parent command shall electronically email a copy of the AF-538 to the member’s new command. The member may elect to have their parent unit ship their PPE via government contracted carrier to their new unit.

**NOTE**

Members are NOT authorized to ship their issued PPE with household goods.

**NOTE**

Members transferring to BM A School shall take only their non-returnable items (see **Table 2-4**) from their home units to the school. BM A school will issue returnable items to students on a temporary basis until graduation.



A.3.g.  
 Reclamation  
 Control

The R&SS PO will reclaim items designated returnable in **Table 2-4** below. Returnable items issued to non-boat crew cutter personnel should remain with the cutter.

Non-returnable items shall not be shared. Non-returnable items shall be issued individually to the boat crew and scheduled mission personnel.

RETURNABLE ITEMS	NON-RETURNABLE ITEMS
Helmet *	Boat Shoes
Rain Gear Jacket and Pants *	Boat Crew Safety Boots
R&SS Gear Bag *	Female Headband (if issued)
Boat Crew Knife	Urination Device (if issued)
Anti-Exposure Coveralls *	Hydration Pack (if issued)
Dry Suit	
Basic Gloves	
Cold Weather Glove Layer I	
Cold Weather Gloves Layers II and III *	
Cold Weather Boots *	
Goggles *	
Sunglasses *	
Thermal Protection Layer I and II	
Thermal Socks	
Neoprene Hood	
Balaclava	
Watch Cap	
* Asterisked items are the only Returnable PPE that may be stored in a Ready Service Locker.	

**Table 2-4  
 Reclamation Control**

**NOTE**

Units shall launder and place back into storage all returnable items that are worn directly against the skin, including thermal protection layer II.

A.3.h.  
 Equipment  
 Sizing

Equipment is normally available in sizes ranging from the fifth percentile female to ninety-fifth percentile male. If standard sized equipment does not provide the proper fit and the manufacturer is unable to provide special sizing to meet personnel needs, units are required to contact Commandant (CG-731) prior to buying PPE that is covered under existing contracts.



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## CHAPTER 4

### Personal Flotation Device Policy

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**Introduction** This Chapter contains information, including wear policy, for PFDs issued to personnel.

All personnel embarked on shore and cutter based boats and those personnel engaged in specific deck operations on cutters shall wear PFDs as required in this Manual.

**In this Chapter**

This Chapter contains the following sections:

<b>Section</b>	<b>Topic</b>	<b>Page</b>
A	<a href="#">Personal Flotation Device Policy</a>	2-23
B	<a href="#">Coast Guard Approved Inherently Buoyant PFDs</a>	2-26
C	<a href="#">Non-Coast Guard Approved Cutter Specific PFDs</a>	2-32
D	<a href="#">Non-Coast Guard Approved and Coast Guard Approved Automatic/Manual Inflatable PFDs</a>	2-33

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## Section A. Personal Flotation Device Policy

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### Overview

This Section describes risk management and the minimum personal flotation requirements for specific evolutions on Coast Guard vessels.

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### A.1. Risk Management and PFD Selection

The minimum flotation standard required for most Coast Guard vessel operations can be achieved by using the inherently buoyant Coast Guard approved Type III PFD. Specific cutter deck operations require a different flotation standard. CO/OICs, in conjunction with the crew, shall determine the most appropriate PFD type to be used during each operational mission or evolution. Mission planning for underway operations, as well as dockside maintenance periods, shall include an assessment of personal survivability and risk management. This analysis shall be based on the possibility that the crew might be forced into a survival situation during any phase of operations. If the conditions are unknown, personnel shall be prepared for the most adverse conditions by selecting an inherently buoyant Coast Guard approved Type I PFD.

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#### A.1.a Cutter Abandon Ship Requirement

The number of available immersion suits or approved abandon ship PFDs on cutters is 125% of available berthing. Immersion suits are required for each person aboard cutters operating on the ocean or Great Lakes in all areas north of 32 degrees north latitude and south of 32 degrees south latitude. Cutters operating with immersion suits do not require abandon ship PFDs.

---

#### A.1.b. Minimum Required PPE

A personal marker light or strobe light and whistle shall be attached to any authorized PFD when the boat crew survival vest is not worn over the PFD. The light and whistle are not required to be attached to a PFD worn with the boat crew survival vest. Likewise, the light and whistle are not required under the exceptions described in Part 4, Chapter 1, [A.1.d. Exceptions.](#)

### CAUTION!

PFDs that will be used in temperatures below 50 degrees fahrenheit shall have the strobe light installed in lieu of the personal marker light.

### NOTE

ATON units only shall include the fixed blade knife as part of their minimum PPE when the boat crew survival vest is not worn.

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**A.2. Minimum Flotation Requirements**

It is not possible to identify all operational evolutions and assign or establish a minimum flotation requirement for each.

The risks associated with some operations have been evaluated and the following minimum flotation requirements shall be complied with for the given operations identified.

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A.2.a. Markings

PFDs, anti-exposure coveralls, and float coats shall be orange and/or orange-black in color and marked as follows:

- (01) On the left breast, with a Coast Guard emblem as described in Title 33 C.F.R. Subpart 23. The emblem shall have a diameter of three inches, plus or minus ¼ inch.
- (02) On the right breast, with a Coast Guard ensign as described in Title 33 C.F.R. Subpart 23. The ensign shall measure 2½ inches in height and 3½ inches in width, plus or minus ¼ inch. This right-breast ensign is not authorized for Auxiliary members.
- (03) In the center of the back, with the words “U.S. COAST GUARD” in block letters measuring 2½ inches plus or minus ½ inch. Lettering shall be solid black or white against the international orange background. For Auxiliary members, “AUX” or “AUXILIARY” shall be placed, in the same style of lettering, after the “U.S. COAST GUARD” lettering.

Identification markings should be applied using a silk-screen process or embroidered patch. Silk-screened markings are available from manufacturers or distributors. The embroidered patch may be procured locally and sewn or attached to the garment using adhesive.

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A.2.b.  
Shore and Cutter  
Based Boat  
Operations

The Coast Guard approved Type III PFD is established as the inherently buoyant minimum flotation requirement for shore and cutter based boat operations. This policy includes law enforcement operations. Alternatives to this requirement include:

- (01) Stearns Model I600 Type I,
  - (02) Mustang Survival MD-3183 v22,
  - (03) Mustang Survival MD-0450 v22,
  - (04) Lifesaving Systems Life Preserver Survival Vest 485-CG,
  - (05) Lifesaving Systems Life Preserver Survival Vest 481-CG,
  - (06) Anti-exposure Coveralls with boat crew survival vest,
  - (07) Flotation Jacket with boat crew survival vest.
-





A.2.c.  
Buoy Deck  
Operations

The minimum flotation requirement for buoy deck operations is established as the inherently buoyant Coast Guard approved Type III PFD. Alternatives to this requirement include:

- (01) Stearns Model I600 Type I,
- (02) Flotation Jacket,
- (03) Standard Navy PFD with Collar,
- (04) Anti-exposure Coveralls.

A.2.d.  
Tactical  
Operations

The minimum flotation requirement for tactical operations is established as the inherently buoyant Coast Guard Approved Type III PFD. Options to this requirement include the following:

- (01) Tactical Flotation System, MD-1250,
- (02) Stearns Model I600 Type I,
- (03) Mustang Survival MD-0450 v22,
- (04) Mustang Survival MD-3183 v22 with survival equipment pockets,
- (05) Lifesaving Systems Life Preserver Survival Vest,
- (06) Anti-exposure Coveralls with boat crew survival vest,
- (07) Flotation Jacket with boat crew survival vest.

**WARNING** 

MD-1250 inflatable PFDs will hinder egress in an enclosed cabin environment. Personnel conducting a majority of their duties inside the boat cabin, or who are seated inside the cabin, shall configure both the right and left pouch in manual-mode. Personnel conducting a majority of their duties outside the boat cabin shall configure the right pouch of the MD-1250 in automatic-mode and the left pouch in manual-mode.

**NOTE** 

The MD-1250 is the only PFD authorized to be worn in conjunction with a ballistic protection system, however, DSF and PATFORSWA Cutter trained personnel may wear the MD-1250 without the ballistic protection system.

**NOTE** 

PSUs are authorized to purchase the subdued or black anti-exposure coveralls.



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## Section B. Coast Guard Approved Inherently Buoyant PFDs

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**Overview** This Section describes the Coast Guard approved inherently buoyant devices and the usage policies. The following items are presented:

- (01) Stearns Model I600 Type I,
- (02) Type III,
- (03) Survivors Type I,
- (04) Type III Flotation Jacket,
- (05) Cold Weather Diving Topside Ensemble (CWDTE).

---

### B.1. Stearns Model I600 Type I



The Stearns Model I600 Type I PFD is an inherently buoyant vest designed to turn most unconscious wearers face up.

---

#### B.1.a. Application

The Stearns Model I600 Type I PFD or Standard Navy PFD with collar are required for the J-Davit tender and during abandon ship operations. It is authorized for use by Coast Guard boat and cutter crews during deck evolutions when conditions encountered may warrant a higher level of flotation characteristics than the Coast Guard-approved Type III device. This device provides greater mobility than the Standard Navy Type I with collar.

The Stearns Model I600 is the only Coast Guard-Approved Type I PFD authorized for boat crew use. When the Stearns model I600 is selected for use on shore and cutter based boat missions, the boat crew survival vest shall be worn over it by the boat crew.

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B.1.b.  
Salient  
Characteristics

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The Stearns Model I600 Type I PFD is a low profile, inherently buoyant, and universally sized device that will turn most unconscious or exhausted crewmembers face up while in the water and wearing law enforcement equipment such as weapons and ballistic panel inserts. It provides 22 pounds of buoyancy. A harness D-ring slit is cut into the back panel to facilitate the tending harness D-ring. A pocket is installed on the front to hold a strobe light and whistle. Two models are available:

- (01) The Stearns model I600 ORG NLT includes the flat orange whistle and the ACR Firefly III strobe light.
  - (02) The Stearns model I600 ORG NAV does not include the strobe light or the flat orange whistle.
-



**B.2. Type III**



The Coast Guard-approved Type III PFD or equivalent may be used by Coast Guard boat and cutter crews during underway deck evolutions or as directed by the unit CO/OIC, based on conditions not requiring the use of a Type I device.

**B.2.a.  
Application**



This device provides the best mobility for the cutter crew during deck evolutions and the boat crew during operations. Boat crew wearing the Type III PFD on shore and cutter-based boat missions shall wear the boat crew survival vest over it.

**Figure 2-2  
Member in  
Type III PFD**

**WARNING**

The Coast Guard-Approved Type III PFD will not turn an unconscious or exhausted crewmember face up in the water.

**B.2.b.  
Salient  
Characteristics**

The Type III vest shall be U.S.C.G approved, international orange in color, have SOLAS-grade reflective tape installed for increased visibility in low-light environments, and a D-ring for attachment of a Lanyard/Kill-switch. The vest may be of a solid nylon or mesh on the upper half design. The vest shall be marked in accordance with Part 2, Chapter 4, Paragraph **A.2.a. Markings** of this Manual. This is a low profile, vest type and inherently buoyant PFD that provides the most mobility. The vest provides a minimum of 15 ½ pounds of buoyancy. A personal marker light or strobe light and whistle are not required to be attached when worn in conjunction with the boat crew survival vest. If the boat crew survival vest is not worn over this PFD, a personal marker light or strobe light and the whistle are required.



---

**B.3. Survivors  
Type I**



The Coast Guard approved survivors Type I PFD is one of the most buoyant PFDs. It is designed for extended survival in open waters where rescue may be delayed and slow to arrive. Coast Guard boat and cutter crews shall not use the Type I as their standard PFD because it restricts mobility.

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**B.3.a  
Application**

The Coast Guard approved survivors Type 1 PFD. Is given to unscheduled passengers, including prisoners, survivors and other non-mission-essential personnel.

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**B.3.b.  
Salient  
Characteristics**

Any reversible Coast Guard Approved Type I PFD certified in accordance with 46 C.F.R. § 160.001. SOLAS tape is required, and designed to turn most unconscious or exhausted crewmembers face up while in the water. The color of the vest shall be international orange.



**Figure 2-3  
Passenger in Survivors Type I PFD**

---



#### B.4. Type III Flotation Jacket



The Coast Guard-approved Type III flotation jacket (Float Coat) is a bomber style, waist length inherently buoyant jacket. The Type III flotation jacket may be used by Coast Guard personnel working on or near the water.

##### B.4.a. Application

This jacket can be used in lieu of the Type III PFD when air and water temperatures are not cold enough to warrant the use of anti-exposure coveralls or dry suits (refer to [Table 2-2](#) and [Table 2-3](#)). Boat crew wearing the Type III flotation jacket on shore and cutter-based boat missions shall wear the boat crew survival vest over it.

##### **WARNING**

The Type III flotation jacket will not turn an unconscious or exhausted crewmember face up in the water.

##### B.4.b. Salient Characteristics

The float coat provides a minimum of 15 ½ pounds of buoyancy. The jacket shall be international orange or international orange and black with SOLAS grade retro-reflective tape applied for increased visibility in low light environments. The jacket shall be marked in accordance with paragraph [A.2.a. Markings](#). If the boat crew survival vest is not worn over this PFD, a personal marker light or strobe light and the whistle are required.



**B.5. Cold  
Weather Diving  
Topside  
Ensemble  
(CWDTE)**

The CWDTE is intended for use by diving personnel performing diving operations in cold water (37° F or colder) or ice-covered environments.



**NOTE** 

CWDTE is authorized only for icebreaker dive teams.

**B.5.a  
Application**

The CWDTE provides readily adjustable thermal protection that allows divers to add or remove thermal protection according to physical activity in order to prevent sweating.

**B.5.a. Salient  
Characteristics**

The CWDTE consists of the Mustang ThermoSystem Plus Coat (MC1534 v22) and the Mustang Integrity HX (MP4225) Bib/pant. The Coat is high visibility American National Standard Institute (ANSI) green with an integrated hood and beaver tail. The bib-pant is black with leg zips for ventilation.



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## Section C. Non-Coast Guard Approved Cutter Specific PFDs

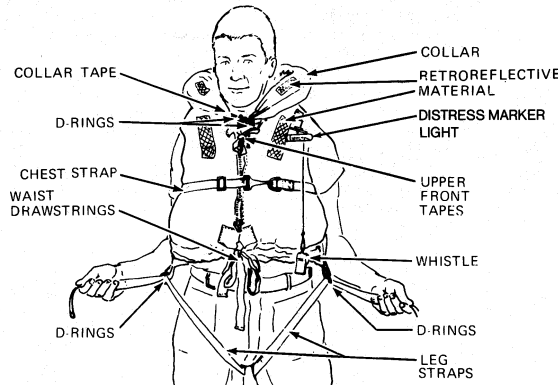
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### Overview

This Section describes the Non-Coast Guard approved inherently buoyant devices and the usage policies. The following items are presented:

- (01) Standard Navy Type I PFD with Collar.

### C.1. Standard Navy Type I PFD with Collar



The Standard Navy Type I PFD with collar is an inherently buoyant PFD designed to turn most unconscious wearers face up.

#### C.1.a. Application

The Standard Navy Type I PFD with collar or Stearns Model I600 Type I PFD are required for the J-Davit tender and during abandon ship operations. It is authorized for use by Coast Guard boat and cutter crews during deck evolutions when conditions encountered may warrant a higher level of flotation characteristics than the Coast Guard-approved Type III device.

The Standard Navy Type I PFD with collar (or Stearns Model I600 Type I PFD) is also routinely used on weather decks during heavy weather.

#### C.1.b. Salient Characteristics

The Standard Navy Type I PFD with collar is an inherently buoyant international orange, sleeveless, vest type PFD constructed of a nylon or cotton outer shell filled with removable unicellular plastic pads or kapok. Adjustment straps and ties allow for sizing over a wide range. Leg straps are incorporated to keep the PFD from riding up on the wearer and keeping the PFD on when jumping into the water from high freeboard vessels. It will turn an exhausted or unconscious crewmember face up while in the water while providing 32 pounds of buoyancy. This PFD allows for complete relaxation while in the water and enables the wearer to assume positions that preserve body heat and extend survival time. A personal marker light or strobe light and a whistle shall be attached to the device.





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## Section D. Non-Coast Guard Approved and Coast Guard Approved Automatic/Manual Inflatable PFDs

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**Overview** This Section describes the Non-Coast Guard approved automatic/manual inflatable devices, as well as the Coast Guard approved Mustang Survival MD-3183 v34 automatic/manual inflatable device used by the Auxiliary, and the usage policies.

**D.1. Policy** The Non-Coast Guard approved automatic/manual inflatable PFD may be used by Coast Guard crewmembers and are authorized for cutter personnel during all deck evolutions, except buoy deck operations, J-Davit tender, and abandon ship. Personnel wearing the automatically inflatable Mustang PFD shall pull the handle to deploy the actuator as soon as they are in the water. If handle is not pulled manually on the MD-3183 v34, MD-0450 v22, and MD-1250 the actuator will not automatically trigger until it has been deeper than four inches for up to ten seconds. If handle is not pulled manually on Life Preserver Survival Vest 485 CG, and Life Preserver Survival Vest 481 CG the actuator will not automatically trigger until chemical pills (inflator tablets) dissolves once submerged.

Automatically inflatable PFDs will hinder egress in an enclosed cabin environment and are not authorized for use on helicopters. The exception is the Mustang Survival MD-1250, which is authorized onboard helicopters for trained users. Refer to Reference (h) for specific helicopter insertion and extraction guidance.

Inflatable PFDs are not authorized to be worn with anti-exposure coveralls because it creates too much buoyancy to safely egress out of a capsized boat. Harnesses of all types, such as the boat swimmer harness and other climbing safety harnesses, shall not be used with automatically inflating PFDs. Harnesses can restrict the outward inflating action and may prevent breathing or cause crushing injuries to the upper torso. However, crew restraint systems are authorized.

With the exception of the MD-3183 v34 and the MD1250 all other inflatable PFDs in this section operate with a 17-gram CO<sub>2</sub> cartridge, which provides approximately 20.5 pounds of buoyancy. This exceeds the minimum inherently buoyant adult Type III PFD, which has a minimum of 15 ½ pounds of buoyancy. This PFD was designed to house a much larger CO<sub>2</sub> cartridge, but it was determined that the larger cartridge produced too much buoyancy for a member to safely egress from a capsized vessel. The bladder will not fully inflate, and this is normal and doesn't mean the PFD is faulty. If you are at the water's surface and need additional buoyancy, use the oral inflation tube.



Non-Coast Guard approved automatic/manual inflatable PFD requires completion of an associated performance qualification standard (PQS) that is unique to the specific device. The PQS shall be completed and placed in the member’s training record prior to using the PFD, and kept on file with the R&SS PO. PFD PQS can be found on the Office of Boat Forces Portal: [https://cg.portal.uscg.mil/units/cg731/SitePages/RSS PQS.aspx](https://cg.portal.uscg.mil/units/cg731/SitePages/RSS%20PQS.aspx).

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**D.2. Non-Coast Guard Approved PFD**

- (01) Mustang Survival MD-3183 v22 with survival equipment pockets,
  - (02) Mustang Survival MD-0450 v22,
  - (03) Lifesaving Systems Life Preserver Survival Vest 485 CG,
  - (04) Lifesaving Systems Life Preserver Survival Vest 481 CG,
  - (05) Mustang Survival MD-1250 (required when wearing a ballistic plate carrier with Level IV plate over the water).
- 

**D.3. Coast Guard Approved PFD**

Mustang Survival MD-3183 v34.

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**D.4. Mustang Survival MD-3183 v22 with Survival Equipment Pockets**

The Mustang Survival MD-3183 v22 with survival equipment pockets may be used on shore and cutter based boat missions by the boat crew and scheduled mission personnel who have completed the Mustang Survival MD-3183 v22 PQS.



**D.4.a. Application**

The Mustang Survival MD-3183 v22 is optional equipment that can be used in lieu of inherently buoyant PFDs and boat crew survival vest combination. The Mustang Survival MD-3183 v22 is an automatic/manual inflatable PFD and with survival equipment pockets for carrying survival items required during operational missions. The Mustang Survival MD-3183 v22 can be worn over ODU or dry suits on all missions. The survival items of the Mustang Survival MD-3183 v22 survival equipment pockets shall not be removed and placed on other devices.

