INCIDENT COMMAND SYSTEM

Maritime Operations
Operational System Description
ICS 167

January 2026

This document contains information relative to the Multi-Agency Coordination System (MACS) and the Incident Command System (ICS), developed by FIRESCOPE and adopted as the framework of the National Incident Management System (NIMS). ICS products are designed to be compatible with and compliant with NIMS, as directed by the National Response Framework and adopted by the FIRESCOPE Board of Directors.

Additional information and documentation can be obtained from the following source:

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INTRODUCTION

The FIRESCOPE ICS 167 Maritime Operational System Description (OSD) is designed to help emergency responders effectively supervise and manage key functions during maritime incidents. It clearly defines the roles and responsibilities of responders while also outlining the minimum training and equipment requirements. Proper application of the principles in this OSD will improve coordination among responding agencies, ensure efficient resource allocation, and enhance overall operational effectiveness.

All-Hazard Maritime Response Incidents encompass a wide range of emergencies, including, but not limited to, mass rescue operations, shipboard firefighting, aircraft and boat accidents, and the search and recovery of missing persons and property. These incidents pose unique challenges, often requiring coordination among multiple regional agencies with varying capabilities. This chapter outlines key positions commonly involved in maritime incidents, though it is not exhaustive, and additional roles may be required based on the situation. Considering the intricate and ever-changing nature of maritime incidents, this OSD offers a systematic framework for incident management, promoting inter-agency cooperation while streamlining operational protocols and equipment usage. These elements work together to ensure a coordinated and efficient response, ultimately improving incident outcomes.

Maritime Search and Rescue incidents require efficient response times, detailed coordination, and seamless communication between multiple agencies, including the U.S. Coast Guard, local fire departments, law enforcement, and other emergency service providers. Initial command of maritime incidents will be assumed by the first on-scene public safety officer and can be transferred as appropriate. This document employs the Incident Command System (ICS) to facilitate clear command structure, resource tracking, and detailed tactical and management objectives. With the adoption of ICS principles, responders can quickly assess incident needs, deploy appropriate resources and maintain an acceptable span of control from incident inception to conclusion.

Boasting nearly 850 nautical miles of coastline and encompassing countless lakes, reservoirs, and waterways, California's maritime response capabilities differ across regions. This OSD incorporates protocols and standard operating guidelines from multiple state and local government agencies, along with the U.S. Coast Guard, ensuring alignment with federal and international maritime rescue standards.

By adopting the standardized procedures outlined in the FIRESCOPE Maritime Operational System Description, agencies can significantly enhance maritime response

capabilities. This structured approach ensures resources are used effectively, risks are minimized, and lives are saved. As maritime activities continue to grow and evolve, this OSD is a critical tool in strengthening emergency response operations, safeguarding lives at sea, and reinforcing regional maritime safety.

NOTE: For events not addressed in this OSD, the following resources may be helpful. Please note that this document is separate from, and should not be confused with, FIRESCOPE OSD 167, Technical Search and Rescue Incident.

FIRESCOPE FOG Manual, ICS 420, Chapter 16 Swiftwater/Flood Search and Rescue.
FIRESCOPE Technical Search and Rescue Incident OSD 162, Chapter 11
U.S. Coast Guard Incident Management Handbook, COMDTPUB 3120.17C

SAFETY AND RISK MANAGEMENT

Maritime response involves significant risks, with the decision to engage resources and personnel resting solely with the Incident Commander. The marine environment itself is inherently hazardous, presenting threats such as rough seas, limited visibility, and rapid crew fatigue. These dangers are intensified by the unpredictable nature of maritime incidents, where conditions like weather and vessel stability can deteriorate rapidly. Incidents often occur far offshore or within unclear jurisdictions, complicating coordination and safety. Communication challenges unique to maritime operations further hinder response efforts. Responders must rely on engineering controls, safety measures, and appropriate PPE while conducting thorough, real-time risk assessments. Plans must be continuously updated as conditions change to safeguard personnel and ensure operational effectiveness.

MARITIME TRAINING GENERAL REQUIREMENTS

1. Must be able to meet the physical requirements of the sponsoring agency with or without accommodation.
2. Must possess knowledge of maritime search and rescue (SAR) operations, including vessel-based and waterborne rescue techniques.
3. Must be able to function safely in dynamic maritime environments, including working on vessels, docks, and piers, and operating in beach and open water conditions.
4. Complete critical incident stress awareness training and be aware of the signs, symptoms, and corrective measures for critical incident stress syndrome, particularly as it relates to prolonged maritime operations.

5. Must understand and adhere to safe working practices and procedures for operating in marine environments, including stability awareness, overboard procedures, hypothermia prevention, and proper use of personal flotation devices (PFDs).
6. Must have a working knowledge of the U.S. Coast Guard SAR system, including its coordination with federal, state, and local agencies.
7. Must complete First Responder Operational Level training for Hazardous Materials per OSHA Standard 29 CFR 1910.120 (Hazardous Waste Operations and Emergency Response) and be familiar with hazardous materials considerations in maritime incidents (e.g., fuel spills, cargo hazards, vessel fires).
8. Must have a working knowledge of the Incident Command System (ICS), including successful completion of ICS-100, ICS-200, and the online courses IS-700 and IS-800, with additional training recommended for maritime incidents.
9. Complete initial and refresher training as required for respiratory protection training per OSHA 29 CFR 1910.134 (k)/CCR Title 8 Section 5144(F)(e), with an emphasis on marine-specific hazards such as vessel fires and confined space operations aboard ships.
10. Must maintain proficiency in working around helicopters, hoist operations, and coordination with air assets in maritime SAR incidents.
11. The Authority Having Jurisdiction (AHJ) shall ensure that the individual meets or exceeds the required knowledge, skills, and abilities outlined in this document under the system position requirements. Nothing in this document shall prohibit AHJs from exceeding training requirements.

MODULAR DEVELOPMENT

The Incident Command System's flexibility and modular expansion design provide an unlimited number of ways to arrange and manage resources during an incident. As incident complexity increases, the organizational structure expands, and management responsibilities are further divided. The number of management, supervisory, and support positions expands as needed to meet the needs of the incident.

Examples of how to organize operations during a maritime response are provided on the following pages. Experience and judgment are required to develop the best organizational construct to address complexities of an incident.

Maritime Initial Response Organization

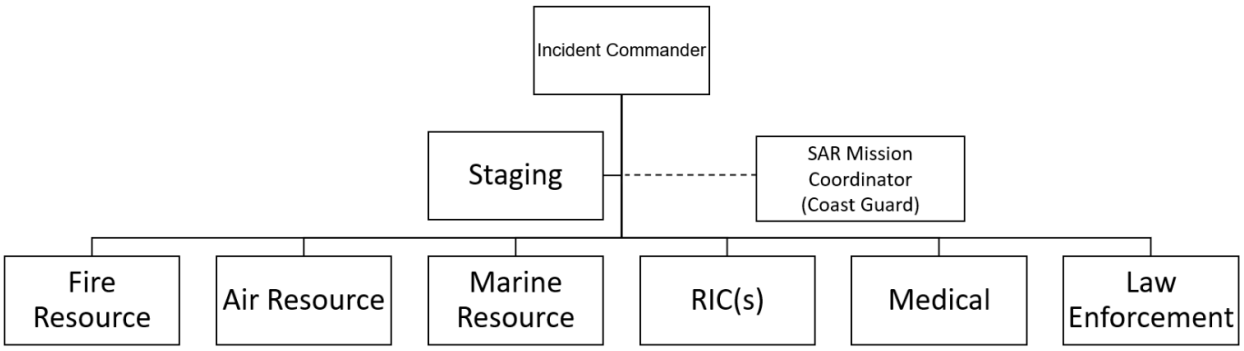
Upon arrival, the first Public Safety Officer assumes command as Incident Commander. If the initial commander is on a vessel, the incident command may transition to shore-based personnel if this promotes effective incident management. Incident Command may later shift to a representative(s) of the Agency(s) Having Jurisdiction based on incident requirements. The Incident Commander handles all Command and General Staff duties and oversees initial response resources. If escalation potential is minimal, specific ICS functional positions are unnecessary. However, if an upgraded response is needed, early establishment of ICS positions is advisable.

