

**NEW YORK STATE  
MILITARY EMERGENCY BOAT SERVICE  
STANDING OPERATING PROCEDURES  
(MEBS SOP)**

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STATE OF NEW YORK  
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**NEW YORK NAVAL MILITIA**  
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Subj: NEW YORK STATE MILITARY EMERGENCY BOAT SERVICE (MEBS)  
STANDARD OPERATING PROCEDURES

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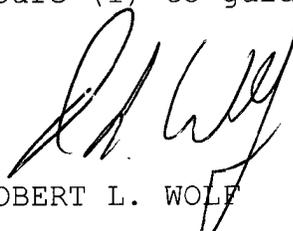
Encl: (1) MEBS Standing Operating Procedures (SOP) Manual

1. Purpose. To establish and disseminate standardized operational procedures for the New York State Military Emergency Boat Service (MEBS), established by reference (a).

2. Scope. This SOP Manual applies to the MEBS, and to all subordinate units and personnel.

3. Cancellation. NYNMINST 3120.1A of 17 November 2009.

4. Action. Commander MEBS shall oversee daily operations assigned to MEBS by the Division of Military and Naval Affairs (DMNA). The DMNA J-3 will oversee all New York military operations in support to civil authorities. All MEBS personnel shall use the contents of enclosure (1) to guide their actions in the performance of duty.

  
ROBERT L. WOLF

NEW YORK STATE MILITARY EMERGENCY BOAT SERVICE (MEBS)  
STANDARD OPERATING PROCEDURES

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1. ADMINISTRATION & PERSONNEL

a. Ethics and Professionalism: All personnel associated with the Military Emergency Boat Service will maintain the highest level of ethical and professional standards. It is imperative that, regardless of the actions of others, the individuals associated with MEBS act lawfully, skillfully, honestly, forthrightly, and without deception.

b. Standards of Conduct:

(1) Personnel are expected to conduct themselves in accordance with the highest standards of personal and professional integrity and ethics at all times.

(2) All personnel shall comply with the Standards of Conduct and Government Ethics directives issued by the laws of New York State and the Governor, The Adjutant General, and the New York Naval Militia Headquarters.

c. MEBS Eligibility Requirements: In order to participate as a member of MEBS, personnel shall meet the requirements found in reference (a). In addition, personnel must meet swimming requirements as set out:

(1) Certified Navy Class 3 Swimmers (or service equivalent) are exempt from swim testing requirements. A copy of certificate is to be filed in member's personnel record.

(2) Marine Corps, Coast Guard or Civilian personnel who possess a certification which is equivalent or greater than the requirements listed in paragraph (c) will be accepted. Copy of certificate is to be filed in member's personnel record.

(3) All other crewmembers are required to successfully complete the swim test as defined below. It is to be completed by an authorized facility and retained in member's personnel record, on NYNMF0RM 1513.

(a) Jump off a platform (minimum 1.5 meters high) into sufficiently deep water while in the cross, cover position, and return to the surface unaided.

(b) After surfacing, swim 100 meters with no time limit. The swim may be accomplished using any combination of strokes.

(c) Upon completion of the 100-meter swim, member is required to tread water unaided for 5-minutes.

d. Toll Passes:

(1) DMNA TAG Form 9 passes (Thruway Passes) and Triborough Bridge and Tunnel Authority (TBTA) tickets are provided for use by members of the organized militia in the performance of official military duties. Request for Thruway Toll Passes (DMNA TAG Form 9) and Tunnel and Bridge Passes (TBTA) tickets will be made to NYNM HQ.

(2) Free passage on the NYS Thruway and NYS Bridges and Tunnels will be granted to members provided the travel is authorized and complies with the requirements of this instruction (reference DMNA Reg 55-1).

## 2. NAVIGATION RULES / AIDS TO NAVIGATION

a. Navigation Rules: The "Rules of the Road" (*Navigation Rules*; COMDTINST M16672.2 SERIES) were designed to give direction to vessels in order to set a standard that everyone could follow in order to prevent collisions of two or more vessels. They are many in number and cover almost every imaginable sequence of events that may lead to collision. MEBS personnel will adhere to the "Rules of the Road".

b. Aids to Navigation: The aids to navigation are the road signs of the water. Learning to understand them requires experience and practice. However, the benefit to be derived in being able to navigate safely by using the system is well worth the effort.

(1) U.S. Aids to Navigation (U.S. ATONS): The buoys and beacons in this system conform to the International Association of Lighthouse Authorities (IALA) guidelines and are located in IALA region B. They are sometimes referred to as the IALA-B system. In this system, there are lateral and non-lateral markers. The lateral markers indicate the navigable channel by their position, shape, coloring, numbering and light characteristics. The non-lateral markers are informational and regulatory markers.

### 3. OPERATIONS

a. General: This chapter discusses routine and special operational procedures.

b. Preparation for Operations: Prior to an operational or training event, pre-planning must take place to minimize delay, enhance safety, and ensure that the mission is completed successfully. Preparations may begin up to months in advance of the planned underway period. Preparations include:

(1) Development and approval of an Execute Order (EXORD), or Letter of Instruction (LOI). EXORDs and LOIs are the authority for MEBS crews to conduct their missions. EXORDs and LOIs provide comprehensive guidance for individual missions to include concept of operations, identification of forces, administration, logistics, reporting procedures, communications, and command structure.

(a) EXORDs are promulgated by DMNA J3-DO, at the direction of The Adjutant General. Typically, EXORDs are developed at the request of outside agencies for operations and exercises.

(b) LOI's are promulgated by Commander MEBS, for internal training missions that do not impact outside agencies or departments.

(2) Identification of vessel requirements. The EXORD or LOI will call for minimum standards of boats required for a particular mission. It is up to Commander MEBS, or the mission planners to determine the specific class of boat that will best suit the mission. Planners must also consider the location of boats throughout the state, and their ability to be re-located to a particular mission site.

(3) Identification of personnel requirements. The EXORD or LOI will identify the number and qualification requirements for personnel. Planners take into account the minimum and maximum pay grade needed, location of home or record for individuals, and the relevant qualifications needed. As a general rule, planners should consider personnel that meet the minimum requirements, but also minimize the costs associated with the mission. This means that the lowest possible pay grade, combined with using local available operators will save the most money. Planners must take into account that many members will have work or federal duty conflicts that preclude

them from a specific mission.

(4) Issuance of personnel orders under State Active Duty (SAD). SAD orders are by the direction of the Governor of New York, and place the individual subject to the military laws of New York State. An EXORD grants authority for NYNM HQ (DMNA-MNNM) to issue orders. Orders may be in either pay or non-pay status. The orders may or may not authorize reimbursement for travel, lodging, or per diem (otherwise known as M, L, &E). Orders are entered into the NYNM HQ personnel record system and typically issued via e-mail to the individual. Orders come in two types:

(a) Section 6 orders, refer to paid orders.

(b) Section 46 orders, refer to non-paid orders.

(5) Training events are typically conducted in an inactive duty "drill" status. The authority for conducting drills is contained in the NYNM Training Assembly Schedule.

(6) Boat preparations include the following:

(a) Ensuring that all needed equipment is onboard or available. Examples of this include:

1. Boat Log.
2. Boat fuel and maintenance record, with fuel card.
3. First aid kit.
4. Lines and fenders.
5. Extra POL.
6. Flags and pennants.
7. Nautical charts.
8. Rules of the road.
9. Personnel Flotation Devices for each individual.
10. Boat keys.

11. Boat hook.

12. Emergency equipment, including EPIRB, life ring, flash light, tool kit, etc.

(b) Inspection of boat, truck and trailer (if applicable) prior to re-location.

(c) Vessel re-location or pre-staging to the mission site. Planners must ensure that the launch location is suitable for the size of craft to be launched. They must take into account the proximity of the mission site, the condition of the boat ramp, congestion, water conditions, and facilities.

(d) Launch and recovery procedures are discussed in-depth in chapter 9.

(e) Complete a Float Plan and Crew/Passenger Manifest (NYNM Forms 3123 and 4620) prior to getting underway. These forms are to be left with a responsible party ashore, or visible on the dashboard of the tow vehicle.

(f) The boat coxswain will ensure that a safety briefing is conducted, and that all personnel meet safety standards including wearing a lifejacket or PFD on exposed weather decks, prior to getting underway.

c. Underway Operations: The assigned Coxswain is charged with the safe navigation of the boat, and the safety of all embarked personnel. In general, once a vessel is underway from a trailer, dock, or anchorage, there are many considerations.

(1) Reporting. Chapter 2 discusses both routine and non-routine reports. As a minimum, when a vessel changes its status, such as getting underway or returning to port, the crew must immediately notify their operational chain of command via telephone or other suitable means. Depending on the command structure, this call may be made to a task force duty desk, or the DMNA Joint Operations Center at (518) 786-6104.

(2) Recording. Each boat is equipped with a boat (or deck) log. This is an official, permanent record of events that take place on an individual vessel while underway or at anchor. The log will include, as a minimum the following information:

(a) Names of all personnel embarked.

(b) Time and location of any change in status, i.e. underway.

(c) Any casualty or emergency repair.

(d) Fueling events.

(e) Engine hours at fueling events, and completion of a daily mission.

(f) Other significant events.

(g) Mission risk assessment results.

(3) Fueling Operations. Coxswains will ensure that sufficient fuel is onboard to complete the mission and safely return to port under power. Coxswains will periodically check available fuel and calculate the time and distance to available refueling locations.

d. Operations Checklist: A generic list for trailer-able boats.

(1) Check Weather and Tide Charts Prior To Mission Launch.

(2) Truck and Trailer Checks.

(a) Check tire pressure on truck and trailer.

(b) Check for adequate fuel to and from operation. Insure adequate fuel is left for next operation.

(c) Check towing hitch and safety chain.

(d) Check truck and trailer lights prior to driving.

(e) Test truck and trailer brakes. If trailer brakes are locked, try a quick reverse movement to free brakes.

(3) Pre-launch; boats with outboard engines.

(a) Release rear engine transit locks prior to launching. Ensure engines are raised prior to launch.

(b) Visually inspect fuel system for deterioration and leaks. Smell for fuel leaks prior to starting engines. Ensure that fuel and oil levels are sufficient.

(c) Check outboards for tightness on transom

(d) Visually check steering for binding or loose components

(e) Check propeller blades for damage

(f) Check oil reservoir.

(g) Inspect hydraulic steering fluid reservoir (at top of helm pump) to make certain that fluid level is at full.

(h) Turn on batteries.

(i) When engines are started, check gauges for to insure correct charging. (Engines must be in the water prior to starting.)

(j) Make sure appropriate circuit breakers are on.

(k) Make sure outboard engines are cooling and water jet is coming out of the "telltale" on rear of each engine before commencing operation. If water is not coming out of rear, check for blockage in the hole and flush clear.

(l) Ensure all embarking personnel have a PFD.

(4) Preparing the boat to enter the water.

(a) Ensure that boat plug is installed in drain hole located on stern just above the keel.

(b). Ensure that all lines and fenders are rigged and prepared for use.

(c) Ensure that all radio and GPS antennas are raised and in a locked position.

(d) If available, raise the flag staff and attach

national ensign and state flag.

(e) Ensure that all safety equipment is deployed, including life ring and fire extinguishers.

(f) Remove transom tie-downs before backing boat trailer into water.

(g) Disengage the engine tilt support lever that supports the engines in the raised position. First, raise the engines slightly. Then, push in and rotate the lever control knob located on the transom bracket. Rotate the lever downward.

(h) Remove winch safety chain before backing boat trailer into water.

(i) Remove winch strap/cable when boat is in water, and ready for underway.

(5) Preparing for underway operations -

(a) Lower both engines into the water. Ensure that sufficient water depth is available so that propellers do not strike bottom or objects in water. Controls for raising and lowering the engines are on the throttle shift handle ("UP"/"DN"), and also on the right-hand side of the individual engines.

(b) Throttle controls must be in neutral to start the engines. Using the ignition keys, start the engines. If the engine will not start, move the throttle controls back and forth and return to neutral.

(c) Notify the JFHQ-NY Joint OPS Center of all major boat movements including underway and return to port. (518) 766-6104.

(d) Complete Mission Log Entry's in book.

e. Operational Parameters: There are limitations for each MEBS class boat, e.g. fuel capacities, operational ranges, speed, mission capabilities and survival limitations. These parameters for each class of boat may be found in the appropriate MILBOATSTECHMAN.

e. Casualties: If a disabling casualty is identified when a boat is moored, the boat should not get underway until

the casualty is corrected. The readiness of boats shall be continuously monitored to insure that they are capable of unrestricted operations. This monitoring is accomplished through a variety of programs, including boat checks and the boat preventive maintenance system (PMS) schedule.

(1) The following are disabling casualties:

(a) engine abnormal metal on metal knocking or clicking.

(b) engine fails to start.

(c) engine overheats.

(d) inoperable or missing engine kill switch.

(e) engine controls inoperable.

(f) engine fails to shift in and out of gear.

(g) motor mounts loose or damaged.

(h) battery system will not charge.

(i) steering inoperable or restricted.

(j) fuel leak.

(k) fuel or lube leaks in diesel engines dripping onto hot surfaces.

(l) no electronic means of signaling (e.g. no radio or EPIRB).

(m) bilge pump fails to operate.

(n) any electrical arcing or sparking.

(o) hull breach below the waterline.

(p) no means of firefighting.

(q) backfire flame arrester inoperable or missing.

(2) Restrictive Discrepancies: Discrepancies that

partially restrict the operations of a boat rendering it unable to participate in all functions of the mission. Alert the Commander MEBS of any restrictive discrepancies. The following are restrictive discrepancies:

- (a) engine operating above normal range.
- (b) engine fails to idle properly or stalls frequently when engaged.
- (c) outboard engine fails to fully trim or tilt.
- (d) engine alarms inoperative.
- (e) emergency alarms inoperative.
- (f) installed fire system inoperable.
- (g) compass inoperative or missing.
- (h) radio inoperable.
- (i) radar inoperable for night operations with less than one mile visibility.
- (j) depth sounder inoperable.
- (k) GPS inoperable.
- (l) navigation lights inoperable.

f. Maneuvering in Heavy Weather: At some time, every boat and crew will encounter wind or sea conditions that challenge safe, successful boat operation. Due to size and design differences, extreme weather for one vessel is not necessarily challenging for another. Also, crew training, experience, and skill more often than not make the difference between safety and danger, regardless of the vessel. Size, stability, and power are vessel characteristics that enhance safety and allow some forgiveness in large waves and high winds or due to the occasional lapse in skill or judgment. On the other hand, lightweight, speed, and agility give a means to avoid or to outrun conditions, but offer little protection or forgiveness for the slightest miscalculation.

- (1) Use caution at all times. Never underestimate the power of winds currents and waves and what they can do to your

vessel or crew. The following concepts will increase the level of safety at which you operate.

(2) Be familiar with your vessel's operating characteristics and limitations to safely and confidently handle conditions that approach those limits.

(3) Develop a working knowledge of its response to waves and winds. Excessive boat motion is very fatiguing and could cause motion sickness. Learn the motions your boat makes in response to the seas. Learn and develop techniques to minimize vessel motion in all conditions.

(4) Know what wind speed puts the boat "in irons" with loss of maneuverability. Learn how to heave to and ride out the worst winds or seas.

(5) Do not use a vessel in rough weather when it is not operationally ready. A small discrepancy can lead to serious consequences. Properly stow all required gear and remove everything else.

(6) When conditions exceed a particular vessel's limits, use a more capable vessel. If one is not available, tell higher authority. Don't use the wrong tool for a job. Always apply risk assessment.

(7) Learn to handle your vessel in the types of winds and seas found in your specific area.

(8) Learn your area's tide rips, bars, gorges, coastal currents and local waters before you must maneuver there in rough weather.

(9) Use your vessel's inherent capabilities. Bow flare provides additional buoyancy to help lift the bow, but you must meet larger seas much slower than you would smaller ones. A slower speed of approach gives the bow time to rise and meet the waves.

(10) Look and drive for the path of least resistance. The best way to get through waves is to avoid as many as possible. Anticipate patterns and take advantage of them.

(11) Pick your way around breaking waves. Take advantage of any lulls between the higher series of waves. Look for gaps or windows in the breaking waves, but watch them to see

if they close out before you approach. Don't try to steer a perfectly straight course, steer the smoothest course.

(12) A following sea does not present the high relative closure rate of head seas, but keeping vessel control and stability is probably more challenging.

(13) Keep an eye both ahead and astern. If you totally concentrate on the wave ahead, you let your guard down on waves from astern. Since larger waves travel faster than smaller ones, one much larger than the one you are on may move up quickly from astern and catch you unaware.

(14) Adjust your speed to stay on the back of the swell. Pay extremely close attention to the way the crest ahead of you breaks. If you keep gaining on the crest ahead, slow down.

(15) Keep reserve power. Slow, back or come about. If running with the seas and one is gaining astern, avoid it breaking on the transom.

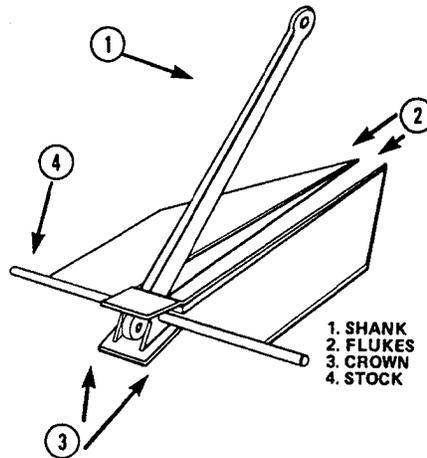
g. Anchoring: Anchoring must be performed correctly in order to be effective. This section discusses the techniques necessary to properly anchor a boat.