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D.4.b. Salient Characteristics

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The Mustang Survival MD-3183 v22 is a low profile inflatable buoyancy chamber with survival equipment pockets attached to a nylon webbing support harness. The buoyancy chamber and equipment pockets are orange nylon material with Coast Guard markings and SOLAS grade retro-reflective tape is applied for increased visibility in low-light environments. An automatic/manual inflatable flotation chamber provides 20.5 pounds of buoyancy automatically, with a capacity of 35 pounds of buoyancy with additional manual inflation. The inflation assembly is a carbon dioxide cylinder actuator that is manually inflated by pulling the beaded inflation lanyard or automatically inflates upon submersion in water. The Mustang Survival MD-3183 v22 is available as one size fits all and has a waist adjustment strap for fitting to individual comfort.

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**D.5. Mustang Survival MD-0450-v22**



The MD-0450-v22 is an inflatable life preserver survival vest. It combines the life preserver and boat crew survival vest into one unit. MD-0450-v22 may be worn when conditions call for a low profile flotation system that does not interfere with LE gear. It provides pockets with lanyard attachment points to secure & store all required survival PPE. Using the LIFT bladder design the MD-0450-v22 provides 40-lb buoyancy when inflated increasing freeboard and reducing underwater mouth immersions by 80%.

---

D.5.a. Application

The MD-0450-v22 shall be worn as the outermost garment with the waist belt adjusted to remove all slack so that it fits snugly around the torso.

---

D.5.b. Salient Characteristics

Using Hydrostatic Inflator Technology, the MD-0450-v22 will automatically inflate when submerged in four or more inches of water but not inadvertently due to rain, spray or humidity.

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**D.6. Lifesaving  
Systems Life  
Preserver Survival  
Vest 485 CG**



The Life Preserver Survival Vest (LPSV) may be used on shore and cutter based boat missions by the boat crew and scheduled mission personnel who have completed the LPSV PQS.

**D.6.a.  
Application**



The LPSV is optional equipment that can be used in lieu of the inherently buoyant PFD and survival vest combination. The LPSV is an automatic/manual inflatable PFD with pockets for carrying the required survival items. The LPSV can be worn over the ODU or dry suits on all missions.



D.6.b. Salient Characteristics

The LPSV is an orange nylon mesh vest with Coast Guard markings and SOLAS grade retro-reflective tape is applied for increased visibility in low-light environments. When properly donned and fully inflated the LPSV provides 28 pounds of buoyancy. Incorporated in the vest are 2 stowage pockets used to store the following:



**Figure 2-4**  
**LPSV with Pyrotechnics**

- (01) MK 124 Marine Smoke and Illumination Signal,
- (02) Strobe Light,
- (03) Signal Mirror,
- (04) Whistle,
- (05) MK 79 Personnel Distress Signal Kit,
- (06) Personal Locator Beacon.



**D.7. Lifesaving  
Systems Life  
Preserver Survival  
Vest 481-CG**



The Lifesaving Systems 481-CG is optional equipment that can be used in lieu of inherently buoyant PFD and boat crew survival vest combination. The Lifesaving Systems 481-CG is an automatic/manual inflatable PFD and with survival equipment pockets for carrying survival items required during operational missions.

**D.7.a.  
Application**

The Lifesaving Systems Life Preserver Vest 481-CG with survival equipment pockets may be used on shore and cutter based boat missions by the boat crew and scheduled mission personnel who have completed the Lifesaving System 481-CG PQS. The Lifesaving Systems 481-CG can be worn over ODU or dry suits on all missions. The survival items of the Lifesaving Systems 481-CG survival equipment pockets shall not be removed to other devices. Scheduled mission personnel who wear the Lifesaving System 481-CG shall include the whistle as well as a personal marker light or strobe light.

**D.7.b. Salient  
Characteristics**

The Lifesaving Systems 481-CG is a low profile inflatable buoyancy chamber with survival equipment pockets attached to a nylon webbing support harness. The buoyancy chamber and equipment pockets are orange nylon material with Coast Guard markings and SOLAS grade retro-reflective tape is applied for increased visibility in low-light environments. An automatic/manual inflatable flotation chamber provides 20.5 pounds of buoyancy automatically, with a capacity of 35 pounds of buoyancy with additional manual inflation. The inflation assembly is a carbon dioxide cylinder actuator that is manually inflated by pulling the beaded inflation lanyard or automatically inflates upon submersion in water. The Lifesaving Systems 481-CG is available as one size fits all and has a waist adjustment strap for fitting to individual comfort.



**D.8. Mustang  
Survival MD-1250**



The MD-1250 can be worn only by personnel assigned to DSF or Patrol Forces Southwest Asia (PATFORSWA) units. Configuration of the MD-1250 and the Tactical PFD Rescue Equipment Pouch shall be in accordance with appropriate MPC. In order to wear the MD-1250, user shall successfully complete the Water Survival Training Program (WSTP) in accordance with Reference (i). MD-1250 is a low

profile flotation system that provides flotation capability with minimum bulk or interference using separate, independently operated left and right side pouches.

**WARNING** 

MD-1250 inflatable PFDs will hinder egress in an enclosed cabin environment. Personnel conducting a majority of their duties inside the boat cabin, or who are seated inside the cabin, shall configure both the right and left pouch in manual-mode. Personnel conducting a majority of their duties outside the boat cabin shall configure the right pouch of the MD-1250 in automatic-mode and the left pouch in manual-mode.

**D.8.a. Application**

The MD-1250 pouches shall be worn on the enforcement belt in accordance with the MPC. The configuration of the MD-1250 and pyro pouch, when applicable, shall also be in accordance with the appropriate MPC.

**D.8.b. Salient  
Characteristics**

Using Hydrostatic Inflator Technology, each pouch will automatically inflate when submerged in 4 or more inches of water but not inadvertently due to rain, spray or humidity. Each unit contains 35lb buoyancy for combined 70lb buoyancy.

When fitted with the manual conversion cap, the automatic hydrostatic function can be disabled. Each pouch can still be inflated by pulling the beaded handle. An oral inflation tube provides backup inflation or emergency infield deflation.



**D.9. Mustang Survival MD-3183 v34 with Survival Equipment Pockets (CG Auxiliary)**

The Mustang Survival MD-3183 v34 with survival equipment pockets may be used by members of the Coast Guard Auxiliary for all surface operations by members who have completed the Mustang Survival MD-3183 (series) PQS. The MD-3183 v34 is the only CG approved inflatable PFD authorized for CG Auxiliary use.



**D.9.a. Application**

The Mustang Survival MD-3183 v34 is optional equipment that may be used in lieu of inherently buoyant PFDs and boat crew survival vest combination. The Mustang Survival MD-3183 v34 is an automatic/manual inflatable PFD and with survival equipment pockets for carrying survival items required during operational missions. The Mustang Survival MD-3183 v34 can be worn over ODU or dry suits on all missions. The survival items in the Mustang Survival MD-3183 v34 survival equipment pockets shall not be transferred to other devices.

**D.9.b. Salient Characteristics**

The Mustang Survival MD-3183 v34 is a low profile inflatable buoyancy chamber with survival equipment pockets attached to a nylon webbing support harness. The buoyancy chamber and equipment pockets are orange nylon material with Coast Guard Auxiliary markings and SOLAS grade retro-reflective tape is applied for increased visibility in low-light environments. An automatic/manual inflatable flotation chamber provides 35 pounds of buoyancy. The inflation assembly is a carbon dioxide cylinder actuator that is manually inflated by pulling the beaded inflation lanyard or automatically inflates upon submersion in water. The Mustang Survival MD-3183 v34 is available as one size fits all and has a waist adjustment strap for fitting to individual comfort.





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**D.10. Abandon  
Ship Life  
Preserver**



The Abandon Ship Life Preserver may be used as an option by cutter personnel in high heat areas and/or confined spaces during general emergency conditions or abandon-ship operations but is not a replacement for the Navy Type I PFD w/ Collar.

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D.10.a  
Application

The abandon ship life preserver is worn around the waist with the pouch to the stomach area during abandon ship operations.

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D.10.b. Salient  
Characteristics

The Abandon Ship Life Preserver is a single chambered, manual CO<sub>2</sub> or orally inflated device constructed of urethane-coated nylon cloth. When properly donned and fully inflated this preserver will turn an exhausted or unconscious crewmember face up while in the water while providing 35 pounds of buoyancy. The assembly consists of an integrated adjustable waist belt with buckle, storage pouch, and inflatable chamber. A strip of pile tape is installed on the inflatable chamber for attachment of a strobe light after inflation. Enclosed in the storage pouch is a toggle line and loop assembly used for securing PIWs together or securing the wearer to a liferaft, a personal strobe light, and a whistle.

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# PART 3 Personal Protective Equipment

**Introduction** This Part contains the information necessary for the proper administration of the unit’s rescue and survival systems program. It defines salient characteristics and configuration of PPE, and directs specific policies related to procurement, required maintenance, procedures, and documentation necessary to meet Coast Guard personnel survivability and operational safety needs.

**In this Part** This Part contains the following Chapters:

Chapter	Topic	Page
1	<a href="#">Standard Issue PPE</a>	3-2
2	<a href="#">Cold Weather Issue PPE</a>	3-15
3	<a href="#">Mission Specific Issue PPE</a>	3-29



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## CHAPTER 1

### Standard Issue PPE

---

**Introduction** This Chapter contains information about standard issue PPE used afloat and ashore. The sections in this Chapter reflect approved equipment and their authorized configurations.

**In this Chapter**

This Chapter contains the following sections:

---

Section	Topic	Page
A	<a href="#">Standard Issue PPE</a>	3-3

---



## Section A. Standard Issue PPE

**Overview** This Section describes wear and issue policy for the minimum outfit of standard issue PPE.

**A.1. Standard Issue Personal Protective Equipment (PPE) Boat Crew** Items listed in **Table 3-1** are presented and shall be issued in the quantities shown below.

QTY	ITEM
1 each	Helmet*
1 set	Rain Jacket & Pants      • See first Note box below table.
1 each	Boat Crew Knife
1 pair	Basic Gloves*
1 pair	Goggles      • Prescription lens procured with unit funds, • Ballistic Goggle requirements are found in Reference (j).
1 each	R&SS Gear Bag*
1 pair	Sunglasses      • Prescription lenses may be available from medical, • Optional for scheduled mission personnel.
1 pair	Boat Crew Safety Boots
1 pair	Boat Shoes      • Optional.
1 each	Anti-Exposure Coveralls*      • Exceptions in second NOTE box below table.
1 each	Type III PFD*      • Issued to Auxiliarists and optional for all others.
1 each	Female Headband      • Optional.
1 each	Urination device      • See first Note box below table.
1 each	Hydration Pack      • Optional.

\*Asterisked items are the only required issue for Auxiliarists. Only Auxiliarists who might engage in activities outlined in **PART 3 CHAPTER 1A.2. Helmets** require helmet issue.

**Table 3-1  
 Standard Clothing Issue for Boat Crew**



**NOTE**

Units shall issue rain gear and a urination device to all members who request them. When member does not request the items, its issuance is optional.

**NOTE**

Anti-exposure coveralls are optional for cold weather units and other units listed in [PART 3 CHAPTER 1 A.11. Anti-Exposure Coveralls](#). Units that do not exceed 30 days of anti-exposure coverall weather requirements per [Table 2-2](#) should follow requirements in [Table 2-3](#).

**NOTE**

**FOR CUTTERS ONLY-** Break-in personnel should have only the necessary PPE for the operating environment issued to them during the break-in period. Once fully qualified, the member will be issued a full boatcrew bag.

**A.2. Helmets**

CG personnel shall wear head protection during hazardous conditions including, but not limited to:

- (01) Boat lowering and recovery detail,
- (02) Heavy weather,
- (03) Surf,
- (04) Ice rescue,
- (05) Helicopter operations,
- (06) Ports, Waterways and Coastal Security (PWCS) missions,
- (07) Pursuit missions,
- (08) MSRT Advanced Interdiction Missions,
- (09) When operating alongside a vessel where risk from falling objects is a factor,
- (10) During underway vessel-to-vessel transfers at the discretion of the coxswain.

A hardhat with chin strap meets the head protection requirement for:

- (01) ATON personnel,
- (02) Boat lowering and recovery detail personnel,
- (03) Scheduled mission personnel (excluding boarding teams and training teams).

**NOTE**

Helmet wear is at the discretion of the unit CO/OIC for the following personnel:

- (01) Crews traveling at speed of 30 knots or greater,
- (02) Other crews engaged in activities OTHER THAN:
  - a) SZ enforcement,
  - b) Non-Compliant Vessel Pursuit (NCVP) activities,
  - c) Those activities described in paragraph **A.2. Helmets** above.

CO/OIC should provide additional guidance in the unit's SOP.

**A.2.a.  
Authorized  
Helmets**

Several models of helmets are authorized, interchangeably, for all surface missions. Refer to MPC KB0026.0 for a list of authorized helmets.

Coxswains shall ensure all boat crew wear head protection with chinstraps securely fastened around the chin during hazardous conditions or when, in the judgment of the coxswain, the situation warrants head protection use.



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A.2.a.1.  
Hardhats



A hardhat is a helmet that provides impact protection to a wearer's head. Some models protect the back of the neck from falling debris as well

---

A.2.a.1.a.  
Application

Hardhats shall be worn at all times when conducting ATON or lifting or overhead operations.

---

A.2.a.1.b.  
Salient  
Characteristics

Hardhats shall meet American National Standards Institute (ANSI) standard Z89.1.

---



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**A.3. Rain Gear**

Rain gear jacket and pants should be worn as the primary Layer III garment when exposure to intermittent sea spray or rain is encountered.



---

A.3.a.  
Application

This suit is not designed to preclude the entry of water upon immersion and provides little protection from the cooling effects of unintended immersion in water.

**NOTE** 

Port Security Units purchasing rain gear shall ensure that the rain gear is the color prescribed by the Combatant Commander in accordance with Unit Allowance List (UAL).

---

A.3.b.  
Salient  
Characteristics

Rain gear consists of a coat and pants constructed of Pantone Color Warm Red C or 172 C waterproof and breathable tri-laminate fabric. Seams are stitched and sealed from water intrusion with seam tape. Jackets shall have an attached hood with drawstring closure, adjustable wrist cuffs, SOLAS grade retro-reflective tape and “U. S. COAST GUARD” printed on the back in 1 ½ to 3 inch high white or black solid block lettering. Pants shall have an elastic waistband with drawstring closure and adjustable ankle cuffs.

---

A.3.c.  
Alternate Issue

ATON units may issue a PVC style rain gear meeting all other above mentioned SPECS for wear during ATON specific work when increased risk of destroying the rain gear is likely.

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#### **A.4. Boat Crew Knife**

Crew members are issued boat crew knives.



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##### **A.4.a. Application**

The boat crew knife is appropriate for use during daily activities and during operational missions.

---

##### **A.4.b. Salient Characteristics**

Spring-assisted folding knives with stainless steel serrated blades of 4 inches or less provide the best service. However, knives may be non-spring-assisted, straight edge, serrated, or a combination of straight edge and serrated. Folding knife blades shall lock in the open position to avoid inadvertent folding during use. Switchblade knives are not authorized. A switch blade knife is defined as having a blade which opens automatically by hand pressure applied to a button or other device in the handle of the knife or by operation of gravity.

Spring-assisted knives are required to have a locking function that prevents the knife from being accidentally deployed.

#### **WARNING**

When handling a knife, use extreme caution to avoid inadvertently cutting or puncturing a person or object.

---





**A.5.  
Basic Gloves**

Basic gloves should be adequate for a variety of general purpose or individual unit missions.



**A.5.a.  
Application**

The basic glove is worn as required to provide thermal protection in intermediate cold/wet weather and it provides defense to the hands from injuries such as abrasions, scrapes, cuts and blisters during line handling evolutions including mooring, towing and ATON operations.

**A.5.b.  
Salient  
Characteristics**

The basic glove should be constructed of durable material. The basic glove may be of a full finger, long-finger or short-finger style.

**NOTE** 

Basic gloves will provide limited protection from hypothermia when wet inside. During operations where additional protection from hypothermia is required, a cold weather glove system shall be used.

**WARNING** 

While handling lines or equipment, crewmembers are only authorized to wear basic gloves when there is a possible loss of dexterity.



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## A.6. Goggles



Goggles provide benefits for personnel in various Coast Guard missions.

---

### A.6.a. Application

Personnel operating in an environment where wind, spray and water may cause injury or hamper vision, such as during helicopter operations and heavy weather operations, should wear goggles.

---

### A.6.b. Salient Characteristics

Goggles consist of a black synthetic rubber or foam face frame with plastic non-fogging and 100% UV protective lenses. Goggles are universally sized and come equipped with an adjustable elastic headband. When required, the goggles shall be of a design that allows prescription lenses to be fitted.

---

### A.6.c. Prescription Lenses

Personnel needing prescription eyewear are authorized to have corrective lenses procured for their goggles.

---

## NOTE

If the goggles come as a kit with multiple lenses (i.e. clear and shaded) then the kit shall be issued and maintained as such.

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## A.7. R&SS Gear Bag



The R&SS Gear Bag is used to store standard issue and cold weather PPE.

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A.7.a. Application Personnel issued personal protective equipment shall use this bag for storage.

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### A.7.b. Salient Characteristics

The R&SS Gear Bag is made of nylon or canvas duck material. It has a slide fastener opening and two webbing carrying handles. It is large enough to stow all standard and cold weather clothing.

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**A.8.  
Sunglasses**



Sunglasses provide the boat crew protection from the sun's glare and reflection off the water. They are optional for scheduled mission personnel.

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**A.8.a.  
Application**

Sunglasses should be worn by personnel to protect eyes from UV radiation. Use sunglasses during searches to enhance search operations.

**NOTE**

Prescription sunglasses may be available from the Naval Ophthalmic Support & Training Activity (NOSTRA). Contact the MTF or HBA for assistance.

---

**A.8.b.  
Salient  
Characteristics**

Sunglasses shall meet or exceed ANSI Z87.1+ (impact) standards. Sunglasses shall be impact resistant and provide at least 98 percent UVA and 100 percent UVB protection. Lenses should be neutral, slate/green, or smoke/gray in color. Sunglasses shall conform to the guidelines set forth in Reference (k) for military appearance. Polarized sunglasses are authorized but must be worn with caution due to 'display blackout' experienced when viewing certain polarized displays.

**NOTE**

If the sunglasses come as a kit with multiple lenses (i.e. clear and shaded) then the kit shall be issued and maintained as such.

---

**CAUTION!**

Wearing polarized sunglasses can result in an inability to see through other forms of polarized material (e.g. windshields, charting displays, etc.). When wearing polarized sunglasses, boat crews must check that all displays are viewable. Do not wear polarized sunglasses if any displays are found not viewable.

---



**A.9. Boat Crew Safety Boot**



The boot is designed to protect the wearer's foot from immersion, thermal injury and impact.

**NOTE** 

These boots shall be issued as standard PPE for all boat crew in accordance with Reference (e), regardless of whether boots have been previously issued as a uniform seabag item.

**A.9.a. Application**

Personnel shall wear the temperate/wet weather boots in air and water temperatures above 50 degrees Fahrenheit. Procurement information for the boat crew safety boot can be found in Reference (e).

**A.9.b. Salient Characteristics**

The boot shall meet salient characteristics listed in Reference (k).

**NOTE** 

This boot offers protection from the cold wet environment, but is not intended to replace the insulated boot designated for use as extended hypothermia protective equipment in extreme cold temperatures, heavy weather and surf.

**A.10. Boat Shoes**



Boat shoes (optional) may be worn when working aboard boats where non-slip traction and non-marking soles are required, such as when boarding recreational boats and during vessel inspections where appropriate.

**A.10.a. Application**

Boat shoes provide little protection from hypothermia and no crush protection for the toes. CO/OICs shall evaluate the need to outfit the boat crew to meet the expected operational mission. Purchase boat shoes only if operational mission requires their use.

**A.10.b. Salient Characteristics**

The shoe shall meet salient characteristics listed in Reference (k).



**A.11.  
Anti-Exposure  
Coveralls**

The anti-exposure coveralls are the primary Layer III garment worn when members are exposed to intermittent sea spray or rain and thermal protection is required. If properly worn with the straps appropriately adjusted, the water will not flush out of the suit and will delay the onset of hypothermia.