For maritime incidents, including those occurring on or near lakes, rivers, harbors, or coastal waters**, the IC must initiate timely notifications to appropriate agencies and interested parties.** This may include:

- **U.S. Coast Guard** (for navigable waters or incidents with commercial vessels)
- **Local Harbor or Port Authority**
- **State or County Environmental Protection Agencies** (for potential hazardous materials or pollution concerns)
- **Law Enforcement Marine Units or Dive Teams**
- **Public Health Departments** (if water contamination or public safety risks are present)
- **Adjacent Jurisdictions** (if mutual aid or cross-boundary coordination is required)
- **California Office of Emergency Services** – California State Warning Center (CSWC) for state-level coordination and spill or hazard notifications

Notification protocols should follow local SOPs and pre-established maritime response plans. Early coordination with these entities ensures unified command, resource availability, and regulatory compliance.

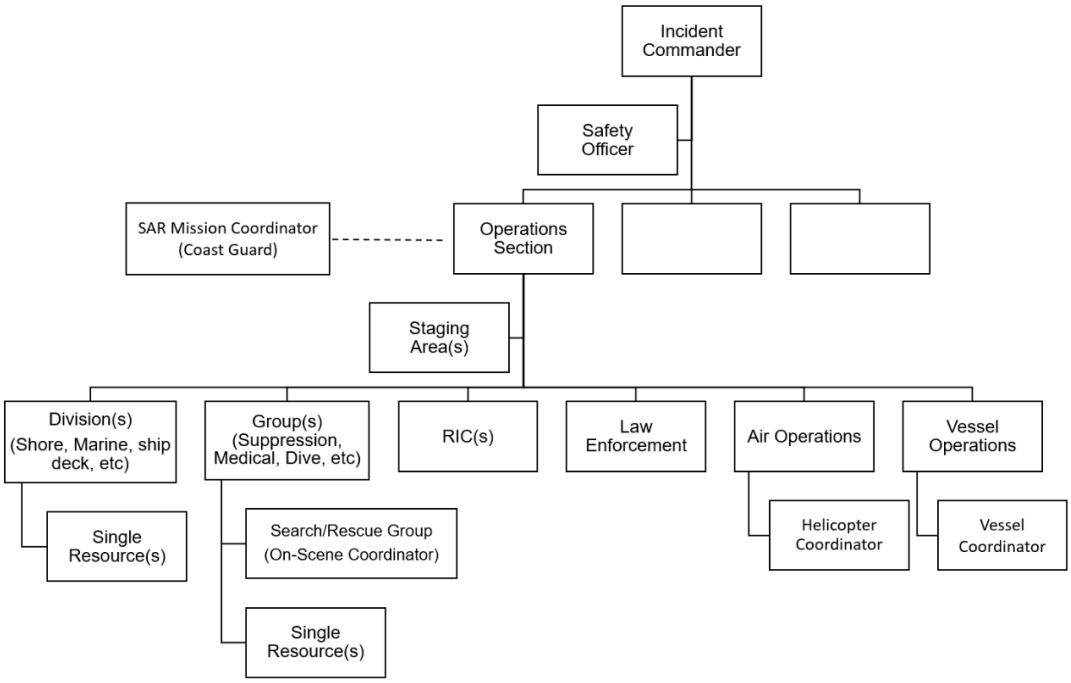
Maritime Initial Response Organization Chart


Incident Commander
Staging
SAR Mission Coordinator (Coast Guard)
Fire Resource
Air Resource
Marine Resource
RIC(s)
Medical
Law Enforcement

Maritime Multi-Division/Group Response Organization

As more resources arrive, the Incident Commander has activated the Operations Section and multiple Divisions to oversee actions in designated areas (e.g., shore, marine, specific ship deck). The Vessel Coordinator will manage the organization of marine resources into groups to handle functions like medical, SAR On-Scene Coordinator, fire containment, or suppression. **Allocating resources for specific SAR duties is crucial in any Maritime Response to locate individuals in potential or actual distress.** The SAR Mission Coordinator (SMC), often stationed remotely in a command center, orchestrates search and rescue operations through the SAR On-Scene Coordinator. Rapid Intervention Crews are assigned as necessary. The Helicopter Coordinator manages aviation resources.

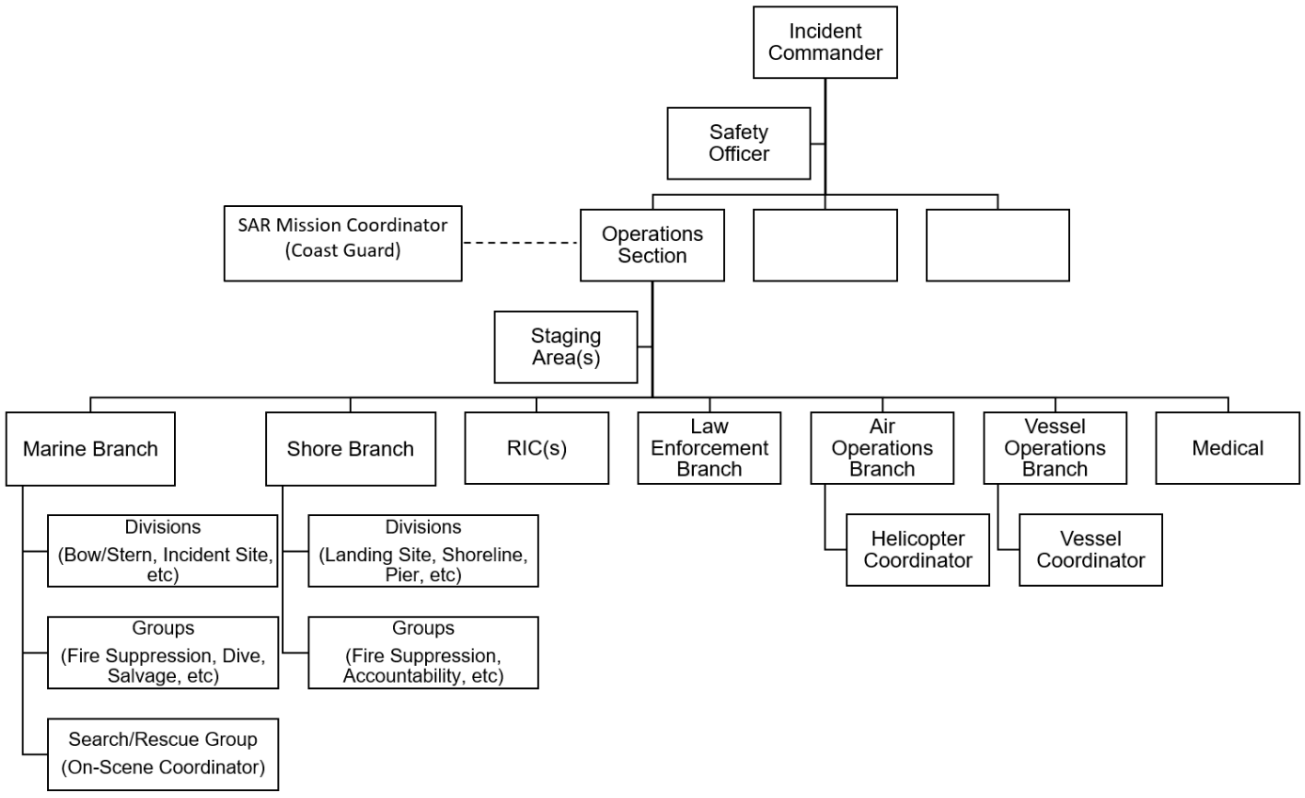
Maritime Multi-Division/Group Organization Chart



Maritime Multi-Branch Response Organization

As the incident expands and more resources arrive, the Incident Commander has activated the Operations Section Chief and multiple Branches to oversee actions in designated areas (e.g., multiple shore or marine areas, various ship compartments). Branches may also handle specific functions (e.g., HazMat Response, Search and Rescue, or Dive and Recovery). **Allocating resources for specific SAR duties is crucial in any Maritime Response to locate individuals in potential or actual distress.** The SAR Mission Coordinator (SMC), often stationed remotely in a command center, orchestrates search and rescue operations through the SAR On-Scene Coordinator. The Vessel Operations Branch manages logistical support for marine resources in extended incidents. Rapid Intervention Crews are assigned as necessary. The Air Operations Branch manages aviation resources.

Maritime Multi-Branch Organization Chart



POSITION DESCRIPTIONS

Marine Operations Branch Director

The Marine Operations Branch Director (MOBD) oversees and coordinates marine operations, ensuring a unified response between maritime and other emergency resources. The MOBD works under the Operations Section Chief, aligning operational priorities, resource allocation, and task assignments for marine functions to support the incident objectives. In the absence of a SAR Group Supervisor or On-Scene Coordinator, the MOBD is responsible for coordinating all search and rescue operations on the water. MOBD will also work closely with the SAR Mission Coordinator to maintain situational awareness, ensure safety, and coordinate efforts across all functional areas.