(1) The basic elements to proper anchoring include:

- (a) Proper equipment availability.
- (b) Knowledge to use that equipment.
- (c) Ability to select good anchoring areas.
- (d) Use the proper scope. i.e. 5-7 feet of line for every foot of depth of the water. More may be needed depending on sea state.
- (e) Maintain a clear swing circle. There should be no obstructions in a circle surrounding the anchor point that has a radius of the sum of the length of the vessel and the amount of anchor line paid out.

(2) Anchor types: There are different types of anchors with specific advantages of each type. The type of anchor and size (weight) of anchor a boat uses depends upon the size of the boat. A working or service anchor should have the

holding power equal to approximately 6% of the boat's displacement. Main parts of the Danforth anchor:



h. Man Overboard Procedures: The action taken in the first few seconds after a crewmember falls overboard decides the success of the recovery. An alert crewmember can do much to save the life of someone who might otherwise drown. First actions should be swift and certain.

(1) If a person fell over the port side, the first crew member to realize someone had fallen overboard should follow these procedures:

Step Procedure

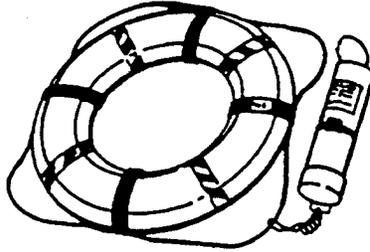
- 1 Spread the alarm in a loud voice by repeatedly calling out, "MAN OVERBOARD, PORT (or STARBOARD) SIDE "
- 2 Throw a ring buoy with strobe light (or anything that floats) over the side towards the person in the water.
- 3 Maintain sight of, and continuously point (open handed), to the individual in the water while carefully moving to a position where you can be seen by the coxswain or operator. Give clear, loud verbal directions to the coxswain.

(2) Use all possible means to identify the position (dead reckoning, visual landmarks, radar, etc.).

(3) Turning the boat around: At the same time the position is being recorded, turn the boat in the direction the

individual fell overboard (port or starboard) and simultaneously sound the danger signal (5 short blasts on the boat's horn).

(4) Throwing a floating device: Throw a ring buoy with strobe light (or anything that floats) over the side towards the person in the water. It does not matter if the person is visible at this time or not. The person in the water may see the flotation device and be able to get to it. Additionally, the ring buoy or any floating object thrown over the side (if a ring buoy is not available) serves as a reference point (datum) marking the general location of the incident and for maneuvering the boat during the search. Do not throw the floatable object(s) at the person overboard. It could cause further injury if it hits the individual. Throw the object so that it or its line can drift down to the person while avoiding fouling the line in the propeller.



Ring Buoy

(5) Assign crew duties: Once a device is thrown, the coxswain will assign duties to each crewmember. If weather conditions permit, a POINTER will be positioned on or near the bow of the boat. A RECOVERY/PICK-UP crewmember will be assigned to prepare a heaving line to be used in retrieving the person from the water. The Pointer will visually search for the person overboard, and when located, will point to the person overboard at all times. The coxswain will guide on the Pointer's hand signals in maneuvering the boat for the recovery approach. The coxswain should ensure that the crewmember keeping an eye on the person overboard is relieved of any other duties that could be distracting

(6) When the coxswain is ready to commence the recovery approach, he must brief the crew on how the recovery will be made and whether it will be accomplished on the port or starboard side. The approach will be influenced by:

(7) The coxswain must select an approach that is suitable for the existing conditions. There are two basic

approaches:

(a) A leeward approach (against the wind and current). Perform the leeward approach with the bow facing into the greatest force of oncoming resistance at the time of pickup. This may be the wind, current, seas, or any combination of the three. There are times when the wind and current are from different directions. Select the heading that will best ease the approach. The coxswain must also balance the effect of any swell that might be present. The approach must be made rapidly but as the boat nears the person you must slow the boat and reduce your wake enough to where a short burst backing down stops your headway. The person in the water should be next to the recovery area on the boat and the boat should be dead in the water. Place the engines in neutral and, when the person overboard is alongside, have a crewmember make the recovery. Make all pickups into the prevailing weather and sea conditions. Take care not to run over the person overboard or to have so much headway on that the boat drifts beyond the person overboard. If the person in the water does drift aft of the boat, do not back down to effect the recovery. The propeller could injure the person.

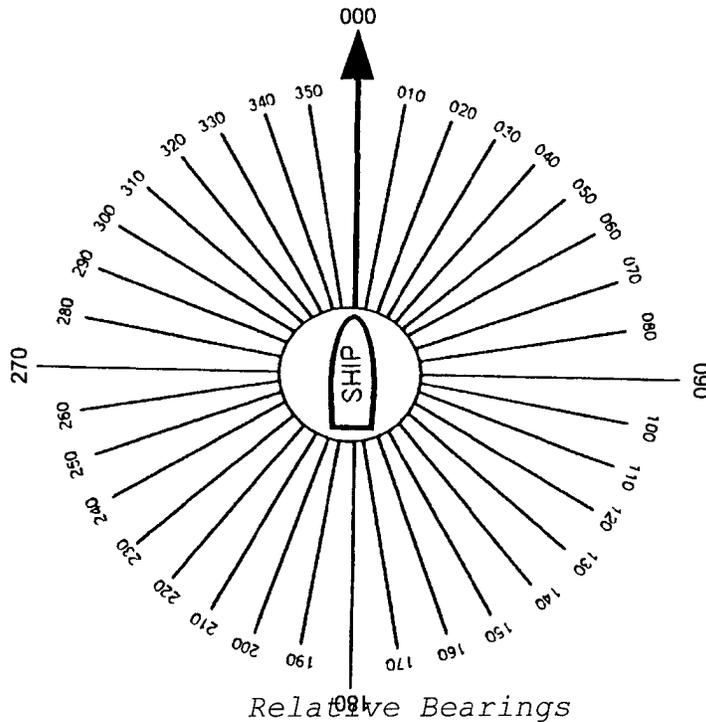
(b) A windward approach (with the wind and current). Perform the windward approach with the wind coming from behind the boat. Use the windward approach when the person overboard is in a confined space or a leeward approach is impossible. However, avoid a situation where the boat cannot turn into the wind due to superstructure or bow sail area ("in irons"). The operator must maneuver into a position upwind and up current from the person overboard, place the engine in neutral, and drift down to the person. Ensure that the boat drifts so it places the person overboard along the "recovery" side but do not allow the boat to drift over the person.

(8) The condition of the person in the water will dictate the type of recovery procedure used. Once the condition of the person in the water can be determined, that is, conscious, unconscious, or injured, the coxswain will select a procedure and assign crewmember duties accordingly. Generally, the pickup is completed at the lowest point of freeboard and away from the propellers.

i. Station Keeping: The art of maintaining a moving position relative to another vessel or object. It is the Coxswain's responsibility to maintain a fixed position in relation to a fixed object or patrolling a defined sector in

relation to a fixed object. Typically, a vessel is assigned a particular relative bearing and distance from a guide vessel or object. The position is to be kept regardless of the influences of wind or current, and the changes in direction or speed of the guide vessel.

(1) Station keeping is of particular importance when conducting High Value Asset (HVA) moving security zones. Usually several escort vessels are assigned to keep station in an assigned sector or position surrounding the HVA vessel. Understanding relative bearing is critical to this process.



(2) Modern radar systems on MEBS vessels have the capability to accurately determine the bearing and distance from station keeping vessel to the guide vessel.

- (3) Relative bearings can be given in:
- (a) degrees (0-359°R) from an object;
  - (b) or in terms such as
    - 1. ahead (000R),

- 2. port bow (315R)
- 3. starboard bow (045R)
- 4. port beam (270R)
- 5. starboard beam (090R)
- 6. port quarter (215R)
- 7. starboard quarter (135R)
- 8. astern (180R)

j. Critical Infrastructure Inspection Procedures:

(1) The mission of the Military Emergency Boat Service includes a broad military support to law enforcement agencies and other civil authorities. Potential missions include security patrol and inspection of designated critical infrastructure. This section provides a basic understanding for MEBS crewmembers to conduct inspections and security patrols for critical infrastructure located in the maritime environment of New York State. While not all inclusive, the following are key examples of critical infrastructure:

- (a) Vehicle and rail bridges.
- (b) Power plants.
- (c) Tunnels and associated structures.
- (d) Electric transmission lines.
- (e) Natural gas pipelines.
- (f) Dams.
- (g) Levees.
- (h) Canal and seaway locks.
- (i) Piers and docks.
- (j) Air and water ports.
- (k) POL storage terminals.

(2) Damage incurred on any of the above structures or systems could negatively impact people's lives or the economy. MEBS personnel tasked with this mission have the responsibility to report all obvious and suspected threats to infrastructure to appropriate authority. The very presence of MEBS patrols boats and personnel in the vicinity of critical infrastructure serves as a deterrent to sabotage efforts. However, the real value of MEBS presence is in the actual inspection. While it is not expected that MEBS personnel conduct inspections to the levels of field engineers, there is great value in conducting thorough inspections with available sensors. In other words; eyes, ears, and nose. Inspection of critical infrastructure from the waterside offers a unique perspective that personnel from other agencies may not have. MEBS boat crewmembers can see things that those on land cannot.

(3) When MEBS crewmembers are assigned missions for inspection and security of critical infrastructure, they must keep in mind that they are not law enforcement officers. As such, responsibilities include:

(a) Mitigating immediate consequences. In other words, respond in self-defense or defense of others to imminent life-threatening situations.

(b) Report all obvious and suspected threats to appropriate authority. Authorities may include local or state police agencies, property owners, or other state agencies. If in doubt, contact NYNM HQ for guidance and clarification.

(c) Document or log all findings.

(4) Procedures. Crewmembers must use common sense in all of these actions. Often a gut feeling that something is not right should serve as an alert.

(a) When approaching critical infrastructure, crewmembers should keep a watchful eye in all directions for the presence of suspicious vessels, persons, or vehicles.

(b) Regardless of the type of critical infrastructure, conducting an extensive visual inspection is key. The use of binoculars in this process to examine distant objects is important. For instance, the underside of high bridges should be completely inspected using binoculars, night-vision devices, etc.

(c) In a maritime environment, threats can be placed above or below water. Although MEBS does not have sonar or other underwater detection equipment, personnel must keep in mind that an underwater device might be present. Use what capabilities you have to seek out suspect objects.

(d) The use of sound and smell is also important. During inspection tours, it may be prudent to stop the boat in order to hear and smell the environment.

(e) Crewmembers must be aware that acts of sabotage or terrorism are not the only means of disabling infrastructure. Personnel should also inspect for damage caused by weather, erosion, or lack of maintenance. If the damage warrants immediate attention, this is to be brought to the attention of the property owner via NYNM HQ.

k. Visitors to MEBS Vessels:

(1) No individual without proper military orders or in their capacity of civilian employment may embark any MEBS vessel without the acknowledgement and consent of either the Deputy Commander for Operations, Commander MEBS, or Joint Task Force Empire Shield.

(2) Exceptions to this policy include the following persons who may or may not be under military orders, but whose embarkation is inherent with their duties:

- (a) Commander, New York Naval Militia.
- (b) Deputy Commander, New York Naval Militia.
- (c) Deputy Commander for Operations, NYNM.
- (e) Chief of Staff, NYNM
- (f) Executive Officer, NYNM

(3) Persons embarking MEBS vessels as part of their assignment with a supported agency do not require advance approval, i.e. U.S. Coast Guard, U.S. Border Patrol, etc. Those personnel authorized to carry firearms as part of their position with the supported agency are authorized to carry the firearm onboard the MEBS vessel. Flag officers and O-6 personnel from the Division of Military and Naval Affairs (DMNA) are considered to be under military orders due to their position. Thus they are

exempt from the prior consent requirement. In general, other military and civilian DMNA personnel are to have consent before embarking MEBS vessels.

(4) Crewmembers shall immediately notify Commander MEBS (or JTF Empire Shield Tactical Operations Center (TOC)/JFMCC, if applicable), or the Executive Officer New York Naval Militia; in the event any military officer in the grade of O-6 or higher embarks a MEBS vessel.

1. State Canal System Cruising:

(1) New York State operates a number of canals under the NYS Canal Authority. These canals include the Champlain Canal, Cayuga-Seneca Canal, Erie Canal, and Oswego Canal.

(2) The canal system is open seasonally between early May and early November. Specific opening and closing dates may vary.

(3) Although there is a cruising fee for recreational vessels to transit state-owned locks, MEBS vessels are exempt.

(4) The federal lock at Troy is not part of the state canal system. It is operated by the U.S. Army Corps of Engineers.

(5) The canal has speed limits set as follows:

(a) In rivers, 30-45 mph, as posted.

(b) In canal cuts, 10 mph.

(c) In locks and other posted areas, 5 mph.

(6) The canal has height restrictions as follows:

The clearances for navigating under bridges over the Canal System are:

Erie Canal

Waterford to Three Rivers Junction 21.0 feet

Three Rivers Junction to Tonawanda 15.5 feet

Oswego Canal 21.0 feet

Champlain Canal 17.0 feet

Cayuga-Seneca Canal

16.5 feet

m. Automatic Identification Systems (AIS): AIS, also known as Blue-Force Locator, is a system to track the location of friendly forces. Vessels equipped with AIS can be tracked with encrypted software, and include such information as speed, direction of travel, and location. AIS transponders on board vessels include a GPS (Global Positioning System) receiver, which collects position and movement details. It includes also a VHF transmitter, which periodically transmits this information on two VHF channels (frequencies 161.975 MHz and 162.025 MHz - old VHF channels 87 & 88). Other vessels or base stations are able to receive this information, process it using special software and display vessels locations on a chart plotter or on a computer. MEBS vessels with AIS use an encrypted system that is not available to the public domain.

(1) AIS-equipped vessels will transpond the AIS signal whenever operating.

(2) Care must be taken to secure the AIS computer and other hardware. All portable equipment must be safely and securely stowed to prevent pilferage when not in use.

n. Towing: As a boat crewmember, towing may be one of the responsibilities you will execute for many types of maritime craft. MEBS crewmembers responsibility is to tow boats out of imminent danger or out of an area where they are creating a hazard to navigation. It is not the responsibility of MEBS to tow otherwise safe, but disabled boats in waters where commercial tow services are available.

(1) Boat crews need a firm grasp of towing principles to ensure that a "routine" evolution does not result in injury, death or further damage to property. No two towing evolutions are exactly the same. Variations in technique and procedure will occur. Apply your knowledge of principles and standard procedures to account for weather and sea conditions, vessel types, and crew experience. Ensure the tow is within your and your vessels capabilities.

(2) Individual manufacturers' boat owner's guides and product specification sheets provide equipment limitations and safety information.

(3) SAFETY aboard MEBS boats is always the most

important concern. Every towing activity is potentially dangerous. The safety of your crew and the crew of the towed vessel is more important than property, and your primary responsibility in any towing situation is to maintain safety measures. Towing is a complex evolution. A safe and successful outcome hinges on crew professionalism, ability, and teamwork.

o. Search and Rescue (SAR): The United States Coast Guard (USCG) is designated as the coordinating authority for maritime search and rescue. MEBS units tasked to support SAR missions shall take direction from the USCG On Scene Commander to facilitate the expeditious and safe recovery of missing persons in a maritime environment.

p. Air Operations: Generally, air operations take place during rescue and/or search missions, especially when a personnel or equipment transfer takes place. Not all MEBS vessels are suitable for operating in close quarters with aircraft. While an aircraft can generally search an area faster or may arrive on-scene sooner, a vessel can investigate more thoroughly and usually provide more direct assistance. Whether a pollution incident or a SAR case, boats and aircraft may be called upon to work as a team.

q. Diving Operations: Coxswain shall insure that a marker is in the water and fly the DIVER DOWN FLAG or ALPHA FLAG (if on federally controlled or international waters) during the dive. A watch shall be maintained to warn any other vessels to stay clear at a minimum of 100' from the dive operation.

(1) PB 230, PB 300, PB 400, and PB 440 class boats are equipped with over-the-side ladders suitable for diving operations.

(2) PB 400 and PB 440 class boats are equipped with dive platforms.

#### 4. LOGISTICS, MAINTENANCE AND REPAIR

a. General: Logistics is the program to ensure that all necessary supplies and equipment are available for boating operations. Preventive maintenance programs will prolong the life of our boats vehicles and trailers. It will also increase unit readiness and reduce overall maintenance and repair costs.

b. Maintenance Guidance: Each class of boat has a technical manual (MILBOATSTECHMAN) that describes the maintenance requirements for the equipment associated with that class of boat. Use of MILBOATSTECHMANS and equipment user guides is directed to ensure that specific periodic and emergent maintenance is conducted correctly.

c. Logistics Guidance: Logistics include the support needed for boat and crew to sustain a mission. This includes transportation, fueling, consumables, lodging, and parts.

(1) Official New York State credit, travel, or fuel cards are for official use only. These credit cards will not be used for the purchase of any item or service that is not directly for the mission, vessel, or vehicle for which it was intended.

(2) Purchases (other than fuel) that are in an amount of \$500.00 or greater require the submission of a Procurement Request (NYNM FORM 7043), for approval by the budgeting and finance directorate (MNBF). Other purchases of repair items require approval by Commander, MEBS.

