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Section I

A. ✸ EMERGENCY PROCEDURES ✸

DISTRESS CALLS

The distress call has absolute priority over all transmissions and need not be addressed to any particular station. Any mariner hearing a distress call shall immediately cease all transmissions capable of interfering with the distress message and shall continue to listen on the frequency on which the call was heard.

If your vessel is in distress and abandonment is necessary, activate your EPIRB and take it with you. If you do not have an EPIRB, the radio transmitter should be set for continuous emission to provide rescue vessels and aircraft with a homing signal.

DISTRESS MESSAGE FORMAT

Speak slowly and clearly... Call: "**MAYDAY, MAYDAY, MAYDAY,** THIS IS (vessels call sign and name repeated THREE times). Then follow with the following situational information.

Example: "MAYDAY, MAYDAY. MAYDAY, THIS IS THE SAILING VESSEL *SUNSHINE*, THE SAILING VESSEL *SUNSHINE*, THE SAILING VESSEL *SUNSHINE*."

Give the following information:

- **WHO** you are (vessels call sign and name).
- **WHERE** you are (Your position in Latitude /Longitude from the chart or GPS, LORAN lines, or a bearing and distance from a widely known geographical point.)
- **WHAT** is wrong (nature of distress or difficulty).
- The **KIND** of assistance desired.
- The **NUMBER** of persons aboard and condition of any injured.
- Present seaworthiness of your vessel.
- **DESCRIPTION** of your vessel - length, type, cabin, mast, power, color of hull, superstructure and trim.
- Your listening radio frequency. It's important to make a communications schedule.
- Survival equipment available (i.e.. rafts, survival suits,
- EPIRB, etc.).

ENSURE EVERYONE ON BOARD PUTS ON A LIFEJACKET (PFD)

GOOD SAMARITAN

The Federal Boat Safety Act of 1971 contains a "Good Samaritan" clause stating:

"Any person who gratuitously and in good faith renders assistance at the scene of a vessel collision, accident, or other casualty without objection of any person assisted, shall not be held liable for any act or omission in providing or arranging salvage, towage, medical treatment, or other assistance where the assisting acts as an ordinary, reasonable prudent man would have acted under the same or similar circumstances."

IF YOU OBSERVE ANOTHER VESSEL IN DISTRESS

Give the following information:

- Your position, and the bearing and distance to the vessel in distress.
- Nature of distress if known.
- Description of the vessel in distress (color, length, power or sail, etc…)
- Your course and speed, etc.
- Will you be assisting the distressed vessel?
- Repeat your radio call sign and the name of your vessel, and give your listening frequency and schedule.

If you need INFORMATION or ASSISTANCE from the Coast Guard (when not in distress) call the Coast Guard on channel **16 VHF-FM (156.8 MHz)** or **2182 kHz HF**. You will then be instructed to turn to a common working frequency allowing the DISTRESS frequencies to remain open.

PROPER USE OF DISTRESS, URGENT AND SAFETY SIGNALS

Several instances have been reported of vessels calling MAYDAY to report they were out of gas, lost, or having engine trouble. When questioned, they explained they were not in immediate danger. The use of MAYDAY in this way violates Federal Communications Commission (FCC) regulations because it tends to degrade the importance of this

signal. (In the interest of maritime safety it is imperative that all mariners familiarize themselves with the proper use of radiotelephone signals authorized for the different situations they may encounter). The following is taken from these regulations.

DISTRESS SIGNALS: The radiotelephone distress signal consists of the word **MAYDAY** spoken three times. This signal indicates that a marine mobile station is threatened by ***GRAVE AND IMMINENT*** danger and requests immediate assistance.

URGENT SIGNAL: The radiotelephone urgent signal consists of the three repetitions of the word group **PAN- PAN** (rhymes with CONN). This signal indicates that the calling station has a very ***URGENT*** message to transmit concerning the safety of a ship, aircraft or other vehicle, or the safety of a person.