Description of Duties:

- Make thorough notifications when initiating SAR activities, coordinating with the U.S. Coast Guard and other relevant agencies to ensure unified response.
- Consult with the Operations Section Chief and the Shore Operations Branch Director to define geographic boundaries for operations, including the shoreline, tidal zones, and near-coastal areas.
- Oversee and coordinate assigned waterborne resources from multiple agencies, including vessels, personnel, and equipment, to support ongoing operations.
- Communicate with the SAR Mission Coordinator and/or SAR On-Scene Coordinator, as appropriate, to manage on-site operations and maintain tactical oversight.
- Establish functional groups as needed to manage specific tasks, such as surface and subsurface searches, marine firefighting, or salvage.
- Ensure strict risk management for all personnel involved in maritime operations, addressing potential hazards and ensuring compliance with established procedures.
- Maintain accurate accountability records of all survivors.
- Monitor environmental conditions and adjust plans as necessary.
- Monitor the stability of the affected vessel or craft and regularly update crews on any safety concerns.
- Coordinate and document any suspension of SAR operations in consultation with the Incident Commander, SAR Mission Coordinator, U.S. Coast Guard, or other lead SAR authorities (AHJ).
- Assess and relay the need for Critical Incident Stress Management (CISM).
- Maintain Unit/Activity Log (ICS Form 214).

Required Training:

1. Complete all general training requirements
2. California State Fire Training, Marine Fire Fighting for the Land-Based Fire Fighters, or equivalent
3. Advanced ICS (I-400)
4. FIRESCOPE Operations Section Chief (AR-430), or
5. All-Hazards Operations Section Chief (G/E/L-958)

Recommended Training:

1. USCG SAR Coordination and Execution course
2. California State Fire Training, Open Water Rescue Boat Operator (Large Vessel), or
3. Division Of Boating and Waterways, Rescue Boat Operations, or
4. NASBLA Boat Operator Search and Rescue course, or equivalent

Shore Operations Branch Director

The Shore Operations Branch Director (SOBD) oversees and coordinates shoreside operations, ensuring a unified response between shoreside teams and other emergency resources. The SOBD works under the Operations Section Chief, aligning operational priorities, resource allocation, and task assignments for shoreside functions to support the incident objectives. The SOBD also liaises with the SAR Mission Coordinator to maintain situational awareness, ensure safety, and coordinate efforts across different functional areas.

Description of Duties:

- Make thorough notifications when initiating SAR activities, coordinating with the U.S. Coast Guard and other relevant agencies to ensure unified response.
- Oversee all operations related to shoreline search and rescue, as well as shoreside evacuation and recovery efforts.
- Consult with Operations Section Chief and Marine Operations Branch Director to define geographical boundaries for operations, including shorelines, tidal zones, and near coastal areas.
- Coordinate safe operations at the landing site as victims are transferred to shore.
- Maintain accountability of victims as they are moved from the landing site to triage.
- Work with the Medical Branch to provide care and support transport needs.
- Establish functional groups as needed to manage specific tasks and request necessary resources and personnel.

- If operating on a shipboard firefighting incident, monitor stability on the compromised vessel, and regularly update crews on any safety concerns.
- Maintain a personnel accountability system for arriving and departing crews.
- Coordinate with the RIC Group Supervisor to designate area(s) for Rapid Intervention Crews (RIC) to stand by if collocated within the Staging Area.
- Coordinate and document any suspension of SAR operations in consultation with the Incident Commander, SAR Mission Coordinator, U.S. Coast Guard, or other lead SAR authorities (AHJ).
- Assess and relay the need for Critical Incident Stress Management (CISM).
- Maintain Unit/Activity Log (ICS Form 214).

Required Training:

1. Complete all general training requirements
2. California State Fire Training, Marine Fire Fighting for the Land-Based Fire Fighters, or equivalent
3. Advanced ICS (I-400)
4. FIRESCOPE Operations Section Chief (AR-430), or
5. All-Hazards Operations Section Chief (G/E/L-958)

Recommended Training:

1. USCG SAR Coordination and Execution course
2. California State Fire Training Open Water Rescue Boat Operator (Large Vessel), or
3. Division of Boating And Waterways, Rescue Boat Operations, or
4. NASBLA Boat Operator Search and Rescue course, or equivalent

SAR Mission Coordinator

In maritime incidents involving both Search and Rescue (SAR) and other response functions, the SAR Mission Coordinator (SMC) directs SAR efforts, often remotely from a Command Center. This is typically a Coast Guard role. However, in some cases, federal, state, or local agencies might assume the SMC role for specific incidents within their jurisdiction if they have the necessary expertise. Other incident functions, such as firefighting, pollution control, or salvage, are typically managed by jurisdictional agencies and not the SMC. Incident Commanders should coordinate with the Coast Guard on a per-incident basis to clarify roles and ensure a unified response. When a Unified Command is established, the SMC, or a liaison, may relocate to the command post to report directly to the Operations Section Chief. Ideally this person serves as a SAR Branch Director or Group Supervisor within the ICS structure. This "plug-in" function of the SMC into ICS ensures seamless integration, allowing the SMC to

oversee SAR planning, tasking, and resource management while complementing other emergency functions within the overall response framework.

Description of Duties:

- Must have extensive familiarity with command-and-control operations of maritime incidents to safely plan SAR missions and appropriately assign resources.
- Gather detailed information relating to the distress situation.
- Utilize search planning tools to develop accurate search plans that maximize the effectiveness of on-scene resources.
- Make comprehensive assessment of key factors, including probability of detection (POD), probability of containment (POC), probability of success (POS), and probability of survival (POSurv), considering environmental conditions, elapsed time, drift modeling, and characteristics of the search object.
- Allocate search areas, dispatch SAR units, assign search patterns, and designate communications frequencies for search assets.
- Assign SAR On-Scene Coordinator, as appropriate.
- Ensure comprehensive case documentation including logs, SAR forms and checklists, charts, radio calls and other communications.
- Determine or make informed recommendations on the continuation, suspension, or closure of search efforts. This includes evaluating operational effectiveness and resource allocation to ensure mission objectives are met efficiently and ethically.
- Assess and relay the need for Critical Incident Stress Management (CISM).
- Ensure diligent risk management is maintained throughout the response.
- Maintain Unit/Activity Log (ICS Form 214).

Required Training:

U.S. Coast Guard personnel designated as Search and Rescue Mission Coordinators (SMCs) receive specialized training. Fire departments and other response agencies support SAR efforts but do not serve as SMCs.

Recommended Training: Not Applicable

SAR On-Scene Coordinator

The SAR On-Scene Coordinator (SAR-OSC) is initially assumed by the first arriving public safety unit at the incident site. SAR knowledge, communication abilities, and on-scene endurance should be considered when assigning the SAR-OSC. Responsible for coordinating on-site maritime SAR operations, the SAR-OSC reports to the Operations Section Chief or directly to the SAR Mission Coordinator (SMC). This role manages the distribution of assignments to all vessels involved and ensures effective coordination,

acting as the eyes and ears of the Incident Commander to maintain safe operations, clear communication, and operational efficiency at the scene.

Description of Duties:

- Possess extensive experience in maritime operations and SAR command principles.
- Establish and maintain communications with the SMC.
- Assume operational control and coordination of all assigned Search and Rescue Units (SRUs) until relieved or the mission is completed.
    - Establish and maintain communications with all SRUs using assigned channels.
    - Obtain necessary information from arriving SRUs, providing an initial brief.
    - Obtain operations reports from aircraft.
    - Manage arrival and departure of SRUs to maintain an organized scene.
- Coordinate with shoreside personnel and the SMC for survivor transfer.
- Maintain accountability of all survivors until they arrive on land.
- Relay critical information on incident status, tactical needs, and safety concerns to the Incident Commander.
- Establish and maintain communication with the master of any vessel in distress to coordinate rescue efforts and ensure safe, effective response operations.
- Conduct regular situation updates and briefings to SMC and on-scene units as conditions evolve.
- Monitor environmental conditions and adjust plans as necessary.
- Assess and relay the need for Critical Incident Stress Management (CISM).
- Maintain Unit/Activity Log (ICS Form 214).

Required Training:

1. Complete all general training requirements
2. USCG SAR Coordination and Execution course

Recommended Training:

1. California State Fire Training, Open Water Rescue Boat Operator (Large Vessel), or
2. Division of Boating and Waterways, Rescue Boat Operations, or
3. NASBLA Boat Operator Search and Rescue course, or equivalent

Public Safety Dive Team

An underwater rescue and recovery resource consisting of no less than 5 personnel (1 Dive Team Leader, 4 Public Safety Divers) responsible for conducting underwater

search, rescue & recovery operations under the direction of the Dive Group Supervisor. It is recommended that dive teams adhere to a 2-in, 2-out safety protocol, with 2 divers staged as RIC, under the supervision of a Dive Team Leader.