(3) Procedures for use of MEBS trucks:

(a) MEBS trucks are for official use only. If the truck is assigned to an expeditionary mission, where it is the only means of transportation, the vehicle may be used for transportation to dining facilities, and other necessary travel.

(b) Each trip must be recorded in the individual vehicle's Fuel and Maintenance Record.

(c) Vehicle keys and fuel cards are maintained with the Fuel and Maintenance Record.

(d) MEBS vehicles will not be operated while the driver is under the influence of any alcoholic beverage or illegal drugs.

(e) Additional guidance for use of MEBS vehicles may be found in chapter 9.

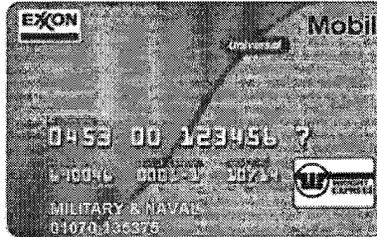
(4) Procedures for fueling MEBS trucks (Note, all MEBS trucks operate on DIESEL fuel):

(a) Locate a diesel fueling station that accepts credit cards.

(b) Using the enclosed EXXON/MOBIL universal card, insert it into fuel pump.

(c) When requested by the fuel pump, enter the current mileage of the vehicle.

(d) When requested by the fuel pump, enter the 4 digit driver I.D. This number is the last four digits of the state license plate number. It is also located on the fleet card as shown below.



(e) Upon completion of fueling, ensure that you keep a receipt and place it in the RECEIPTS section of the Fuel and Maintenance Record.

(f) Enter the amount of fuel and fuel cost on the monthly Vehicle Cost Record (NYNM OGS Form CS 918).

(g) Within five days of the end of a month, submit the Vehicle Cost Record, all receipts and a Certification NYS OGS Vehicle Cost Record form to NYNM HQ, for the previous month.

(5) Procedures for fueling MEBS vessels:

(a) Boats may be fueled at fuel docks, or if on a trailer, at a gasoline station such as a truck stop. Upon boat arrival at a fueling dock or location, turn off all engines and power sources that could create a spark. Smoking is not allowed.

(b) Ensure that the proper fuel is selected for the class of boat, either diesel or gasoline.

(c) Extreme care must be taken to ensure that fuel and petroleum products are not spilled into the water or on the ground. Follow guidance found in chapter 8.

(d) To prevent the build-up of dangerous static electricity, keep the metal nozzle in contact with the fuel receptacle.

(e) Do not exceed the capacity of the fuel tank.

(f) Upon completion of fueling, pay for the fuel with the assigned credit card. This card is primarily for payment for fuel and oil. In an emergency, it may be used for payment for repairs and repair parts. Prior to using the card for this purpose, contact Commander MEBS, or Executive Officer NYNM. Keep the receipt in the Fuel and Maintenance Record. This monthly record (NYNMF0RM 4027) will be turned into NYNM HQ monthly, no later than five days after the start of the next month.

1. The card may not be used for any personnel-related or personal use. This prohibition includes lodging or meals.

2. The credit card is only for support of the assigned vessel.

(g) Record the fuel or oil purchase in the vessel Fuel and Maintenance record (NYNMF0RM 4027). Include the operating hours for each engine. Also note purchase and the name of the person that signed for the purchase in the deck log.

(h) Forward a clear, legible copy of the fuel receipt by the fastest possible means to NYNM HQ. Acceptable means include photo text message, or fax transmission.

(h) The credit card is to be maintained with the vessel Fuel and Maintenance Record.

(6) Procedures for emergency repairs of vessels: In the event that a vessel requires an emergency repair, immediately contact Commander MEBS, or the Director, NYNM to get authorization.

(a) Make the purchase using the assigned credit card.

(b) Maintain the receipt and enter the purchase on the Fuel and Maintenance Record.

(c) Submit copies of all emergency purchases to NYNM HQ.

(d) A procurement request (PRO REQ) will be generated by NYNM HQ after the purchase.

d. Generic Preventive Boat Maintenance: The following checks are generic in nature. They may or may not apply to all boat classes depending on configuration.

(1) The purchase of any parts or equipment to conduct maintenance or repairs requires the advance preparation of a Procurement Request (PRO REQ). The PRO REQ must be submitted to NYNM HQ for approval prior to submission to DMNA Budget and Finance (MNBFB). Sufficient lead time must be used to process the request, before the purchase is made. At the discretion of the Executive Officer, NYNM, the purchase will be made using either the Executive Officer's official credit card, or the vessel's assigned credit card.

(2) Daily maintenance includes:

- (a) Check all fluid levels.
- (b) Check battery connections.
- (c) Check engine/generator belts.
- (d) Check fuel couplings.
- (e) Inspect battery terminals for signs of acid build-up, clean if required.
- (f) Check battery terminal cables for tightness.
- (g) Check outboard engines for tightness on transom.
- (h) Check steering system for binding or loose components.

- (i) Check propeller blades for damage.
- (j) Check generator for fuel system leaks.
- (k) Test operation of (where appropriate):
  - 1. Navigational lights.
  - 2. Horn.
  - 3. Blue light.
  - 4. Binnacle or instrument lights.
  - 5. Bilge pump switches.
  - 6. Check bilge pump floats for  
restrictions.
  - 7. Radar.
  - 8. VHF radio (obtain radio check channel  
16 and your local working frequency).
  - 9. GPS/chart plotter.
  - 10. Depth sounder.
  - 11. Battery switches.
  - 12. Engine tilt.

(3) After use in salt or polluted water:

- (a) Flush engine cooling system with fresh water, when available.
- (b) Wash salt deposits from all external engine parts with fresh water, when available.
- (g) Flush exhaust outlet with fresh water, when available.
- (h) Rinse truck, trailer, and boat externals with fresh water. Pay particular attention to vehicle hubs and braking systems.

(4) Spring (Pre-season) Maintenance: Prior to launching after winter storage check:

(a) Check all electrical systems and connections.

(b) Other checks include:

1. Inspect hull; paint or repair defects.  
2. Life raft certification by certified inspector.

3. Recharge heads.

4. Inspect and clean potable water system.

5. Inventory and inspect equipment at each event.

6. Replace fuel filter.

(5) Winterization Maintenance and Storage: The major consideration for winter storage is to protect boats from rust, corrosion and damaged caused by freezing trapped water.

(a) Inspect and power wash hulls.

(b) Add stabilizer to fuel tanks.

(c) Clean, drain and add marine safe anti-freeze to head and generator set cooling systems.

(d) Remove outboard engine spark plugs, add one (1) fluid ounce of engine oil into each hole, rotate flywheel several times and replace spark plug.

(e) Lubricate all outboard components.

(f) Drain and refill outboard lower unit (gear case) lubricant.

(g) Stow outboard engines in upright (vertical) position to allow water to drain.

(h) Follow battery manufacturer's instruction

for storage.

(i) Remove hull drain plug to prevent rainwater from accumulating.

(6) Maintenance for Vehicles and Trailers:

(a) Truck maintenance shall be performed as per operator / maintenance manual.

(b) Trailers shall be inspected during each event.

(c) With boat on trailer ensure skid boards are properly supporting the hull:

1. Inspect boards for: unusual wear or absence of covering; warping, cracking and ensure the boards are properly secured.

2. Inspect trailer hitch and tow ball for cracks or wear.

3. Check tire inflation.

4. Check light plug and wiring for wear, damage or corrosion.

5. Check all bolted joints for cracks, corrosion and tightness.

6. Grease fittings.

7. Check lights.

8. Inspect winch strap/cable for damage and wear while fully extended.

9. Inspect hook connection.

10. Inspect surge break cylinder.

11. Inspect winch for proper operation.

5. SAFETY AND RISK MANAGEMENT

a. General: Military operations of any sort have an inherent level of risk associated with them. It is incumbent upon all levels of leadership in the New York Naval Militia to exercise prudence and due diligence to minimize personnel and equipment to unnecessary risks.

b. Risk Management and Assessment:

(1) Safety Assessment and Management Guidelines.  
Emergency situations can cause people to panic or act before thinking despite the best of training and preparation. Therefore, boat crews must work together as a team to minimize any potential or immediate jeopardy for both civilian casualties and themselves. Never enter an emergency situation without first assessing the risk involved for the boat crew members and others (Risk Assessment), always be aware of the dynamics of the emergency situation (Situational Awareness), and implement a control plan that fits each unique emergency (Damage Control Risk Management).

(2) Risk management is a tool that helps a leader makes sound decisions in a logical manner. It enables leaders at all levels to do exactly what the term implies - manage risks.

(3) Safety risk management is a five-step process that is easily integrated into the decision-making process.

(4) Risk assessment is a part of risk management. It can range from simple to complex. A risk assessment causes leaders to identify hazards and threats and place them in perspective relative to the mission or task at hand. Logically, one cannot identify the risk without first defining the hazards. When the hazard is expressed in terms of how likely it is to occur, then the commander can make rational decisions about how to deal with a hazard.

(5) Risk is managed by essentially the same disciplined, organized, logical thought processes that govern all other aspects of military endeavors. In all cases, risk management and safety are chain of command issues that should have the same priority for the commander's attention as do training and tactical employment of the force. In fact, safety and tactical employment of forces are inseparable. The intent in managing and assessing risk is to:

- (a) Minimize exposure of the force to risk.
- (b) Increase operational efficiency and effectiveness.
- (c) Execute with boldness through prudent risk taking.
- (d) Improve operational readiness.
- (e) Improve communications.

(6) The Operational Risk Management (ORM) process exists on three levels. Deciding which of the three levels is necessary will be based upon the situation, proficiency level of personnel, and time and assets available. While it would be preferable to perform a deliberate or in-depth operational risk management process for all evolutions, the time and resources to do so will not always be available. One of the objectives of ORM training is to develop sufficient proficiency in applying the process such that ORM becomes an automatic or intuitive part of decision-making methodology. In the operational environment, leaders should be able to employ this time-critical process to make sound and timely decisions that generate tempo and facilitate decisive results. The three levels are as follows:

(a) Time-Critical - An "on the run" mental or oral review of the situation using the five step process without recording the information on paper. The time critical level of ORM is employed by experienced personnel to consider risk while making decisions in a time-compressed situation. It is the normal level of ORM used during the execution phase of training or operations, as well as in planning during crisis response scenarios. It is particularly helpful in choosing the appropriate course of action when an unplanned event occurs during the execution of a planned operation or daily routine.

(b) Deliberate - Application of the complete five-step process as described below, will aid in planning an operation or evaluating procedures. It primarily uses experience and brainstorming to identify hazards and develop controls, and is therefore most effective when done in a group. Examples of deliberate applications include planning of upcoming operations, review of standard operating, maintenance or training procedures, and damage control and disaster response planning.

(c) In-Depth - Deliberate process involving a

very thorough risk assessment (first two of the five steps below). Research of available data, use of diagram and analysis tools, formal testing or long term tracking of the hazards associated with the operation (sometimes with assistance from technical experts) are used to identify and assess the hazards. It is used to more thoroughly study the hazards and their associated risk in a complex operation or system, or one in which the hazards are not well understood. Examples of in-depth applications include long term planning of complex operations, introduction of new equipment, materials and missions, development of tactics and training curricula and major system overhaul or repair.

(7) Three rules guide the risk management process:

(a) Accept no unnecessary risks.

(b) Make risk decisions at the proper level.

(c) Accept risks if benefits outweigh the cost.

Leaders must take necessary risks to accomplish the mission. Leaders must understand that risk-taking requires a decision-making process that balances mission benefit with cost.

(8) The process of risk management has five steps, which commanders and staff must do. They include:

(a) Identify risk/hazards. In preparation for conducting an operation or training event, identify specific risks associated with all specified and implied tasks.

(b) Assess risk/evaluate hazards. Determine the magnitude of risks. This involves an estimate of loss, cost and probability.

(c) Make decisions and develop controls. Make risk acceptance decisions by balancing risk benefits against risk assessments, and eliminate unnecessary risks. Reduce the magnitude of mission-essential risks through the application of controls. Be sure controls do not jeopardize mission accomplishment. Involve the chain of command if necessary risk controls will prevent assigned mission requirements.

(d) Implement controls. Integrate specific controls into plans and orders. Knowledge of controls down to the individual member is essential.

(e) Supervise. Enforce controls and standards. Evaluate mission progress and changes to mission, and then begin appropriate corrective actions.

(9) Risk management does not:

(a) Replace sound tactical decision making.

(b) Inhibit the Commander's & leader's flexibility, initiative and accountability.

(c) Remove risk altogether or support a "zero defect" mindset.

(d) Sanction or justify violating the law.

(e) Remove the necessity for rehearsals, tactics, techniques and procedures.

(10) Risk Assessment Calculations. The following tools are standard risk assessment calculators. Use them in determining each risk's potential impact on an operational or training event.

Risk Management Matrix		P R O B A B I L I T Y				
		<b>A</b> Likely	<b>B</b> Probable	<b>C</b> May	<b>D</b> Unlikely	
<b>S E V E R I T Y</b>	<b>I</b> Death, Loss of Asset	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>	
	<b>II</b> Severe Injury, Damage	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	
	<b>III</b> Minor Injury, Damage	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	
	<b>IV</b> Minimal Threat	<b>3</b>	<b>4</b>	<b>5</b>	<b>5</b>	
		1-Critical	2-Serious	3-Minor	4-Minor	5-Negligible

(a) Risk Assessment Code

- 1 = Critical
- 2 = Serious
- 3 = Moderate
- 4 = Minor
- 5 = Negligible

(b) Severity

1. Category I - The hazard may cause death, loss of facility/asset, or mission failure.

2. Category II - The hazard may cause severe injury, illness, property damage, or serious mission degradation.

3. Category III - The hazard may cause minor injury, illness, property damage, or minor mission degradation.

4. Category IV - The hazard presents a minimal threat to personnel safety or health, property, or mission.

(c) Probability

1. Sub-Category A - Likely to occur immediately or within a short period of time. Expected to occur frequently to an individual, item, or person or continuously to a fleet, inventory or group.

2. Sub-Category B - Probably will occur in time. Expected to occur several times to an individual, item, or person, or frequently to a fleet, inventory or group.

3. Sub-Category C - May occur in time. Can reasonably be expected to occur sometime to an individual, item, or person, or several times to a fleet, inventory, or group.

4. Sub-Category D - Unlikely to occur.

(d) Once risk assessment calculations have been

determined, complete the Composite Risk Management Worksheet found in Chapter 14 - Forms.

These tools allow a Commander to make an assessment of the risk associated with an event using a standardized process, as well as a method of documenting the process.

c. Safety

(1) Risk assessment and management: Risk Assessment starts with realizing why mishaps occur. The responsibility for identifying and managing risk lies with every member of a boat crew. Realistic training based on standard techniques, critical analysis, and debriefing missions will help every person in a boat crew to contribute to developing and implementing a Risk Management Plan. A Risk Management Plan identifies and controls risk according to a set of preconceived parameters.

(2) Situational awareness: Situational Awareness is an important skill for you to develop as part of learning risk assessment. Situational Awareness is the accurate perception of factors and conditions affecting the boat crew at any given time during any evolution. More simply, situational awareness is knowing what is going on around you at all times.

(3) Any time you identify an indication that situational awareness is about to be lost; you must make a decision, (i.e.) whether or not to continue a rescue attempt. Everyone in the crew owns some responsibility for making these important decisions.

NOTE: Crews who have a high level of **SITUATIONAL AWARENESS** perform in a safe manner.

d. Damage Control Risk Management. The precautions listed below include many of the considerations that can form a basis for a general Damage Control Risk Management Plan. Keep in mind that each emergency situation will be unique; therefore the plan must only be used as a general guideline.

(1) Account for all persons.

(2) Have all lines, rigging, etc. removed from the water to avoid fouling your propellers.

(3) Maintain communications between the coxswain and crewmembers.

(4) Have all required equipment ready.

(5) Approach distressed vessel with your fenders rigged and lines at the ready.

(6) Approach a vessel on fire from the windward side. Remove survivors first, then back off, and evaluate the fire. If the risk of explosion is not known (you cannot determine what cargo is on board), back off and do not attempt to fight the fire.

(7) Always keep your chain of command informed

e. Safety Equipment. During all boat operations, crewmembers shall ensure that safety equipment is functional and available, as indicated below.

(1) Personal Flotation Device (PFD): All boats have, as a minimum, USCG approved Type III commercial life vests.

(2) Anti-Exposure Suits: Crewmembers are issued USCG approved anti-exposure suits. During cold weather operations, all embarked personnel are required to wear Anti-Exposure Suits.

(3) First Aid Kit: All boats carry a basic emergency first aid kit.

(4) Fire Fighting Equipment: All boats are equipped with USCG approved (both type and size) fire-extinguishing equipment designated to fight CLASS 'A', 'B' and 'C' type fires.

f. Crew Fatigue. The crew's physiological and mental well-being plays important roles in the safe and successful operation of a boat.

(1) Fatigue: Mental and physical fatigue is reached more quickly during rough weather operations. The hazards of fatigue dramatically reduce the powers of observation, concentration, and judgment. The following are examples of situations that may cause fatigue:

(a) Operating in extreme hot or cold weather conditions.

(b) Eye strain.

(c) The effort of holding on and maintaining

balance.

- (d) Stress.
- (e) Exposure to noise.
- (f) Exposure to the sun.
- (g) Poor physical conditioning.
- (h) Lack of sleep.
- (i) Boredom.