SAFETY SIGNAL: The radiotelephone safety signal consists of the word **SECURITY** spoken three times. This signal indicates that the station is about to transmit a message concerning the ***SAFETY*** of navigation or giving important meteorological warnings.

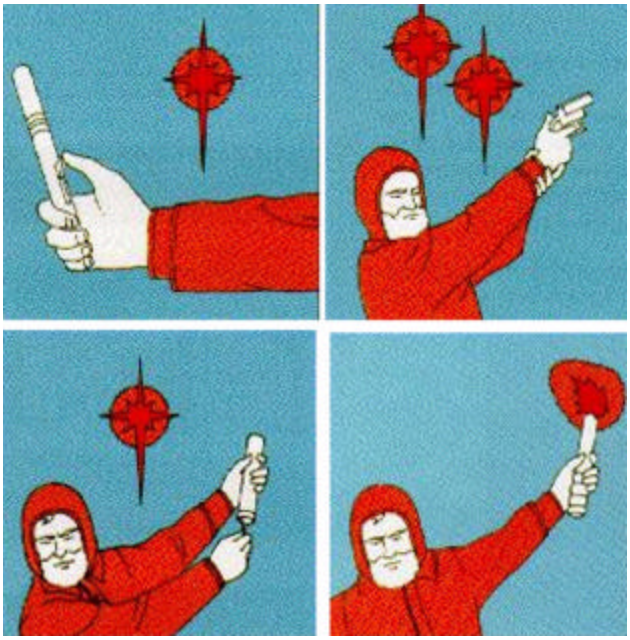
HOAX DISTRESS CALLS

A HOAX distress call is a deadly serious offense. Hoax calls not only put the lives of Coast Guard personnel at risk, but also take valuable search and rescue assets away from real emergencies, endangering the lives of innocent people. Calling MAYDAY on the radio in order to get a radio check is considered a hoax. The First District Commander intends to prosecute to the full extent of the law violators who make HOAX distress calls.

Every hoax, including MAYDAY radio checks, is subject to prosecution as a Class D **felony** under Title 14, U.S. Code, Section 85. Criminal penalties authorized for those found guilty of a hoax include a maximum of **SIX** years in prison and up to a $250,000 fine. Civil penalties of up to $5,000 are permitted. Violators are also liable for costs the Coast Guard incurs as a result of the individual's actions. The Coast Guard and the Federal Communications Commission (FCC) will work closely together, using FCC equipment for identifying the electronic signature of the offending radio. The public's help is welcome in achieving the goal of removing hoax calls from the airways.

VISUAL DISTRESS SIGNALS (VDS)

All recreational boats 16 feet and over (with certain exceptions), or any boat carrying 6 or less passengers (for hire) on the coastal waters of the United States are required to carry Coast Guard approved VISUAL DISTRESS SIGNALS (VDS). Boats less than 16 feet are not required to have signals for day, but must have signals that can be used at night, between sunset and sunrise. Several types of approved signals are available, but only one type for day and one type for night, in the number indicated, are required.



GOOD FOR BOTH DAY AND NIGHT USE

- Pistol projected parachute flare (red) - **3 required**
- Hand held rocket propelled parachute flare (red) - **3 required**
- Aerial pyrotechnic flare (red) - **3 required**
- Hand held flare (red) - **3 required**

DAY USE ONLY

- Floating orange smoke distress signal - **3 required**
- Hand held orange smoke distress signal - **3 required**
- Orange flag - **1 required**

NIGHT USE ONLY

- Electric distress lantern for boats - 1 required
- For signals that require the use of a launching device, the launcher must also be Coast Guard approved.
- The following persons need not comply with day signal carriage requirements; however, each must carry suitable night signals in the numbers required:
- A person competing in any organized parade, regatta, race or similar event.
- A person using a manually propelled boat.
- A person using a sailboat of completely open construction not equipped with propulsion machinery, less than 26 feet in length.