Public Safety Dive Group Supervisor

Reports directly to the Operations Section Chief (OSC), if activated, or Incident Commander (IC) and is responsible for coordinating the assignments of all resources within the dive group. The dive group supervisor will establish safe operational areas dictated by the needs of the operation and continually report progress through appropriate channels.

Description of Duties:

- Oversee all activities and deployment of divers.
- Possess extensive familiarity with dive operations, including search, navigation, rigging, lifting, and rescue and recovery of people and property in dynamic underwater environments.
- Attend incident briefings, establish tactical priorities for dive operations and develop the dive portion of the incident action plans.
- Oversee comprehensive risk management for all dive operations, identifying and mitigating underwater and topside hazards, verifying that all divers and support personnel follow established safety protocols, and adjusting plans as conditions change to maintain safety.
- Ensure that all tactical and logistical needs of the group are managed to meet operational requirements.
- Define search areas based on incident requirements and prioritize diver safety by deconflicting surface asset operations.
- Document and assess the effectiveness of all search results to refine probable search areas and work towards positive incident outcomes.
- Ensure incident stress management activities are planned and conducted.
- Manage all aspects of unit demobilization and return to readiness.
- Perform additional tasks or duties as assigned during an incident.
- Maintain Unit/Activity Log (ICS From 214).

Required Training:

1. Complete all general training requirements
2. Public Safety Dive Instructor certification, or equivalent
3. Intermediate ICS (I-300)

Recommended Training:

1. Current certification as a California Emergency Medical Technician
2. California State Fire Training, Open Water Rescuer
3. Public Safety Dry Suit Diver or equivalent
4. Division/Group Supervisor (S-339), or
5. All-Hazards Division Group Supervisor (G/E/L-960)

Public Safety Dive Team Leader

Reports directly to the Dive Group Supervisor and is responsible for coordinating the assignment of a specific team of divers.

Description of Duties:

- Oversee all activities and deployment of a team of divers.
- Possess extensive familiarity with dive operations including search, navigation, rigging/lifting, rescue and recovery of people and property in dynamic underwater environments.
- Ensure all tactical and logistical needs of the dive team are managed to meet operational requirements.
- Oversee comprehensive risk management for all dive operations, identifying and mitigating underwater and topside hazards, verifying that all divers and support personnel follow established safety protocols, and adjusting plans as conditions change to maintain safety.
- Document search results and report findings to the Dive Group Supervisor to ensure uniform and accurate search pattern execution.
- Maintain team underwater dive profile records to ensure ongoing safety throughout the incident.
- Cooperate with assisting public safety dive agencies and dive team leaders.
- Manage all aspects of unit demobilization and return to readiness.
- Maintain Unit/Activity Log (ICS form 214).

Position Requirements and Criteria:

Individuals who meet the following requirements and criteria will be eligible to become a Public Safety Dive Team Leader. The intent of these requirements is to select personnel who are fully capable of providing supervision of dive operational tactics and techniques required to safely operate as a team in a marine environment.

Required Training:

1. Complete all general training requirements
2. Public Safety Dive Instructor Certification, or equivalent

3. Intermediate ICS (I-300)

Recommended Training:

1. Current certification as a California Emergency Medical Technician
2. California State Fire Training, Open Water Rescuer
3. Public Safety Dry Suit Diver or equivalent
4. FIRESCOPE All-Risk Task Force/Strike Team Leader (AH-330)

Public Safety Diver - Reports directly to the Dive Group Team Leader and is responsible for performing all aspects of technical underwater search, rescue, and recovery operations of the incident.

Description of Duties:

- Conduct various searches of areas dictated by incident objectives using equipment as outlined in nationally recognized public safety diving standards.
- Document search results and report findings to the Dive Group Supervisor to ensure uniform and accurate search pattern execution.
- Maintain personal and team underwater dive profile records to ensure ongoing safety throughout the incident.
- Cooperate with assisting public safety diving agencies.
- Provide accountability of all issued equipment.
- Maintain Unit/Activity Log (ICS From 214).

Required Training:

1. Complete all general training requirements
2. Public Safety Diver Certification, or equivalent

Recommended Training:

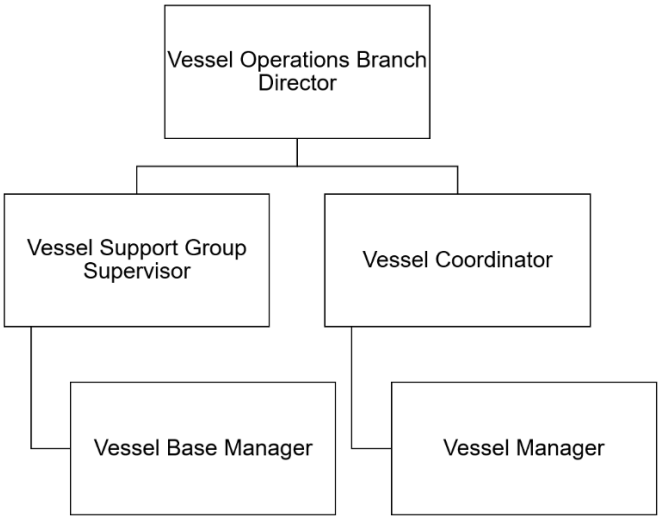
1. Current certification as a California Emergency Medical Technician
2. California State Fire Training, Open Water Rescuer
3. Public Safety Dry Suit Diver, or equivalent

VESSEL OPERATIONS BRANCH

For complex, multi-day incidents spanning large areas, where vessels are deployed from multiple regions, establishing a Vessel Operations Branch is crucial. This branch manages marine assets' coordination, support, and maintenance, ensuring that public safety and contracted operators are prepared to operate in unfamiliar or challenging environments. This includes delivering essential training, ensuring crews are familiar with local hazards, prevailing weather patterns, and navigational complexities, and maintaining coordination with local agencies to enhance situational awareness. By managing these factors, the Vessel Operations Branch helps ensure vessels remain operational over extended periods and distances, integrating them into the broader incident response.

Vessel Operations Branch Organization Chart

The Vessel Operations Branch is assigned as illustrated below:



Vessel Operations Branch Director

The Vessel Operations Branch Director (VOBD), who is shore-based, oversees and coordinates vessel operations to ensure effective incident response and resource utilization. The VOBD, working under the Operations Section Chief, is responsible for developing and implementing the vessel operations portion of the Incident Action Plan, aligning operational priorities, and ensuring compliance with agency restrictions and safety standards (e.g. night navigation standards, hours per operator, vessel operating parameters). After the plan is approved, the VOBD is responsible for implementing its

strategic objectives that relate to the overall incident strategy as opposed to those that pertain to tactical operations.

Description of Duties:

- Organize and coordinate preliminary vessel operations.
- Request the declaration or cancellation of restricted navigational or waterway areas as required.
- Contribute to the Incident Action Plan through the Operations Section Chief, ensuring Vessel Operations account for Vessel Traffic Control requirements.
- Prepare and provide the Vessel Communications Plan to the Vessel Support Group and vessel bases.
- Determine coordination procedures for vessels operating in marine branches, divisions, or groups.
- Coordinate with the appropriate Operations Section to ensure smooth integration of vessel activities.
- Evaluate and determine the suitability of vessel base locations.
- Establish procedures for emergency reassignment of vessels.
- Manage non-incident vessel traffic by resolving conflicts, scheduling approved navigation through restricted areas, and ensuring timely broadcast of marine safety information.
- Ensure vessels assigned to operations at night have appropriate navigation equipment and training.
- Communicate with the Operations Coordination Center (OCC) regarding vessel operations and activities.
- Inform the Vessel Coordinator of external vessel traffic situations impacting incident operations.
- Consider and manage requests for non-tactical use of incident vessels.
- Coordinate with the United States Coast Guard Sector for effective interagency response.
- Update vessel operations plan as incident conditions change.
- Promptly report any special incidents or accidents and arrange for an investigation team when warranted.
- Maintain Unit/Activity Log (ICS Form 214).