**Figure 3-1  
Anti-Exposure Coveralls**

**A.11.a.  
Application**

Personnel shall wear anti-exposure coveralls when operating in conditions requiring anti-exposure coveralls use. Refer to [Table 2-2](#) and [Table 2-3](#) to determine when anti-exposure coveralls use is required. If the boat crew survival vest is not worn over this PFD, a personal marker light or strobe light and the whistle are required.

Anti-exposure coveralls are no longer required to be personally issued at units (shore or cutters) assigned under the ADCON of CG Sectors Guam, Honolulu, Key West, Miami and San Juan. If personnel assigned to cold weather units have been issued an authorized Maritime Cold Weather Suit System (MCWSS) or Industrial Dry Suit, per appropriate MPC, the personal issue of the anti- exposure coveralls is optional.



A.11.b.  
Salient  
Characteristics

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Anti-exposure coveralls are constructed of a urethane coated nylon fabric with a closed cell foam interlining. Sleeve and leg openings can be closed tightly around the wrist and ankles; however they do not provide a watertight seal. Anti-exposure coveralls provide 22 to 45 pounds of buoyancy (depending on size) and feature, an attached orally inflated pillow to support the wearer's head in the water, an attached hood for extra thermal protection, and retro-reflective tape on the hood and shoulders is applied for increased visibility in low-light environments. Seven sizes range from XS to 3XL.

Anti-exposure coveralls shall be U.S.C.G approved per the requirements set forth in 46 C.F.R. § 160.053. The suit shall incorporate 62 sq. inches of SOLAS grade retro-reflective material that would be visible above the water's surface from all directions while the wearer is floating upright with legs and torso submerged in chest deep water. The suit shall be orange or orange and black.

**NOTE** 

Specific color for anti-exposure coveralls for each DSF unit is per program manager.

Manufacturers marking should be kept to a minimum and not distract from the military appearance of the garment.

---



**A.12. Female Headband**



Females are authorized to wear headbands (optional) while conducting boat operations.

A.12.a.  
Application

The headband is used to keep hair out of the member’s face.

A.12.b.  
Salient Characteristics

The headband shall be solid black with no visible logo, and between 1-3 inches wide.

**A.13. Urination Device**



Urination devices are commercially procured items ranging from urinary capture devices to funnel-shaped products for use during underway operations.

A.13.a.  
Application

These devices allow members to urinate when a toilet is not readily accessible and enables a discrete option.

A.13.b.  
Salient Characteristics

Urination devices are made of various materials ranging from flexible silicone, hard plastic, absorbant pads, and cardboard.

**A.14. Hydration Pack**



A hydration pack (optional) is a backpack containing a reservoir or bladder, commonly made of rubber or flexible plastic, used to hold water.

A.14.a.  
Application

The hydration pack may be worn over member’s PPE as a backpack or it can be mollyied to member’s equipment (e.g. ballistic protection system).

**NOTE**

Hydration pack is not authorized to be attached to the Level IIIA External Carrier. See Reference (a) for further details.

A.14.b.  
Salient Characteristics

The cover is abrasion resistant with a BPA/BPS/BPF free bladder or reservoir. The bladder or reservoir contains a capped mouth for filling with liquid and a hose that allows the wearer to drink.



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## CHAPTER 2

### Cold Weather Issue PPE

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**Introduction** This Chapter contains information about cold weather PPE used afloat and ashore. The sections in this Chapter reflect approved equipment and their authorized configurations.

**In this Chapter**

This Chapter contains the following sections:

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Section	Topic	Page
A	<a href="#">Cold Weather Issue PPE</a>	3-16

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## Section A. Cold Weather Issue PPE

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### Overview

This Section describes wear and issue policy for the minimum outfit of cold weather PPE. This PPE is required to safely perform the duties of personnel operating shore and cutter based boats in areas where the air and water temperatures both fall below 50 degrees Fahrenheit.

---

### A.1. Minimum Issue Cold Weather PPE Boat Crew

The cold weather PPE presented in [Table 3-2](#) is the standard by which funding is justified. These items represent the minimum inventory cold weather PPE required by personnel engaged in waterborne operations. Other equipment may be required at individual units. Cold weather PPE is issued to all personnel meeting the criteria and operating in the following geographic regions:

- (01) District 1, 5, 9, 11 (except Sector San Diego units), 13 and 17 station and aids to navigation units, and Sector Charleston,
- (02) District 8 station and aids to navigation units and sectors, MSDs and MSUs with boat detachments located north of 31 Degrees Latitude,
- (03) Cutters operating in District 1, 5, 9, 11 (except Sector San Diego units), 13 and 17,
- (04) Cutters operating North of Florida in District 7 and North of Louisiana in District 8,
- (05) All DSF units.

The Office of Boat Forces (CG-731) has approved permanent cold weather PPE issuance waivers for the following units:

- (01) CG Marine Force Protection Unit Kings Bay,
- (02) Marine Safety Detachment Port Canaveral,
- (03) CG Station Los Angeles / Long Beach,
- (04) CG Station Channel Islands,
- (05) Port Security Unit 307 and 308.

Items in [Table 3-2](#) shall be issued in the quantities shown below:



QTY	ITEM
1 each	Maritime Cold Weather Suit System* (MCWSS) (provides Layer III protection), <b>or</b> Industrial type Dry Suit* (provides Layer II & III protection).
3 sets	Thermal underwear* (01) 1 set Layer II moisture wicking, a) Layer II is not required to be issued when an Industrial type Dry Suit is issued, (02) 2 sets Layer I moisture wicking material.
1 each	Neoprene hood*
2 pair	Thermal socks*
1 each	Cold weather glove layers (01) 1 pair of each Layers I-III.
1 pair	Cold weather boots*
1 each	Balaclava
1 each	Watch cap
1 each	R&SS gear bag (Optional)
*Asterisked items are optional for Inspectors, Investigators, and Pollution Responders.	

**Table 3-2**  
**Cold Weather Clothing Issue**

**NOTE** ☞

Auxiliarists shall be issued only PPE appropriate to the mission parameters and environment in which they operate.

**NOTE** ☞

Scheduled mission personnel PPE may be kept in a Ready Service Locker. If Ready Service Locker is used, the unit is not required to issue this PPE to individual personnel, and the unit shall maintain quantities as needed.

A.1.a. Maritime Cold Weather Suit System

The MCWSS is worn as a three-layer system consisting of:

- (01) Layer I – Light and/or medium weight moisture wicking thermal underwear worn directly against the skin.
- (02) Layer II – Light and/or medium weight moisture wicking worn over the first layer.
- (03) Layer III – The primary dry suit worn over the first two layers by CG personnel when operating in conditions requiring dry suit use.

Personnel shall wear Layer I and Layer II thermal underwear as part of the dry suit, unless water temperatures exceed 60 degrees, in which case personnel may wear, in lieu of Work Uniform, a Dry Suit with Layer I or Layer II (wearing both Layer I and II are not required in this instance).



These three layers are usually used together in cold weather ensembles, such as the MCWSS. However, the moisture barrier may be worn alone, as with Layer III items such as rain gear and gloves.

Refer to [Table 2-2](#) and [Table 2-3](#) to determine when dry suit use is required.

**WARNING**

Dry suits are not inherently buoyant. Personal flotation devices shall be worn with all dry suits and SAR equipment (e.g. SAR vest or leg pouch.)

**NOTE**

Boat crew dry suits can be used by cutter surface swimmers, with the exception of the MSD 900 series.

A.1.a Layer I



Layer I is the first layer of the MCWSS. It is a moisture wicking material that goes against the skin.

A.1.a.1. Layer I Application

Personnel shall wear Layer I thermal underwear as part of the MCWSS. Layer I is a moisture wicking thermal underwear worn directly against the skin as the first layer of protection.

Refer to [Table 2-2](#) and [Table 2-3](#) for policy on when to use thermal underwear.

A.1.a.2. Layer I Salient Characteristics

First layer moisture wicking thermal underwear are separate shirt and long drawers.

**WARNING**

Cotton shall not be worn for thermal protection under the dry suit. Cotton absorbs and retains moisture, robbing body heat and can cause rapid onset of hypothermia.



A.1.b. Layer II



Layer II is the second layer of the MCWSS, it is worn on top of Layer I and under Layer III.

A.1.b.1. Layer II  
Application

Personnel shall wear Layer II thermal underwear as part of the MCWSS. Layer II is moisture-wicking synthetic clothing is worn over the first layer as the second layer of protection.

Refer to [Table 2-2](#) and [Table 2-3](#) for policy on when to use thermal underwear.

A.1.b.2. Layer II  
Salient  
Characteristics

Second layers are single piece jumper style suits made up of moisture –wicking material. Two-piece configurations are available for use under drop seat dry suits.

A.1.c Layer III



Layer III is the third layer of the MCWSS, is worn as the outer layer of the System.

A.1.c.1. Layer III  
Application

A dry suit is the primary Layer III garment worn when a constant-wear suit designed to preclude the entry of water upon immersion is needed.

**NOTE**


Females are authorized to wear male dry suits if the member desires. If a female wants a female dry suit, the unit is required to provide one. When wearing a female dry suit they must be issued the undergarments made for a female.


**WARNING**


All new or refurbished dry suits shall be leak tested by the member that the dry suit is issued to prior to being placed into service. Refer to the proper MPC for guidance.





A.1.c.2. Layer III Salient Characteristics The MCWSS dry suit is constructed in accordance with the dry suit specifications maintained on file with Commandant (CG-731). The MCWSS dry suit is orange and black color combination, waterproof and breathable (moisture vapor permeable) fabric. Seams are stitched and sealed with seam tape. Sleeve and neck openings maintain watertight integrity from latex rubber/neoprene seals. Sock type feet are integrated into the legs. The knee and seat portions of the suit are reinforced. Retro-reflective material is applied for increased visibility in low-light environments.

**NOTE**  CBRN dry suit requirements and limitations shall be in accordance with appropriate MPC.

**NOTE**  The MCWSS or other dry suit may be authorized in additional color schemes for authorized mission types.

**WARNING**  Dry suits alone do not provide adequate insulation for hypothermia protection. Personnel shall wear Layers I and II moisture-wicking thermal underwear beneath the dry suit to provide protection from cold temperature, wind, sea spray and rain.

**NOTE**  All previously purchased dry suits that are still serviceable are authorized for use until the repair cost exceeds 50% of the purchase price of a new dry suit.

**WARNING**  Use of comfort devices to stretch the neck or wrist seals away from the skin such as neck rings or O-ring comfort device are not authorized and shall not be used.

**CAUTION!** Use extreme caution when donning the MCWSS. Prior to donning the MCWSS, remove all rings, watches, fitness trackers, earrings, necklaces and eyeglasses that will cause damage to wrist and neck seals.



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## A.2. Industrial Style Dry Suit

The Industrial Style / Heavy Duty dry suit is designed for more industrial applications such as aids to navigation maintenance, buoy deck operations, fisheries boardings, ice rescue and other applications where damage to the suit is likely to occur. The Industrial dry suit has a built in layer II, provides an outer shell to protect the inner waterproof shell, and can be replaced if damaged.

---

### A.2.a. Application

The boat crew and scheduled mission personnel may use the Industrial breathable marine survival system in lieu of the MCWSS when operating in conditions requiring dry suit use. Refer to [Table 2-2](#) and [Table 2-3](#) to determine when a dry suit is required.

A PFD shall be worn over the suit by all personnel. The boat crew shall also wear a boat crew survival vest.

For Mustang 900 and 901 series dry suits, only Layer I is required.

For Mustang 630 series dry suits, Layer I and II are required.

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### A.2.b. Salient Characteristics

The Industrial dry suit provides hypothermia protection and inherent buoyancy using three interconnected modules to form a single system. Insulation layer is secured with zippers at each wrist, above and below the beltline, and at the neck. The thermal module is a breathable foam thermal liner which functions as layer two protection and provides inherent buoyancy. **However, the buoyancy is not adequate and therefore requires a PFD be worn.** The immersion module is constructed of a waterproof and breathable (moisture vapor permeable) fabric that provides the suit with watertight integrity. **Sleeve openings maintain watertight integrity from neoprene seals and the neck opening is constructed of a waterproof stretch nylon material that seals water out when the elastic drawstring is pulled tight.** Sock type feet are integrated into the legs. The outer shell module is constructed with an orange and black urethane-coated nylon that provides a durable water-resistant barrier to wind, sea spray and rain. Knee and seat portions of the outer shell are reinforced and an attached foam-lined thermal hood is required to be worn if a crewmember enters the water.

### NOTE

Port Security Units shall follow guidance set by Combatant Commander for manner of wear for clothing and equipment. This may change the color but not the salient characteristics of the dry suit.

### WARNING

Failure to completely close the waterproof entrance and relief zippers to the sealing plug will allow water to leak into the suit resulting in drastic loss of survival time.



**WARNING** 

Use of comfort devices to stretch the neck or wrist seals away from the skin such as neck rings or O-ring comfort devices are not authorized and shall not be used.

**WARNING** 

The MSD901 shall be worn with all three modules completely assembled.

**CAUTION!**

Use extreme caution when donning the MSD901. Prior to donning the MSD901, remove all rings, watches, earrings, necklaces and eyeglasses that will cause damage to wrist and neck seals.

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**A.3. Neoprene Hood**



The neoprene hood is an integral component of the MCWSS and shall be carried by all personnel.

**A.3.a.  
Application**

Neoprene hoods shall be donned anytime a crewmember enters water that is 50°F or lower. Units shall ensure the hook & loop and retro-reflective tape are sewn and not glued to the hood. The neoprene hood is required to be stored in a pocket when wearing the dry suit.

**NOTE** 

Personnel in possession of neoprene hood with glued hook & loop and/or retro-reflective tape shall sew the hook & loop and/or tape in place to secure it.

**A.3.b.  
Salient  
Characteristics**

The neoprene hood is constructed of international orange, 2 to 5-millimeter closed cell neoprene fabric that covers the entire head and neck area except for the face opening. An adjustable mouth guard is attached to the hood. No less than 24 inches of SOLAS grade retro-reflective tape is applied for increased visibility in low-light environments. A pile tape patch is installed for attachment of the strobe light/PLB. Contact the manufacturer for sizing requirements.

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#### A.4. Thermal Socks



Thermal socks are an integral part of the MCWSS and Industrial Style Dry Suit.

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##### A.4.a. Application

The boat crew and scheduled mission personnel operating in cold environments where added thermal protection to the feet is necessary shall wear thermal socks.

##### **WARNING**

Cotton socks shall not be worn for thermal protection. Cotton absorbs and retains moisture, robbing the body heat and can cause rapid onset of hypothermia.

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##### A.4.b. Salient Characteristics

Thermal socks are made of moisture-wicking synthetic, or wool/synthetic blend. Thermal socks with legs 12 inches long are preferred.

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**A.5. Cold Weather Glove Layers**

Layered cold weather gloves are an integral part of the MCWSS and Industrial Dry Suit. Authorized gloves also conform to the three-layer system, however, while Layer I typically is a glove of its own, Layers II and III are often built into the same glove, as shown in **Figure 3-2** below. As long as salient characteristics are met, two gloves can meet a Layer I-III requirement.

**NOTE** 

Members should not wear two Layer I gloves on the same hand, as each layer in that case would not offer a different level of protection.



**Figure 3-2  
Cold Weather Glove Layers**

**A.5.a.  
Application**

The boat crew and scheduled mission personnel operating in cold/wet environments where added thermal protection for the hands is required should use cold weather glove layers.



A.5.b.  
Salient  
Characteristics

A modular glove system offers the widest degree of thermal management. The glove system will determine the number of layers. The material for Layers I and II shall both be moisture wicking. Materials such as Thermolite or Lycra currently meet this standard. In a three layer system, Layer I is a thin lightweight liner. This liner may be worn alone in mild conditions or as a first layer. Layer II is a thermal protective layer of wind stopping and moisture-wicking material designed to provide the user with thermal protection and the ability to transfer body moisture and block out wind. Layer III must stop wind and be waterproof and breathable. Materials that currently meet this standard are Gore-Tex™ or Thinsulate™ outer shell with Grip-Tex™ palm and wrist strap closure. Layer III is a gauntlet type moisture barrier. This layer offers protection from water, wind and sea spray. Layer II and Layer III may be incorporated into one glove. The glove system is comprised of either a 3-glove 3-layer system or a 2-glove 3-layer system. All glove components shall be from the same manufacturer.

**NOTE** 

Any changes to these fabrics or associated standards described above will be noted in an MPC.

**NOTE** 

Boarding teams should choose a glove that allows them the maximum protection against the elements while allowing access and use of weapons and equipment.

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**A.6. Cold  
Weather Boots**



Boot design includes thermal insulation and protects the wearer's foot from immersion, thermal injury and impact.

---

**A.6.a.  
Application**

Personnel shall wear the cold weather boot when the dry suit is required to be worn.

---

**A.6.b.  
Salient  
Characteristics**

The cold weather boot is 8 to 16 inches high, slip-on or lace-up closure, 100% waterproof with a non-marking/non-slip waterproof outsole. Acceptable colors for the boot are black, brown, navy, or dark green.

The cold weather boot is constructed of waterproof material and thermal insulation. It has an impact-reducing sole, a composite or steel safety toe, and a composite or metal shank.

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**A.7. Balaclava**

The balaclava is used to protect the user's face, head, and neck from wind, rain and sea spray in cold environmental conditions.



---

A.7.a.  
Application

The balaclava may be worn when operating in conditions that require added thermal protection, and can be used in conjunction with the helmet.

---

A.7.b.  
Salient  
Characteristics

The balaclava is black in color. The balaclava is made of a moisture-wicking material, and may be worn in conjunction with the watch cap or protective helmet.

---

**A.8. Watch Cap**

The watch cap is used to protect the user's head in cold environmental conditions.



---

A.8.a.  
Application

The watch cap may be worn when operating in conditions that require added thermal protection, and can be used in conjunction with the balaclava or helmet.

---

A.8.b.  
Salient  
Characteristics

The watch cap is black in color. The watch cap is moisture-wicking stretch material.

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## CHAPTER 3

### Mission Specific Issue PPE

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**Introduction** This Chapter contains information about PPE relating to particular missions. The sections in this Chapter reflect approved PPE and their salient characteristics.

**In this Chapter**

This Chapter contains the following sections:

Section	Topic	Page
A	<a href="#">Ice Rescue Equipment and Protective Clothing</a>	3-30
B	<a href="#">Deployable Specialized Forces (DSF) Equipment</a>	3-44
C	<a href="#">Tactical Operator and Tactical Delivery Team PPE</a>	3-46
D	<a href="#">Flood Response PPE</a>	3-55

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## Section A. Ice Rescue Equipment and Protective Clothing

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**Overview** This Section describes the Coast Guard approved ice rescue equipment, devices, personal protective clothing and the policies pertaining to their use.

In addition to the standard and cold weather PPE, items listed in **Table 3-3** shall be issued in the quantities shown below and documented on a form AF-538.

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**Ice Rescue PPE wear Policy** Freezing air and water significantly increases the onset of hypothermia therefore all Ice Rescuers shall wear layer I and II under their dry suits when conducting ice rescue operations or training exercises.

---



**A.1. Station  
 and Cutter  
 Ice Rescue  
 Equipment  
 List**

<b>ICE RESCUE STATION AND CUTTER REQUIRED MINIMUM EQUIPMENT                      (in addition to standard cold weather issue)</b>
SKF-ICE
Ice Rescue Shuttle Board (2) – one RFI and one for training*
Cold Water Rescue Sling (2)*
White Bear Water Rescue Sling (optional)*
Ice Awls (Minimum: Stations, 6; Cutters, 3)*
Hypothermia Prevention and Mangement Kit (HPMK) (2)*
Ice Anchor (as required)*
150 or 200 FT Ice Rescue Tethers (2)*
550 FT Line Reel*
Ice Rescuer Safety Harness*
Head Lamp (Stations, 6; Cutters, 3)*
Ice Rescue Gloves*
Layer II Thermal Socks
Ice Rescue Footwear*
Wool blanket (4)*
Ice rescue neoprene hood*
Hypothermia cap*
Ice Rescue Staff*
Pursik Pulley (2)*
Positron Quickdraw*
Flashlight (2)
AOR maps/charts
M127A1 Ground Illumination Signal (6)
Handheld GPS (2)
VHF-FM radio – (3)
Cellular phone - to remain in GV (1)
Extra batteries - to remain in GV
Victim PFD (4)
Night Vision Device (NVD) (2)
Automatic External Defibrillator (AED) (1)
Binoculars
Compass
First Aid Kit (with pocket CPR mask)
*Asterisked items are described below.