It is clear that these signals may be all that stands between safety and disaster. The Coast Guard recommends that these signals be carried aboard your vessel and stowed in a safe but readily accessible location. VDS are usable for three years from the date of manufacture (stamped on the signal) and should be properly disposed of and replaced by new VDS after this date.

REQUEST FOR MEDICAL ADVICE AND MEDICAL EVACUATION INFORMATION

Free medical advice is made possible through the cooperation of governmental and commercial radio stations whose operators receive and relay messages from vessels at sea, and also transmit medical advice back to the vessels. Requests for medical advice or personnel evacuation from vessels not using coastal radio stations should be made to the nearest Coast Guard facility.

The final decision for medical evacuation (MEDEVAC) from a vessel rests with the Coast Guard Operations Center and is based on expert medical evaluation of symptoms by a Coast Guard Flight Surgeon.

Removal of personnel from vessels is limited to **EMERGENCY SITUATIONS AND CAN BE UNDERTAKEN BY THE U. S. COAST GUARD ONLY WHEN MEDICALLY INDICATED.** There are times when evacuation may be more injurious or dangerous to the patient than leaving the patient aboard until arrival at the next port. There is of course, no restriction on the independent action by the master based on his own initiative or private medical service.

The following information must be supplied by the vessel to the Coast Guard:

- Vessel's name and call sign.
- Vessel's position.
- Vessel's course, speed, next port of call and estimated time of arrival (ETA).
- Patient's name, nationality, age, and sex.
- Patient's respiration, pulse, and temperature.
- Patient's symptoms and nature of illness.
- Any known history of similar illness/es.
- Location and type of pain.
- Medical supplies carried aboard the vessel.
- Medication given to patient.
- On scene weather
- Communications schedule and frequency.

HELICOPTER EVACUATION PROCEDURES

The following information is prescribed by the Coast Guard during helicopter evacuation from a vessel. If you have a radio aboard, further instructions may be given by the helicopter on the voice distress frequency.

Provide a clear area, preferably on the stern. Lower all masts, booms, flag staffs, antennae, etc. Keep unnecessary personnel out of the way. When the helicopter arrives in your area, change course so as to place the wind thirty degrees off the port bow and continue at a moderate speed. The helicopter will provide all required equipment. If a stretcher is required, the helicopter will lower one specially rigged for hoisting.

ALLOW THE BASKET OR STRETCHER TO TOUCH YOUR VESSEL PRIOR TO HANDLING IT TO AVOID STATIC ELECTRIC SHOCK. DO NOT HOOK, TIE OR OTHERWISE ATTACH THE HOIST CABLE TO YOUR VESSEL.

If the basket is used, strap the patient in, face up. In addition, if his condition permits, the patient should be wearing a PFD and his hands should be clear of the sides. When the basket or stretcher is ready to hoist, signal the hoist operator by a "thumbs up" signal.

To use radio distress signals via radiotelephone, set equipment to distress and calling frequency 2182 kHz or VHF Channel 16 (156.80 MHz) and transmit the spoken word "MAYDAY" repeated three times followed by "this is" and the name of the vessel repeated three times. Do not wait for acknowledgment. Continue by stating the nature of the distress; the kind of assistance desired, the position, and any other information that might facilitate the rescue. Wait a few moments for acknowledgment. If none, then repeat the entire distress message until acknowledged. Speak the message clearly and slowly. Non-acknowledgment is not definite indication that someone did not receive the message.

AIR-SEA RESCUE PROCEDURES VIDEOTAPE

University of Rhode Island and the U.S. Coast Guard

An air-sea rescue is a tricky maneuver at best. Unfortunately, in many cases, the people being rescued compound the difficulty and danger because they do not understand rescue procedures. In this educational video, Coast Guard personnel demonstrate several rescue techniques and give step by step instructions for those being rescued.

Procedures covered in the video are:

- Delivery of equipment (such as pumps and medical supplies) or personnel from a helicopter to a vessel.
- Evacuation of people from the water or rafts to a helicopter.
- Medical evacuation of a sick or injured person from a boat to a helicopter.