Required Training:

1. Complete all general training requirements
2. Intermediate ICS (I-300)
3. Advanced ICS (I-400)
4. FIRESCOPE Operations Section Chief (AR-430), or
5. All-Hazards Operations Section Chief (G/E/L-958), or

6. Air Operations Branch Director (S-470)

Recommended Training:

1. USCG SAR Coordination and Execution course
2. California State Fire Training, Marine Fire Fighting for the Land-Based Fire Fighters, or equivalent
3. California State Fire Training, Open Water Rescue Boat Operator (Large Vessel), or
4. Division of Boating and Waterways, Rescue Boat Operations, or
5. NASBLA Boat Operator Search and Rescue course, or equivalent

Vessel Support Group Supervisor

The Vessel Support Group Supervisor (VSGS) is responsible for overseeing vessel base operations and acting as the primary liaison with local marinas, harbors, and ports. This role involves coordinating tasks such as the provision of fuel and essential supplies, managing vessel maintenance and repair, overseeing foam and boom restocking, maintaining detailed records of vessel activity, and ensuring enforcement of applicable safety regulations. These key functions are carried out at designated vessel bases, while responsibility for vessels during departure or while moored or berthed is delegated to the Vessel Base Manager. The VSGS reports directly to the Vessel Operations Branch Director.

Description of Duties:

- Obtain a copy of the Incident Action Plan from the Vessel Operations Branch Director including the Vessel Communications Plan.
- Coordinate with the Vessel Operations Branch Director by participating in planning efforts and providing regular updates on group activities.
- Identify vessel base or forward operating base locations (from Incident Action Plan) or from Vessel Operations Branch Director.
- Determine need for the assignment of personnel and equipment at each base.
- Coordinate resource tracking for the Vessel Support Group and route special logistics requests through the Logistics Section as needed.
- Maintain coordination with vessel bases supporting the incident.
- Obtain assigned vessel-shore frequency for vessel base operations and vessel-to-vessel frequencies from the Communications Unit Leader or Incident Radio Communications Plan (ICS Form 205).
- Inform the Vessel Operations Branch Director of night-navigation capabilities and ensure adherence to each agency’s operational checklist for both day and night missions.
- Ensure vessel rescue/firefighting service for vessel bases.

- Ensure that vessel traffic control procedures are established between vessel bases and the vessel coordinator.
- Maintain Unit/Activity Log (ICS Form 214).

Required Training:

1. Complete all general training requirements
2. Intermediate ICS (I-300)
3. Division/Group Supervisor (S-339), or
4. All-Hazards Division Group Supervisor (G/E/L-960)

Recommended Training:

1. USCG SAR Coordination and Execution course
2. California State Fire Training, Marine Fire Fighting for the Land-Based Fire Fighters, or equivalent
3. California State Fire Training, Open Water Rescue Boat Operator (Large Vessel), or
4. Division of Boating and Waterways, Rescue Boat Operations, or
5. NASBLA Boat Operator Search and Rescue course, or equivalent

Vessel Base Manager

The Vessel Base Manager (VEBM) is responsible for managing all activities at the assigned vessel base, ensuring effective coordination and support for ongoing vessel operations. During large-scale incidents, vessels assigned to the response may arrive from distant regions and be operating in unfamiliar areas with new support personnel and resources. This position is crucial for providing these vessels with the necessary logistical and operational support as they arrive in the region, carry out assignments, and are eventually demobilized.

Description of Duties:

- Obtain the Incident Action Plan, including the Vessel Communications Plan.
- Participate in Vessel Support Group planning activities.
- Inform the Vessel Support Group Supervisor of vessel base activities.
- Report to the assigned vessel base and brief vessel operators and other assigned personnel.
- Manage incoming resources at the vessel base and submit requests for additional support items to the Vessel Support Group Supervisor.
- Ensure the vessel base is properly posted and cordoned off as needed.
- Coordinate vessel base traffic with harbormasters and vessel operators.
- Oversee foam and other supply loading operations.

- Ensure vessel fueling, maintenance, and repair services are provided.
- Supervise the manifesting and loading of personnel and cargo.
- Ensure security is provided at each vessel base.
- Verify that rescue and firefighting services are operational and accessible at the assigned vessel base.
- Receive and respond to special requests for vessel logistics.
- Supervise personnel responsible for maintaining agency records, reports of vessel activities, and the Check-In List (ICS Form 211).
- Coordinate activities with the Vessel Support Group Supervisor.
- Display the organization chart and work schedule at each vessel base, including assigned radio frequencies.
- Gather input from vessel operators regarding the selection and adequacy of vessel bases, communications, vessel traffic control, operational challenges, and safety issues.
- Maintain Unit/Activity Log (ICS Form 214).

Required Training:

1. Complete all general training requirements
2. Intermediate ICS (I-300)
3. California State Fire Training, Marine Fire Fighting for the Land-Based Fire Fighters, or equivalent

Recommended Training:

1. USCG SAR Coordination and Execution course
2. California State Fire Training, Open Water Rescue Boat Operator (Large Vessel), or
3. Division of Boating and Waterways, Rescue Boat Operations, or
4. NASBLA Boat Operator Search and Rescue course, or equivalent

Vessel Coordinator

The Vessel Coordinator (VSCO) is primarily responsible for coordinating tactical or logistical vessel missions during the incident. The VSCO may operate from either a waterborne platform or from a vantage point ashore. The VSCO reports to the Vessel Operations Branch Director. Activation of this position is contingent upon the complexity of the incident and the number of vessels involved. Multiple VSCOs may be assigned depending on the scope of operations.

Description of Duties:

- Identify the vessels operating within the incident area.

- Survey the incident area to evaluate the situation, potential hazards, and other concerns that may impact vessel operations.
- Coordinate with the Vessel Operations Branch Director and the Vessel Support Group (usually the Vessel Base Manager) to manage vessel traffic control and ensure the safe movement of vessels.
- Coordinate the use of vessel-to-shore and vessel-to-vessel communications frequencies with the US Coast Guard, Communications Unit, and/or local agency dispatch center.
- Ensure that all vessels operate on appropriate communication frequencies.
- Work with the Vessel Operations Branch Director, Vessel Support Group Supervisors (VSGS), to define and assign operational areas for vessels.
- Determine and enforce vessel safety requirements and procedures.
- Ensure that approved night navigation procedures are in place.
- Receive assignments, brief vessel operators, assign missions, and oversee vessel activities.
- Coordinate activities with the Vessel Operations Branch Director.
- Maintain continuous observation of the assigned vessel(s) operating area, providing regular updates to the Vessel Operations Branch Director on conditions, and report any issues that may impact the mission, including vessel malfunctions, operational difficulties, or environmental concerns.
- Inform the Vessel Operations Branch Director when missions are completed, and reassign vessels as needed.
- Request additional resources as required to support vessel operations.
- Report incidents or accidents involving vessels to the Vessel Operations Branch Director.
- Maintain Unit/Activity Log (ICS Form 214)

Required Training:

1. Complete all general training requirements
2. California State Fire Training, Marine Fire Fighting for the Land-Based Fire Fighters, or equivalent
3. California State Fire Training, Open Water Rescue Boat Operator (Large Vessel), or
4. Division of Boating and Waterways, Rescue Boat Operations, or
5. NASBLA Boat Operator Search and Rescue course, or equivalent

Recommended Training:

1. USCG SAR Coordination and Execution course

Vessel Manager

The Vessel Manager (VESM) is typically aboard non-agency, contracted vessels and is responsible for ensuring the overall readiness of the vessel module, confirming that the vessel and vessel operators are approved for assigned missions, and collaborating with the Vessel Coordinator on tactical assignments. When operations take place on an agency vessel, the agency boat captain is responsible for these duties.

Description of Duties:

- Serve as the Contracting Officer's Representative (COR) or Project Inspector (PI) to monitor and ensure vendor compliance with contractual obligations.
- Verify that the vessel and vessel operator are approved for planned missions and that the vessel, operator, support equipment, and personnel comply with procurement documents (contract) or agency policy (fleet).
- Ensure maintenance and refurbishment of tools, equipment, and vehicles are performed.
- Complete necessary administrative and operational forms as required by the Vessel Base Manager and/or local vessel management.
- Ensure passenger and cargo manifests are accurately completed and provide the vessel operator with the exact cargo weight.
- Ensure a safety briefing is conducted for crew and personnel before departure.
- Notify the Vessel Base Manager of departure, destination, and projected arrival times.
- Oversee personnel in vessel operations, including base setup, manifesting, loading/unloading of cargo and personnel, and rigging of loads.
- Ensure adherence to navigation plan or mission type, except in emergencies, and that any necessary approvals or requirements for deviations are met.
- Support the vessel operator in identifying hazards by reviewing navigational charts before departure.
- Provide initial incident size-up information for dispatch and coordinate with shore, air, and incident management personnel.
- Lead and participate in safety briefs and critiques, present safety topics to the crew, and stay updated on waterway policies, regulations, and procedures to ensure crew safety.
- Monitor vendor personnel for adherence to crew time, driving time, and duty day, as outlined in procurement documents or agency policy.
- Ensure vessel payment documents are accurate and submitted as specified in the procurement documentation.
- Report any conditions, observations, maintenance issues, or personnel concerns that may pose a risk of mishap through the chain of command.