**Table 3-3  
 Station and Cutter Ice Rescue Equipment**





## A.2. Ice Rescue Shuttle Board



The Ice Rescue shuttle board is an ice rescue shuttle used for short haul ice rescue.

### A.2.a. Application

The Ice Rescue shuttle board is designed to minimize patient handling and physical stress. It features a built-in 4:1 ratio hauling system that extricates victims of all sizes from the ice and provides protection for victim and rescuer.

### WARNING

Victims wearing buoyant garments such as exposure suits or PFDs will affect, and possibly negate, the flotation and self-righting characteristic of the board. When victims are secured on the shuttle board, careful attention to flotation characteristic changes must be maintained.

### A.2.b. Salient Characteristics

The Ice Rescue scuttle board hull is constructed of materials such as high-density polyethylene or fiberglass reinforced plastic filled with closed-cell urethane foam. The board is configured to float and can support two rescuers or the victim and one rescuer. The rounded end is designed to ride high in the water and easily remounts ice with or without the victim. The outbound “rescue end” holds the “victim forearm sling”, ice awls, carry handles, and a built-in body roller to minimize stress to the victim during extraction. The shuttle features runners constructed of high-strength aluminum, hard coated for maximum protection.



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### A.3. Cold-Water Rescue Slings



Cold-water rescue slings come in different configurations, colors and manufacturers. It is used to assist in ice rescue missions.

---

#### A.3.a Application

The cold-water rescue sling is used to support and/or pull a victim out of the water and onto the ice. It also can be used in conjunction with the ice rescue shuttle board and pulley system.

Careful consideration shall be taken when determining what sling to use during each mission. Cold-water rescue sling procedures are located in reference (1).

#### **WARNING**

Not all cold-water rescue slings when in the cinch or choking mode can be used with the ice rescue shuttle board and pulley system.

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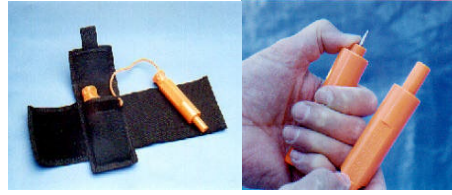
#### A.3.b. Salient Characteristics

The cold-water rescue sling has a nylon strap sewn in a loop with a stainless steel carabineer hook on the end and a foam collar around the loop. An adjustable Velcro strap or “choking loop” is on one side for adjusting the sling to the size of the victim.

---



#### A.4. Ice Awls



All Ice Rescuers are equipped with manufactured ice awls with spring-loaded plastic covers.

##### A.4.a. Application

Ice awls are used to assist the rescuer to gain traction on the ice for self-rescue or to manually propel the shuttle board. Ice awls are stowed in a wrist case that is affixed to the rescuer's lower forearm by an elastic Velcro strap.

##### A.4.b. Salient Characteristics

Ice awls have a metal pick in each handle. The awls (picks) are surrounded by plastic shrouds, which retract, into the handles when pressed into the ice. Ice awls are constructed of polypropylene plastic and are designed to float. The lanyard is attached to the wrist case or is secured to the rescuer's vest.



**Figure 3-3**  
**Self-Rescue Using Ice Awls**



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**A.5. Hypothermia Prevention Management Kit (HPMK)**



The Hypothermia Prevention and Management Kit (HPMK) includes thermal insulation, four large heating pads, full body access seams, and accommodates all patient sizes.

---

**A.5.a. Application**

Ice Rescue Teams should use the HPMK to prevent further heat loss from hypothermic survivors during transport to Emergency Medical Services.

---

**A.5.b. Salient Characteristics**

The HPMK weighs 3.5lbs, measures 6.75 x 10.5 x 5.5” when compressed in its packaging. It uses Velcro in the full-length center access and in each of the access seams which can be used for quick vital sign checks. The HPMK also features a built-in hood, fluid absorption pad & top-to-bottom tapered shape to maximize isothermal capabilities. The heat-generating source of the HPMK is a self-heating, oxygen-activated shell liner designed to sustain 10 hours of continuous dry heat.

---

**A.6. Ice Anchor**



The ice anchor is 7.6” tubular screw device used to establish an anchor point in the ice during an ice rescue.

---

**A.6.a. Application**

As the ice anchor is screwed into the ice, excess ice is extruded through the top of the tube.

---

**A.6.b. Salient Characteristics**

The ice anchor is a 7.6” threaded tubular chrome alloy steel device originally developed for ice climbing and rescue operations in an ice environment. The ice anchor handle is equipped with an opening to attach the rescue tending line carabiner.

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**A.7. 150 or 200 FT  
Ice Rescue Tethers**

Ice Rescue Tethers or “Tending Lines” are secured to an anchor point and to the ice rescuer for safety and to allow the line tenders to assist with the recovery of the rescuer and victim.



**Figure 3-4  
150' and 200' Line Bag**

---

**A.7.a. Application**

Tethers are anchored in place using either an ice anchor screw or attached to a fixed object using a 5' nylon sling.

---

**A.7.b. Salient  
Characteristics**

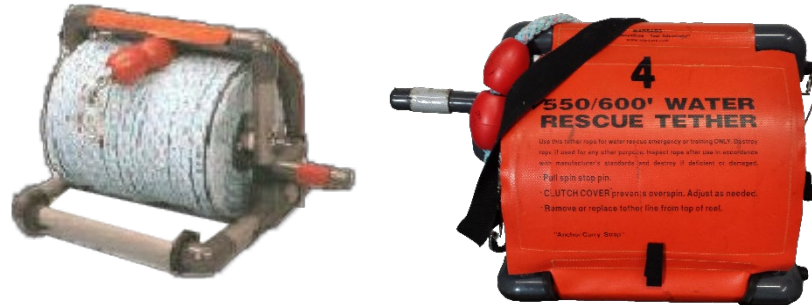
The 150' or 200' line bag equipped with pre-rigged 9mm low stretch biopolymer ice rescue line, asymmetric carabiner and hook float.

---



**A.8. 550 FT  
Line Reel**

The line reel is a buoyant pre-rigged 3/8" diameter line, carabiner and float. Blue-colored (3-strand construction) line reels offer strengths of 3,700 pounds.



**Figure 3-5  
550' Line Reel**

**A.8.a.  
Application**

Ice Rescue Tethers or “Tending Lines” are secured to an anchor point and to the ice rescuer for safety and to allow the line tenders to assist with the recovery of the rescuer and survivor.

**A.8.b. Salient  
Characteristics**

The 550' line reel is equipped with pre-rigged 9mm low stretch biopolymer ice rescue line, asymmetric carabiner and hook float. They are anchored in place utilizing either an ice anchor screw or attached to a fixed object utilizing a 5' nylon sling.

**A.9. Ice  
Rescuer Safety  
Harness**



All Ice Rescuers shall use the Lifeguard Systems safety harness when conducting any ice rescue operation or training exercise.

**A.9.a.  
Application**

The harness is to be worn between the dry suit and the boat crew survival vest over the dry suit. Two sizes are available. When worn, the Velcro Strap and the stainless steel rings are to be in front of the chest. To ensure correct fit, a closed fist should fit between the lower strap and the chest with the D-ring falling slightly below the boat crew survival vest.

**A.9.b. Salient  
Characteristics**

The Lifeguard Systems safety harness is constructed of black nylon webbing. The harness has torso and shoulder straps with stainless steel adjustment hardware. The Velcro strap is fed into two small stainless steel tensioners. The strap Velcro's back onto itself. Next to the tensioners is a stainless steel D-ring used to attach the tending line to the ice rescuer.



**A.10. Ice Rescuer Headlamp**



All Ice Rescuers shall wear a multi-LED headlamp during any night ice rescue operation or training exercise.

**Figure 3-6  
LED Headlamp**

**A.10.a. Application**

The LED headlamp is worn on the helmet.

**A.10.b. Salient Characteristics**

Multiple super-bright LEDs offer smooth, usable light that is directional and long lasting. An integrated circuit chip provides three brightness settings as well as strobe illumination for emergency situations. This low-profile lamp fits snugly on the helmet with a slip-resistant, adjustable headband that keeps it secure.

**A.11. Ice Rescue Gloves**



All Ice Rescuers shall wear approved gloves for all ice rescue operations or training exercises.

**C.11.a. Application**

Shall be worn during all ice rescue operations.

**C.11.b. Salient Characteristics**

Any suitable 5 - 7 millimeter neoprene or waterproof five-finger glove. Local procurement is authorized.



---

**A.12. Layer II Thermal Socks**



Layer II socks are an integral part of the Ice Rescuers Dry Suit that provide an added layer of defense.

---

A.12.a. Application

Layer II moisture-wicking socks are worn over the first layer as a second layer of protection.

---

A.12.b Salient Characteristics

Layer II socks are made of moisture-wicking synthetic, or wool/synthetic blend. Layer II socks with legs 12 inches long are preferred.

---

**A.13. Ice Rescue Footwear**

All Ice Rescuers shall wear appropriate footwear while conducting ice rescue operations or training exercises.



**Figure 3-7**  
**(left) Korker boot (right) IceTrac Extreme Cleats**

---

A.13.a. Application

Select footwear appropriate for use in the unit's conveyances (e.g. SPC-AIR, SKF-ICE) and when driving a Government Vehicle. When transiting ice on foot, footwear shall be equipped with ice cleats. Refer to applicable MPC for all approved footwear.

---

A.13.b. Salient Characteristics

Footwear such as waterproof /water resistant cold weather boots that do not retain water, with affixed ice traction; 7mm Neoprene Bootie with an overshoe with permanently affixed ice traction; wading boots made for stocking foot waders (not waders) with a rubber sole and affixed spiked traction; or football cleats with stainless steel screws and wing nuts, usually two (2) sizes larger than normal shoe size; shall be used. For cleats, the existing spikes should be replaced with screws and stainless steel wing nuts. For all footwear, color should be mainly black with minimal markings and striping.

---





**A.14. Wool Blanket**



Wool blankets are used to re-warm a semi-hypothermic victim to prevent further heat loss from a hypothermic victim.

**A.14.a. Application**

Each ice rescue kit shall be equipped with four (4) tightly wrapped wool blankets stored in individual plastic bags.

**A.14.b. Salient Characteristics**

Twill blanket made of 80% wool and 20% cotton/rayon, nylon or similar synthetic fibers with a size of 66” x 84”.

**A.15. Ice Rescue Neoprene Hood**



The neoprene hood is an integral component of the MCWSS and shall be carried by all personnel

**A.15.a. Application**

Neoprene hoods shall be donned anytime a crewmember enters water that is 50°F or lower. It must be used in conjunction with an authorized helmet due to lack of retro reflective tape and hook and pile Velcro.

When ice rescue units shift back to soft water missions the hood will be taken out of service to prevent usage.

**A.15.b. Salient Characteristics**

The neoprene hood is constructed of international orange or black, 5 to 7-millimeter closed cell neoprene fabric that covers the entire head and neck area except for the face opening with no Velcro or retroreflective tape attached. Contact the manufacturer for sizing requirements.

**NOTE**

Balaclava is authorized for wear when risk of entry into water is minimal.



**A.16.  
Hypothermia  
Cap**



Used to prevent further heat loss from the survivor's head during transport.

**A.16.a.  
Application**

The hypothermia cap is a compact light weight single use cap that will aid in the prevention of survivor heat loss during transport to shore side care.

**A.16.b. Salient  
Characteristics**

A cap that covers the head to prevent heat loss for survivors with hypothermia.

**A.17.  
Ice Rescue Staff**



The Ice Rescue Staff is a 70-80" wooden shaft w/ 1-2" spike . used to for transiting ice.

**A.17.a.  
Application**

Personnel should carry the Ice Rescue Staff while transiting the ice for safety and to aid in the recovery of a person(s) in distress.

The ice rescue staff is equipped with 14-18" handle loop that is used for animal rescue.

**A.17.b. Salient  
Characteristics**

The Ice Rescue Staff is a 70-80" wooden shaft with a 1-2" spike and 14-18" handle loop. It has a protective rubber cover on the spike end that should be removed prior to going on the ice.



### A.18. Prusik Pulley



A Prusik Pulley is used with tending lines to gain mechanical advantage for retrieving heavier loads such as a SKF-ICE.

#### A.18.a. Application

A Prusik Pulley is used with tending lines to gain mechanical advantage for retrieving heavier loads such as a SKF-ICE. The Prusik Pulley may open or remain fixed to capture a bight of line for ease of use and is attached to objects using a carabiner or quickdraw.

#### A.18.b. Salient Characteristics

The Prusik Pulley is constructed of aluminum alloy. It is a single sheave, heavy-duty rescue device that opens and accepts a minimum of 9mm line and rated for a minimum of 9 Kilonewtons (kN). The sheave is held in place with a self-lubricated brass bushing or sealed ball bearings for high efficiency. The Prusik Pulley can be cleaned with mild soap and water. Do **NOT** apply oil or other petroleum products to the bearing as this could damage synthetic line. Repairs are not authorized. Replace when defective.



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**A.19.  
Quickdraw**



A quickdraw (also known as an extender) is a piece of climbing equipment adapted for use in ice rescue. The double-ended carabiner provides ease of access for connecting safety gear during a rescue and allows for quick attachment of other pieces of equipment. The ice rescue kit contains six quickdraws.

---

**A.19.a.  
Application**

The quickdraw is used to quickly attach other pieces of equipment to each other. It connects to the harness D-ring.

---

**A.19.b. Salient  
Characteristics**

A quickdraw consists of two D-shaped aluminum carabiners connected by an 12cm sewn loop of 16mm webbing referred to as a "dog bone." The upper carabiner has a spring loaded straight gate. The lower carabiner has a spring loaded bent gate designed for efficient capture of attachment points

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## Section B. Deployable Specialized Forces (DSF) Equipment

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<b>Overview</b>	This Section describes wear and issue policy for the minimum outfit of authorized PPE required to meet CG personnel survivability strategy for the DSF community.
<b>B.1. DSF Units Defined</b>	DSF units include: MSRT, TACLET's, MSSTs, PSUs, Strike Teams, and designated inspection/examination team members. Each DSF unit functions differently and requires a certain amount of variance in minimum outfit list. Members shall refer to the applicable DSF Configuration Baseline managed by the Office of Specialized Capabilities (CG-721).
<b>B.2. Standard and Cold Weather Issuance</b>	DSF units with the exception of Tactical Operators (TO) and Tactical Delivery Teams (TDT) shall use the same standard and cold weather PPE as a Coast Guard boat crew unless authorized by the Office of Specialized Capabilities (CG-721) and the Office of Boat Forces (CG-731). Exceptions to certain items are identified throughout this Manual. This same equipment shall be issued to any member performing in a “break-in” status, as well as DSF and Boat Forces instructional cadre who support and sustain essential capabilities that directly support NCVP, PWCS, homeland security, and defense operations.
<b>B.3. Issuance and Documentation Procedures</b>	All build up, issuance, and documentation of required DSF equipment items shall be conducted in accordance with MPC.

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**B.4. DSF  
Standard Issued  
PPE**

In addition to the standard and cold weather PPE, excluding MSRTs items listed in **Table 3-4** shall be issued in the quantities shown below and documented on a form AF-538.

QTY	ITEM
1 set	Tactical Flotation System (TFS)
1 each	Wheeled Duffle/Equipment Bag

**Table 3-4  
DSF Standard Issue**

**B.4.a. Specific  
Authorized  
Equipment for  
DSF Units**

DSF units are authorized to use the following equipment during any known or suspected Chemical/Biological (CB) threat, regardless of weather conditions.

- (01) All Purpose Personal Protective Ensemble (AP-PPE),
- (02) Joint Service Lightweight Integrated Suit Technology (JSLIST).

In CB environments where weather conditions would necessitate a dry suit, layer I and II undergarments will be worn under the CB protective ensemble.



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## Section C. Tactical Operator and Tactical Delivery Team PPE

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### Overview

This Section describes wear policy for the minimum outfit of PPE required to meet CG personnel survivability strategy for the DSF Tactical Operators (TO) and Tactical Delivery Teams (TDT).

---

### C.1. Tactical Operators and Tactical Delivery Team Members

A Tactical Operator is a DSF member assigned to the MSRT Direct Action Section, MSRT Precision Marksman – Observer Team (PM-OT), or TACLET Law Enforcement Detachment (LEDET) per Reference (b). Due to the joint scope of work, the MSRT TDT follows the same PPE list as the Tactical Operator.

MSRTs are worldwide-deployable and operate in varying climate zones, therefore they shall be issued PCU and equipment contained in [Table 3-5](#). TACLETs are only required to purchase Cold Weather PPE when specific operations or training evolutions require its use. TACLETs shall maintain on-hand a minimum of 25 sets of Cold Weather PPE for emergent operations. This PPE will not be issued until it is required.

Equipment such as carabineers, safety runners, and other mission-specific items will be purchased through other programs. Members shall refer to the applicable DSF Configuration Baseline managed by the Office of Specialized Capabilities (CG-721).

### NOTE

Regardless of the program requiring PPE or mission specific equipment, all issued items must be documented on a form AF-538.

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**C.2. Tactical Operator & Tactical Delivery Team PPE Issue**

In lieu of the standard, cold weather, and DSF PPE, items listed in **Table 3-5** shall be issued in the quantities shown below and documented on a form AF-538. All TO/TDT issued PPE shall meet the equivalent salient characteristic of the standard and cold weather PPE it replaces.

DSF COs of TO/TDT members may authorize additional mission-specific R&SS PPE to be carried by the tactical operators as determined in mission planning, so long as the requirements of Reference (b) are met.

QTY	ITEM
1 each	Wheeled Duffle Bag*
1 set	Tactical Flotation System (TFS)
1 pair	Ballistic Eye Protection (prescription lens procured from unit funds) *
1 each	Ballistic Helmet*
1 each	“Bump” Style helmet (mission specific)
1 each	Shooting Gloves *
1 each	Fixed Blade Knife or Push Button Release Knife*
1 pair	Tactical Boots*
1 each	Rain Gear (Optional)
1 each	Rescue Equipment Pouch
1 each	Standard/infrared combo strobe light or HEL-STAR*
1 each	Personal Locator Beacon
1 each	Whistle
1 each	Signal Mirror
1 each	Sunglasses (prescription lens may be available from medical)
1 each	Tactical Dry Suit *
2 pair	Protective Combat Uniform (PCU) Level 1 (Top and Bottom)
1 each	PCU Level 2
2 Pair	Thermal Socks
1 each	Modular Glove System *
1 each	Balaclava (Black)
1 each	Neoprene Hood (Black)*
1 each	Watch Cap
1 pair	Tactical Cold Weather Boots
*Asterisked items are the only pieces of PPE that are described in this section. All other items, application, and salient characteristics are described elsewhere in this Manual.	

**Table 3-5  
 Tactical Operator/ Tactical Delivery Team PPE Issue**

**NOTE**

TO/TDT are authorized the wear of PCU Level 1 and Level 2 in conjunction with the tactical dry suit in lieu of the cold weather issuance of Layer 1 and Layer II PPE.





**NOTE** 

The SOCOM SPEAR PCU is managed by the Office of Specialized Capabilities, COMDT (CG-721). Refer to Reference (b) for the PCU Policy.

**C.3. Wheeled Duffle Bag**



The wheeled duffle bag is issued in lieu of the RS&S gear bag and provides adequate storage for all TO/TDT's PPE.

C.3.a.  
Application

Used as a members deployment bag.

C.3.b. Salient  
Characteristics

Duffle bag with wheeled application for easy transport. Zipper closure. Large enough to accommodate personal items and issued PPE.

**C.4. Ballistic Eye Protection**



Ballistic eye protection is issued in lieu of the ballistic goggles and provides impact protection beyond common industrial safety standards.

C.4.a.  
Application

Personnel must wear ballistic eye protection when performing operational duties that have exposure to projectiles that travel at high rates of speed, or harsh Military/Law Enforcement environments.