The video is approximately 20 minutes long and costs $15.00. Contact the Sea Grant Information Office of URI at (401) 874-6842.

SHIP ABANDONMENT AND HYPOTHERMIA

If you are involved in a ship casualty and are forced to abandon ship, your survival procedure should be pre-planned, thereby increasing your chances for a successful rescue. Records show that a sinking, even in the worst cases, usually require at least 15 to 30 minutes for the vessel to fully submerge. This affords valuable time for preparation. Here are some pointers for you to remember in a situation of this type:

- Put on as much warm clothing as possible, making sure to cover head, neck, hands and feet.
- If an immersion (exposure) suit is available put it on over warm clothing.
- If an immersion (exposure) suit does not have inherent flotation put on a PFD and be sure to secure it correctly.
- All persons who know that they are likely to be affected by seasickness should, before or immediately after boarding the survival craft, take some recommended preventative tablets or medicine in a dose recommended by the manufacturer. The incapacitation caused by seasickness interferes with your survival chances; the vomiting removes precious body fluid while seasickness in general makes you more prone to hypothermia.
- Avoid entering the water if possible. Board davit-launched survival craft on the embarkation deck. If davit-launched survival craft are not available, use over side ladders, or if necessary lower yourself by means of a rope or fire hose.
- Unless it is unavoidable do not jump from higher than 5 meters (16.4 ft) into the water. Try to minimize the shock of sudden cold immersion.
- Rather than jumping into cold water, try to lower yourself gradually. A sudden plunge into the cold water can cause rapid death or an uncontrollable rise in breathing rate that may result in an intake of water into the lungs. On occasion it may be necessary to jump into the water; if so, you should keep your elbows at your sides, cover your nose and mouth with one hand while grasping the wrist or elbow firmly with the other hand.

- Once in the water, whether accidentally or by ship abandonment, orient yourself and try to locate the ship, lifeboats, life rafts, other survivors or other floating objects. If you were unable to prepare yourself before entering the water, button up clothing now. In cold water you may experience violent shivering and great pain. These are natural body reflexes that are not dangerous. You do, however, need to take action as quickly as possible

before you lose full use of your hands; button up

HYPOTHERMIA CHART		
If the Water Temp (F) is:	Exhaustion or Unconsciousness:	Expect Time of Survival is:
32.5	Under 15 min.	Under 15-45 minutes
32.5-40.0	15 - 30 min.	30 - 90 min.
40 - 50	30 - 60 min.	1 - 3 hours
50 - 60	1 - 2 hours	1 - 6 hours
60 - 70	2 - 7 hours	2 - 40 hours
70 - 80	3 - 12 hours	3 - Indefinitely
over 80	Indefinitely	

clothing, turn on signal lights, locate whistle etc.

- While afloat in the water, do not attempt to swim unless it is to reach a nearby craft, a fellow survivor, or a floating object, on which you can lean or climb. Unnecessary swimming will "pump" out any warm water between your body and the layers of clothing, thereby increasing the rate of body-heat loss. In addition, unnecessary movements of your arms and legs send warm blood from the inner core to the outer surface of the body, resulting in very rapid heat loss. Hence it is most important to remain as still as possible in the water, however painful as it may be. Remember that pain will not kill you, but heat loss will!

- The body position you assume in the water is also very important in conserving heat. Float as still as possible with legs together, elbows close to sides, and arms folded across the front of your PFD. This position minimizes the exposure of the body surface to the cold water. Try to keep your head and neck out of the water.

- Another heat conserving position is to huddle closely with one or more persons afloat, making as much body contact as possible. You must be wearing a life vest to be able to hold these positions.

- Try to board a lifeboat, raft or other floating platform or objects as soon as possible in order to shorten your immersion time. Remember that you lose body heat many times faster in water than in air.

- Since effectiveness of your insulation is seriously reduced by water soaking, you must try to shield yourself from wind to avoid a wind chill effect (convective cooling). If you manage to climb aboard a lifeboat, shielding can be accomplished with the aid of a canvas cover or tarpaulin, or an unused garment. Huddling close to the other occupants of the life raft or boat will also conserve body heat.