- Develop contingency plans for unfavorable sea conditions, unscheduled maintenance, or other delays impacting operations.
- Follow established procedures and chain of command for collecting, producing, and distributing information.
- Maintain Unit/Activity Log (ICS Form 214).

Required Training:

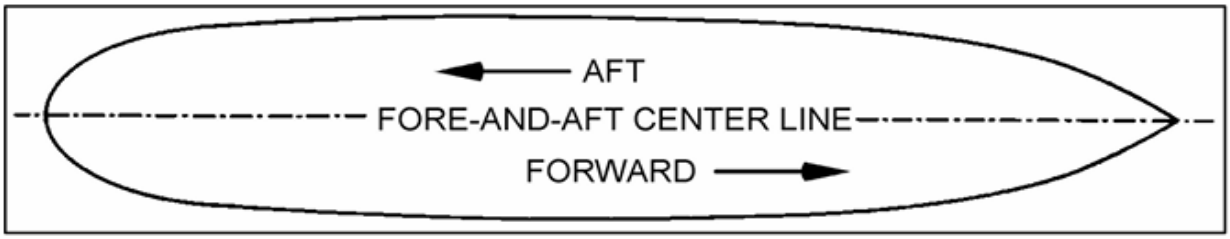
1. Complete all general training requirements
2. California State Fire Training Marine Firefighting for Land-Based FF 1005 or equivalent
3. California State Fire Training, Open Water Rescue Boat Operator (Large Vessel), or
4. Division of Boating and Waterways, Rescue Boat Operations, or
5. NASBLA Boat Operator Search and Rescue course, or equivalent

Recommended Training:

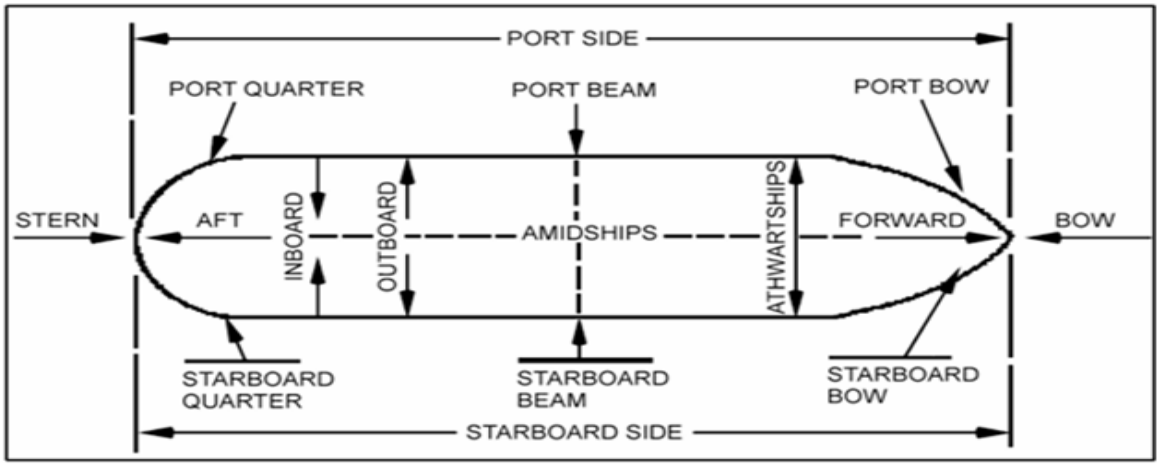
1. Crew Boss (CRWB) S-230 or Engine Boss (ENGB) S-231
2. USCG SAR Coordination and Execution course

APPENDIX 1 – VESSEL TERMINOLOGY AND LOCATION

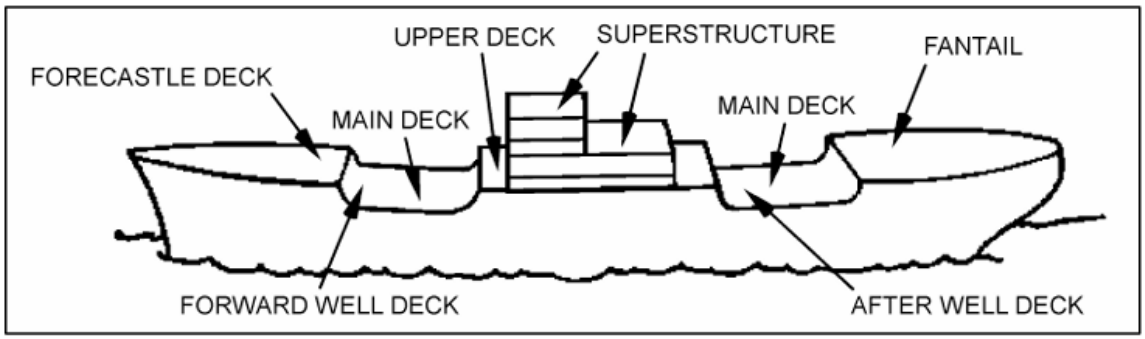
Understanding vessel terminology and location references is essential for effective communication and coordination during maritime incidents. Firefighters and emergency responders must be familiar with common nautical terms to accurately identify areas of a vessel, navigate onboard safely, and relay information clearly during a response. This section provides key visuals and descriptions to enhance situational awareness and ensure seamless collaboration between maritime and land-based response teams.



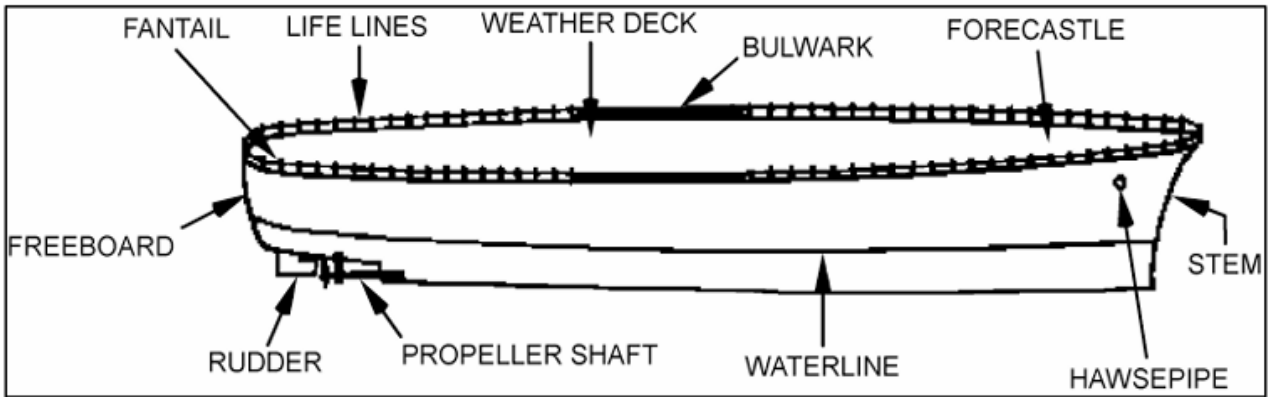
Hull Directional Lines



Directions and Locations Aboard Ship



Decks



External Parts of the Hull

APPENDIX 2 – STABILITY AND DRAFT MARKINGS

Monitoring vessel stability is a key factor in preventing capsizing or sinking during maritime emergencies. Several factors, such as water ingress, shifting cargo, firefighting efforts, and damage to the vessel's structure, can destabilize the craft. Regular communication with the crew and close observation of the vessel's inclinations—such as list (tilt to the side) and trim (forward or aft pitch)—are essential for maintaining stability. Any safety hazards, including structural damage or hazardous materials onboard, should be reported immediately to ensure effective coordination of the response and prompt risk mitigation. Proactive stability management is vital for safeguarding both personnel and assets, particularly when dealing with hazardous maritime conditions.