C.4.b. Salient  
Characteristics

Ballistic eye protection must meet or exceed the certified ANSI Z87.1-2015 for high impact and also meet or exceed one of more of the following ballistic standard MIL-PRF-31013, MIL-V-45311C, and CE EN166B. Frames will be black, tan, multi-cam, or conform to military standards. Polarized lenses are authorized but must be worn with caution due to “display blackout”



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**C.5. Ballistic  
Helmet**



The ballistic helmet provides the highest protection for the member.

---

C.5.a.  
Application

Shall be worn during operations or when dictated for training.

---

C.5.b. Salient  
Characteristics

The salient characteristics can be found using the following link.

<https://cg.portal.uscg.mil/communities/cbrne/SitePages/Catalog.aspx>.

---

**C.6. Shooting  
Gloves**



Shooting gloves should be adequate for a variety of general purpose or individual unit missions.

---

C.6.a.  
Application

Worn as required to provide protection during dynamic training or operations.

---

C.6.b. Salient  
Characteristics

Shooting gloves should be constructed of durable material which at a minimum meets the salient characteristic of the standard issue basic glove. Authorized colors are green, brown, tan, and multi-cam.

---



**C.7. Fixed Blade or Push Button Release Knife**



The Fixed Blade and Push Button Release (PBR) Knife is issued in lieu of the boat crew knife. It provides TO's and TDT members with an efficient tool to cut fibrous materials.

**C.7.a. Application**

The (PBR) or fixed blade knife shall be carried in a sheath and affixed to the tactical operator's or TDT member's kit, LE belt or drop leg holster in a manner that facilitates immediate access for use in an emergency.

**C.7.b. Salient Characteristics**

PBR knives are spring-assisted folding knives with stainless steel serrated blades of 4 inches or less that open with the release of an opening mechanism. Spring-assisted folding knives blades shall lock in the open position to avoid inadvertent folding during use and have a locking function that prevents the knife from being accidentally deployed.

**NOTE**

Members who are issued the fixed blade/PBR and its readily available are not required to carry the survival knife in the SAR Vest.

**C.8. Tactical Boots**



Tactical boots are non-reflective alternative footwear for TO's and TDT members that produces no noise when walking and are functional during close quarters combat, fast rope and hook and climb evolutions.

**C.8.a. Application**

Tactical boots must only be worn during tactical training and operations and can only be worn with the PCU.

**C.8.b. Salient Characteristics**

The tactical boot shall provide over-the-ankle support and be no lower than mid-rise. It must have lace-up or zipper closure, be non-reflective with non-marking/non-slip sole that produces no noise while walking. Be made of breathable material that allows for water drainage and should not be made with a steel or composite toe for maneuverability and stability. Authorized colors are coyote brown, tan, or drab green.



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**C.9. Standard  
Infrared Combo  
Strobe Light**



A tactical personal strobe light that offers the TO/TDT the choice of a flashing covert IR signal (not visible to the human eye) or visible flashing bright white signal.

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C.9.a.  
Application

Attached to the helmet by hook and loop tape and must be worn while conducting operations over-the-water.

---

C.10.b. Salient  
Characteristics

Standard/Infrared Combo Strobe Light shall produce 50-70 flashes per minute, both overtly and infrared, and have a hook and loop fastener for attachment to helmet.

---

**C.10. HEL-  
STAR  
HS-620-04**



Hel-star is a purpose-built helmet mounted light-emitting diode (LED) light designed for tactical and other operations. Authorized for MSRT members to wear in lieu of the white/IR Strobe light for all training and operations.

---

C.10.a.  
Application

Attached to the helmet by hook and loop tape and must be worn while conducting operations over-the-water.

---

C.10.b. Salient  
Characteristics

Standard/Infrared Combo Strobe HEL-STAR shall produce 50-70 flashes per minute, both overtly and infrared, and have a hook and loop fastener for attachment to the helmet.

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### C.11. Tactical Dry Suit



Is the primary Layer III garment worn by TO/TDTs when a constant-wear suit is required to prevent the entry of water upon immersion.

#### C.11.a. Application

Is the third layer that is equivalent to the outer layer of the MCWSS worn in combination with the PCU levels I and II.

#### C.11.b. Salient Characteristics

The tactical dry suit is constructed in accordance with the dry suit specifications maintained on file with the Office of Boat Forces (CG-731). The tactical dry suit is camouflage in color combination, waterproof and breathable (moisture vapor permeable) fabric. Seams are stitched and sealed with seam tape. Sleeve and neck openings maintain watertight integrity from latex rubber/neoprene seals. Sock type feet are integrated into the legs. The knee and seat portions of the suit are reinforced. The black neoprene hood, described in [PART 3 CHAPTER 2A.3.](#), is required to be carried on the person when wearing the dry suit.



---

**C.12. Protective Combat Uniform (PCU)**

The PCU system is a 9-piece multi-layer system which protects the wearer in inclement weather down to -50 degrees Fahrenheit. The system is lightweight and highly compressible, reducing the space needed for transport during operations. Units authorized the wear of PCU can be found in the Deployable Specialized Forces Tactical Operations Manual, COMDTINST M16600.7 (series).

---

**C.13. Modular Glove System**



The Modular glove system consists of four unique gloves and one mitten that provides thermal protection to the extremity. They are the Extreme Cold Weather Mitten, Extreme Cold Weather Glove, Extreme Cold Contact Glove, Intermediate Cold Weather Glove and the Fire Resistant Contact Glove.

---

C.13.a. Application

Paired with the PCU and scalable based on the weather conditions in the area of operations.

---

C.13.b. Salient Characteristics

Must be scalable and provide fire protection, be waterproof, provide grip on ice covered equipment, have a cinch strap to secure glove at the wrist, and have lofted insulation ternate for warmth.

---

**C.14. Neoprene Hood**



The neoprene hood is an integral component of the MCWSS and shall be carried by all personnel.

---

C.14.a. Application

Neoprene hoods shall be donned anytime a crewmember enters water that is 50°F or lower.

---

C.14.b. Salient Characteristics

The neoprene hood is constucted of black 2 to 5-millimeter closed cell neoprene fabric that covers the entire head and neck area except for the face opening. An adjustable mouth guard is attached to the hood. A pile tape patch is installed for attachment of the strobe light/PLB. Contact the manufacturer for sizing requirements.

---



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**C.15. Tactical  
Cold Weather  
Boots**



Boot design includes thermal insulation and protects the wearer's foot from immersion, thermal injury and impact.

---

C.15.a.  
Application

Personnel shall wear the cold weather boot when the dry suit is required to be worn.

---

C.15.b Salient  
Characteristics

Tactical Cold Weather Boot offers the same salient characteristics as the Tactical Boat Crew Boot though the uppers include a gortex or similar, moisture resistant barrier as well as an insulating layer designed to minimize water absorption while insulating the foot. They are tan or dark-earth colored.

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## Section D. Flood Response PPE

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### Overview

This Section describes Coast Guard flood response equipment, devices, personal protective clothing and the policies pertaining to their use.

In addition to the standard and cold weather PPE, items listed in [Table 3-6](#) may be individually issued or outfitted in the Mobile Response Kit, where applicable.

---





**D.1. Flood Response PPE Issue**

Flood response PPE items listed in **Table 3-6** are recommended gear for personnel conducting the Flood Response mission.

QTY	ITEM
1 each	Flood Response Dry Suit*
1 set	Layer 1*
1 each	Helmet
1 each	PFD Type V *
1 pair	Wetshoe Workboots*
1 pair	Steel Shank Puncture Resistant Insoles*
1 each	<a href="#">Sunglasses</a>
1 each	Knife
2 each	Battery Operated Reciprocating Saw (Saws-all)*
1 pair	<a href="#">Basic Gloves</a>
4 each	Nitrile Gloves (S,M,L,XL)*
6 each	Throw Bags*
48 each	PFD Type I (infant, child, adult)
1 each	Backboard (compact design)*
1 each	Backboard 5-point Strap System*
1 each	Folding Stokes Litter
1 each	Megaphone*
6 each	Headlamps*
6 each	Handheld Spotlights*
5 each	Emergency Blanket*
6 each	<a href="#">U.S.C.G Boat Response Aid Kit</a>
6 each	Handheld GPS (w/waterproof case)*
1 case	Chem Lights 6’’*
2 each	Haligan 30’’*
6 each	Boat Hook (8’ telescoping)*
2 each	Flat Head Axe w/Fiberglass Handle*
9 each	Hand held VHF Radio*
9 each	VHF Radio Chest Harness*
2 each	Bolt Cutter 24’’*
10 each	Carabiners, Locking “D”-shaped*
10 each	Carabiners, Quick Release “G”-Rated*
1 each	Nylon Rope, 300’*
1 each	Tubular Webbing, 300’*
5 each	Dry Gear Bag (Large Blue)*
6 each	River Rescue Z-Rig Kit (6 per MRK)*
*Asterisked items are the only pieces of gear that are described in this section. All other items, application, and salient characteristics are described elsewhere in this Manual.	

**Table 3-6  
Flood Response PPE Issue**



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**D.2. Flood Response Dry Suit**



The Flood Response Dry Suit is the second layer of the Flood Response PPE ensemble, specifically designed for flood response missions. It shall only be worn during flood response missions not requiring the MCWSS thermal protection.

---

**D.2.a. Application**

This dry suit is the mandatory garment worn when a constant-wear suit designed to preclude the entry of water upon immersion is needed. It is mandated to be worn as the outer layer of the system when conducting the Flood Response mission. Optionally, units are authorized to wear the Boat Crew Dry Suit (Orange/Black) if the Flood Response Dry Suit is not available or becomes unservicable due to operations.

---

**D.2.b. Salient Characteristics**

The flood response dry suit is constructed in accordance with the dry suit specifications maintained on file at U. S. Coast Guard Headquarters, Office of Boat Forces. The flood response dry suit is florescent yellow-green and black color combination, waterproof and breathable (moisture vapor permeable) fabric with an adjustable neck seal. Seams are stitched and sealed with seam tape. Sleeve and neck openings maintain watertight integrity from latex rubber/neoprene seals. Sock type feet are integrated into the legs. The knee and seat portions of the suit are reinforced. Retro-reflective material is applied for increased visibility in low-light environments.

**WARNING** 

The flood response dry suit with layer I is not a replacement for the MCWSS. The MCWSS shall be worn if conditions in [Table 2-3](#) are met.

**NOTE** 

Personnel are authorized the wear of flood response dry suits models 624 or 636.

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**D.3. Flood Response Dry Suit Layer I**



Layer I is the recommended first layer of the flood response suit. It is a moisture wicking material that goes against the skin.

---

**D.3.a. Layer I Application**

Personnel should wear Layer I thermal underwear as part of the flood response suit. Layer I should be the lightest possible weight moisture wicking thermal underwear that can be procured. It is worn directly against the skin as the first layer of protection.

---

**D.3.b. Layer I Salient Characteristics**

First layer moisture wicking thermal underwear are separate shirt and long drawers.

---

**D.4. Type V PFD with Quick Release “D” Ring**



The Type V PFD is a low-profile rescue jacket with essential features to assist flood response teams in rescue situations.

---

**D.4.a. Application**

May be worn during flood response missions. The Type V’s survival items shall not be transferred to other devices.

---

**D.4.b. Salient Characteristics**

The Type V PFD has a low-profile design with six adjustment points and provides 17.5 pounds of flotation. The outer fabric is constructed of 400 denier nylon with cordura reinforcements. The front panel, padded arm holes and sides provides impact protection. The PFD has reinforced shoulder straps, with a 1 ½" quick-release rescue belt. It has a carabiner attachment loop for a tow tether, strobe attachment and lash tab.

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**D.5. Wetshoe Workboots**



The Workboot Wetshoe combines the advantages of dive booties and high-top work boots into one wetshoe.

---

D.5.a. Application

Should be worn during flood response mission in conjunction with the steel shank puncture resistant insoles.

---

D.5.b. Salient Characteristics

Shoe must be designed for continuous water immersion, made of synthetic material that will drain and dry quickly, have a gripping sole, and provide the wear with proper support at the ankle. If ANSI approved steel/composite insole is not inherent to the boot, it can be added after market.

---

**D.6. Steel Shank Puncture Resistant Insoles**



Insoles that provide protection from accidental puncture of sharp objects.

---

D.6.a. Application

Shall be worn in conjunction with the Wetshoe Workboot.

---

D.6.b. Salient Characteristics

Flexible stainless steel insert that meets American Society for Testing and Materials (ASTM) F2413-11 standard minimum force resistance of 270 psi.

---

**D.7. Battery Operated Reciprocating Saw (Saws-all)**



The reciprocating saw is a type of battery-powered saw in which the cutting action is achieved through a push-and-pull ("reciprocating") motion of the blade.

---

D.7.a. Application

The saw is used to cut debris, or gain entry into structures where the entrance may be blocked or flooded.

---

D.7.b. Salient Characteristics

The 18V Reciprocating Saw has a 1-1/8" stroke length and 0-3,000 strokes per minute (spm). The saw has a lever-action 4-position blade clamp for quick and easy blade changes, anti-slip grip, pivoting adjustable shoe with an open top, and variable speed with trigger lock.

---



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**D.8. Nitrile Gloves**



Nitrile gloves are multi-use protective gloves that provide an effective barrier against various hazardous materials.

---

D.8.a.  
Application

Nitrile gloves are used as an added level of protection at the member discretion when there is a possible of exposure to hazardous material.

---

D.8.b. Salient  
Characteristics

Disposable gloves made of 100% synthetic rubber material that is flexible and latex free. Various size ranging from small to extra-large.

---

**D.9. Throw Bag**



The rescue throw bag is used as a PIW retrieving line and equipment.

---

D.9.a.  
Application

The Throw bag is used to retrieve personnel from the water. The line is easily repacked and can be quickly re-deployed as required. The end loop provides a handhold for the PIW to grasp while being rescued.

---

D.9.b. Salient  
Characteristics

The throw bag is constructed with mesh side panels, and foam floating panels with reflective tape. It holds 55 feet of ¼” polypropylene floating line. The max load of the polypropylene line is 950 lbs.

---

**D.10. Backboard  
(Compact  
Design)**



A rigid board that provides support during movement of a patient.

---

D.10.a.  
Application

The compact backboard is used to transport patients with suspected spinal and limb injuries.

---

D.10.b.  
Characteristics

The compact backboard has a tapered design and provides easy maneuverability, storage, and has less deflection for improved patient stabilization. Its sealed construction has a high resistance to fluids, chemicals, and temperature. The ten X-ray translucent, polycarbonate speed-clip pins allow a variety of strapping configurations.

---



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**D.11. Five Point Strap System**



The five point strap system is a device that attaches to back boards to secure patients for transportation.

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D.11.a.  
Application

The five point strap system is used to quickly and effectively secure patients to backboards.

---

D.11.b. Salient  
Characteristics

The five point strap system is a ten-point, five-strap system. It has color-coded straps are constructed of nylon with hook-and-loop closures. The five point strap system is adjustable from pediatric to adult, and includes a strap for the patient's wrists.

---

**D.12. Megaphone**



A megaphone is portable, hand-held, cone-shaped acoustic horn used to amplify a person's voice or other sounds and direct it in a given direction.

---

D.12.a.  
Application

The megaphone is used to call out to PIWs when response personnel deems it necessary in order better to identify themselves or issue instructions to aid in the rescue of PIWs.

---

D.12.b. Salient  
Characteristics

The megaphone is a handheld 50 Watt max power audio amplifier, with an adjustable volume control, and a range of approximately 1 mile or 1700 square yards.

The microphone is built into the rear end of the unit and is activated by a trigger on a pistol grip, or can be used with coiled-corded handheld microphone.

The megaphone is 9" in diameter and weights 2.9 lbs. It is powered by (8) C batteries or by a 9 volt DC power supply.

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**D.13. Headlamps**



Headlamps are an additional light source that provides a hands-free light.

---

D.13.a.  
Application

The headlamp is used when the addition of added light is needed to see or search an environment.

---

D.13.b. Salient  
Characteristics

The headlamp is a Hybrid LED/xenon that gives members the option of using the Xenon lamp for intense bright light or the 3 LEDs to conserve battery life. It has a multi-angle pivoting head which allows members to aim the light where it is needed. The headlamp comes with a rubber strap for helmets and adjustable cloth strap for head wear. It is powered by three (3) AAA-cell alkaline batteries.

---

**D.14. Handheld  
Spotlight**



The handheld spotlight is a heavy duty, high powered spotlight.

---

D.14.a.  
Application

Handheld spotlight is used when the addition of added light is needed to see or search an environment.

---

D.14.b. Salient  
Characteristics

The handheld spotlight uses a dual filament Xenon lamp that produces a bright beam that cuts through thick smoke, fog, and dust. It has two reflector positions, a modified spot (stippled for a wide beam), and a laser spot (smooth for a tight collimated beam). A back-up lamp is stored behind the reflector for emergencies. The xenon bulb voltage is 12 volts and the luminous flux is 279 lm.

The body is made of unbreakable Acrylonitrile Butadiene Styrene (ABS) resin with a polycarbonate lens and thermoplastic rubber shroud that resists chemicals and corrosion. It has a dual direction switch for easy use with a locking slide feature to prevent accidental activation. The pistol grip/lantern handle quickly converts to multiple positions for flexibility.

The handheld spotlight also comes with a shock absorbing internal battery module that protects both the cells and the lamp from hard knocks. It is powered by 8 D alkaline cells with a max life of 11 hours.

---



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**D.15. Emergency Blanket**



A blanket used in emergencies to reduce heat loss in a person's body caused by thermal radiation, water evaporation, and convection.

---

D.15.a.  
Application

The emergency blanket is used in a hypothermic situation where the probability of excessive heat lost to a victim or personnel is evident.

---

D.15.b. Salient Characteristics

The emergency blanket retains over 80% of a persons radiated body heat. The orange and silver polyester film prevents wind and water penetration while providing high visibility.

---

**D.16. Handheld GPS**



The Handheld GPS is a rugged, waterproof, full-featured GPS.

---

D.16.a.  
Application

The handheld GPS is used for navigation during flood response missions.

---

D.16.b. Salient Characteristics

The handheld GPS has a 2.6" diagonal display sunlight-readable color screen, with a 160 x 240 pixel resolution. It has an internal storage capacity of 8 GB, and compatible with MicroSD (TransFlash) memory cards. The black GPS weights ½ lbs, is 2.4" wide and has a depth of 1.42". It is powered by AA batteries with a max battery life of 16 hours.

The High-sensitivity GPS receiver with quad helix antenna has over 100,000 preloaded topographical U.S. maps and has a 3-axis compass with a barometric altimeter.

The Handheld GPS has the ability to store up to 5,000 waypoints and up to 200 routes for preplanned missions.

---

**D.17. Chem Light**



The chem light is a portable and cost-efficient light source.

---

D.17.a.  
Application

The chem light is used to mark or identify points of interest.

---

D.17.b. Salient Characteristics

Each light stick is a pliable, plastic tube filled with two nontoxic chemicals that produce a light source for up to 12 hours. A sealed foil wrapper provides a 4-year shelf life and protects light stick until use.

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**D.18. Haligan 30”  
Forcible Entry  
Tool**

The 30” Haligan tool is used for forcible entry.



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**D.18.a.  
Application**

The forcible entry tool is used to get into buildings or other areas of confinement when normal means of entry are locked or blocked.

---

**D.18.b.  
Characteristics**

This forcible entry tool is forged in one piece from alloy steel. Powder coated in a natural steel color for a superior finish and to deter rust. Working ends are heat treated for maximum strength, and wear resistance. The fork, horn, and pry are designed for leverage and strength. Overall length of 30” with widths and tapers that allows easy entry. Forged-in ears (holes) provide personal customization and strapping.

---

**D.19. Boat Hook**



The telescoping boat hook is lightweight, durable aluminum well balanced with maximum strength used for numerous application in a flood response area.

---

**D.19.a.  
Application**

Personnel should use the telescoping boat hook as a guide stick for water depth or debris below the surface as they travel through the water during a flood response situation.

---

**D.19.b. Salient  
Characteristics**

The boat hook is a telescoping twist-lock with rolled tube edge. It is adjustable from 3.5 feet to 8 feet, and is anodized, corrosion-resistant, with a clear satin-finished aluminum.