- Do not use "drown proofing" in cold water. "Drown proofing" is a technique whereby you relax in the water and allow your head to submerge between breaths. It is an energy saving procedure to use in warm water when you are not wearing a PFD. However, the head and neck are high heat loss areas and must be kept above the water. That is why it is even more important to wear a PFD in cold water. If you are not wearing a PFD, tread water only as much as necessary to keep your head out of the water.

- Keep a positive attitude about your survival and rescue. This will improve your chance of extending your survival time until rescue comes. Your will to live does make a difference

SUBMARINE EMERGENCY IDENTIFICATION SIGNALS

U.S. submarines are equipped with signal ejectors that may be used to launch identification signals, including emergency signals. Two general types of signals may be used: smoke floats and flares or stars. A combination signal that contains both smoke and flare of the same color may also be used. The smoke floats, which burn on the surface, produce a dense colored smoke for a period of 15 to 45 seconds. The flares or stars are propelled to a height of 300 to 400 feet from which they descend by small parachute. The flares or stars burn for about 25 seconds. The color of the smoke or flare/star has the following meaning:

- **Green** or **Black** - Used under training exercise conditions only to indicate that a torpedo has been fired or that the firing of a torpedo has been simulated.

- **Yellow** - Indicate that a submarine is about to come to periscope depth from below periscope depth. Surface craft clear vicinity of submarine. Do not stop propellers.

- **Red** - Indicates an emergency condition within the submarine and that it will surface immediately, if possible.

Surface ships clear the area and stand by to give assistance after the submarine has surfaced. In case of repeated red signals, or if the submarine fails to surface within reasonable time, she may be assumed to be disabled. Buoy the location or take loran readings immediately, look for submarine buoy and attempt to establish communications. Advise Coast Guard or U.S. Naval authorities immediately.

Submarine Marker Buoys consist of a cylindrically shaped buoy about 3 x 6 feet with connecting structure and is painted International Orange. The buoy is attached to the submarine with a wire cable that acts as a downhaul for a rescue chamber. The buoy may be accompanied by an oil slick release to attract attention. A submarine on the bottom in distress and unable to surface will, if possible, release this buoy. If an object of this description is sighted, it should be investigated and Coast Guard and U.S. Naval Authorities advised immediately.

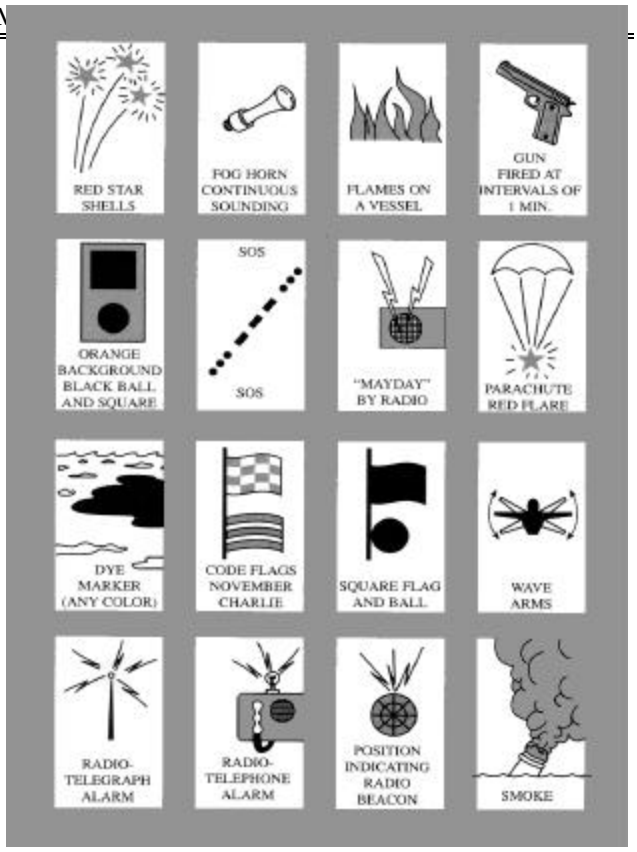
Submarines may employ any or all of the following additional means to attract attention and indicate their position while submerged: release of dye marker; release of air bubble ejection of oil and pounding on hull.