(2) Responsibilities. The crew's safety and welfare are the coxswain's responsibility. Coxswains must be constantly aware of stress signs evident in their crews, learn to recognize fatigue, and take corrective action. Crewmembers must watch each other's condition to prevent excessive fatigue from taking its toll.

6. COMMUNICATIONS

a. General: Communications play a vital role in the tactical operations of boats. Proper and clear communications between MEBS Boats, higher authority and civilian vessels is essential. Communications must be dependable, quickly responded to, and conducted in accordance with accepted principals. The importance of professional tactical communications cannot be overemphasized. Lengthy, rambling, and frivolous talk over marine radios is to be avoided. All MEBS boats will ensure that they are equipped with both primary and secondary means of communication.

b. Very High Frequency (VHF) Marine Channels: All MEBS boats will be equipped with a properly functioning VHF radio meeting U.S. Coast Guard underway requirements. The following list specifies each channel use by frequency (Hz):

U.S. VHF Marine Radio Channels and Frequencies

Channel Number	Ship Transmit MHz	Ship Receive MHz	Use
01A	156.050	156.050	Port Operations and Commercial, VTS. Available only in New Orleans / Lower Mississippi area.
05A	156.250	156.250	Port Operations or VTS in the Houston, New Orleans and Seattle areas.
06	156.300	156.300	Intership Safety
07A	156.350	156.350	Commercial
08	156.400	156.400	Commercial (Intership only)
09	156.450	156.450	Boater Calling. Commercial and Non-Commercial.
10	156.500	156.500	Commercial
11	156.550	156.550	Commercial. VTS in selected areas.
12	156.600	156.600	Port Operations. VTS in selected areas.
13	156.650	156.650	Intership Navigation Safety (Bridge-to-bridge). Ships >20m length maintain a listening watch on this channel in US waters.
14	156.700	156.700	Port Operations. VTS in selected areas.
15	--	156.750	Environmental (Receive only). Used by Class C EPIRBs.
16	156.800	156.800	International Distress, Safety and Calling. Ships required to carry radio, USCG, and most coast stations maintain a listening watch on this channel.
17	156.850	156.850	State & local govt maritime control
18A	156.900	156.900	Commercial
19A	156.950	156.950	Commercial
20	157.000	161.600	Port Operations (duplex)
20A	157.000	157.000	Port Operations
21A	157.050	157.050	U.S. Coast Guard only
22A	157.100	157.100	Coast Guard Liaison and Maritime Safety Information Broadcasts. Broadcasts announced on channel 16.
23A	157.150	157.150	U.S. Coast Guard only
24	157.200	161.800	Public Correspondence (Marine Operator)
25	157.250	161.850	Public Correspondence (Marine Operator)
26	157.300	161.900	Public Correspondence (Marine Operator)
27	157.350	161.950	Public Correspondence (Marine Operator)

28	157.400	162.000	Public Correspondence (Marine Operator)
63A	156.175	156.175	Port Operations and Commercial, VTS. Available only in New Orleans / Lower Mississippi area.
65A	156.275	156.275	Port Operations
66A	156.325	156.325	Port Operations
67	156.375	156.375	Commercial. Used for Bridge-to-bridge communications in lower Mississippi River. Intership only.
68	156.425	156.425	Non-Commercial
69	156.475	156.475	Non-Commercial
70	156.525	156.525	Digital Selective Calling (voice communications not allowed)
71	156.575	156.575	Non-Commercial
72	156.625	156.625	Non-Commercial (Intership only)
73	156.675	156.675	Port Operations
74	156.725	156.725	Port Operations
77	156.875	156.875	Port Operations (Intership only)
78A	156.925	156.925	Non-Commercial
79A	156.975	156.975	Commercial. Non-Commercial in Great Lakes only
80A	157.025	157.025	Commercial. Non-Commercial in Great Lakes only
81A	157.075	157.075	U.S. Government only - Environmental protection operations.
82A	157.125	157.125	U.S. Government only
83A	157.175	157.175	U.S. Coast Guard only
84	157.225	161.825	Public Correspondence (Marine Operator)
85	157.275	161.875	Public Correspondence (Marine Operator)
86	157.325	161.925	Public Correspondence (Marine Operator)
87	157.375	157.375	Public Correspondence (Marine Operator)
88A	157.425	157.425	Commercial, Intership only.
AIS 1	161.975	161.975	<u>Automatic Identification System (AIS)</u>
AIS 2	162.025	162.025	<u>Automatic Identification System (AIS)</u>

In addition to these channels, MEBS VHF shipboard radios have NOAA Weather channels that must be monitored periodically to obtain up-to-date weather conditions within the area of operations. To access these channels press the "NOAA Weather channel" button on the VHF radio.

c. Secondary Boat Communications: All MEBS boats will carry a secondary means of communications. Fully charged cellular telephones, capable of attaining a signal in the area of operations, will normally be designated as secondary communications. Satellite telephones are another means of communications.

d. Radio User Guidance: Radio users will speak in a clear and concise manner. In keeping with generally accepted military communications procedure, the use of common pro-words is acceptable. Keep in mind that many members of law enforcement and the public are not familiar with military communications. A radio user must ensure that the intended recipient understands what you are trying to communicate.

e. Radio Operating Procedures: As a boat crewmember, operating a voice radio will be a frequent task, so you must be familiar and comfortable with using the equipment. It is important to learn basic procedures and ways for properly using the radio so that messages are sent and received in the most effective and professional manner.

(1) Check Squelch control: Squelch control blocks out weak signals. Adjust the squelch control until the noise can be heard, then adjust it slightly in the opposite direction until the noise stops. Setting the squelch control adjusts the receiver so only signals strong enough to pass the level selected will be heard and reduces the amount of static noise on the speaker.

(2) Do not interrupt others: Before beginning a transmission, listen for a few seconds to avoid interrupting other communications that are already in progress.

(3) Microphone placement: Keep the microphone about 1 to 2 inches from your lips. When transmitting, shield the microphone by keeping your head and body between noise generating sources (such as engine noise, wind, helicopter, etc.) and the microphone.

(4) Know what you will say: Before keying the transmitter, know how to say what you are going to say. Keep all transmissions short and to the point. Never "chit-chat" or make unnecessary transmissions on any frequency.

(5) Speaking: Speak clearly, concisely, and in a normal tone of voice, maintaining a natural speaking rhythm.

(6) Phonetic alphabet: Use the Phonetic Alphabet to spell out a word or a group of letters.

(7) Proper Pro-words: Use proper pro-words, ending each transmission with "over" and the last with "out." Never say "over and out."

(8) Use of appropriate radio language: The following is a list of things not to do while using the radio. Items on this list are either not protocol, they are illegal, or they cause misunderstanding of messages. Do not:

1. Use profane or obscene language.

2. Use unauthorized prowords, abbreviations, or procedures.

3. Speak using extremes of voice pitch which will cause distortion.

4. Slur syllables or clip your speech.

5. Key the microphone unless you are ready to transmit. Keying the microphone also transmits a signal, causing interference on that frequency.

6. Use law enforcement "10 Codes".

7. BOAT CREW - PERFORMANCE, SKILL, & KNOWLEDGE REQUIREMENTS

a. Mission Commander/Detachment Officer in Charge (DET OIC). When assigned, the Mission Commander/DET OIC will be overall in charge of the safe operation and completion of an assigned mission. Mission Commanders must exercise clear judgment, leadership, effective communications, and initiative. When a Mission Commander is assigned, the Coxswain's duties are limited to the safe navigation and piloting of the vessel, knowledge of the operating area, and direct supervision of subordinate personnel.

b. Coxswain (COX'N). Knowledge requirements and performance skills for coxswain are extensive. Coxswains must apply good judgment, intelligence, and initiative. They must make decisions with the safety of their crew and boat in mind. In addition to basic crewmember skills, a coxswain requires these additional knowledge and performance skills:

(1) Demonstrate the ability maintain situational awareness (SA). This key function of knowing what is going on around you is essential, but often over-looked in the assessment of an individual as a qualified coxswain.

(2) Demonstrate leadership that effectively coordinates, directs, and guides the performance of the boat crew during watches and tasks (e.g., towing, low-visibility navigation, and man overboard situations).

(3) Demonstrate correct application of regulations, policy, and guidance.

(4) Know the boat's limitations:

(a) Maximum sea conditions boat can operate in.

(b) Maximum wind conditions boat can operate in.

(5) Proficient in all line handling duties.

(6) Navigate and pilot a boat.

(7) Know the local Operating Area (OPAREA).

(8) Demonstrate boat-handling skills to safely and prudently control the movement of a boat while underway.

(9) Understand the principles of risk management and incorporate them into the decision making process. These principles include detection, identification, evaluation, and mitigation or control of risk as part of making decisions (e.g., slow to safe speed in restricted visibility, cast off a tow because the assisted vessel is losing stability).

c. Limited Duty Coxswain. In certain situations and to maintain mission readiness, assignment of a Limited Duty Coxswain may be necessary. Limited Duty Coxswains shall be restricted to the operation of a specific class of vessel and geographic location. These restrictions shall be made in writing by Commander MEBS. Certification of Limited Duty Coxswain shall be recorded in the Qualifications portion of the member's personnel record.

d. Line Handler. To be effective, boat crew members must execute orders quickly and must have the following knowledge and performance skills:

- (1) Marlinespike seamanship and line handling.
- (2) Basic navigation (including radar) and boat handling.
- (3) Survival, safety, and damage control equipment.
- (4) Emergency and casualty control.
- (5) Watch standing and communications.
- (6) Preventive maintenance procedures for the boat.
- (7) A keen knowledge of the boat's characteristics and limitations, all equipment, and the stowage capabilities will be invaluable in times of emergency. Frequent drills practicing the procedures for different circumstances will teach crewmembers how to react correctly to each situation.

(8) Boat crewmembers must have knowledge of their Operational Area (OPAREA).

e. Watch Standing Responsibilities. Under the direction of the coxswain, crewmembers are assigned various watches that are described below:

- (1) Lookout Watch:

(a) Requirement: The Navigation Rules, International-Inland, COMDTINST M16672.2 (series) states that "Every vessel shall at all times maintain a proper lookout by sight and hearing as well as by all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and of the risk of collision."

(b) Although not specifically assigned the duty of lookout, the entire crew must perform lookout duties unless directed otherwise.

(c) Coxswains must assign and station lookouts properly in order to comply with the requirement noted above. Lookouts must report to the coxswain everything seen, smelled, or heard while the boat is underway that may endanger the boat or may indicate a situation to investigate (e.g., distress, law enforcement, or pollution). Some examples are:

1. Other vessels.
2. Land.
3. Obstructions.
4. Lights.
5. Buoys.
6. Beacons.
7. Discolored water.
8. Reefs.
9. Fog signals.
10. Anything that could affect safe navigation.

(d) Use the following guidelines to stand a proper lookout watch:

1. Remain alert and give full attention to your assigned duty.
2. Remain at your station until relieved.

3. Do not distract yourself or others with excessive conversation.

4. Speak loudly and distinctly when making a report.

5. If you cannot positively identify the object sighted, smelled or heard, report what you think at that moment.

6. Repeat your report until the coxswain acknowledges it.

7. When conditions impair your ability to see, smell, or hear, report the condition so the coxswain can take corrective action.

8. Report everything you see including floating material, even if you have to report it several times.

(e) Lookouts must be posted by the coxswain so they have the best possible chance of seeing and hearing an approaching vessel or searching for an object in the water. The coxswain should use the following steps when positioning lookouts:

1. Choose a boat speed that enables lookouts to effectively and safely perform their duties.

2. Position lookouts so they can effectively and safely perform their duties under the operating conditions, e.g., restricted visibility, boat speed, sea state and weather.

3. During periods of rain, sleet, and snow or when taking spray over the bow, select lookout positions that minimize impairment of vision.

4. During a search, post two lookouts when able. Lookouts should be positioned on each side of the vessel so that each can scan a sector from dead ahead to directly aft.

5. Select a stable location that will not place the lookouts in danger of being blown or swept overboard.

(f) Lookouts must report what they see, smell, or hear with as much detail as possible. Object type is immediately important (vessel, buoy, breaking waves), but additional details may help the coxswain in decision-making. The following are some obvious characteristics of objects:

1. Color, Shape and Size.

2. Relative bearing: Lookouts make reports using relative bearings only. This means that the bearings are measured with reference to the vessel's heading, or to the fore and aft line of the boat's keel. Regardless of true or magnetic heading, these relative bearings run clockwise from zero degrees (000°) or dead ahead, zero-nine-zero (090°) or starboard beam, through one-eight-zero degrees (180°) or dead astern, two-seven-zero (270°) or port beam, around to three-six-zero degrees (360°) or dead ahead again.

3. Position angle: Objects in the sky are located by their relative bearing and position angle. The position angle of an aircraft is its height in degrees above the horizon as seen from the observation point. The horizon is 0° and directly overhead is 90°. The position angle can never be more than 90°. Position angles are reported in one or two digits and the word "Position Angle" is always spoken before the numerals.

4. Distance: Report distances in yards. Knowing the distance to the horizon, land, or other reference point, will help estimate distance. By dividing the distance from the observation point to your reference point, an estimate of the distance to another object can be made.

5. Making reports: When making reports, the lookout names or describes the object sighted, the direction (in relative degrees) and the range to the object (in yards).

6. Scanning: The lookout's method of eye search is called scanning. Scanning is a step-by-step method of visually searching for objects. Good scanning techniques will ensure that objects are not missed. Scanning also reduces eye fatigue. Development of a systematic scanning technique is important.

7. Night scanning: When binoculars are used for night scanning, hold them straight forward and shift

line of sight in a circular path around the inside of the binocular field. When an object is seen, look all around it, not at it. They may appear in dim outline. Using binoculars at night on a stable platform increases range of vision significantly, however, objects will not appear in clear detail.

8. Fog scanning: Fog lookouts scan slowly and rely on their ears. The best position for a fog lookout is where sight and hearing is not interfered by radios, conversation, or other distractions. Usually at the bow is best, if conditions allow.

9. Night Lookout Watch: Although the duties for day and night lookout watches are the same, safety and caution during night watches are especially important. Eyes respond much more slowly at night and pick up moving objects more readily than fixed objects. It takes about 30 minutes for eyes to become accustomed to the limited light available at night.

(2) Towing Watch: A towing watch is normally performed aft on the boat. The primary duty of the towing watch is to keep the towline and the boat being towed under constant observation.

(a) The guidelines for standing this watch are as follows:

1. Observe how the tow is riding, e.g., in step, listing, or veering.

2. Report any unusual conditions to the coxswain.

3. Ensure chafing gear is riding in place.

4. Adjust the scope of the towline upon command of the coxswain.

5. Report any equipment failure or problems observed to the coxswain immediately.

6. Keep deck space area clear of unnecessary gear and people.

7. Stay clear of the immediate area around the towline due to possible line snap-back.

8. Know when and how to do an emergency breakaway.

(b) Observed danger: The towing watch must be aware of and report any signs of danger. Many of the signs of danger include:

1. Yawing - disabled boat veers from one side to the other that may cause one or both boats to capsize.

2. List increasing on towed boat.

3. In Step - the proper distance between the towed boat and the towing boat to maintain control and prevent breaking the towline.

4. Towed boat taking on water.

5. Deck hardware failure due to stress, no backing plates, etc.

6. Towline about to part due to stress, chafing, or other damage.

7. Towed boat overtaking towing boat due to sudden reduction in speed.

8. Positioning of towed boat's crew.

(3) Anchor Watch. When the boat is anchored, an anchor watch is set. The person on watch must ensure that the anchor line does not chafe and that the anchor does not drag. The individual on watch also looks for other vessels in the area. Even when the boat is anchored, there is the possibility that it can be hit by another boat.

(a) Use the following guidelines when standing anchor watch:

1. Check the strain on the anchor line frequently.

2. Check that the anchor line is not chafing.

3. Confirm the position of the boat at

least every 15 minutes, or at shorter intervals as directed by the coxswain.

4. Report bearing or range (distance) changes to the coxswain immediately.
5. Report approaching vessels to the coxswain immediately.
6. Report major changes in wind velocity or direction.
7. Check for current or tidal changes.
8. Report any unusual conditions
9. Check for chafing. Once the anchor is set, apply chafing gear to the anchor line. It is the job of the anchor watch to ensure chafing gear stays in place and the anchor line does not chafe through.
10. Check for dragging. There are two methods to determine if your anchor is dragging.
11. Check for tension on the anchor line
12. Check the boat's position.
13. If the anchor is dragging over the bottom, a vibration may be felt in the line. Periodically check vessel position by taking a navigational fix. Always use both methods.
14. Check vessel position. It is important to routinely check vessel position to ensure it is not drifting or dragging anchor.
15. Take compass bearings to three separate objects spread at least 45° apart. Any bearing changes may indicate that the vessel is beginning to drift.
16. On a boat equipped with radar, determine the distance (range) to three points of land on the radar screen. Any change in the ranges may indicate anchor drag.
17. On GPS equipped boats, mark position with the electronic equipment. Periodically check LAT/LONG readout. Any change would show vessel position is shifting.

18. Make a note of each check of bearings or ranges. Also note vessel position and the depth of water regularly. A small note pad is acceptable for this purpose. If the water depth or position changes, the anchor may be dragging

19. As wind or water current change direction, the boat will swing about its anchor. This is a swing circle centered on the position of the anchor, with a radius equal to the boat's length plus the horizontal component of the length of anchor line in use. Simply stated horizontal component + boat length = radius of swing circle at its greatest length. (The horizontal component decreases as the water depth increases.) Ensure your swing circle is clear of other vessels and underwater obstructions. When checking your position, it should fall inside the swing circle.