---



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**D.20. Flat Head  
Axe with  
Fiberglass  
Handle**



Flathead fireman's style single bit axe with a fiberglass handle.

---

D.20.a.  
Application

Used in all manner of applications, chopping, battering, forcible entry, door stop etc.

---

D.20.b. Salient  
Characteristics

Flat head axe with fiberglass handle has a forged steel head with a heat treated cutting edge approximately 5" in overall length and the poll is square. It is fully polished, hand sharpened with a tapered bit for cutting. The cutting edge is heat treated and has a RC 45-55 (Rockwell Hardness Value) for safety. The axe head is coated with red enamel and the cutting edge in clear lacquer to deter rust.

The 36" yellow clad style fiberglass handle is a traditional single bit shape. It's constructed of a pultruded structural fiberglass core with an injection molded jacket acting as an exterior body. The jacket is engineered polymer that is extremely strong, non-conductive and non-corrosive.

The axe head is joined to the handle with a strong resilient epoxy, forming a chemical and mechanical bond. The interior detail of the eye is tapered which allows for a strong mechanical bond.

---

**D.21. Hand Held  
Radio**



Is a floating and submersible waterproof VHF/FM radio.

---

D.21.a.  
Application

The Handheld radio is the primary means of communication for use by flood response teams.

---

D.21.b.  
Characteristics

The hand held radio is a compact design with large capacity Lithium Ion battery. The radio is light enough to float face up if dropped in the water and can be submersed up to 3.3. feet for 30 minutes. The handheld radio has a high resolution LCD display, easy to use menu system, programmable function keys and has a selectable 6Watt, 2.5Watt, or 1Watt output power range.

The radio is equipped with an emergency strobe light which is automatically activated when dropped in the water. The strobe can be reconfigured to flash on and off, flash SOS, or set to stay on continuously.

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**D.22. Radio Chest Harness**



Radio chest harness is a mesh platform that is breathable to prevent heat buildup giving the member a hands free working environment.

---

D.22.a.  
Application

Should be worn in conjunction with the handheld radio and worn on the outside of the type V PFD.

---

D.22.b Salient  
Characteristics

Radio chest harness is a mesh harness made from polyurethane cordura material. It holds up to a 8” radio with antenna keepers to secure in place.

---

**D.23. 24” Bolt Cutters.**



A tool that has long handles and short blades, with a compound hinge to maximize leverage and force.

---

D.23.a.  
Application

The bolt cutters are used for cutting chain, locks, bolts and wire mesh.

---

D.23.b. Salient  
Characteristics

Bolt cutters are constructed of hardened alloy steel with a one-step internal cam mechanism designed to keep the blades precisely aligned. The handles and grips allow greater mechanical advantage for controlled cutting.

---

**D.24. Carabiner Locking “D” Shaped**



A specialized type of shackle consisting of a “D” shape aluminum ring with on side having a locking spring hinge, used as a connector or to hold freely running line.

---

D.24.a.  
Application

“D”-shaped carabiners are used for climbing or conducting rope rescue operations.

---

D.24.b. Salient  
Characteristics

The “D”-shaped aluminum carabiners must meet the National Fire Protection Association (NFPA) strength requirements for general use. . The locking mechanism must be designed as to not snag while in use. The gate must provide a minimum of 1.1” (28 mm) opening on the standard size version and a 2.1” (53 mm) opening on the XL version.

Gate choices include the traditional Screw-Lock, Auto-Lock, and Manual-Lock.

---



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**D.25. Quick Release G-Rated Aluminum Carabiner**



A specialized type of shackle consisting of a “D”-shaped aluminum ring with on side having a locking spring hinge, used as a connector or to hold freely running line.

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D.25.a. Application

The quick release G-rated aluminum carabiners are used for climbing and rope rescue.

---

A.25.b. Salient Characteristics

The quick release G-rated aluminum carabiners must meet NFPA strength requirements for general use. The quick release must be designed as to not snag while in use. The gate must provide a minimum of 1.1” (28 mm) opening on the standard size version and a 2.1” (53 mm) opening on the XL version.

---

**D.26. Nylon Rope 300 ft.**



The ½” orange rope is used in flood response missions.

---

D.26.a. Application

The 300’ of rope is used for rescue and climbing.

---

D.26.b. Salient Characteristics

The rope is ½” diameter constructed of 32 strand braided 100% nylon, UL Classified to NFPA 1983 Standard on Life Safety Rope and Equipment for Emergency Services. The rope is orange in color and half the strands have a left (Z) twist and other half have a right (S) twist for maximum strength and abrasion resistance.

---

**D.27. 1” Tubular Webbing.**



Tubular webbing is used for various types of undertakings while on a flood response mission.

---

D.27.a. Application

Tubular webbing is used for placing protections when climbing, very versatile for setting anchor points, clipping several carabiners into one anchor point, and provides a good grip around an object when used in conjunction with a girth hitch.

---

D.27.b. Salient Characteristics

The 300 foot role of mil-spec needle loomed nylon tubular webbing comes in various colors and has a 1” width with a minimum breaking strength of 4000 lbs.

---



**D.28. Dry Gear Bag (Large Blue)**



The dry gear bag is used for storage of flood response gear.

D.28.a.  
Application

Personnel should use the dry gear bag to store their flood response equipment.

D.28.b. Salient  
Characteristics

The dry gear bag is manufactured from extra heavy-duty vinyl/polyester laminate with electronically welded seams. It has a molded bottom which adds structure and protection to contents. It should have an adjustable removable shoulder strap which can be removed.

**D.29. River Rescue Z-Rig Kit**



The River Rescue Z-Rig Kit is used for flood response rescues and contains the following equipment:

QTY	ITEM
1 each	#2 Rope Bag
1 each	Stuff Bag
1 each	Rappel 8
1 each	Anchor Plate
10 each	Screw-Lock Carabiners - (Bright)
1 each	Screw-Lock Carabiners - (Orange)
1 each	Swivel Pulley
2 each	AZ Bound-Loop Prusik - (Short)
1 each	Rescue Rope - (150 ft.)
2 each	Tubular Webbing - (12 ft.)
1 each	Rescue Runner - (Large)

D.29.a.  
Application

The kit is used for water rescues and contains components for setting up a 3:1 mechanical advantage system.



---

**D.30. #2 Rope Bag**



The #2 Rope Bag that us used during flood response incidents.

---

D.30.a. Application

The #2 Rope Bag is used to store 150 ft. of rope used in flood response rescues.

---

D.30.b. Salient Characteristics

The #2 Rope Bag is a contoured backpack-style bag with shoulder straps manufactured from rip-stop nylon. The bag has grab handles secured inside the top which allows it to be used as a haul-bag. The bottom of the bag has a reach-in pouch that enables access to the knotted rope end. Sewn web loops are attached at the base to enable tying the rope end off internally or externally.

---

**D.31. Stuff Bag**



The Stuff Bag is a muti-purpose storage bag.

---

D.31.a. Application

The Stuff Bag is used to store various gear that comes with the River Rescue Z-rig Kit.

---

D.31.b. Salient Characteristics

The Stuff Bag is constructed of water-resistant 1,000-denier nylon.

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**D.32. Rappel 8**



A figure-eight descender used for rappelling or descent maneuvers.

D.32.a.  
Application

Used as a component of the 3:1 mechanical advantage system, rappelling, or descent maneuvers during flood response.

D.32.b. Salient  
Characteristics

Machined from a 12.5-mm (1/2-inch) aluminum plate optimized for use with 9.5-11 mm (3/8-7/16 in) rope.

**D.33. Anchor  
Plate**



The Anchor Plate is a device that keeps the carabiners holding the different parts of your rescue system from jamming together.

D.33.a.  
Application

Used as a component of the 3:1 mechanical advantage system.

D.33.b. Salient  
Characteristics

The Anchor Plate is constructed of aluminum and weighs 7.02 oz. The Anchor Plate is rated at 45 kiloNewtons (kN) and has a 10,116 force pound (lbf) rating. The small hole diameters are 7/8 in (22 mm), and the large holes are 2 in (51 mm).

**D.34. Screw-Lock  
Carabiners -  
(Bright)**



The Screw-Lock carabiner is a D-shaped coupling link with a locking safety closure used in flood rescues.

D.34.a.  
Application

Used for rescues and as a component of the 3:1 mechanical advantage system.

D.34.b. Salient  
Characteristics

The Screw-Lock Carabiner is made of aluminum and weighs 2.6 oz. It has a 1-inch gate opening and interior length of 3.53 inches. The screw-lock carabiner is rated for 36 kN and 5845 (lbf).



---

**D.35. Screw-Lock Carabiners - (Orange)**



The Screw-Lock Carabiner is a D-shaped coupling link with a locking safety closure used in flood rescues.

---

D.35.a. Application

Used for rescues and as a component of the 3:1 mechanical advantage system.

---

D.35.b. Salient Characteristics

The Screw-Lock Carabiner is made of aluminum and weighs 2.6 oz. It has a 1-inch gate opening and interior length of 3.53 inches. The screw-lock carabiner is rated for is rated for 36 kN and 5845 (lbf).

---

**D.36. Prusik-Minding Pulley (PMP) Swivel Pulley**



The Prusik-Minding Pulley (PMP) Swivel Pulley is a pulley used as an anchor point with a rotating swivel ensuring the rope aligns with the direction of the pull.

---

D.36.a. Application

Used as a component of the 3:1 mechanical advantage system.

---

D.36.b. Salient Characteristics

The PMP Swivel pulley is constructed of a stainless steel sheave with sealed ball bearings weighing 11.3 oz. The sheave thread size is 1 ½ x ½ inch. The pulley is rated for 43 kN and 9666 (lbf). It has a pivoting side plate with a double-detent button preventing accidental opening.

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**D.37. AZ Bound-Loop Prusik**



The AZ Bound-Loop Prusik is a sewn prusik with strength equivalent to a tied prusik loop without the knot.

---

D.37.a.  
Application

Used as a component of the 3:1 mechanical advantage system, or any other applications deemed by the rescuer.

---

D.37.b. Salient  
Characteristics

The red prusik is constructed of 8 mm rope and is 18 inches in length. It comes with clear shrink tubing that allows regular inspection and helps protect the stitching. It is rated for 20kN and 4,496 (lbf).

The green prusik is constructed of 8 mm rope and is 25 inches in length. It comes with clear shrink tubing that allows regular inspection and helps protect the stitching. It is rated for 20kN and 4,496 (lbf).

---

**D.38. River  
Rescue Rope**



The River Rescue Rope is a rescue system rope that floats.

---

D.38.a.  
Application

The rope is used for high-load applications and is a component of the 3:1 mechanical advantage system. The rope can be used with Prusik hitches, ascenders, descenders, pulleys, and other rescue hardware.

---

D.38.b. Salient  
Characteristics

The rope is constructed of a polyolefin core with an abrasion-resistant nylon sheath. It is rated for 16.5 kN and 3737 (lbf).

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**D.39. Tubular Webbing**



Tubular Webbing is used for various types of undertakings while on a flood response mission.

---

D.39.a.  
Application

The tubular webbing is a component of the 3:1 mechanical advantage system. It is further used for placing protections when climbing, very versatile for setting anchor points, clipping several carabiners into one anchor point, and provides a good grip around an object when used in conjunction with a girth hitch.

---

D.39.b. Salient Characteristics

The tubular webbing is constructed of Mil-Spec Needle Loom Nylon Web. It has a width of 1 inch and comes in multiple colors. Tubular webbing is rated at 17.8 kN and 4,000 (lbf).

---

**D.40. Rescue Runner**



Tubular webbing runner is used for rescue operations.

---

D.40.a.  
Application

The Rescue Runner is a component of the 3:1 mechanical advantage system or any other applications deemed by the rescuer.

---

D.40.b. Salient Characteristics

The Rescue Runner is constructed of 25-mm Mil-Spec tubular web, with a loop sewn at each end. The runner is 60 inches in length with a 1-inch width. It is rated for 16.9 kN and 3800 (lbf).

---



---

## Section E. Cutter Surface Swimmer Issue PPE

---

### Overview

This Section describes swimmer equipment policies, establishes the operational requirements, describes the salient characteristics, and discusses maintenance requirements for equipment that may be used by cutter surface swimmers:

- (01) Surf cap,
- (02) Booties,
- (03) Neoprene gloves,
- (04) Mask and snorkel,
- (05) Fins,
- (06) Cutter surface swimmer dry suit,
- (07) Cutter surface swimmer rapid don rescue suit,
- (08) Cutter surface swimmer wet suit,
- (09) Cutter surface swimmer harness flotation Vest,
- (10) Cutter surface swimmer tending line.

Cutters shall maintain the suit that best meets their needs for their operational area.

Surface swimmers deployed from shore-based boats are deployed wearing the same organizational clothing and PFD they get underway with.

---



---

**E.1. Cutter  
Surface  
Swimmer  
Equipment Issue  
and  
Management**

Cutter surface swimmer equipment issued to personnel is government property and is considered to be organizational uniform items. The principles, concepts and procedures discussed in this section apply to cutter surface swimmer equipment. All issued items of cutter surface swimmer equipment shall be returned to the unit stock when cutter surface swimmers are reassigned to other duties or units.

---

**E.2. Surf Cap**



Use of the surf cap is optional for all deployments other than the mandatory application described in A.3.a. below.

---

**E.2.a.  
Application**

The surf cap shall be worn by cutter surface swimmers during all deployments at night and when the water temperature is below 72 degrees Fahrenheit.

---

**E.2.b.  
Salient  
Characteristics**

The surf cap is constructed of a vivid reddish orange or similar hue, 2-millimeter neoprene fabric that covers the top of the head and ears. The neck strap uses a hook and pile type or other suitable closure and SOLAS grade retro-reflective tape is applied for increased visibility in low-light environments.

---

**E.3. Booties**



Booties are worn by cutter surface swimmers to protect their feet from exposure to environmental hazards and in conjunction with fins.

---

**E.3.a.  
Application**

Two pairs of different size booties can be worn. One pair over the bare feet and a second larger pair in conjunction with the dry suit.

---

**E.3.b.  
Salient  
Characteristics**

Booties are constructed of black 5-millimeter neoprene fabric welded to hard rubber traction soles. The booties use a slide fastener type closure and are nominally 5 inches high. Booties are available in 9 sizes. Contact the manufacturer for sizing requirements.

---



**E.4. Neoprene  
Gloves**



Neoprene gloves are optional for conditions outside those in A.5.a. below.

E.4.a.  
Application

Neoprene gloves shall be worn by cutter surface swimmers during all deployments where the water temperature is below 72 degrees Fahrenheit.

E.4.b.  
Salient  
Characteristics

Any suitable 3 or 5-millimeter neoprene five-finger glove locally procured is authorized.

**E.5. Mask and  
Snorkel**



This equipment is used by the cutter surface swimmer when the CO/OIC makes the decision to deploy the surface swimmer.

E.5.a.  
Application

A mask and snorkel is used by surface swimmer to assist in breathing and maintaining visibility.

E.5.b.  
Salient  
Characteristics

The mask is a low-volume clear silicone window design with unbreakable UV-protected lenses and an attached chemical light bar. Mask should be equipped with a clamp to attach personal marker light. The snorkel is a free-hanging black or clear silicone straight plastic tube with corrugated mouthpiece. The top of the tube is wrapped with SOLAS Grade reflective tape for increased visibility in low-light environments.

E.5.c.  
Prescription  
Lenses

Cutter surface swimmers requiring prescription eyewear are authorized to procure corrective lenses for their mask. Contact the manufacturer for prescription requirements.

**NOTE** 

If prescription eyewear is required, member will be issued own mask.



---

## E.6. Fins



Fins are foot wear with a open heeled and adjustable strap that is worn over the foot or boot.

---

E.6.a.  
Application

Fins are used to assist the swimmer in leg kicking motion and to reduce fatigue.

---

E.6.b.  
Salient  
Characteristics

Fins are open heel design. Adjustable straps allow for a wide range of foot sizes.

---

## E.7. Cutter Surface Swimmer Rapid Don Rescue Suit



The cutter surface swimmer rapid don rescue suit may be used by cutter surface swimmers in lieu of the dry suit and harness flotation vest combination. This suit may also be worn by Ice Rescue units.

---

E.7.a.  
Application

This suit is faster to don because the inherent thermal insulating properties alleviate the need to don thermal undergarments. The primary use for this suit would be for very cold water environments where immediate retrieval of a person overboard is necessary to prevent death.

### **WARNING**

The rapid don rescue suit has permanently attached bulky 5-finger gloves that limit dexterity. Swimmers will not be able to manipulate litter straps or other tools that require fine dexterity to operate.

---

E.7.b.  
Salient  
Characteristics

The cutter surface swimmer rapid don rescue suit is constructed of closed cell neoprene foam or welded urethane coated nylon outer shell with closed cell foam inner lining insulation. The suit has an integrated lifting harness, 5 finger gloves and neoprene padding for the knees.

### **WARNING**

The rapid don rescue suit is a non-breathable suit

---



**E.8. Cutter  
Surface  
Swimmer Wet  
Suit**

A neoprene wetsuit available in the “shorty” or the full-length which provides the cutter surface swimmer personnel some protection from the elements when required to deploy.



**Figure 3-8  
Cutter Surface Swimmer Wet Suit**

**E.8.a.  
Application**

The “shorty” or the full-length portion of the wet suit ensemble is worn by cutter surface swimmer personnel at their discretion when required to deploy into water that is 50 degrees Fahrenheit and above.

**E.8.b.  
Salient  
Characteristics**

The wet suit ensemble consists of the full-length 5- or 5/3-millimeter and the 3-millimeter “shorty” wet suits. They are constructed of international orange or black color combination neoprene fabric. Both suits incorporate rear entry slide fasteners that can be closed by the wearer. Retro-reflective tape is applied for increased visibility in low-light environments. Contact the manufacturer for sizing requirements.



**E.9. Cutter  
Surface  
Swimmer  
Harness  
Flotation Vest**

The harness flotation vest provides flotation and holds items of equipment that may be used during the deployment.



**E.9.a.  
Application**

The harness flotation vest is worn by the cutter surface swimmer on all deployments. The harness flotation vest serves as the swimmer's tethered harness and flotation.

**E.9.b.  
Salient  
Characteristics**

The harness is constructed of heavy-duty nylon webbing and stainless steel hardware. Slide fasteners and snaps are corrosion resistant, high strength plastic. The swimmer's tending line is attached to a quick releasing snap shackle that is released by a beaded handle. The flotation cell is installed inside an abrasion and puncture resistant nylon case that is attached to the harness. The cell is manually inflated by actuating a CO<sub>2</sub> cylinder beaded handle or orally inflated using the oral inflation tube providing up to 35 pounds of buoyancy.

**WARNING** 

Do not jump directly into the water with the harness flotation vest inflated. If the flotation cell has been orally inflated, actuating the beaded inflation lanyard will cause the cell to rupture, possibly causing injury to the swimmer.





---

**E.10. Cutter  
Surface  
Swimmer  
Tending Line**



The cutter surface swimmer tending line is hollow-braided polypropylene line highly visible with positive floatation and 2200 pound breaking strength.

---

E.10.a.  
Application

The cutter surface swimmer tending line is used by the cutter surface swimmer on all deployments. The swimmer's tending line is attached to the swimmer's harness by a quick releasing snap shackle that is released by a beaded handle.

---

E.10.b. Salient  
Characteristics

The cutter surface swimmer tending line is 300-500 feet long and has a tender's hand loop spliced in one end and a stainless steel ring spliced into the other.

---



# PART 4 Platform Equipment

**Introduction** This Part contains information on equipment not assigned to individuals but which is carried aboard various platforms.

**In this Part** This Part contains the following Chapters:

Chapter	Topic	Page
1	Boat Crew And Cutter Equipment	4-2
2	Life Rafts and Life Floats	4-15
3	Rescue Equipment	4-20
4	Pump, Pyrotechnics, and Hypothermia Capsule	4-28



---

## CHAPTER 1

### Boat Crew And Cutter Equipment

---

#### **Introduction**

This Chapter contains information about PPE relating to additional boat crew equipment found on boat platforms and cutter immersion suit.