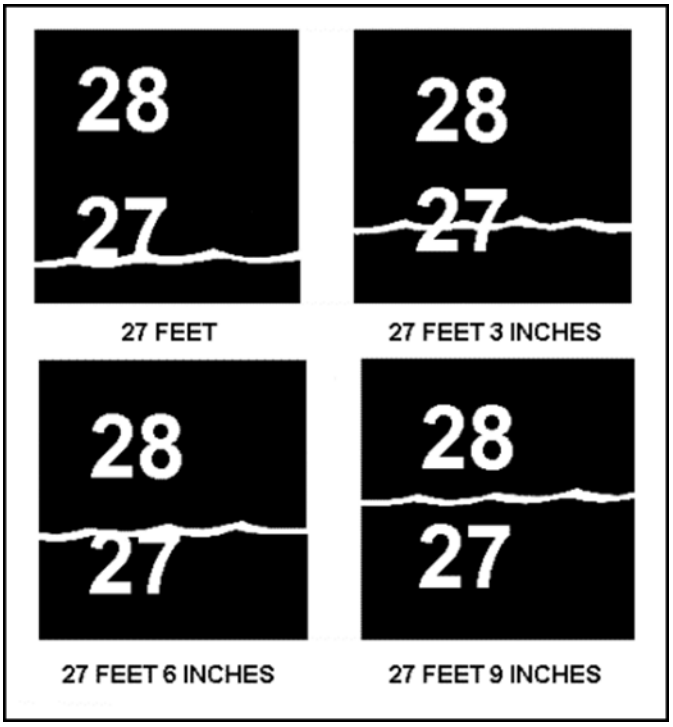
Monitoring a vessel's draft is one proactive step in assessing stability. Draft markings—vertical numbers painted or welded near the bow, stern, and sometimes along the midship of the hull—indicate the depth of the ship's keel below the waterline, typically measured in feet or meters. These markings provide critical data on the vessel's load and stability. To read draft markings:

1. Locate the waterline where it touches the draft markings.
2. Identify the number closest to the waterline; this represents the depth of the keel in feet or meters.
3. If the waterline is between two numbers, estimate the draft by adding the additional distance, typically marked in 6-inch (or decimeter) intervals.

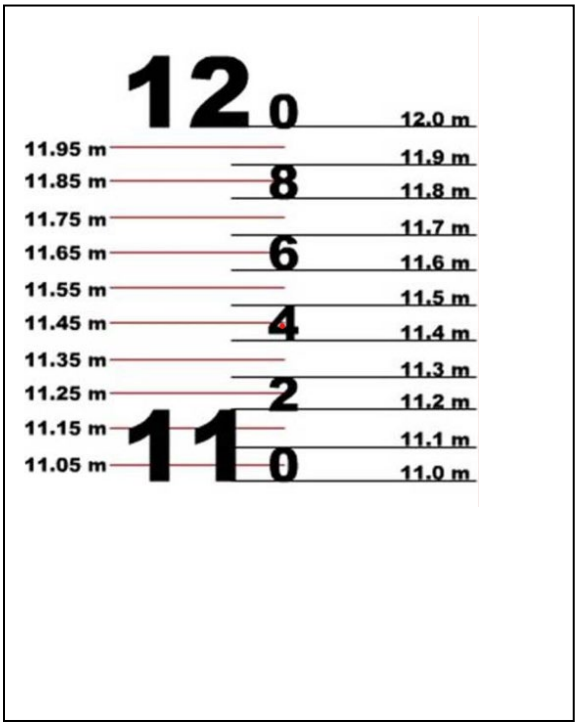
These measurements are critical for assessing the vessel's load and stability.

Draft Marks on Bow and Stern of Vessel

Draft Numbers Showing Foot Draft Mark



Various Draft Readings



Draft Readings in Meters

While draft measurements are important, it's essential to understand that vessel stability involves more than just the draft. Factors such as the distribution of weight, the presence of water in compartments, and environmental conditions must also be continually assessed. These combined efforts ensure the vessel remains stable during the operation, reducing the risk of further incidents and ensuring the safety of both responders and the vessel.

APPENDIX 3 – COMMON MARITIME RADIO CHANNELS

These channels cover various communication needs during maritime incidents in coastal areas, including distress alerts, coordination between ships and shore facilities, and operational communications for search and rescue or emergency response teams. Activities in alternate and inland waterways often rely on Authority Having Jurisdiction (AHJ) frequencies, as inland waterways have different communication protocols than coastal operations.

New Channel Number	Old Channel Number	Frequency	Use
13	13	156.650 MHz	Bridge-to-Bridge Communications, Ships >20m length maintain a listening watch on this channel in US waters.
14	14	156.700 MHz	Port Operations, VTS in Selected Areas
16	16	156.800 MHz	International Hailing, Distress, and Safety
1021	21A	157.050 MHz	U.S Coast Guard Only
1022	22A	157.100 MHz	Coast Guard Communications to non-Coast Guard, Maritime Safety Information Broadcasts
1023	23A	157.150 MHz	U.S. Coast Guard Only
67	67	156.375 MHz	Commercial. Inter-ship Communications
68	68	156.425 MHz	Non-Commercial Communications
72	72	156.625 MHz	Non-Commercial (Intership only)
1081	81A	157.075 MHz	U.S Government Only, Environmental Protection Operations
1082	82A	157.125 MHz	U.S. Government Only
1083	83A	157.175 MHz	U.S. Coast Guard only

APPENDIX 4 – FIREBOAT TYPING

Overview

This appendix outlines the standardized typing of fireboats in accordance with NFPA and FEMA guidelines, ensuring consistency in resource classification and operational expectations. Fireboat typing helps agencies effectively deploy the appropriate resources based on incident complexity, waterway conditions, and operational requirements.

Unlike land-based fire apparatus, fireboats vary widely in design, age, onboard technology, and mission profiles—reflecting each agency's operational environment and legacy investments. As a result, typing classifications may include vessels with significantly different configurations. This framework acknowledges that reality by emphasizing **functional capability over uniformity of design**, providing shared performance benchmarks while allowing for diversity in vessel construction.

Vessel Classification	**Type I**	**Type II**	**Type III**	**Type IV**	**Type V**	
Vessel Crew (Crew per 24-Hour Op Period)	8 (16)	8 (16)	4 (8)	4 (12)	3 (9)	
Standard Operational Period	12	12	12	8	8	hours
Pumping Water Capacity	20,000	10,000	4,500	1,500	500	GPM
Pumps	2	2	2	1	1	each
Generators	2	2	1	0	0	each

APPENDIX 5 – FIREBOAT MINIMUM EQUIPMENT LIST

Note: These tables outline the minimum standard equipment required per NFPA and FEMA guidelines. However, Authorities Having Jurisdiction (AHJs) may add to this equipment to address their specific operational needs.

Firefighting and Emergency Equipment for the Vessel

Equipment	Firefighting and Emergency Equipment for the Vessel	Type I	Type II	Type III	Type IV	Type V	Unit of Issue
Equip	Line throwing gun	1	1	1	0	0	each
Equip	Pry bar	2	2	2	1	1	each
Equip	Bolt cutters – 24”	1	1	1	1	1	each
Equip	Pike poles (15’)	2	2	2	0	0	each
Equip	Pike poles (6’)	2	2	2	1	1	each
Equip	Scoop shovel	2	2	2	1	0	each
Equip	Adjustable hydrant wrench	2	2	2	1	1	each
Equip	Spanner wrench	8	8	8	4	4	each
Equip	Sprinkler shutoff/wedge	4	4	4	2	1	each
Equip	Utility rope 100’	2	2	2	1	1	each
Equip	Floating stretcher with harness	2	2	2	1	0	each
Equip	Portable extinguisher – 2-A	2	2	2	1	1	each
Equip	Portable extinguisher – 20-B:C	2	2	2	1	1	each
Equip	Dry chemical extinguisher – 80-B:C	2	2	2	1	1	each
Equip	Portable TIC (Thermal imaging camera)	1	1	1	0	0	each
Equip	Electrical extension cords 100’	2	2	2	1	1	each
Equip	Flathead axe – 6lb.	1	1	1	1	1	each
Equip	Pick head axe – 6lb.	1	1	1	0	0	each
Equip	Halligan tools or equivalent – 6lb.	2	2	2	1	0	each
Equip	Sledgehammer – 10lb.	1	1	1	1	0	each
Equip	Grappling hook	2	2	2	1	0	each
Equip	Ropes in throw bag – 75’	2	2	2	1	1	each
Equip	Heaving line – 75’	2	2	2	1	0	each
Equip	NFPA 2500 life safety rope – 100’	1	1	1	0	0	each