8. ENVIRONMENTAL COMPLIANCE

a. Pollution Responsibilities: The following information describes environmental responsibilities as they pertain to MEBS. The guidance is provided for environmental protection and enhancement to ensure compliance with applicable federal, state and local laws, and regulations during operations.

b. Refueling Operations: During dockside refueling operations, ensure boat is secured to fuel dock and spill kits are available. Be careful not to overfill the fuel tank in order to allow a headspace for fuel expansion. Use absorbent pads to soak up spills or drips that may occur. Collect fuel oil related waste generated and place in a plastic garbage bag for future disposal in dockside fuel oil containment devices.

c. Disposal of Solid Waste: Onboard trash must be collected in garbage bags and disposed of in appropriate trash containers when dockside. Human waste must be collected and disposed of at a commercial marine pump out facility located dockside. No solid waste may be disposed of over the side of the boat.

d. Spill Reporting: Reporting petroleum spills is a crucial first step in spill response.

(1) When an incident occurs, immediately notify the assigned Operational Commander, NYNM HQ, and the JOC Duty Officer at 518-786-6104.

(2) DMNA Facilities - Environmental Compliance (MNFE-EC) may be contacted for assistance in spill reporting and clean up at (518) 786-4347 or (518) 786-4980.

(3) All spills in NY waterways are reportable to the New York State Department of Environmental Conservation (NYS DEC) within two hours of discovery by the responsible party or person with knowledge of the spill. Call (518)-457-7362. Be prepared to provide NYS DEC Spill Hotline with information regarding the spill.

(4) After completing the call to the NYS DEC Spill Hotline, complete the "Spill or Hazardous Substance Release Report Format" form and fax to DMNA Environmental Office at 518-876-4400 ATTN: MNFE-EC, within 24 hours of the spill incident. The NYS DEC will provide you with a spill number that should be indicated on all of your spill documentation.

(5) Check with NYS DEC to see if other federal or local authorities are to be notified. There are instances when the Coast Guard and National Response Center must be notified, however they are usually notified for large vessel spills and reportable quantity hazardous waste spills on waterways.

(6) Spills must be cleaned up as soon as possible, without risk of injury or significant exposure to personnel. If it is determined that the spill is manageable and spill-cleanup supplies are available, try to stop the source of the spill and contain it with absorbent boom and pads.

(7) Retain copies of all spill documentation to include disposal paperwork, and forward copies to NYNM HQ which will forward to DMNA Environmental Office ATTN: MNFE-EC.

(8) If the boat operators clean up the spill, the spill material must be collected in garbage bags or other appropriate containers and disposed of by a licensed waste transporter.

9. GROUND TRANSPORTATION

a. General: Delivering boats to the water by road, ramp or lift are significant evolutions that carry risk and should be attempted only after training. The use of state-owned vehicles have additional requirements for operation.

b. Use of Government Vehicles: Only state-owned trucks are authorized to tow MEBS trailers. The use of private or commercial vehicles in the towing of MEBS trailers is not authorized.

(1) All personnel operating a MEBS truck or other New York State vehicle are required to hold a current, valid driver license for the class of vehicle being operated. A record of the driver license is maintained by NYNM HQ.

(2) It is the responsibility of the driver and any passengers to keep the vehicle neat and orderly. Remove all trash and personal belongings when leaving the vehicle.

(3) EZ Pass devices are for official use only, and for the designated vehicle only.

(4) Each vehicle transit is recorded in the monthly Vehicle Cost Record (Form CS 918). These forms are turned in monthly.

(5) Fuel cards are for fueling of MEBS vehicles only.

(6) The following items are maintained in the binder for each vehicle:

(a) Fuel Card.

(b) Fuel Receipts.

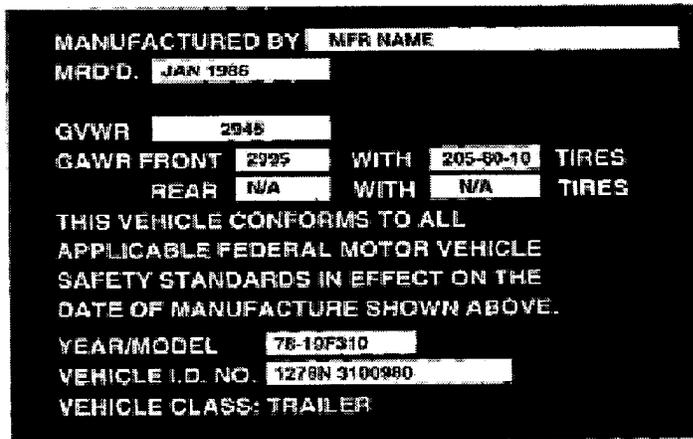
(c) Vehicle Cost Record (Form CS 918), including a master copy for making reproductions.

(d) A copy of the vehicle registration document and New York State Insurance Identification Card.

(e) A copy of all MEBS trailer registrations.

(f) A copy of all MEBS trailer inspections.

c. Trailer Specifications: Trailers are divided into classes based on the total weight of the trailer and its load. The load includes all the miscellaneous gear, which is stowed in the boat, such as the engines, fuel tank, fuel, and required safety equipment. The capacity of the trailer should be greater than the combined weight of the boat, engine(s), fuel, and equipment. Information for an individual trailer's specification and capacity are found on the capacity label:



(1) Capacity rating: Federal law requires that all trailers have certain important capacity information displayed. The Gross Vehicle Weight Rating (GVWR) for the trailer must be displayed. This includes the trailer and all weight it is expected to carry. The Gross Axle Weight Rating (GAWR) capacity information specifies the proper tires needed to carry the load for which the trailer is rated. On multi-axle trailers, the combined GAWR of all axles must be equal to or greater than the GVWR for the trailer.

(2) Weight: The vehicle operator needs to know at the very least, two important weights, gross vehicle weight and tongue weight. Safe boat trailing requires that the trailer be properly balanced and loaded. Overloading a trailer on the highway is as dangerous as overloading a boat on the water.

(3) Gross Vehicle Weight: To determine the gross vehicle (trailer) weight, load the trailer with everything that normally would be on it during transportation. Take the rig to the nearest scale that has a platform, such as a NY State Police weighing station, and weigh the rig without the towing vehicle, unhitched and supported on a jack. This will give the gross trailer weight. It is important that the gross trailer weight (Gross Vehicle Weight) does not exceed the Gross Vehicle Weight

Rating as shown on the capacity label. Keep the trailer in a level position by adjusting the jack-caster assembly. The amount of fuel and any water in the boat (from rain, for example) may add substantially to the trailer's gross weight and play havoc with the load distribution. Pull out the boat's drain-plug to make certain there is no water in the boat before towing.

(4) Tongue weight: The difference between the Gross Trailer Weight and the Gross Axle Weight is the Tongue Weight. In loading the trailer, it is important that the weight distribution on the trailer is such that the recommended tongue weight is maintained.

(5) The Hitch: Choosing the proper class of hitch for the weight of the trailer being towed is very important. There are two basic types of hitches, the weight carrying hitch and the weight distribution (or load equalizer) hitch. The class of hitch required will depend on the Gross Trailer Weight and its tongue weight.

- Class I        Designed for light loads generally less than 2,000 lbs.
- Class II      Frame mounted hitches and rated for up to 3,500 lbs.
- Class III     Up to 5,000 lbs.
- Class IV      Up to 10,000 lbs.

Class III and IV hitches are weight distribution hitches and are designed to spread the tongue weight to both the front and rear wheels of the tow vehicle.

c. Trailing the boat: More damage can be done to a boat by the stresses of road travel than by normal on-the-water operation. A boat hull is designed to be supported evenly by water. When transported on a trailer, the boat should be supported structurally as evenly across the hull as possible. This will allow for even distribution of the weight of the hull, engine/s, fuel, and equipment. It should be long enough to support the whole length of the hull, but short enough to allow the lower unit(s) of the boat's engine(s) to be extended freely. Rollers and bolsters must be kept in good condition to prevent scratching and gouging the hull. Tie-downs and lower unit supports must be adjusted properly to prevent the boat from bouncing on the trailer. The bow eye on the boat should be secured with a chain or turnbuckle in addition to the winch cable. Additional straps may be required across the beam of the boat.

(1) MEBS follows New York State law when it comes to towing. The law only requires one person (the driver) in order to tow a trailer. As such, MEBS does not require a second person for towing. However, in certain situations or assignments, an additional person may be required. For example, when operating under assignment to JTF Empire Shield, two personnel are required for any towing evolution.

(2) Ensure that the driver/crew know the height of the boat on the trailer. This is important when travelling on roads that may have a low clearance. All MEBS boats/trailers are configured to meet height clearance requirements of New York State roads. However, certain secondary roads may have posted lower height restrictions.

(3) Some MEBS boats are considered "wide loads" while being trailed. The driver/crew must ensure that all wide-load requirements are met, including light, sign, and flag display.

(4) The tow vehicle must be capable of handling the weight of the trailer (with boat and equipment), as well as the weight of the passengers and equipment carried inside the vehicle. This may require that the tow vehicle be specially equipped with the following:

- (a) Engine of adequate power.
- (b) Transmission and rear-end designed for towing.
- (c) Larger cooling systems for the engine and transmission.
- (d) Heavy duty brakes.
- (e) Load bearing hitch attached to the frame, not the bumper.

(5) Towing precautions: Pulling a trailer presents several problems: more time is required to brake, accelerate, pass, and stop. The turning radius is also much greater; curbs and roadside barriers must be given a wide berth when negotiating corners. Prior to operating on the open road, the vehicle operator should practice turning, backing up, and other maneuvers on a level, uncongested parking area. Backing a trailer is a challenge even to the most experienced drivers and

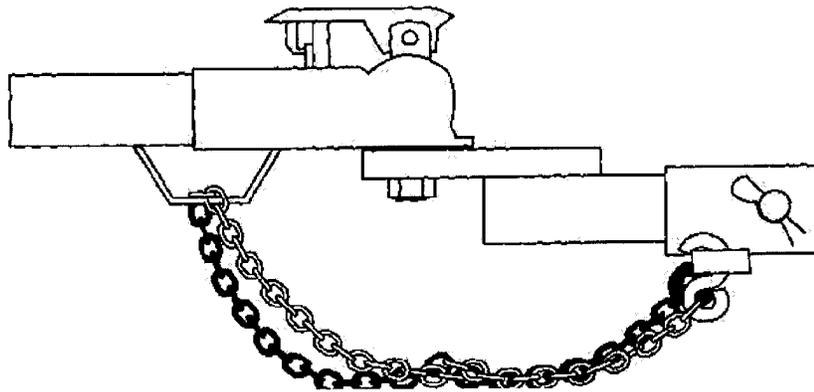
requires considerable practice.

(6) Pre-trailing checklist:

(a) Ensure the tow ball and coupler are the same size and bolts (with washers) are tightly secured.

(b) Confirm the coupler is completely over the ball and the latching mechanism is locked down and secured.

(c) Ensure the safety chains are attached, crisscrossing under the coupler, to the frame of the tow vehicle. If the ball were to break, the chains, allowing the trailer to follow in a straight line and prevent the coupler from dragging on the road, would hold up the tongue.



Safety Chains

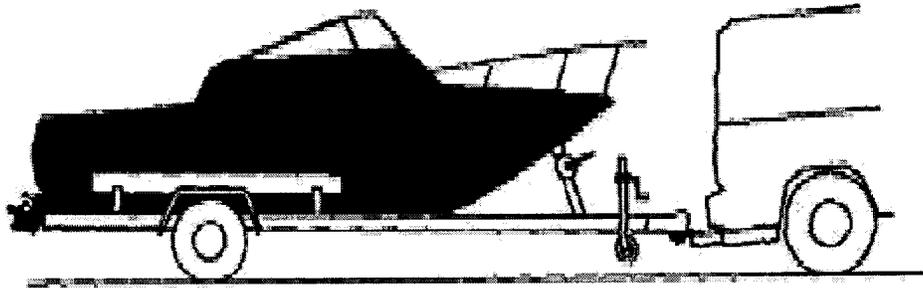
(d) Check all lights and signals on the trailer to ensure they function properly. Trailer lights that are submerged during launching/recovery will have a more frequent failure rate and should be serviced frequently. Trailer lighting problems are often caused by poor ground connection between the tow vehicle and the trailer.

(e) Check the brakes. On a level parking area, roll forward and apply the brakes several times at increased speeds to determine a safe stopping distance. (Do not tow any trailer faster than State speed limits) The side-view mirrors of towing vehicles should be large enough and adjusted to provide an unobstructed rear view on both sides of the vehicle.

(f) Check tires (including spare) and wheel bearings. Improper inflation may cause difficulty in steering.

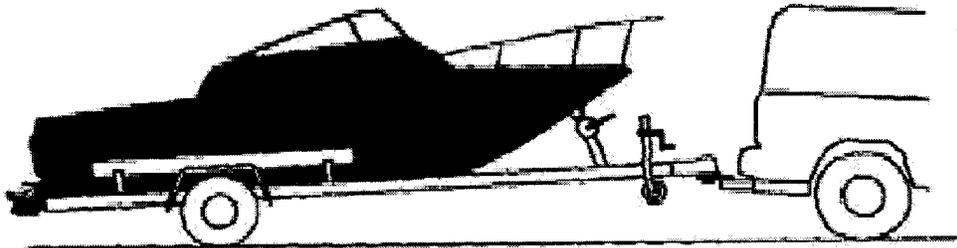
When trailer wheels are immersed in water (especially salt water) the bearings should be inspected and greased on a regular basis.

(g) Ensure the trailer is loaded evenly from front to rear as well as side-to-side. Too much weight on the hitch will cause the rear of the tow vehicle to sag and may make steering more difficult.

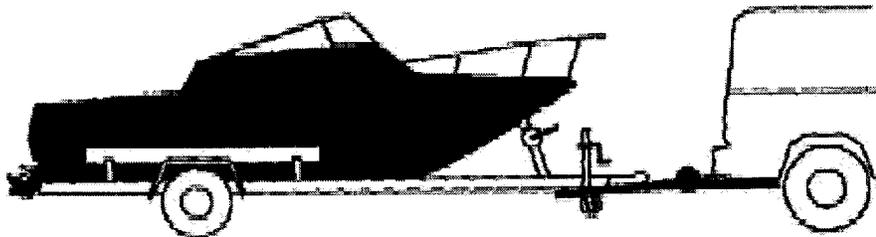


Too Much Weight on Hitch

Too much weight on the rear of the trailer will cause the trailer to "fishtail" and may reduce traction or even lift the rear wheels of the tow vehicle off the ground.



Too Much Weight on the Rear of the Trailer



Load Distributed Evenly

d. Launching

- (1) Inspect the vessel and trailer prior to launch.
- (2) Raise the lower unit of the engine(s) to the proper height for launching so as not to hit bottom.
- (3) Ensure the drain plug is in securely.
- (4) Remove tie downs and make sure that the winch is properly attached to the bow eye and locked in position. As an added safety feature, a redundant line may be added to the trailer eye to reduce risk in the event of a winch or winch cable failure.
- (5) Disconnect the trailer lights to prevent shorting the electrical system or burning out the bulb.
- (6) Attach a line to the bow and the stern of the boat so that the boat cannot drift away after launching and can be easily maneuvered to a docking area.
- (7) Visually inspect the launch ramp for hazards such as a steep drop off, slippery areas and sharp objects.
- (8) After everything has been double checked, back slowly to the ramp remembering that the boat is just resting on the trailer and attached only at the bow by the winch cable and safety line. The ideal situation is to have one person in the boat and one observer at the water's edge to help guide the driver of the tow vehicle.
- (9) Set the parking brake.
- (10) Make sure someone else on shore (or the dock) is holding the lines attached to the boat.
- (11) Once in the water, lower the engine(s) (be certain there is sufficient depth as not to damage the prop) and prepare to start the engine.
- (12) Start the boat engine and make sure that water is passing through the engine cooling system.
- (13) Release the winch and disconnect the winch line from the bow when the boat operator is ready.

(14) At this point, the boat can be launched with a light shove or by backing off the trailer under power. Finish loading the boat at a sufficient distance from the ramp so that others may use the launch ramp.

e. Recovery

(1) The steps for removing the boat from the water are basically the reverse of those taken to launch it. However, keep in mind that certain conditions may exist during retrieval that did not exist during launching. When approaching the takeout ramp, take special care to note such factors as:

- (a) Change in wind direction and/or velocity.
- (b) Change in current and/or tide.
- (c) Increase in boating traffic.
- (d) Visibility.

(2) Note that proper water depth of the trailer for recovery is important. The trailer needs to be submerged far enough to allow the boat to drive onto the guide rails and up to the bow stop. However, submerging the trailer too far will prevent the guide rails from providing the necessary guidance to allow the boat to sit properly on the trailer.

(a) For all boat classes, submerge the trailer to the point where the top of the forward tires are barely beneath the water.

(b) If the boat ramp is not even, some adjustment will be needed.

(3) After maneuvering the empty trailer into the water at the boat ramp:

(a) Maneuver the boat carefully to the submerged trailer.

(b) Partially raise the lower unit(s). This is to avoid hitting the bottom with the props.