---

#### **In this Chapter**

This Chapter contains the following sections:

<b>Section</b>	<b>Topic</b>	<b>Page</b>
A	<a href="#">Boat Crew Equipment</a>	4-3
B	<a href="#">Cutter Equipment</a>	4-14

---



---

## Section A. Boat Crew Equipment

---

### Overview

This Section describes additional equipment required to safely perform the duties of the boat crew and scheduled mission personnel operating shore and cutter based boats.

All crewmembers embarked on shore and cutter based boats shall wear the personal survival equipment listed in A.1.b.

---

### A.1. Boat Crew Survival Vest

The boat crew survival vest is used to store survival items methodically selected for use in the majority of survival scenarios.

---

#### A.1.a. Application

The boat crew survival vest provides no buoyancy and shall be worn by the boat crew over a Type III Coast Guard-approved PFD, anti-exposure coveralls, or float coat on all missions. The components of the boat crew survival vest shall not be removed unless needed.



Figure 4-1  
Boat Crew Survival Vest

Numbers 1-7 in image above correspond to listing in A.1.b. Salient Characteristics.

### WARNING

When donning the Boat Crew Survival Vest over the Anti-Exposure coverall and Industrial Dry suit, ensure that the inflatable head support is placed outside of the Survival Vest.

---



A.1.b.  
Salient  
Characteristics

The boat crew survival vest is orange nylon mesh with Coast Guard markings and retro-reflective tape applied for increased visibility in low-light environments. Incorporated in the vest are five stowage pockets used to store the following personal survival equipment:

- (01) Signal mirror,
- (02) Strobe light,
- (03) MK 79 Personnel Distress Signal Kit,
- (04) Whistle,
- (05) MK 124 Marine Smoke and Illumination Signal,
- (06) Survival knife,
- (07) Personal Locator Beacon (PLB).

Survival items are secured to the vest pockets in accordance with the applicable MPC. The vest is available in two sizes, regular and large, and has a waist adjustment strap for fitting to individual comfort. Instructions for use of attached survival equipment can be found in Reference (m).

A.1.c. Auxiliary  
Use

Directors of Auxiliary may issue boat crew survival vests with required non-pyrotechnic equipment to boat crews, or Auxiliarists may carry their non-pyrotechnic equipment in pockets built into the authorized Type III or inflatable PFD. The waist belt pocket part number found on the Inflatable PFD Maintenance Procedure Card (MPC) is the only authorized model.

A.1.d.  
Exceptions

There are certain times when the boat crew survival vests may be removed:

- (01) Aids to Navigation (ATON) teams, operating a standard boat, are permitted to remove the boat crew survival vest while actively engaged in deck operations or working on structures. ATON teams shall don the boat crew survival vest upon securing from deck operations and before putting way on for transit. For the purposes of this guidance only, deck operations is defined as working an aid or series of aids in a single mission. Team members would not be required to don the vest while transiting from aid to aid in a series. In addition, aids to navigation teams underway on standard boats at anchor for crew rest may relax the requirements directed by **Table 2-2** or **Table 2-3** at the coxswain's discretion.
- (02) While conducting Ice Rescue training, personnel in survivor role may remove the vest just prior to entering the water to act as the survivor.

**NOTE** 

Personnel who have not been formally trained to use military specification pyrotechnics shall not wear equipment that contains MK 79 or MK 124 pyrotechnics. Each passenger shall be outfitted with a PFD that contains a whistle and personal marker light or strobe light.



---

## **A.2. Rescue Equipment Pouch**

The rescue equipment pouch is used to store survival items methodically selected for use in the majority of survival scenarios.

---

### **A.2.a. Application**

The pouch is an optional piece of equipment to be worn in lieu of a boat crew survival vest. The components of the pouch shall not be removed unless needed.



**Figure 4-2  
Rescue Equipment Pouch**

---

### **A.2.b. Salient Characteristics**

The rescue equipment pouch is black nylon shell with no markings. Incorporated in the pouch are stowage pockets used to store the following:

- (01) Signal mirror,
- (02) Strobe light,
- (03) MK 79 Personnel Distress Signal Kit,
- (04) Whistle,
- (05) MK 124 Marine Smoke and Illumination Signal,
- (06) Survival knife,
- (07) Personal Locator Beacon.

Instructions for use of attached survival equipment can be found in Reference (m).

---



A.2.c. TO/TDT  
Alternate PPE  
Wear Location

TO/TDT members are authorized to use any of the approved rescue equipment pouches listed in applicable MPC or relocate SAR equipment to the upper arm pockets of their tactical uniform, dry-suit, or CBRN protective over-garment. The paragraph below describes the alternate wear location of SAR equipment for TO/TDT members.

The whistle, signal mirror, and PLB must be located in the uniforms upper arm pockets when not utilizing the other approved equipment pouches. An appropriate tether, attached to the pocket loop via s-hook or quick link shall be used to allow TO/TDT members to remove the SAR equipment when not required. In the event the uniform does not have an integral attaching loop sewn-in the arm pockets, units are authorized to attach a stainless steel grommet to the pocket material for attachment of tether lines via s-hook or quick link. Stainless steel grommets shall be size #2 or #3, and affixed to the top of the pocket material 1” from the back edge of the pocket and ½” from the top of the pocket material so the pocket flap covers the grommet. Due to the entanglement hazard of the tether attached to the upper arm pockets, the authorized length of the equipment tethers shall be 24 inches.

**NOTE** 

The MK 124 Marine Smoke and Illumination Signal and the MK 79 Personal Distress Signal Kit are optional for TO/TDT members.



**A.3. Crew Restraint Systems**

Crew restraint systems are designed to prevent crew injury and/or ejection. These systems are specific to each boat type, are covered in the appropriate Operator’s Handbook, and include:

- (01) Quick release seatbelts,
- (02) Seatbelts/seat harnesses,
- (03) Foot straps,
- (04) Gunner restraint system,
- (05) Boat crew safety belts (MLB, SPC-HWX, and SPC-NLB only).

Anytime a Boat Forces asset engages in Security Zone (SZ) enforcement or Non-Compliant Vessel Pursuit (NCVP) activities, heavy weather, and/or surf (including training) the boat crew is required to use crew restraint systems and/or gunner restraint systems. Boats conducting SZ enforcement or NCVP activities shall not get underway with more personnel than available restraint systems.

A.3.a Exemptions

64FT SPC-SV are exempt from the crew restraint system policy (specifically the seatbelt) unless conducting tactical activities when seas conditions exceed 4FT or whenever directed by the coxswain.

**NOTE** 

The Boston Whaler Transportable Port Security Boat (TPSB) is not equipped with crew restraint systems. These crews are exempt from use of crew restraints.

**NOTE** 

Resident School Instructors, unit Designated Trainers, and Standardization Team Evaluators are exempt from crew restraint requirements if *both* hands are free and it is a training/evaluation mission as governed by their SOP.

**NOTE** 

MSRT units are authorized to use an alternative harness that will be identified by The Office of Specialized Capabilities (CG-721).





---

**A.4. Gunner Restraint System**

Personnel manning the MAW on boats are required to use the gunner restraint system.

---

A.4.a.  
Application

Personnel firing shoulder fired small arms shall be either tethered or restrained by a crew restraint system. Prior to deployment, Boat Forces personnel shall become thoroughly familiar with the proper attachment points, wear, and operation of the boat gunner restraint system explained in Reference (j) and in A.4.b. below.

---

A.4.b.  
Salient Characteristics

The gunner restraint system is the approved, two-part harness which tethers the gunner to the boat. The gunner restraint system attaches to each boat at a different location. A listing and photographs of these attachment points may be found in the specific boat operator’s handbook for each MAW capable boat or at:

<https://cg.portal.uscg.mil/units/cg731/SitePages/RSS%20Information.aspx>

---

A.4.c.  
Shock Reduction Tether



The purpose of the Shock Reduction Tether (SRT) System is to maintain safety tethering while at the same time mitigating potential surge forces involved in a sudden stop.

Similar to a ‘Z brake’ used in fall arrest systems, at the core of the SRT is a patented, energy absorbing sacrificial strap that is folded and secured within a protective sleeve forming the shock reduction element.

When a force over 800 pounds is experienced, the tether incrementally releases up-to 18 inches of additional strap to mitigate the shock-load experienced by the person.

The design of the tether includes a ‘tripped’ self-indicating warning label that becomes exposed if the system has been subjected to a force over 800 pounds.

Ultimate breaking limit of the tether is 3300 pounds.

---



---

A.4.d. SRT  
Adjustment  
Guidelines

The SRT is adjustable (18-72 inches). Adjustment of the SRT straps involves two considerations:

- (01) Maintaining movement necessary to swing gun through full range of weapon motion (Stop to Stop),
- (02) Limiting SRT maximum length. Maximum length is the current adjusted length plus the additional 18 inches released during a sudden stop event. Factoring the current length plus the 18 inches ensures the member stays in the boat.

---

A.4.e.  
Prohibition

Do not use the SRT as a means of personal support to mitigate fatigue. Using the device in this way may cause ‘tripped’ warning indicator to become exposed or partial deployment of the device.

---

A.4.f.  
Harness



Uses Type 12 and 13 nylon webbing:

- (01) Parachute Harness D-ring has a 5,000 lb. proof load; over 7,500 lb. breaking load,
  - (02) Friction buckles exceed 2,500 lb. proof and 4,600 lb. break loads,
  - (03) Fully adjustable waist and leg straps,
  - (04) One size fits all.
-



**A.5. Boat Crew Safety Belt**



Boat crew safety belts are a safety restraint system designed to restrain the user to the boat should a knockdown or rollover occur.

**A.5.a Application**

The boat crew shall wear the safety belts during hazardous conditions such as heavy weather and surf, as defined in Reference (c).

**A.5.b Salient Characteristics**

The boat crew safety belt is a padded adjustable nylon-webbing belt that is secured around the hips with a quick release buckle constructed of high strength stainless steel and molded plastic. Attached to the belt are two adjustable webbing restraint straps each with a locking snap hook used to secure the user to an anchor point. The belt is available in two sizes, small and regular.

**WARNING**

A properly adjusted belt should fit snugly low around the hips when buckled. Restraint straps shall be adjusted to allow freedom of movement, but without excessive slack.

**NOTE**

The characteristics of the locking snap hook require that users be thoroughly familiar with the operation of the hook. While wearing gloves, users shall practice locking in and disconnecting the hook from all possible attachment points paying particular attention to working the latch gate release. Prior to operational use of the belt, each user shall don the belt and practice locking in and disconnecting from point to point around the boat deck. Operation should become second nature.



---

**A.6. Boat Swimmer Issue PPE**

Boat Swimmer PPE is not issued to personnel. Some platforms are equipped with boat swimmer PPE. These systems are specific to each boat type, and are covered in the appropriate Boat Operator’s Handbook, and include:

- (01) Mask and snorkel,
- (02) Fins,
- (03) Harness and tending line.

---

**A.7. Mask and Snorkel**



This equipment is used by the boat crew when the decision is made to deploy the boat swimmer.

---

**A.7.a. Application**

A mask and snorkel is used by surface swimmer to assist in breathing and maintaining visibility.

---

**A.7.b. Salient Characteristics**

The mask is a low-volume clear silicone window design with unbreakable UV-protected lenses and an attached chemical light bar. Mask should be equipped with a clamp to attach personal marker light. The snorkel is a free-hanging black or clear silicone straight plastic tube with corrugated mouthpiece. The top of the tube is wrapped with SOLAS Grade reflective tape for increased visibility in low-light environments.

---



**A.8. Fins**



Fins are foot wear with a open heeled and adjustable strap that is worn over the foot or boot.

A.8.a.  
Application

Fins are used to assist the swimmer in leg kicking motion and to reduce fatigue.

A.8.b.  
Salient  
Characteristics

Fins are open heel design. Adjustable straps allow for a wide range of foot sizes.

**A.9. Boat Swimmer Harness and Tending Line**



The boat swimmer harness and tending line teathers the boat swimmer to their line tender and holds equipment used during a deployment.

**WARNING**

Boat crews aboard platforms that do not have tending line and harness shall perform thorough RM before putting a swimmer in the water.

**WARNING**

Harnesses of all types, such as the boat swimmer harness and other climbing safety harnesses, shall not be used with automatically inflating PFDs unless designed as one unit. Harnesses worn over inflatable PFDs can restrict the outward inflating action and may prevent breathing or cause crushing injuries to the upper torso. Inflatable Rescue Swimmer Vest and Harness is the only authorized inflatable PFD to be worn.

**NOTE**

Some Boat Operator’s Handbooks require a swimmer’s harness. If units choose to wear an inflatable PFD while underway, they shall carry either a Type III PFD or the Inflatable Rescue Swimmer Vest and Harness for the rescue swimmer. Prior to entering the water, the inflatable rescue swimmer vest will be inflated orally or manually.

A.9.a.  
Application

The boat swimmer harness and tending line is worn by the boat swimmer on all deployments from platforms equipped with this PPE.

A.9.b. Salient  
Characteristics

The boat swimmer harness is constructed of black nylon webbing. The harness has torso and shoulder straps with stainless steel adjustment hardware. A rescue knife is attached to the harness waist strap. A quick release snap shackle is incorporated into the shoulder strap for quick release of the attached tending line. The tending line is 70 feet long and has a tender’s hand loop spliced in one end and a stainless steel ring spliced into the other.



---

**A.10. U.S.C.G  
Boat Response  
Aid Kit**



The U.S.C.G boat response aid kit is the standard first aid kit for all Boat Forces operations.

---

A.10.a.  
Application

The U.S.C.G boat response aid kit is used by first responders and carries critical lifesaving equipment for rendering emergency care during Coast Guard missions.

---

A.10.b. Salient  
Characteristics

Kits should be secured with an ant-pilferage seal and waterproof. All current boat first aid kits will be replaced with U.S.C.G boat response aid kit NSN 6545-01-646-2623, or through manufacture North American Rescue ITEM # 80-0353.

---



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## Section B. Cutter Equipment

---

**Overview** This Section describes additional equipment required on board cutters.

---

**B.1. Immersion Suit** The immersion suit is worn when abandoning ship.




**Figure 4-3**  
**Immersion Suit**  
**Polyvinyl Chloride Foam (Left) and Nylon-lined Neoprene (Right)**

---

**B.1.a. Application** Immersion suits are worn by cutter personnel for improved survivality when entering the water is imminent. When available, ship's personnel are required to use immersion suits during abandon ship operations.

---

**B.1.b. Salient Characteristics** Immersion suits shall be U.S.C.G approved in accordance with 46 C.F.R. § 160.171. The immersion suit is a one-piece international orange garment constructed of 3/16-inch nylon lined neoprene or polyvinyl chloride foam. It has a front entry slide fastener for easy fast entry. The garment is hooded and gloved and is available as a one size fits all suit. The immersion suit provides 35 pounds of buoyancy.

**NOTE**  Once the immersion suit is donned the mobility and dexterity of the user is somewhat diminished. During abandon ship drills, don the immersion suit and practice moving about and manipulating signaling devices with gloved hands.

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## CHAPTER 2

### Life Rafts and Life Floats

---

**Introduction** This Chapter contains information about life rafts, embarkation nets, and life floats.

**NOTE** *↪*

Life rafts are equipped with commercial grade pyrotechnics. Upon first scheduled inspection, the commercial grade pyrotechnics shall be replaced with military issued pyrotechnics per NAVSEA OP 4.

**In this Chapter**

This Chapter contains the following sections:

Section	Topic	Page
A	<a href="#">Boat Installed Life Rafts</a>	4-16
B	<a href="#">Coast-Guard-Approved Cutter Life Rafts</a>	4-17
C	<a href="#">Life Floats</a>	4-19

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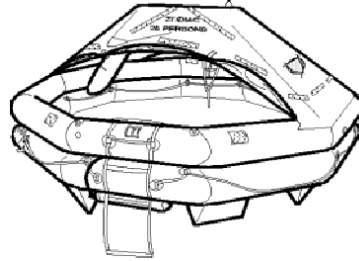
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## Section A. Boat Installed Life Rafts

---

**Overview** This Section describes information on the 6-person life raft.

**A.1. 6-Person  
Coastal Service  
Life Raft**



The 6-Person Coastal Service Life Raft is a Coast-Guard-approved life raft used aboard the 49' BUSL, 52' SPC-HWX, and 55' ANB for crew survival in the event the boat is rendered not seaworthy. In addition, the raft may be used for rescue and assistance at the coxswain's discretion.

**A.1.a. Salient  
Characteristics**

The life raft is packed in a rectangular fiberglass container. The raft meets or exceeds all requirements for Coast Guard approval in accordance with 46 C.F.R. § 160.051-11, which lists items contained in the life raft container.

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## Section B. Coast-Guard-Approved Cutter Life Rafts

---

**Overview** This Section describes information and configuration relating to approved cutter life rafts.

---

**B.1. Coast Guard Approved Cutter Life Rafts** Coast-Guard-approved life rafts are used for crew survival in the event the cutter is rendered not seaworthy.

---

**B.1.a. Application** In addition, the rafts may be used for rescue and assistance at the CO/OIC's discretion.

---

**B.1.b. Required Capacity** The number of life rafts carried by a cutter is based on the cutter's total available berthing. Life raft capacities shall be equal to or greater than 125% of the cutter's available berthing. For cutters whose configurations contain liferaft stowage in clusters, life raft capacity shall not be less than 100% of available berthing in the event the ship largest cluster is destroyed. A cluster is defined as life rafts being supported by a common stowage structure. Life rafts shall be kept in a ready status at all times.

---

**B.1.c. Configuration** Coast-Guard-approved life rafts may be configured differently. All are Coast Guard approved and meet the requirements of 46 C.F.R. § 160.151. Specific configurations and arrangements for each cutter class may be obtained from the applicable Surface Forces Logistics Center product line. For platforms carrying rafts that contain the SOLAS A pack, the Abandon Ship Signal Kit shall contain: Six (6) MK 124 and Two (2) MK 79 Kits.

---

**NOTE** 

Specific configurations for each cutter class may be obtained from the applicable Surface Forces Logistics Center product line.

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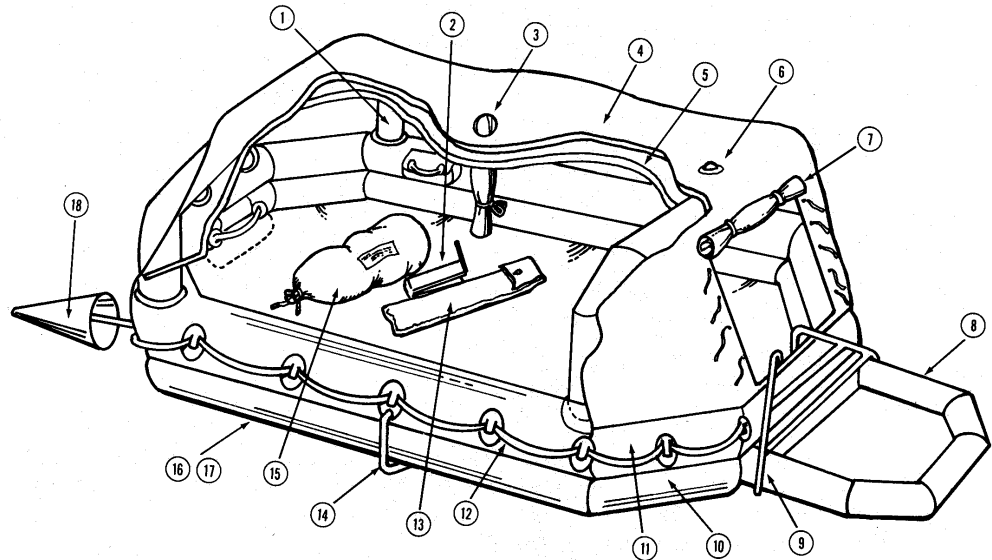
**B.1.d. Service Life Limit** Coast-Guard-approved life rafts have a service life of 20 years. No life raft or component part of a life raft shall remain in service after 20 years from the date of manufacture. If a life raft exceeds the 20 year service life prior to the expiration of the annual recertification sticker, it shall be removed from service and replaced.