Equipment	Firefighting and Emergency Equipment for the Vessel	Type I	Type II	Type III	Type IV	Type V	Unit of Issue
Equip	Jet siphons – 1 ½" to 2 ½"	2	2	2	1	0	each
Equip	Positive or negative pressure fan (portable)	2	2	2	0	0	each
Equip	Chainsaw	1	1	1	0	0	each
Equip	Hydraulic rescue tool	1	1	1	0	0	each
Equip	Portable oxygen gas cutting set or equal	1	1	1	0	0	each
SCBA	SCBA per member (at least)	1	1	1	1	1	each
SCBA	SCBA spare set	1	1	1	1	1	each
SCBA	SCBA spare cylinders per member	2	2	2	1	1	each
Hose	Large-diameter hose 3 ½" or larger	600	600	400	200	0	feet
Hose	Attack hose (large) 2 ½" or 3"	600	600	400	200	0	feet
Hose	Attack hose (small) 1 ½", 1 ¾", or 2"	600	600	400	200	200	feet
Nozzle	Combination nozzle with shutoff – 2 ½"	4	4	4	2	0	each
Nozzle	Combination nozzle with shutoff – 1 ½"	4	4	4	2	2	each
Nozzle	Cellar or distributor nozzle – 2 ½"	2	2	2	1	0	each
Equip	Foam educator with matching nozzle (portable)	0	0	0	0	0	each
Couplings	Double male – consistent with large diameter hose used	2	2	2	2	0	each
Couplings	Double female – consistent with large diameter hose used	2	2	2	2	2	each
Reducer	Large diameter to 2 ½" Reducer	2	2	2	1	0	each
Reducer	2 ½" to 1 ½" Reducer	2	2	2	1	0	each
Increaser	2 ½" to large diameter Increaser	2	2	2	1	0	each
Wyes	2 ½" x 1 ½" x 1 ½" gated	2	2	2	1	0	each
Wyes	2 ½" gated	2	2	2	1	0	each

Equipment	Firefighting and Emergency Equipment for the Vessel	Type I	Type II	Type III	Type IV	Type V	Unit of Issue
Wyes	Large diameter to 2 - 2 ½" gated	1	1	1	0	0	each
Couplings	2 ½" plug	2	2	2	1	0	each
Couplings	2 ½" plug	2	2	2	1	0	each
Couplings	2 ½" cap	2	2	2	1	0	each
Couplings	2 ½" Siamese	2	2	1	0	0	each
Couplings	International shore connection	2	2	2	1	0	each
PFD	PFD each member (at least)	1	1	1	1	1	each
PFD	PFD spare	25	25	25	10	5	each
Equip	Rescue tube / can	2	2	2	1	1	each

Communications Equipment and Systems

Communications Equipment and Systems	Type I	Type II	Type III	Type IV	Type V	Unit of Issue
Fire department radio system installed on the vessel	2	2	1	1	1	each
Marine VHF-FM Radio System, 25 watts, installed on the vessel	2	2	2	2	0	each
Portable VHF-FM Radio	1	1	1	1	1	each
Public address system	1	1	1	0	0	each
Hailer	1	1	1	1	1	each
General alarm system	1	1	1	0	0	each
Portable hand-held FD radio per member	1	1	1	1	1	each

Navigation Equipment and Systems

Navigation Equipment and Systems	Type I	Type II	Type III	Type IV	Type V	Unit of Issue
Fixed RADAR, GPS and Chart Plotters systems	2	2	1	1	0	each
GPS and plotter system	0	0	0	0	1	each
Automatic Identification System (AIS)	1	1	1	0	0	each
Fixed FLIR or similar	1	1	1	0	0	each

APPENDIX 6 – RESPONSE REQUIRING SEARCH AND RESCUE DIVE TEAMS

Maritime search and rescue incidents requiring the deployment of Public Safety Divers (PSD) are dynamic and dangerous environments that require specific training and appropriate on-scene supervision to ensure the safety and accountability of all personnel. Only PSDs whose primary job duties include providing search and rescue dive services under the direction and control of a government agency are excluded by OSHA from *29 CFR 1910, Subpart T-Commercial Diving* regulations while performing such duties. Only qualified public safety dive team members should be deployed during an emergency incident. Divers should not be deployed without appropriate on-scene supervision by a qualified dive group supervisor.

Considerations:

The first-arriving public safety officer will assume command of a maritime incident requiring the use of PSD. That incident commander may or may not have the experience necessary to supervise the deployment of Public Safety Dive Teams and should consider the following before the arrival of a qualified Public Safety Dive Group Supervisor.

- Obtain a complete witness Interview:
    - Number of Victims?
    - Victim description (name, age, sex, race, clothing, etc.)
    - Vehicle / Boat description if applicable.
    - Was the submersion of people or objects witnessed by the reporting party?
        - Specific position should be immediately identified & marked
    - Were the victim's personal items left behind to corroborate the location?
    - Are there multiple witnesses?
    - Secure the witness early, ensure the dispatch of law enforcement. partners, they are the best resource for interviewing these witnesses
- Last Known Position (LKP)
    - Marking the LKP: Crews must ensure that an appropriate LKP marking device is utilized and deployed only after ensuring accuracy of the last known position.
        - Deployed LKPs should not be relocated unless absolutely required.
        - LKP's should be appropriate for the on-scene depth and current water conditions.

- Environmental factors & Potential Hazards
    - Water Depth & Temperature & Current
    - Potential underwater hazards: IE, overhead environment & limited visibility.
- Determine Best Access/Egress: Best access for divers to reach the dive site, & egress from the water for rescuers and victims, before divers arriving on scene.

Incident commanders should make every attempt to gather intelligence about the items above, in advance of the arrival of public safety divers and dive group supervisors. This will help ensure the successful deployment of divers and provide the best opportunity for diver safety and more positive incidental outcomes. ICs should consult the following position descriptions to familiarize themselves with public safety diver and group supervisor duties.

APPENDIX 7 – DEFINITIONS FOR MARITIME ENVIRONMENT

a. **Ballast**: Water or materials used to stabilize a vessel, influencing its stability during firefighting operations.

b. **Bridge**: The command center of a vessel where navigation, communication, and operational decisions occur.

c. **Bulkhead**: Vertical walls within a vessel that divide compartments and may provide critical fire boundaries.

d. **Cargo Manifest**: A document listing the contents of a vessel, essential for identifying hazardous materials.

e. **Chief Engineer**: Responsible for the satisfactory working and upkeep of the main and auxiliary machinery onboard a vessel reports directly to the Master/captain.

f. **Compartmentation**: The division of a vessel into watertight and fire-tight sections to limit the spread of hazards like fire or water.

g. **Deck**: The horizontal structural platform on a vessel where responders operate during firefighting.

h. **Draft**: The vertical distance between the waterline and the vessel's bottom, crucial for determining access and stability.

i. **Fire Control Plan**: A diagram providing details about firefighting systems, emergency routes, and equipment locations on a vessel.

j. **Freeboard:** The vertical distance between the waterline and a vessel’s upper deck, affecting boarding, stability, and firefighting access.

k. **Gangway**: A walkway used for boarding or exiting a vessel, often a key access point during emergencies.

l. **Hull**: The outer shell of a vessel that impacts stability and the spread of fire.

m. **International Shore Connection**: A standardized fitting that allows shore-based firefighters to connect to a vessel's fire main.

n. **List**: A vessel’s tilt to one side, often caused by water ingress or uneven weight distribution, is important to monitor during firefighting.

o. **Muster Station**: A designated assembly point for crew and passengers during emergencies, critical for accountability and evacuation.

p. **Passenger Manifest:** A document listing all passengers and crew aboard a vessel for accountability, safety, and emergency response purposes.

q. **Port/Starboard**: The left (port) and right (starboard) sides of a vessel when facing forward.

r. **Scuttle**: A small access hatch providing entry or exit to compartments, which may be used in confined space operations.

s. **Smoke Control Zones**: Areas where ventilation systems are used to manage the movement of smoke during a fire.

t. **Stability**: The vessel's ability to remain upright, which can be affected by water ingress or firefighting actions.

u. **Vessel Captain / Master**: The individual in command of the vessel.

v. **Vessel Operator/Pilot**: The individual responsible for physically operating and navigating the vessel, including helm control, maneuvering, and adherence to safe navigation practices. On smaller vessels, this role may also encompass command responsibilities; however, on larger or more complex vessels, the Vessel Operator/Pilot typically focuses on vessel handling while a separate individual assumes overall tactical leadership and coordination of operations.

w. **Vessel Response Plan (VRP):** A required document outlining a vessel’s procedures for responding to spills, hazardous material releases, and maritime emergencies.

x. **Vessel Traffic Service**: Maritime traffic management, useful for coordinating response operations near busy ports or shipping lanes.

y. **Watertight Door**: Doors designed to prevent water or fire from spreading between compartments during emergencies.

z. **Windward/Leeward**: Terms referring to the direction of the wind relative to the vessel, important for managing fire spread and smoke movement

EXTERNAL LINKS

- FIRESCOPE Technical Search and Rescue Incident OSD 162
- U.S. Coast Guard Incident Management Handbook, COMDTPUB 3120.17C