(c) MEBS boats are too large to simply winch all the way aboard a trailer. Using steering and engine control

drive the boat onto the trailer. Avoid ramming the bow guard. The boat must be level on the trailer. This can be difficult to accomplish when there is cross-wave action.

(e) Secure the engine(s), then winch the boat to the trailer and secure it.

(f) Finally, drive the trailer with the boat aboard carefully to a designated parking area for cleanup, reloading, and an equipment safety check.

(g) Remove drain plug and place it near the helm console.

(h) Ensure that winch strap/cable is snug, and that safety chain for the bow is in place with a small amount of slack.

(i) Tightly strap down transom.

10. REPORTING REQUIREMENTS

a. General: MEBS boat crews will make various routine and non-routine reports to document events that occur over specified periods of time. These reports will be considered as official documents and may be used in the event of an official inquiry. As such, utmost care must be taken in completing the reports.

b. Accidents / Incidents: Notifications in the event of accidents / incidents will be made in accordance with the following flow charts. If the event occurs during an operational mission, see Figure 10-1. If the event occurs during training, see Figure 2-2. For each event the standard JOC Incident/Accident form will be submitted following the verbal notifications.

FLOW CHART  
WHO TO NOTIFY IN THE EVENT OF ACCIDENT/INCIDENT

OPERATIONS

TRAINING

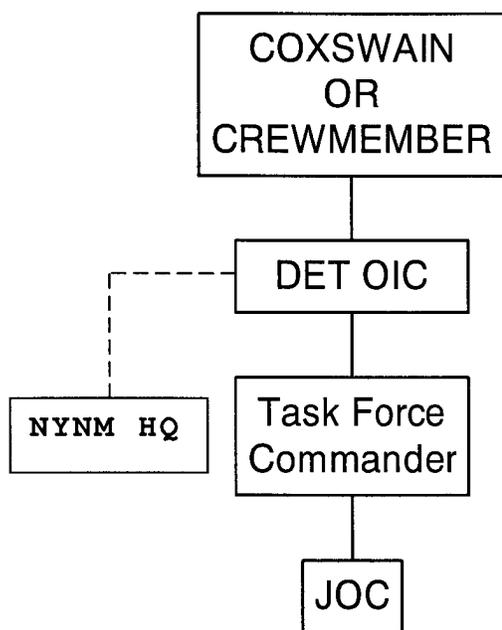


Figure 10-1

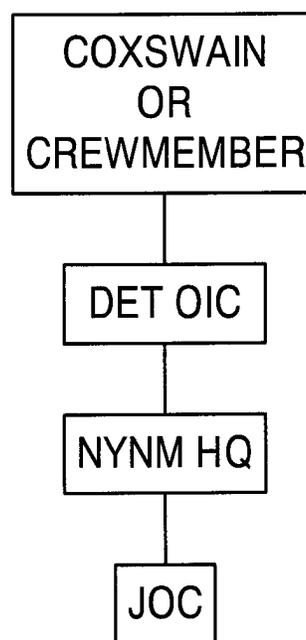


Figure 10-2

c. Maritime (boating) Accident Report

(1) In accordance with Section 47 of the New York State Navigation Law, all MEBS vessels involved in an accident must report the details of a boating accident within 48 hours,

using the NYS OPRHP Boating Accident Form, found in Chapter 14.

(2) In cases of death or injury, the Mission Commander or designee must notify the assigned Operational Commander, NYNM HQ, the DMNA Joint Operations Center (JOC) Duty Officer at 518-786-6104, and local law enforcement immediately. Additionally, the New York State Office of Parks, Recreation and Historic Preservation must be notified.

d. MEBS Periodic Reports

(1) For every underway period or return to port, or any major change in status requires a voice report to DMNA JOC at 518-786-6104. Report name, vessel, personnel onboard, location, type of event, and status.

(2) Boat Operational Logs. Used to document events for each boat. These "deck logs" will remain aboard each boat until closed.

(3) Vehicle Operation Logs (NYS OGS Form CS 918). Used to document events for each vehicle and trailer. These logs will remain in each MEBS vehicle and a copy will be submitted to NYNM HQ on a monthly basis, no later than five working days after the end of the subject month.

(4) MEBS Operational Summary (OPSUM) Report. Commander MEBS shall make a periodic report of all MEBS operations, personnel issues, training issues, and boat/vehicle maintenance. Periodicity of the report shall be determined by Commander, NYNM.

(5) After Action Report (AAR). After action reports are submitted in accordance with the JFHQ-NY CONPLAN.

(a) The format found in the CONPLAN is used for actual operations and exercises.

(b) For the purpose of after action reporting for proficiency training, a simpler format is followed. Reports may be submitted via e-mail, fax, or text message. The report shall include the following information:

- 1 Date of training
- 2 Location

- 3 Participants
- 4 Qualifications
- 5 Engine hours
- 6 Unusual or important information.
- 7 Include photo image of any fuel receipts from the event.

(6) Mission Specific Reports (as required). Task Force Commanders may impose additional reporting requirements to meet their mission needs. These requirements may vary widely and will be generated as the need arises.

(7) Meter and Inventory Reports. A report of boat engine hours, along with the inventory and status of boat equipment. This report is submitted monthly for deployed boats.

11. ABBREVIATIONS AND ACRONYMS

AO	Area of Operations
ATON	Aids To Navigation
COLREGS	International Regulations for Prevention of Collisions at Sea.
DETOIC	Detachment Officer-in- Charge
DIW	Dead In The Water
DMNA	Division of Military and Naval Affairs
EPIRB	Emergency Position- Indicating Radio Beacon
ETA	Estimated Time of Arrival
ETD	Estimated Time of Departure
GPM	Gallons Per Minute
GPS	Global Positioning System
Kn or Kt	Knot (Nautical Mile Per Hour)
Lat	Latitude

Lon or Long	Longitude
m	Meter
M/V	Motor Vessel
MEBS	Military Emergency Boat Service
NM	Nautical Mile
O/B	Outboard
OIC	Officer-In- Charge; also OINC
OPAREA	Operating Area
PAX	Passengers
PFD	Personal Flotation Device
RPM	Revolution Per Minute
SAR	Search and Rescue
SITREP	Situation Report
VHF	Very High Frequency
UHF	Ultra High Frequency
U/W	Underway

12. GLOSSARY

**Abeam** To one side of a vessel, at a right angle to the fore-and-aft centerline.

**Aft** Near or toward the stern.

**Aground** With the keel or bottom of a vessel fast on the sea floor.

**Aids to Navigation (ATON)** Lighthouses, lights, buoys, sound signals, radio beacons, electronic aids, and other markers on land or sea established to help navigators determine position or safe course, dangers, or obstructions to navigation.

**Amidships** In or towards center portion of the vessel, sometimes referred to as "midships."

**Anodes, Zincs.** A sacrificial anode is a metallic anode used in cathodic protection where it is intended to be dissolved to protect other metallic components. The more active metal corrodes first (hence the term "sacrificial") and generally must oxidize nearly completely before the less active metal will corrode, thus acting as a barrier against corrosion for the protected metal.

**Astern** The direction toward or beyond the back of a vessel.

**Attitude** A vessel's position relative to the wind, sea, hazard, or other vessel.

**Beacon** Any fixed aid to navigation placed ashore or on marine sites. If lighted, they are referred to as minor lights.

**Beam** The widest point of a vessel on a line perpendicular to the keel, the fore-and-aft centerline.

**Beaufort Wind Scale** A scale whose numbers define a particular state of wind and wave, allowing mariners to estimate the wind speed based on the sea state.

**Below** The space or spaces that are below a vessel's main deck.

**Bilge** The lowest point of a vessel's inner hull, which is underwater.

**Bilge alarm system** Alarm for warning of excessive water or

liquid in the bilge.

**Bilge pump** A pump used to clear water or liquid from the bilge.

**Bitt** A strong post of wood or metal, on deck in the bow or stern, to which anchor, mooring, or towing lines may be fastened.

**Boat hook** A hook on a pole with a pushing surface at the end used to retrieve or pick up objects, or for pushing objects away.

**Bollard** A single strong vertical fitting, usually iron, on a deck, pier, or wharf, to which mooring lines or a hawser may be fastened.

**Bow** Forward end of vessel.

**Bow line** A line secured from the bow of a vessel. In an alongside towing operation, the bowline is secured on both the towing and the towed vessel at or near the bow and may act as breast line of each.

**Bowline** A classic knot that forms an eye that will not slip come loose or jam, and is not difficult to untie after it has been under strain.

**Breaking strength** Refers to the force needed to break or part a line. BS is measured in pounds, more specifically; it is the number of pounds of stress a line can hold before it parts.

**Breast line** Mooring or dock line extended laterally from a vessel to a pier or float as distinguished from a spring line.

**Bridle** A device attached to a vessel or aircraft (in the water) in order for another vessel to tow it. Its use can reduce the effects of yawing; stress on towed vessel fittings, and generally gives the towing vessel greater control over the tow.

**Broach** To be thrown broadside to surf or heavy sea.

**Broadcast notice to mariners** A radio broadcast that provides important marine information.

**Broadside to the sea** Refers to a vessel being positioned so that the sea is hitting either the starboard or port side of the vessel.

**Bulkhead** Walls or partitions within a vessel with structural functions such as providing strength or water-tightness.

**Buoy** A floating aid to navigation anchored to the bottom that conveys information to navigators by their shape or color, by their visible or audible signals, or both.

**Buoyancy** The tendency or capacity of a vessel to remain afloat.

**Can buoy (cylindrical)** A cylindrical buoy, generally green, marking the left side of a channel or safe passage as seen entering from seaward, or from the north or east proceeding south or west.

**Capsize** To turn a vessel bottom side up.

**Catenaries** The sag in a length of chain, cable, or line because of its own weight and which provides a spring or elastic effect in towing, anchoring, or securing to a buoy.

**Cavitation** The formation of a partial vacuum around the propeller blades of a vessel.

**Center of gravity** Point in a ship where the sum of all moments of weight is zero. With the ship at rest the center of gravity and the center of buoyancy are always in a direct vertical line.

**Centerline** An imaginary line down the middle of a vessel from bow to stern.

**Chafe** To wear away by friction.

**Chaffing gear** Material used to prevent chafing or wearing of a line or other surface.

**Chart** A printed or electronic geographic representation generally showing depths of water, aids to navigation, dangers, and adjacent land features useful to mariners (See *Nautical Chart*).

**Chine** The intersection of the bottom and the sides of a flat bottom or "V" hull boat.

**Chine walking** A side-to-side rocking motion achieved at higher speeds. Usually a result of excessive lift, caused by trimming outboard engines too much.

**Chock** Metal fitting through which hawsers and lines are passed. May be open or closed. Blocks used to prevent vehicles from rolling.

**Chop** Short steep waves usually generated by local winds and/or tidal changes.

**Cleat** An anvil-shaped deck fitting for securing or belaying lines.

**Closing** The act of one vessel reducing the distance between itself and another vessel, structure, or object.

**Coastal** At or near a coast.

**Coil down** To lay out a line in a circle with coils loosely on top on one another.

**Comber** A wave at the point of breaking.

**Combination buoy** Buoy that combines the characteristics of both sound and light.

**Compartment** A room or space on board a vessel.

**Compass** Instrument for determining direction.

**CONPLAN** JFHQ-NY Contingency Plan, for Civil Support Operations.

**Course** The horizontal direction in which a vessel is steered or intended to be steered, expressed as angular distance from north, usually from 000 degrees at north, clockwise through 360 degrees.

**Coxswain** Person in charge of a boat, pronounced "COX-un."

**Craft** Any air or sea-surface vehicle, or submersible of any kind or size.

**Crest** The top of a wave, breaker, or swell.

**Damage control** Measures necessary to preserve and reestablish vessel watertight integrity, stability, and maneuverability; to control list and trim; to make rapid repairs of material.

**Datum** In Search and Rescue (SAR), refers to the probable

location of a distressed vessel, downed aircraft or PIW, which is corrected for drift at any moment in time. Depending on the information received this may be represented as a point, a line or an area.

**Day mark** The daytime identifier of an aid to navigation.

**Day beacon** An unlighted fixed structure that is equipped with a highly visible day board for daytime identification.

**Dead in the Water (DIW)** A vessel that has no means to maneuver, normally due to engine casualty. A vessel that is adrift or has no means of propulsion.

**Dead Reckoning (DR)** Determination of estimated position of a craft by adding to the last fix the craft's course and speed for a given time.

**Deadrise** Vertical degree of angle between a vessel's keel to its chine.

**Deck** The horizontal plating or planking on a ship or boat.

**Deck fitting** Term for permanently installed fittings on the deck of a vessel which you can attach machinery or equipment.

**Deep "V" hull** A hull design generally used for faster seagoing types of boats.

**Distress** As used in the Coast Guard, when a craft or person is threatened by grave or imminent danger requiring immediate assistance.

**Downwash** The resulting force of the movement of air in a downward motion from a helicopter in flight or hovering.

**Drift** The rate/speed at which a vessel moves due to the effects of wind, wave, current, or the accumulative effects of each. Usually expressed in knots.

**Dry suit** A coverall type garment made of waterproof material having a rubber or neoprene seal around the neck and wrist cuffs. Allows the wearer to work in the water or in a marine environment without getting wet.

**Ebb** A tidal effect caused by the loss of water in a river, bay, or estuary resulting in discharge currents immediately followed

by a low tidal condition.

**Ebb current** The horizontal motion away from the land caused by a falling tide.

**Eddy** A circular current.

**Emergency Position-Indicating Radio Beacon (EPIRB)** A device, usually carried aboard a maritime craft that transmits a signal that alerts search and rescue authorities and enables rescue units to locate the scene of the distress.

**Eye** The permanently fixed loop at the end of a line.

**Eye splice** The splice needed to make a permanently fixed loop at the end of a line.

**Fairway (midchannel)** A channel that is marked by safe marks that indicate that the water is safe to travel around either side of the red and white vertically striped buoy.

**Fatigue** Physical or mental weariness due to exertion. Exhausting effort or activity. Weakness in material, such as metal or wood, resulting from prolonged stress.

**Fender** A device slung over the side of a boat in position to absorb the shock of contact between vessels or between a vessel and pier.

**Ferry** To transport a boat, people or goods across a body of water.

**Fitting** Generic term for any part or piece of machinery or installed equipment.

**Fix** A geographical position determined by visual reference to the surface, referencing to one or more navigation aids or navigation device.

**Fixed light** A light showing continuously and steadily, as opposed to a rhythmic light.

**Flashing light** A light in which the total duration of light in each period is clearly shorter than the total duration of darkness and in which the flashes of light are all of equal duration. (Commonly used for a light that exhibits only single flashes that are repeated at regular intervals.)

**Flood** A tidal effect caused by the rise in water level in a river, bay, or estuary immediately followed by a high tidal condition.

**Flood current** The horizontal motion of water toward the land caused by a rising tide.

**Fore** Something situated at or near the front. The front part, at, toward, or near the front; as in the forward part of a vessel

**Forward** Towards the bow of a vessel.

**Foul** To entangle, confuse, or obstruct. Jammed or entangled; not clear for running.

**Frames** Any of the members of the skeletal structure of a vessel to which the exterior plating is secured.

**Freeboard** Distance from the deck to the waterline on a vessel.

**Give-way** The vessel which must keep clear of the right-of-way vessel. Opposite of stand-on.

**Global Positioning System (GPS)** A satellite-based radio navigation system that provides precise, continuous, worldwide, all-weather three-dimensional navigation for land, sea and air applications.

**Grommet** A round attaching point, of metal or plastic, normally found on fenders, tarps, etc.

**Gunwale** Upper edge of a boat's side. Pronounced "gun-ul."

**Harbor** Anchorage and protection for ships. A shelter or refuge.

**Hatch** The covering, often watertight, placed over an opening on the horizontal surface of a boat/ship.

**Head** Toilet.

**Heading** The direction in which a vessel is pointed.

**Heel** Temporary leaning of a vessel to port or starboard caused by the wind and sea or by a high speed turn.

**Helm** The apparatus by which a vessel is steered; usually a steering wheel.

**Hoist** To lift. Display of signal flags at yardarm. The vertical portion of a flag alongside its staff

**Holed** Refers to a hole or opening in the hull of a damaged vessel.

**Hull** The body or shell of a vessel.

**Hypothermia** A lowering of the core body temperature due to exposure of cold (water or air) resulting in a subnormal body temperature that can be dangerous or fatal. The word literally means "under heated."

**Inboard** Toward the center of a vessel, as opposed to outboard.

**Incident Command System (ICS)** Management system for responding to major emergency events involving multiple jurisdictions and agencies. Mandated by the National Incident Management System.

**Inlet** A recess, as a bay or cove, along a coastline. A stream or bay leading inland, as from the ocean. A narrow passage of water, as between two islands

**JOC** Joint Operations Center

**JTF** Joint Task Force

**Keel** Central, longitudinal beam of a vessel from which the frames and hull plating rise.

**Knot (kn or kt)** A unit of speed equivalent to one nautical mile (6,000 feet) per hour. A measurement of a ship's speed through water. A collective term for hitches and bends.

**Latitude** The measure of angular distance in degrees, minutes, and seconds of arc from 0 degrees to 90 degrees north or south of the equator.

**Lazarette** Compartment in the after part of the boat generally used for storage.

**Leeward** The side or direction away from the wind, the lee side. Opposite of windward.

**Life ring (ring buoy)** Buoyant device, usually fitted with a light, for throwing to a person in the water.

**Light** The signal emitted by a lighted aid to navigation. The illuminating apparatus used to emit the light signal. A lighted aid to navigation on a fixed structure.