---



B.1.e.  
Typical Life Raft

- |                                    |                                    |
|------------------------------------|------------------------------------|
| 1. Canopy Arch                     | 10. Hull Tube                      |
| 2. Pump                            | 11. Gunwale Tube                   |
| 3. Rain Catcher with Tie-Down Line | 12. Life Line                      |
| 4. Exterior Canopy                 | 13. Paddle Bag                     |
| 5. Inner Canopy                    | 14. Righting Line                  |
| 6. Outside Light (Recognition)     | 15. Equipment Container            |
| 7. Canopy Closure                  | 16. Hull CO <sub>2</sub> Bottle    |
| 8. Boarding Ramp                   | 17. Gunwale CO <sub>2</sub> Bottle |
| 9. Boarding Handles                | 18. Sea Anchor                     |



**NOTE** 

Cutters that transitioned to the Navy MK series life raft may obtain policy and guidance for periodic inspection and maintenance of the Mark series life rafts from the applicable Surface Forces Logistics Center product line.



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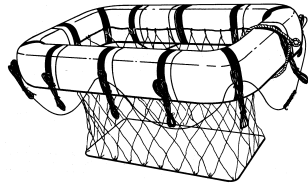
## Section C. Life Floats

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**Overview** This Section describes the life floats application and salient characteristics.

---

### C.1. Life Float



The life float is used as an alternative to the life raft and provides a means of crew flotation after abandoning ship.

---

#### C.1.a. Application

Life floats are used on WLR class cutters on inland navigable water where the cutter's operating area precludes the need for a life raft.

---

#### C.1.b. Salient Characteristics

The 6 person life float provides 240 pounds of buoyancy and is constructed of either fiberglass reinforced plastic laminate around a rigid cellular polyurethane core or unicellular plastic foam with a fiberglass or vinyl cover. The platform has a polyethylene mesh netting strung on an aluminum frame suspended from the float by straps of fiberglass or metal. Retro-reflective tape is applied for increased visibility in low-light environments.

### NOTE

Some cutters carry life floats for migrant operations. These life floats should be inspected using the same requirements.



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## CHAPTER 3

### Rescue Equipment

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**Introduction** This Chapter contains information for the Stokes litter and other rescue equipment.

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**In this Chapter** This Chapter contains the following sections:

Section	Topic	Page
A	<a href="#">Stokes Litter</a>	4-21
B	<a href="#">Ring Buoys, Markers, Throw Bags, and Emergency Beacons</a>	4-23

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## Section A. Stokes Litter

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**Overview** This Section describes the stokes litters application, salient characteristics, configuration, and single point davit hoisting.

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**A.1. Stokes Litter** The stokes litter (rigid or folding) is a mobile transportation device designed to safely transport non-ambulatory personnel from the water, onboard ships and boats.



**Figure 4-4**  
**Stokes Litter**

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**A.1.a. Application** The basic stokes litter is configured for surface operations. Tending lines shall be kept from interfering with patient restraint straps. The gray, blue, red, and green restraint straps shall be disconnected and secured to the right side of the litter prior to loading a patient. The black restraint strap with flotation pads shall be buckled.

---

**A.1.b. Flotation Characteristics** When the litter is configured in accordance with the MPC, it will float face-up at a 45-degree angle with the foot end submerged. The top 18 to 24 inches at the head end of the litter will be above the surface of the water. The stokes litter is self-righting.

**WARNING** 

Patients wearing buoyant garments, such as exposure suits or PFDs will affect and possibly negate the flotation and self-righting characteristics of the litter. Diligent attention to flotation characteristic changes when patients are secured in the litter.

**WARNING** 

If the patient is secured to a backboard or spinal immobilization device, do not remove it.

**NOTE** 

When securing the black restraint strap with flotation pads, difficulty may be encountered with patients wearing buoyant garments. Buoyant garments are not to be removed; instead place as much slack in the restraint strap as possible and attempt to connect the buckle.



A.1.c. Salient  
Characteristics

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The stokes litter is constructed of high strength stainless steel or titanium alloy. Its construction includes stainless steel slats, which provide longitudinal support and strength. Aluminum litters are no longer authorized for use. The basic design includes ballast weight at the foot end and a removable flotation assembly. Five restraining straps and smooth plastic mesh netting are incorporated for patient restraint. The litter may be a rigid one-piece or foldable two-piece design.

---

A.1.d.  
Flotation Kit  
Requirements

The flotation kit assembly with ballast weight shall be installed for operations on cutters and boats. Stokes litter flotation shall consist of a chest pad, flotation tubes, ballast bar and restraint straps. More recent flotation kit designs incorporate a back pad installed over the plastic mesh netting in the upper portion of the litter. Stokes litters used ashore do not require flotation and ballast, patient restraining straps are required.

---

A.1.e.  
Configuration  
Kits

A surface kit containing four tending lines is used primarily for surface operations.

---

A.1.f.  
Single Point Davit  
(J-Bar) Hoist

Flight deck equipped cutters are authorized to use the J-Bar davit in conjunction with the helicopter hoisting stokes litter for recovering personnel from the water onto the cutter.

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## Section B. Ring Buoys, Markers, Throw Bags, and Emergency Beacons

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**Overview** This Section describe the application and salient characteristics for ring bouys, floating electric marker light, rescue line throw bags, and emergency beacons.

**B.1. Ring Buoys** Ring buoys are primarily used to provide flotation assistance for a person in the water. Procedures for its use can be found in Reference (m).



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**B.1.a. Application** The ring buoy can be easily deployed from stowage brackets to mark an object or person in the water during daytime or nighttime operations. The floating electric marker light and rescue line throw bag are generally stowed adjacent to the ring buoy.

---

**B.1.b. Salient Characteristics** The standard ring buoy is available in three sizes, 20, 24, and 30 inches. Ring buoys are constructed of molded unicellular plastic or vinyl coated polypropylene or nylon skin over urethane foam core, are inherently buoyant and polypropylene line is attached around the outside circumference. The ring buoy is colored international orange for high visibility.

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## **B.2. Floating Electric Marker Light**

The floating electric marker light is primarily used to mark the location of a person in the water. Procedures for its use can be found in Reference (m).



### **B.2.a. Application**

The floating electric marker light can be easily deployed from stowage brackets to mark an object or person in the water during daytime or nighttime operations.

An attachment line is used to attach the light to the ring buoy. Units shall keep this line attached at all times. If use of the ring buoy without the light is desired, the attachment line can be quickly disconnected.

The floating electric marker light is designed to operate for a minimum continuous duration of 36 hours.

The ring buoy and rescue line throw bag are generally stowed adjacent to the Floating Electric Marker Light.

### **B.2.b. Salient Characteristics**

Any suitable, Coast Guard Approved, floating electric marker light meeting the specifications and certified as outlined in 46 C.F.R. § 161.010.



### B.3. Rescue Line Throw Bag

The rescue line-throw bag is used as a PIW retrieving line and for passing towlines and equipment. It is easy to use and provides quick and accurate deployment of 70-100 feet of floating line.



#### B.3.a. Application

The line is easily repacked and can be quickly re-deployed as required. It can be used safely for throwing to PIWs in the water. The user opens the bag and extracts the looped end of the rope from inside the bag. The loop end, with attached snap hook, is grasped and held firmly as the bag is tossed towards the target. The end loop protrudes through the bottom of the bag and provides a handhold for the PIW to grasp while being rescued. In addition, the snap hook may be attached to the ring buoy and the rescue line deployed as the ring buoy is thrown towards the PIW.

#### B.3.b. Salient Characteristics

The line bag is constructed of an international orange nylon cloth or mesh. Hardware or elastic is used to close the bag. A carrying strap is attached and has a quick release buckle or snap to allow for easy release. A foam disk is incorporated in the bag for flotation. The nylon line stowed in the bag is 3/8-inch double braid construction with multi-filament polypropylene core and is 70 to 100 feet long. The nylon provides strength and is abrasion and U/V resistant. The line is brightly colored for high visibility and has excellent flotation characteristics. The nylon line has a working load of 500-pounds.

#### **WARNING**

Repacking: hand coiling the line before repacking may result in the line being tangled or knotted when the line is deployed. Loosely hand feed the line into the bag for proper line release.



**B.4. Emergency Beacons Overview**

There are two types of emergency beacons used to transmit distress signals for maritime use. Emergency Position Indicating Radio Beacon (EPIRB) and the Personal Locator Beacons (PLB).

**NOTE** 

EPIRBs and PLB's shall be registered when bringing into service and unregistered when sending out for maintenance. See applicable MPC for details.

**B.4.a. 406 MHz Category I and II EPIRBs**



406 MHz EPIRBs are divided into two categories. Category I EPIRBs which are activated either manually or automatically and Category II EPIRBs which are manual activated only units. Category I, and II EPIRBs have an internal GPS feature that provides near instantaneous position information from geostationary satellites, and a built-in, low-power homing beacon that transmits on 121.5 MHz.

**The 406-MHz Category I EPIRB is used aboard cutters.**

**B.4.a.1. Application**

The 406-MHz Category I EPIRB transmits a data signal to aid vessel/crew relocation in the event of capsizing, sinking, or abandon ship. The EPIRB is stored in a bracket that uses a hydrostatic release mechanism designed to allow automatic float-free deployment and activation from the vessel when submerged to an approximate depth of 13 feet. The EPIRB may also be manually released and activated.

**B.4.a.2. Salient Characteristics**

406-MHz Category I EPIRB's are constructed of high impact resistant plastics and are usually brightly colored. Generally, a four-position switch is incorporated that allows the unit to be armed, tested, disabled, or manually activated. A strobe light and antenna are also incorporated.

406-MHz Category II EPIRBs are configured the same as Category I EPIRBs; however, they must be manually deployed and activated. Water activated models are available.



B.4.b.  
406 MHz  
Personal Locator  
Beacon (PLB)



The 406 MHz Personal Locator Beacon (PLB) is a handheld version of the category II 406 EPIRB. These beacons are designed to be carried by an individual person instead of on a vessel.

B.4.b.1.  
Application

The PLB is stored on your persons IAW the applicable MPC and should be manually activated in the event of capsizing, sinking, or abandon ship.

B.4.b.2. Salient  
Characteristics

All PLB's shall be Cosmicheskaya Sistyema Poiska Avariynich Sudov - Search and Rescue Satellite-Aided Tracking (COSPAS-SARSAT) and Federal Communications Commission (FCC) -certified and manufactured for use in the marine environment. It operates on 406MHz and 121.5 MHz. operating temperature of a Class 1 is -40°F to 131°F. Operating temperature of a Class 2 is -4°F to 131°F

B.4.b.3.  
PLB 30-Day  
Check

The 30-day check for the PLB, if not already performed within the past 30 days, shall be performed immediately prior to getting underway. If the PLB fails this pre-underway check, the PLB shall be removed from service and replaced prior to getting underway.



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## CHAPTER 4

### Pump, Pyrotechnics, and Hypothermia Capsule

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**Introduction**      This Chapter contains information for additional platform equipment.

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**In this Chapter**      This Chapter contains the following sections:

Section	Topic	Page
A	<a href="#">Dewatering Pump</a>	4-29
B	<a href="#">Boat Pyrotechnics Kit</a>	4-30
C	<a href="#">Hypothermia Recovery Capsule</a>	4-31

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## Section A. Dewatering Pump

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### Overview

This Section describes the CG-P6 dewatering pump and accessory equipment.

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### A.1. CG-P6 Dewatering Pump

The CG-P6 dewatering pump is used primarily for emergency dewatering of vessels in danger of sinking and limited fire suppression. Further information can be found in Technical Publication 5794, P-6 Dewatering / Fire Pump – Model 2BE6.5H – Operator’s Manual.



### WARNING

Dewatering pumps shall not be used to pump flammable liquids or water contaminated with petroleum products.

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### A.1.a. Accessory Equipment

A discharge outlet adapter is available that allows coupling a 1 ½-inch fire fighting hose and nozzle to the discharge for limited fire suppression capability. A suction inlet adapter is available that allows coupling a CG-P1B suction hose to the suction inlet. A 25-foot suction hose is available for deep compartment dewatering. Procedures for dewatering and fire suppression can be found in Boat Crew Handbook – Boat Operations, BCH16114.1 (series).

### NOTE

Many parts for maintaining the pump assembly are available from the Surface Forces Logistics Center (SFLC).

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## Section B. Boat Pyrotechnics Kit

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### Overview

This Section describes the boat pyrotechnics kit and salient characteristics. Reference the applicable Boat Operator’s Handbook to determine whether a boat pyrotechnics kit is required.

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### B.1. Boat Pyrotechnics Kit



The boat pyrotechnics kit consists of six (6) M127A1 parachute illumination signals in a waterproof container.

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#### B.1.a Application

This signal is used for appropriate nighttime illumination purposes when situations require additional visibility while engaged in search and rescue, crossing a bar/inlet, or security operations. Additional application information can be found in Reference (m).

---

#### B.1.b Salient Characteristics

These signals consist of a parachute-suspended illuminant assembly and a rocket motor propulsion assembly contained in a handheld aluminum launching tube. The base of the launching tube contains a primer and initiating charge. Stabilizing fins on the rocket are folded parallel to the axis of the signal. The parachute illuminant assembly is mounted on top of the propulsion assembly with a delay assembly and an expelling charge between them. The parachute with suspension cords is packed on top of the illuminant, and the tube end is sealed with a cork disk.

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## Section C. Hypothermia Recovery Capsule

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### Overview

This Section describes the hypothermia recovery capsule application and salient characteristics.

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### C.1. Hypothermia Recovery Capsule



The hypothermia recovery capsule is used to prevent further heat loss of a hypothermic victim for transport to emergency medical services.

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#### C.1.a. Application

Each ice rescue kit shall be equipped with one capsule stored in the compression stuff sack.

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#### C.1.b. Salient Characteristics

The hypothermia recovery capsule is a user-friendly product. The interior and exterior fabric is waterproof. The bottom is 1000-denier Cordura™ and the lining and top is 200-denier oxford nylon. The bottom and lining material is black, the top is international orange. The top half of the bag separates completely from the bottom half to easily place a victim inside. The zippers can be opened from either end or side. There are zipper access panels for the rescuer to access the victim's torso and extremities. It weighs approximately eight pounds and fits in a compression stuff sack that is 11 inches x 23 inches.

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## APPENDIX A Rescue & Survival Systems/Equipment Maintenance Record

ITEM: \_\_\_\_\_ MODEL: \_\_\_\_\_ S/N: \_\_\_\_\_

Inspection Date	Inspection Type	Signature	Inspection Facility	Remarks
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			

W – Weekly (7 days), M – Monthly (31 days), Q – Quarterly (92 days), S – Semiannually (184 days), A – Annually (365 days), P – Post Use, and MX for maintenance only activities.



### Lot Numbers & Sub Assembly Serial Numbers

ITEM	LOT	ITEM	LOT

ITEM: \_\_\_\_\_ Page \_\_\_\_\_ of \_\_\_\_\_



## APPENDIX B Sample Equipment Maintenance Record

ITEM: Type III

MODEL: Stearns

S/N: NOR6928

Inspection Date	Inspection Type	Signature	Inspection Facility	Remarks
01 Jul 2020	W M Q S A P O <u>(MX)</u>	<i>Steve Norquist</i>		Built up in accordance with MPC# KB0065.0 Rev 10/31/17.
28 Dec 2020	W M Q <u>(S)</u> A P O M X	<i>Steve Norquist</i>		Conducted inspection in accordance with MPC# KB0065.0 Rev 10/31/17.
14 Jun 2020	W M Q <u>(S)</u> A P O M X	<i>Steve Norquist</i>		Conducted inspection in accordance with MPC# KB0065.0 Rev 10/31/17.
05 Feb 2021	W M Q S A P <u>(O)</u> M X	<i>Steve Norquist</i>		Taken out of service for missed inspection.
05 Feb 2021	W M Q S A P O <u>(MX)</u>	<i>Steve Norquist</i>		Built up in accordance with MPC# KB0065.0 Rev 10/31/17.
	W M Q S A P O M X			
	W M Q S A P O M X			
	W M Q S A P O M X			
	W M Q S A P O M X			
	W M Q S A P O M X			
	W M Q S A P O M X			



### Lot Numbers & Sub Assembly Serial Numbers

ITEM	LOT	ITEM	LOT
MK 124 Marine Smoke and Illumination signal	PSI07K002-003	MK 79 Personnel Distress Signal Kit	JPA95G001-010

ITEM: \_\_\_\_\_ Page \_\_\_\_\_ of \_\_\_\_\_



## APPENDIX C Standard Issue PPE Maintenance Record

Individualized  
Serial  
Number: \_\_\_\_\_

Inspection Date	Inspection Type	Signature	Inspection Facility	Remarks
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			
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	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			

W – Weekly (7 days), M – Monthly (31 days), Q – Quarterly (92 days), S – Semiannually (184 days), A – Annually (365 days), P – Post Use, and MX for maintenance only activities.



## APPENDIX D Cold Weather Issue PPE Maintenance Record

Individualized  
Serial  
Number: \_\_\_\_\_

Inspection Date	Inspection Type	Signature	Inspection Facility	Remarks
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			
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	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			

W – Weekly (7 days), M – Monthly (31 days), Q – Quarterly (92 days), S – Semiannually (184 days), A – Annually (365 days), P – Post Use, and MX for maintenance only activities.



## APPENDIX E      Ice Rescue PPE Maintenance Record

Individualized  
Serial  
Number: \_\_\_\_\_

Inspection Date	Inspection Type	Signature	Inspection Facility	Remarks
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			
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	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			
	W M Q S A P MX			

W – Weekly (7 days), M – Monthly (31 days), Q – Quarterly (92 days), S – Semiannually (184 days), A – Annually (365 days), P – Post Use, and MX for maintenance only activities.



# APPENDIX F Sample Personal Clothing and Equipment Record

PERSONAL CLOTHING AND EQUIPMENT RECORD																			
- Use of "Balance on Hand" column is MAJCOM option. - Signing an "Issue" or "Turn-in" column will make the entire column read only.			AUTHORIZED ALLOWANCE		SIZE	ISSUE DATE					TURN-IN DATE					BALANCE ON HAND			
						13-Jan-20	2	3	4	5	1	2	3	4	5				
SN AND ARTICLE (Mount)			ASC	QNTY		1	2	3	4	5	1	2	3	4	5				
1	HELMET	EA	1	M	X														
2	RAIN JACKET & PANTS	SET	1	M/S	X														
3	BOAT CREW KNIFE	EA	1	M	X														
4	BASIC GLOVES	PR	1	M	X														
5	GOGGLES	PR	1	-----	X														
6	R&SS GEAR BAG	EA	1	-----	X														
7	SUNGLASSES	PR	1	-----	X														
8	BOAT CREW SAFETY BOOTS	PR	1	10	X														
9	BOAT SHOES	PR	1	10	X														
10	ANTI-EXPOSURE COVERALLS	EA	1	M	X														
11	TYPE III PFD	EA	1	M	X														
12	FEMALE HEADBAND	EA	1	-----	-----														
13	URINATION DEVICE	EA	1	-----	-----														
14	HYDRATION PACK	EA	1	-----	X														
15																			
16																			
17																			
18																			
19																			
20																			
21. OPTIONAL					HOLLOWELL, BRIAN M. AN M 1 06/466 328 SSN: 308 01 1316142 4957														
HOL5309																			
22. RATED FSC AFSC																			
23. ORGANIZATION																			
USCG STA UNDERWAY																			
24. GRADE	25. EMPLID	26. DUTY TEL																	
BMC	8675309	OPTIONAL																	
27. NAME (Last, First, Middle Initial)																			
HOLLOWELL, BRIAN M.																			
										SIG OF INDIVIDUAL					SIG OF SUP REP				







# APPENDIX G Personal Clothing and Equipment Record

PERSONAL CLOTHING AND EQUIPMENT RECORD															
Use ink for all "signature" entries. Use of "Balance on Hand" column is MAJCOM option. Use ink/typewriter for remaining entries.		AUTHORIZED ALLOWANCE		SIZE	ISSUE DATE					TURN-IN DATE					BALANCE ON HAND
					1	2	3	4	5	1	2	3	4	5	
S/N AND ARTICLE <i>(Noun)</i>		ASC	QNTY												
1															
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18															
19															
20															
21. OPTIONAL															
22. RATED FSC AFSC															
23. ORGANIZATION															
24. GRADE	25. SSAN														26. DUTY TEL
27. NAME <i>(Last, First, Middle Initial)</i>															
		SIG OF INDIVIDUAL					SIG OF SUP REP					PAGE	OF		

Reset