**Light list** A United States Coast Guard publication (multiple volumes) that gives detailed information on aids to navigation.

**Lighthouse** A lighted beacon of major importance. Fixed structures ranging in size from the typical major seacoast lighthouse to much smaller, single pile structures. Placed on shore or on marine sites and most often do not show lateral aid to navigation markings. They assist the mariner in determining his position or safe course, or warn of obstructions or dangers to navigation. Lighthouses with no lateral significance usually exhibit a white light, but can use sectored lights to mark shoals or warn mariners of other dangers.

**List** Permanent leaning of a vessel to port or starboard.

**Local notice to mariners** A written document issued by each U.S. Coast Guard district to disseminate important information affecting aids to navigation, dredging, marine construction, special marine activities, and bridge construction on the waterways with that district.

**Logbook** Any chronological record of events, as an engineering watch log.

**Longitude** A measure of angular distance in degrees, minutes, and seconds east or west of the Prime Meridian at Greenwich.

**Longshore current** Currents that run parallel to the shore and inside the breakers as a result of the water transported to the beach by the waves.

**Lookout** A person stationed as a visual watch. Uses all senses in performance of duties.

**Loud hailer** A loud speaker; public address system.

**Maritime** Located on or close to the sea; of or concerned with shipping or navigation.

**Mast** A spar located above the keel and rising above the main deck to which may be attached sails, navigation lights, and/or various electronic hardware. The mast will vary in height depending on vessel type or use.

**MAYDAY** Spoken international distress signal, repeated three times. Derived from the French *M'aider* (help me).

**MEDEVAC "Medical Evacuation"** Evacuation of a person for medical reasons.

**Mid-channel** Center of a navigable channel.

**Mooring buoy** Used for a vessel to tie up to, also designates an anchorage area.

**Nautical chart** Printed or electronic geographic representation of waterways showing positions of aids to navigation and other fixed points and references to guide the mariner.

**Nautical mile (NM)** 2000 yards.

**Navigable waters** Coastal waters, including bays, sounds, rivers, and lakes that are navigable.

**Nun buoy (conical)** Buoy that is cylindrical at the water line, tapering to a blunt point at the top. Lateral mark that is red, even numbered, and usually marks the port hand side proceeding to seaward.

**On plane** When a planning hull has achieved its cruising speed.

**OPCON** Operational Control.

**Opening** Refers to the increasing of distance between two vessels.

**Out of step** Refers to the position of two boats (i.e., towing operations) where one boat is on the top of the crest of a wave and the other is in the trough between the waves.

**Outboard** In the direction away from the center line of the ship. Opposite is inboard.

**Overload** Exceeding the designed load limits of a vessel; exceeding the recommended work load of line or wire rope.

**Personal flotation device (PFD)** A general name for various types of devices designed to keep a person afloat in water (e.g., life preserver, vest, cushion, ring, and other throw-able items).

**Piling** A long, heavy timber driven into the seabed or river bed to serve as a support for an aid to navigation or dock.

**Pitch** The vertical motion of a ship's bow or stern in a seaway about the athwart ships axis. Of a propeller, the axial advance during one revolution.

**Planing hull** A boat design that allows the vessel to ride with the majority of its hull out of the water once its cruising speed is reached.

**Polyethylene float line** A line that floats, used with rescue devices, life rings.

**Port** Left side of vessel looking forward toward the bow.

**Power driven vessel (motorboat)** Any vessel propelled by machinery.

**Prolonged blast** A blast of four to six seconds duration.

**Prop wash** The result of the propeller blade at the top of the arc transferring energy to the water surface.

**Propeller** A device consisting of a central hub with radiating blades forming a helical pattern and when turned in the water creates a discharge that drives a boat.

**Pyrotechnics** Ammunition, flares, or fireworks used for signaling, illuminating, or marking targets.

**Quarter** One side or the other of the stern of a ship. To be broad on the quarter means to be 45 degrees away from dead astern, starboard or port quarter is used to indicate a specific side.

**Radar reflector** A special fixture fitted to or incorporated into the design of certain aids to navigation to enhance their ability to reflect radar energy. In general, these fixtures will materially improve the aid to navigation for use by vessels with radar. They help radar-equipped vessels to detect buoys and beacons. They do not positively identify a radar target as an aid to navigation. Also used on small craft with low RADAR

profiles.

**Range** A measurement of distance usually given in yards.

**Red, right, returning** Saying to remember which aids you should be seeing off vessel's starboard side when returning from seaward.

**Regulatory marks** A white and orange aid to navigation with no lateral significance. Used to indicate a special meaning to the mariner, such as danger, restricted operations, or exclusion area.

**Right-of-way** The right and duty to maintain course and speed. Opposite of "Give-Way".

**Rubrail** A permanent fixture, often running the length of a boat, made of rubber that provides protection much as a fender would.

**Rudder** A flat surface rigged vertically astern used to steer a boat.

**Sail area** On a vessel, the amount of surface area above the water line upon which the wind acts.

**Sailing vessel** Any vessel under sail alone with no means of mechanical means of propulsion (a sailboat powered by machinery is a motorboat)

**Scope** Length of anchor line or chain. Number of feet of chain out to anchor or mooring buoy. Also, the length of towline or distance from the stern of the towing vessel to the bow of the tow.

**Screw** A vessel's propeller.

**Scupper** An opening in the side or deck of a boat which allows water taken over the side to exit. Common to most self-bailing boats.

**Set (of a current)** The direction toward which the water is flowing. A ship is set by the current.

**Shackle** U-shaped metal fitting, closed at the open end with a pin, used to connect wire, chain, or line.

**Shaft** A cylindrical bar that transmits energy from the engine to

the propeller.

**Shallow "V" hull** A hull that provides a softer and drier ride enhancing the ability of the boat to negotiate offshore conditions.

**Short blast** A blast of one to two seconds duration.

**Situation Report (SITREP)** Reports to interested agencies to keep them informed of on-scene conditions and mission progress.

**Slack water** The period that occurs while the current is changing direction and has no horizontal motion.

**Sound signal** A device that transmits sound, intended to provide information to mariners during periods of restricted visibility and foul weather; a signal used to communicate a maneuver between vessels in sight of each other.

**Spring line** A mooring line that makes an acute angle with the ship and the pier to which moored, as opposed to a breast line, which is perpendicular, or nearly so, to the pier face; a line used in towing alongside that enables the towing vessel to move the tow forward and/or back the tow (i.e., tow spring and backing spring).

**Stanchion** Vertical metal post aboard a vessel.

**Stand-on vessel** The vessel which has the right-of-way. Opposite of the give-way vessel.

**Starboard** Right side of the vessel looking forward toward the bow.

**Station keeping** The art of keeping a boat in position, relative to another boat, aid, or object with regard to current, sea, and/or weather conditions.

**Steerageway** The lowest speed at which a vessel can be steered.

**Stem** The stem is the foremost vertical or near-vertical strength member, around which or to which the plating of the bow is welded or riveted.

**Stern** The after end of a vessel.

**Stokes litter** A rescue device generally used to transport non-

ambulatory persons or persons who have injuries that might be aggravated by other means of transportation.

**Strobe light** Device that emits a high intensity flashing light visible for great distances. Used to attract the attention of aircraft, ships, or ground parties.

**Strut** An external support for the propeller shaft integral to the hull/under water body.

**Superstructure** Any raised portion of a vessel's hull above a continuous deck (e.g., pilot house).

**TACON** Tactical Control.

**Tactical diameter** The distance made to the right or left of the original course when a turn of 180 degrees has been completed with the rudder at a constant angle.

**Through bolt** A bolt that is used to fasten a fitting to the deck. It goes through the deck and backing plate (located below deck).

**Tide** Periodic vertical rise and fall of the water resulting from the gravitational interactions between the sun, moon, and earth.

**Tie down** Fittings that can be used to secure lines on a deck or dock.

**Tow line** A line, cable, or chain used in towing a vessel.

**Towing watch** A crewmember who monitors the safety of a towing operation. Responsible to the coxswain.

**Transom** The vertical surface across the stern of a vessel.

**Trim** The fore-and-aft inclination of a ship, down by the head or down by the stern. Also means shipshape, neat.

**Trim control** A control that adjusts the propeller axis angle with horizontal.

**Trough** The valley between waves.

**Underway** Not at anchor, aground or attached to the dock or shore.

**U.S. Aids to Navigation System** Encompasses buoys and beacons conforming to the IALA (International Association of Lighthouse Authorities), buoyage guidelines and other short range aids to navigation not covered by these guidelines.

**Vessel** By U.S. statute, includes every description of craft, ship or other contrivance used as a means of transportation on water. "Any vehicle in which man or goods are carried on water."

**Wake** The disturbed water astern of a moving vessel.

**Watertight integrity** The closing down of openings to prevent entrance of water into vessel.

**Wave** Waves are periodic disturbances of the sea surface, usually caused by wind action.

**Wave frequency** The number of crests passing a fixed point in a given time.

**Wave height** The height from the bottom of a wave's trough to the top of its crest; measured in the vertical, not diagonal.

**Wave length** The distance from one wave crest to the next in the same wave group or series.

**Wind-chill factor** An estimated measurement of the cooling effect of a combination of air temperature and wind speed in relation to the loss of body heat from exposed skin.

**Windward** Towards the wind. Opposite of leeward.

**Yaw** Rotary oscillation about a ship's vertical axis in a seaway. Sheering off alternately to port and starboard.

13. REFERENCES

- a. Division of Military and Naval Affairs Regulations
  - (1) DMNA 10-1 *Naval Militia Regulations*
  - (2) JFHQ-NY CONPLAN *Civil Support Operations*
  - (3) DMNA Reg 56-1 *Fleet Vehicle Operation*
  
- b. New York Naval Militia Instructions
  - (1) NYNMINST 5401.1 (series) *New York State Military Emergency Boat Service*
  - (2) NYNMINST 1550.1 (series) *MEBS Training Manual*
  - (3) *MILBOATS Technical Manuals; Books 1-6*
  
- c. US Coast Guard Publications
  - (1) COMDTINST M16114.5 - *Boat Crew Seamanship Manual*
  - (2) COMDTINST M19972.2 (series) - *Navigational Rules, International - Inland*
  - (3) COMDTINST M16114.32A - *Boat Operations and Training (BOAT Manual)*
  - (4) COMDTINST M16601.7 - *Response Boat Tactics, Techniques, and Procedures (RB-TTP) Manual*
  
- d. Other New York State Agency Publications
  - (1) Department of Environmental Conservation  
*New York State's Spill Response Program for Petroleum and Hazardous Materials*
  - (2) Office of Parks Recreation and Historic Preservation  
*New York Safe Boating Instructor Guide*

14. FORMS: The following forms are used by MEBS personnel
- a. Division of Military and Naval Affairs Forms
    - (1) DMNA Certification NYS OGS Vehicle Cost Record
  - b. New York Naval Militia Forms
    - (1) NYNM Form 1155- MEBS Application
    - (2) NYNM Form 1513 - MEBS Swimming Qualification
    - (3) NYNM Form 3123 - Float Plan
    - (4) NYNM Form 4027 - Boat Fuel Log
    - (5) NYNM Form 4406 - Afloat Inventory
    - (6) NYNM Form 4620 - Crew and Passenger Manifest
    - (7) NYNM Form 7063 - Procurement Request
  - c. Federal Forms
    - (1) DA Form 7566 - Composite Risk Evaluation Worksheet
  - d. Other New York State Agency Forms
    - (1) NYS OPRHP Boating Accident Form
    - (2) CS 918 Vehicle Cost Record

DIVISION OF MILITARY AND NAVAL AFFAIRS  
 CERTIFICATION  
 NYS OGS VEHICLE COST RECORD

VEHICLE ID \* \_\_\_\_\_

VEHICLE LICENSE # \_\_\_\_\_

PERIOD COVERED: \_\_\_\_\_

I hereby certify that all costs totalling \$ \_\_\_\_\_ and mileage totalling \_\_\_\_\_ as indicated on attached NYS OGS Vehicle Cost Record are true and accurate and that vehicle has been operated IAW State policy. Vehicle was utilized in the performance of Official State business. Credit cards and cash receipts for all transactions are attached.

\_\_\_\_\_  
 (Employee's Signature)

\_\_\_\_\_  
 (Date)

I hereby certify that the travel listed on attached record is appropriate, necessary and within the performance of the individual's official duty assignment.

\_\_\_\_\_  
 (Supervisor's Signature)

\_\_\_\_\_  
 (Date)

I hereby certify that all expenses and mileage have been verified to be incurred IAW current operating procedures.

\_\_\_\_\_  
 (Agency Representative)

\_\_\_\_\_  
 (Date)

**PRIVACY ADVISORY STATEMENT  
NEW YORK NAVAL MILITIA**

**Accession, Program and Separation Personal Information**

**AUTHORITY FOR COLLECTION OF PERSONAL INFORMATION:** Personal Privacy Protection Law of New York State; Privacy Act of 1974, 5 U.S. Code, sections 552-522a.

**WHETHER DISCLOSURE IS MANDATORY OR VOLUNTARY AND EFFECT ON INDIVIDUAL OF NOT PROVIDING INFORMATION:** The requested information is mandatory for New York Naval Militia (NYNM) members to insure that: (1) persons applying to join the New York Naval Militia and/or its specific programs meet all eligibility requirements; (2) required pay and tax information is available for purposes of any orders to state active duty; or (3) eligibility for separation from the New York Naval Militia, if applicable. If the requested information is not furnished, the NYNM member will not be considered for accession, or assignment for routine or emergency state active duty. If a NYNM member currently serving on routine or emergency state active duty declines to provide the requested information, the NYNM member's assignment to routine or emergency state active duty may be terminated.

**ROUTINE USES:** This all inclusive Privacy Act Statement will apply to all requests for personal information made by the New York Naval Militia. It will become part of your New York Naval Militia service record. The intended use is to maintain a rapid recall capability, and to facilitate and document your eligibility for various New York Naval Militia programs.

**PRINCIPAL PURPOSES FOR WHICH INFORMATION IS INTENDED TO BE USED:** The primary use of this information is to identify NYNM members who are eligible to serve in the New York Naval Militia and its specific programs. This form provides you the advice required by the New York State Personal Privacy Act and the federal Privacy Act of 1974.

**THIS FORM IS NOT A CONSENT FORM TO RELEASE PERSONAL INFORMATION PERTAINING TO YOU TO AGENCIES AND ENTITIES OUTSIDE OF THE NEW YORK STATE DIVISION OF MILITARY AND NAVAL AFFAIRS AND THE JOINT FORCES OF THE NEW YORK STATE ORGANIZED MILITIA.**

Your signature merely acknowledges that you have been advised of the foregoing. If requested, a copy of this form will be furnished to you.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed name and grade/rank

<b>MILITARY EMERGENCY BOAT SERVICE (MEBS)</b> 	<b>ENROLLMENT APPLICATION</b>	FOR OFFICIAL USE ONLY NYNM Form 1155		
<b>NOTICE</b> <b>Acknowledgement</b> 1. Persons applying for service with the Military Emergency Boat Service (MEBS) acknowledge the following: a. New York Naval Militia members are subject to recall to State Active Duty by the Governor of the State of New York. b. Personnel serving with MEBS must be members of the New York Naval Militia. c. Participation in the MEBS program requires an initial time commitment for training.				
<b>1. APPLICANT INFORMATION</b>				
1a. Last Name	1b. First Name	1c. MI	1d. Rate/Rank	1e. Sex <input type="checkbox"/> Male <input type="checkbox"/> Female
1f. Home Address (mailing address)	1g. City	1h. State New York	1i. Zip Code + 4	1j. Designator/MOS
1k. Home Phone ( )	1l. Work Phone ( )	1m. Cell Phone ( )		
1n. Primary Email Address @		1o. Secondary Email Address @		
<b>2. DRIVER LICENSE INFORMATION</b>				
2a. State of Issue	2b. Drivers License Number	2c. Expiration Date	2d. Class	
<b>3. FEDERAL RESERVE PROGRAM (USNR, USMCR, USCGR) INFORMATION (if applicable)</b>				
3a. Reserve Center Name	3b. Reserve Unit Name	3c. Normal Drill Location		
<b>4. CIVILIAN EMPLOYMENT INFORMATION</b>				
4a. Employer Name	4b. Employer Address	4c. Occupation/Job Title		
<b>5. VESSEL TRAINING (I have completed the following training):</b>				
NOTE: Provide copies of training completion certificates along with this application.				
<b>BASIC</b>	NYS Safe Boater Course (8-hour classroom, sponsored by NYS Parks) YES <input type="checkbox"/> DATE _____	U.S. Power Squadron Boating Course (America's Boating Course - In classroom) YES <input type="checkbox"/> DATE _____	US Coast Guard Auxiliary Course (About Boating Safety) YES <input type="checkbox"/> DATE _____	
<b>INTERMEDIATE</b>	USCG License as a Merchant Marine Officer <input type="checkbox"/> USCG Boat Force Operations Insignia <input type="checkbox"/> GMATS Coxswain Course <input type="checkbox"/> FLETC Inland Boat Operator Training <input type="checkbox"/> NYS PARKS Marine Patrol Vessel Operator Course <input type="checkbox"/> Other _____	US Coast Guard Boat Crewmember Qualification Code or certification letter YES <input type="checkbox"/> DATE _____	US Navy Surface Warfare Officer YES <input type="checkbox"/> DATE _____	
<b>COXSWAIN</b>	US Navy Enlisted Classification Code (NEC) 0160 - Causeway Barge Ferry Pilot <input type="checkbox"/> 0161 - Tugmaster <input type="checkbox"/> 0164 - Assault Boat Coxswain <input type="checkbox"/> 0167 - LCAC Operator <input type="checkbox"/> 0169 - Causeway Barge Ferry Coxswain <input type="checkbox"/> 0215 - Harbor/Docking Pilot <input type="checkbox"/>	US NAVY/COAST GUARD SCHOOLS Navy Basic Boat Coxswain, <input type="checkbox"/> Navy Basic Coxswain Phase I or II, <input type="checkbox"/> Navy Coxswains Phase II, <input type="checkbox"/> USCG Coxswain "C" School, <input type="checkbox"/> USCG MLB Basic Coxswain, <input type="checkbox"/> NMELS Heavy Weather Coxswain <input type="checkbox"/>		
Comments				
Date _____			Signature of Applicant _____	
FOR OFFICIAL USE ONLY				
APPROVED: <input type="checkbox"/> _____ DISAPPROVED: <input type="checkbox"/> _____ DATE: _____				
MEBS Commander _____				

**Military Emergency Boat Service**

**MEBS Swimming Qualification Card**

Notice:

To qualify as a member of the New York State Military Emergency Boat Service, all personnel are required to pass a swim test. The minimum standard for the swimming qualification is equivalent to the U.S. Navy Second Class swimmer test.

A second class swim test is a test to determine if a person can stay afloat and survive without the use of a personal floatation device (PFD) indefinitely. The second class swimmer qualification is used as an entry-level requirement for Small Boat Operators.

The second class swim test consists of a deep water jump, 100 yard swim demonstrating 25 yards each of the crawl stroke, breast stroke, side stroke, and elementary backstroke. Immediately after the completion of the swim, without leaving the water, students will prone float (face down) for 5 minutes and transition to a back float before exiting the water.

**Candidate:** \_\_\_\_\_ **Date of Birth:** \_\_\_\_\_

**Passed**

**Failed**

**Certifying Agency:**

\_\_\_\_\_  
**Address:**  
 \_\_\_\_\_

**Approved:** \_\_\_\_\_ **Date:** \_\_\_\_\_





New York Naval Militia (NYNM)		AFLOAT INVENTORY			FOR OFFICIAL USE ONLY NYNM Form 4406	
PB -		Port	Starboard	Date: _____		
Engine Hours (end of mission):				Submitted By: _____		
<b>General</b>	<b>Good</b>	<b>Needs Work</b>	<b>Failed</b>	<b>N/A</b>	<b>Notes</b>	
Fluid Leaks						
Bilges Dry						
Trash Removed						
Electrical Breakers Secured						
<b>Boat Mechanical</b>						
Engine Trim/lift						
Engine Oil						
Hydraulic Oil						
Steering Oil						
Batteries						
Boat Plug (PB 230 and PB 280 Class)						
Bilge Pump						
Generator Set						
Air Conditioner						
Engine(s)						
<b>Boat Equipment</b>						
Fuel Purchase Card						
Life Jackets						
Ignition Key						
Boat Hook						
US Flag						
NYS Flag						
Mooring Lines						
First Aid Kit						
Fire Extinguisher						
Compass						
VHF Radio						
Log Book						
GPS						
Radar						
Nautical Charts						
Life Ring						
Tool Set						
<b>Boat Supplies</b>						
Fuel						
Engine Oil						
Steering Oil						
NYNM Form 4406 (11/13)				Fax submit to (518) 786-4427		

**New York Naval Militia  
Crew and Passenger Manifest – PB\_\_\_\_\_**

DATE/TIME:		LOCATION:	
Last Name,	First Name	Rank/Grade	Emergency Contact Phone Number
1.			
2.			
3.			
4.			
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25.			
26.			

Leave this document in a trusted location ashore prior to getting underway.

NYNM FORM 4620 (10-11)

**NEW YORK STATE**  
**DIVISION OF MILITARY AND NAVAL AFFAIRS**

**NYNMF0RM 7043**

**New York Naval Militia  
 PROCUREMENT REQUEST**

**REQUESTING POINT OF CONTACT ▼**

Name		
Rank/Rate		
Unit		
Phone:	Work:	Cell:
	Fax:	
E-mail:		

**DESCRIPTION OF ITEMS OR SERVICES ▼**

ITEM No.	ITEM OR SERVICE (include part number or other specifications)	QUANTITY	UNIT OF ISSUE	ESTIMATED COST	
				UNIT COST	TOTAL COST
1				\$	\$
2				\$	\$
3				\$	\$
4				\$	\$
5				\$	\$
6				\$	\$
				Total Purchase Amount▶	\$

**VENDOR INFORMATION ▼**

Required Delivery Date▶ / /

Vendor Name:			
Federal Tax ID:			
Address:			
City, Zip:			
Phone: ( )	Contact Name:		
<input type="checkbox"/> SMALL BUSINESS	<input type="checkbox"/> MINORITY OWNED	<input type="checkbox"/> WOMAN OWNED	
<input type="checkbox"/> SINGLE SOURCE	<input type="checkbox"/> SOLE SOURCE	<input type="checkbox"/> EMERGENCY	<input type="checkbox"/> NO

**COST CENTER ▼**

<input type="checkbox"/> 53100 Food	<input type="checkbox"/> 53600 Gasoline	<input type="checkbox"/> 53601 Diesel	<input type="checkbox"/> 53610 POL	<input type="checkbox"/> 53650 Clothing	<input type="checkbox"/> 53660 Office Supplies	<input type="checkbox"/> 53700 Tools / Parts	<input type="checkbox"/> 53900 Supplies	<input type="checkbox"/> 55400 Leases
<input type="checkbox"/> 55480 Vehicle Repair	<input type="checkbox"/> 55490 Boat Repair	<input type="checkbox"/> 55800 Phones	<input type="checkbox"/> 56077 Interest	<input type="checkbox"/> 56380 Inspections	<input type="checkbox"/> 56400 Conference Fee	<input type="checkbox"/> 56600 Postage	<input type="checkbox"/> 56990 Other Services	<input type="checkbox"/> 57480 Communications Equipment

**AMPLIFYING INFORMATION:**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**COMPOSITE RISK MANAGEMENT WORKSHEET**

GaDOD SDF

1. MSN/TASK	2a. DTG BEGIN	2b. DTG END	3. DATE PREPARED (YYYYMMDD)
-------------	---------------	-------------	-----------------------------

4. PREPARED BY a. LAST NAME	c. POSITION
--------------------------------	-------------

5. SUBTASK	6. HAZARDS	7. INITIAL RISK LEVEL	8. CONTROLS	9. RESIDUAL RISK LEVEL	10. HOW TO IMPLEMENT	11. HOW TO SUPERVISE (WHO)	12. WAS CONTROL EFFECTIVE?

Additional space for entries in Items 5 through 9 is provided on Page 2.

13. OVERALL RISK LEVEL AFTER CONTROLS ARE IMPLEMENTED (Check one)

LOW      MODERATE      HIGH      EXTREMELY HIGH

14. RISK DECISION AUTHORITY a. LAST NAME	c. DUTY POSITION	d. SIGNATURE
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BOATING ACCIDENT REPORT											
		The operator/owner of a recreational vessel is required to report in writing whenever an accident results in the loss of life, disappearance from the vessel, injury requiring treatment beyond first aid, or property damage in excess in \$500 or the complete loss of a vessel. Cases of death or injury must be reported to local police immediately and to OPRHP within 48 hours. All other accidents must be reported within 5 days of the occurrence. Reports can be mailed to OPRHP, Empire State Plaza, Agency Building 1, Albany, NY 12238. Phone 518/474-0445									
											
A C C I D E N T  D A T A	Date of Accident		Time <small>am pm</small>		Waterway		Nearest City/Town				
	# of Vessels		Location			County		State			
	Weather		Water Conditions		Temperatures (estimate)		Wind		Visibility		
	<input type="checkbox"/> Clear <input type="checkbox"/> Rain <input type="checkbox"/> Cloudy <input type="checkbox"/> Snow <input type="checkbox"/> Fog <input type="checkbox"/> Haze		<input type="checkbox"/> Calm (waves < 6") <input type="checkbox"/> Choppy (6" - 2') <input type="checkbox"/> Rough (2' - 6') <input type="checkbox"/> Very Rough (waves > 6') <input type="checkbox"/> Strong Current		Air _____ f Water _____ f		<input type="checkbox"/> None <input type="checkbox"/> Light (0-6mph) <input type="checkbox"/> Moderate (7-14) <input type="checkbox"/> Strong (15-25) <input type="checkbox"/> Storm (over 25 mph)		Day    Night <input type="checkbox"/> Good <input type="checkbox"/> <input type="checkbox"/> Fair <input type="checkbox"/> <input type="checkbox"/> Poor <input type="checkbox"/>		
	Operator Name			Male <input type="checkbox"/> Female <input type="checkbox"/>		Operator Phone Number		Age	Date of Birth		
	Operator Address				Formal Instruction			Operator's Experience			
				<input type="checkbox"/> None <input type="checkbox"/> USCG Auxiliary <input type="checkbox"/> State Course <input type="checkbox"/> Am. Red Cross <input type="checkbox"/> U.S. Power Squadron			<input type="checkbox"/> None <input type="checkbox"/> Under 100 Hours <input type="checkbox"/> 100 Hours or More				
Owner Name				Owner Address							
Owner Phone Number			# of People on Board		# of People Being Towed		Rented Boat? <input type="checkbox"/> Yes <input type="checkbox"/> No				
V E S S E L  #1	Registration/Document #			State		Hull Identification Number		Vessel Name			
	Manufacturer			Model		Length		Year Built			
	Type of Boat		Hull Material		Engine		Propulsion		Personal Flotation Devices		
	<input type="checkbox"/> Open Motorboat <input type="checkbox"/> Cabin Motorboat <input type="checkbox"/> Auxiliary Sail <input type="checkbox"/> Sail (only) <input type="checkbox"/> Rowboat <input type="checkbox"/> Canoe/Kayak <input type="checkbox"/> Personal Watercraft <input type="checkbox"/> Pontoon Boat <input type="checkbox"/> Houseboat <input type="checkbox"/> Other (specify)		<input type="checkbox"/> Wood <input type="checkbox"/> Aluminum <input type="checkbox"/> Steel <input type="checkbox"/> Fiberglass <input type="checkbox"/> Rubber/Vinyl/Canvas <input type="checkbox"/> Rigid Hull Inflatable <input type="checkbox"/> Other (specify)		<input type="checkbox"/> Outboard <input type="checkbox"/> Inboard <input type="checkbox"/> Inboard/Sterndrive <input type="checkbox"/> Airboat		<input type="checkbox"/> Propeller <input type="checkbox"/> Water Jet <input type="checkbox"/> Air Thrust <input type="checkbox"/> Manual <input type="checkbox"/> Sail		Was the boat adequately equipped with USCG APPROVED PFD's? <input type="checkbox"/> Yes <input type="checkbox"/> No Were the PFD's Accessible? <input type="checkbox"/> Yes <input type="checkbox"/> No		
					Fuel		# of Engines		Fire Extinguishers		
					<input type="checkbox"/> Gasoline <input type="checkbox"/> Diesel <input type="checkbox"/> Electric		Horsepower		On Board? <input type="checkbox"/> Yes <input type="checkbox"/> No Used? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Operation (check all applicable)			Activity (check all applicable)			Type of Accident			Causes (check all applicable)		
<input type="checkbox"/> Cruising <input type="checkbox"/> Changing Direction <input type="checkbox"/> Changing Speed <input type="checkbox"/> Drifting <input type="checkbox"/> Towing <input type="checkbox"/> Being Towed <input type="checkbox"/> Rowing/Paddling <input type="checkbox"/> Sailing <input type="checkbox"/> Launching <input type="checkbox"/> Docking/Undocking <input type="checkbox"/> At Anchor <input type="checkbox"/> Tied to Dock/Moored <input type="checkbox"/> Other (specify)			<input type="checkbox"/> Fishing <input type="checkbox"/> Tournament <input type="checkbox"/> Hunting <input type="checkbox"/> Swimming/Diving <input type="checkbox"/> Making Repairs <input type="checkbox"/> Waterskiing/Tubing/Etc. <input type="checkbox"/> Racing <input type="checkbox"/> Whitewater Sports <input type="checkbox"/> Fueling <input type="checkbox"/> Starting Engine <input type="checkbox"/> Non-recreational <input type="checkbox"/> Other (specify)			<input type="checkbox"/> Grounding <input type="checkbox"/> Capsizing <input type="checkbox"/> Flooding/Swamping <input type="checkbox"/> Sinking <input type="checkbox"/> Fire/Explosion (fuel) <input type="checkbox"/> Fire/Explosion (other) <input type="checkbox"/> Skier Mishap <input type="checkbox"/> Collision w/Vessel <input type="checkbox"/> Collision w/Fixed Object <input type="checkbox"/> Collision w/Floating Object <input type="checkbox"/> Falls Overboard <input type="checkbox"/> Falls in Boat <input type="checkbox"/> Struck by Boat <input type="checkbox"/> Struck by Propeller <input type="checkbox"/> Struck Submerged Object <input type="checkbox"/> Other (specify)			<input type="checkbox"/> Alcohol Use <input type="checkbox"/> Congested Waters <input type="checkbox"/> Dam/Lock <input type="checkbox"/> Drug Use <input type="checkbox"/> Equipment Failure <input type="checkbox"/> Excessive Speed <input type="checkbox"/> Hazardous Waters <input type="checkbox"/> Hull Failure <input type="checkbox"/> Improper Loading <input type="checkbox"/> Machinery Failure <input type="checkbox"/> No Skier Lookout <input type="checkbox"/> Operator Inexperience <input type="checkbox"/> Operator Inattention <input type="checkbox"/> Overloading <input type="checkbox"/> Passenger/Skier Behavior <input type="checkbox"/> Poor Visibility <input type="checkbox"/> Reckless Operation <input type="checkbox"/> Submerged Object <input type="checkbox"/> Weather <input type="checkbox"/> Other (specify)		
Estimated Speed			<input type="checkbox"/> Not Moving <input type="checkbox"/> Under 10 mph <input type="checkbox"/> 10-20 mph <input type="checkbox"/> 21-40 mph <input type="checkbox"/> Over 40 mph								
<b>LEGAL STATEMENT:</b> The Office of Parks, Recreation & Historic Preservation is authorized to collect this information by Chapter 140 of the Laws of 1970 and Section 47 of the Navigation Law. It will be used for statistical purposes and will be forwarded to the US Coast Guard pursuant to federal regulations. Failure to provide the requested information may subject you to legal sanction. This information will be maintained by the Director of Marine & Recreational Vehicles, OPRHP, Agency Bldg. #1, Empire State Plaza, Albany, NY 12238, 518/474-0445. This information may be disclosed pursuant to the Freedom of Information Law.									Hit & Run? <input type="checkbox"/> YES <input type="checkbox"/> NO		

Case Number:

<b>DECEASED</b>	Name of Victim		<input type="checkbox"/> Male <input type="checkbox"/> Female	Name of Victim		<input type="checkbox"/> Male <input type="checkbox"/> Female	
	Address of Victim				Address of Victim		
	Date of Birth / /	Cause of Death <input type="checkbox"/> Drowning <input type="checkbox"/> Other <input type="checkbox"/> Disappearance	Was PFD Worn? <input type="checkbox"/> Yes <input type="checkbox"/> No		Date of Birth / /	Cause of Death <input type="checkbox"/> Drowning <input type="checkbox"/> Other <input type="checkbox"/> Disappearance	Was PFD Worn? <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>INJURIES</b>	Name of Victim		Date of Birth / /	Name of Victim		Date of Birth / /	
	Address of Victim				Address of Victim		
	Medical treatment Beyond First Aid? Admitted to Hospital? Describe Injury		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	Medical treatment Beyond First Aid? Admitted to Hospital? Describe Injury		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
	Was a PFD Worn? Prior to the Accident? As a Result of the Accident? Was the PFD Inflatable?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	Was a PFD Worn? Prior to the Accident? As a Result of the Accident? Was the PFD Inflatable?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
	Property Damage This Boat \$ _____ Estimated Amount: Other Boat(s) \$ _____ Other Property \$ _____		Describe Property Damaged				
	Name of Operator			Operator Address			
<b>OTHER VESSEL</b>	Operator Phone #		Registration/ Document #		State	Owner Phone #	
	Owner			Owner Address			
	Sequence of events. Continue on additional sheets if necessary. Include any information regarding the involvement of drugs or alcohol in causing or contributing to the accident. Please include any descriptive information regarding the use of PFD's.						
<b>ACCIDENT DESCRIPTION</b>						Diagram	
							
<b>WITNESSES</b>	Name		Address			Phone #	
	Name		Address			Phone #	
	Name		Address			Phone #	
Name & Address of Person Completing Report					Phone #		
Signature					<input type="checkbox"/> Operator <input type="checkbox"/> Investigator <input type="checkbox"/> Owner <input type="checkbox"/> Other		
					Date Submitted		
<b>OPRHP USE ONLY</b>					Date Reviewed		
Primary Cause					<input type="checkbox"/> This report <input type="checkbox"/> Both <input type="checkbox"/> Investigation <input type="checkbox"/> Undetermined		



New York Naval Militia  
330 Old Niskayuna Road  
Latham, New York 12110

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