INTERNATIONAL DISTRESS SIGNALS

All boaters should be familiar with the international distress signals and procedures, both for recognition purposes and for self-help in the event of distress. Short-range distress signals limited to range of visibility or audibility are:

- **"SOS"** signal, **(dot dot dot, dash dash dash, dot dot dot)** made by any audio or visual means.
- International Code of Signals **"NC".**
- Hoisting any square flag with a ball or anything resembling a ball, above or below it.
- Flames made visible (as a burning oil barrel).
- A rocket parachute flare or hand held flare showing a red light.
- Rockets or shells, throwing red stars fired at intervals of about one minute.
- Orange smoke distress flare.
- A gun or any other explosive signal at one minute intervals.
- A continuous sounding of any fog-signal apparatus.
- Slowly and repeatedly raising and lowering arms outstretched to each side.
- Signals transmitted by Emergency Position-Indicating Radio Beacons (EPIRB).

SEARCH AND RESCUE SATELLITE AIDED TRACKING (SARSAT)



Search and Rescue Satellite Aided Tracking (SARSAT) is an international cooperative effort using satellites to detect distress beacons. Combined with COSPAS, the USSR's similar and inter-operable system, it forms the COSPAS-SARSAT system. The system is composed of polar orbiting satellites, distress beacons operating on 121.5 and 243.0 MHz carried by aircraft and marine vessels and a ground network. This provides an alert of a distress and its position that will be relayed to the appropriate Rescue Coordination Center.

EMERGENCY POSITION INDICATING RADIOBEACON (EPIRB)

The Emergency Position Indicating Radiobeacon (EPIRB) is an inexpensive self-activating device for maritime distress detection. The following is an overview of the two classes of EPIRBs currently in existence for marine use.

121.5 MHz EPIRBs

EPIRBs operating at a frequency of 121.5 MHz were designed for detection by aircraft, before satellite availability. When satellites became available, technology was developed to accommodate the large number of existing bea-

cons, although the frequency (121.5 MHz) was not well suited to the application. 121.5 MHz EPIRB signals can be processed only when a satellite can "see" both the transmitting beacon and a ground station at the same time. The effective radius of a ground station is about 1800 nautical miles. The Gulf of Mexico, the Atlantic Ocean off the southeast U.S., and much of the Caribbean Sea are covered. Outside coverage areas, you are dependent on passing highflying aircraft to detect and report you signal.

121.5 MHz EPIRB positions are usually accurate to within less than 20 nautical miles. Because of the tremendous volume of noise on 121.5 MHz, the vast majority of 121.5 "first alerts" are not acknowledged as distress. Multiple alerts (over the course of three to six hours) and/or independent corroboration is necessary to warrant a response.

406 EPIRBs

The new system is nicknamed the "406" after its operating frequency, 406.025 MHz, which is reserved exclusively for EPIRB use. Satellites can store 406 EPIRB signals, giving this system true global coverage. In addition, it provides rescuers with other important information, particularly the identity of the EPIRBs owner.

First alerts are evaluated as distress and warrant immediate response. 406 MHz EPIRB positions are accurate within three nautical miles. Each has a unique identifying code. Each owner of a 406 MHz is required to complete their registration data card and submit it to National Oceanic and Atmospheric Administration (NOAA). If this information is not provided and your vessel becomes distressed, a rescue response team may be delayed while trying to get this information.

The following is an overview of the two classes of EPIRBs for marine use:

- Class: A Frequency: VHF-AM, 121.5/243.0 MHz Regulation: Float free; required on inspected U.S. flag vessels whose route is more than 20 miles from a harbor of safe refuge. Detection: SARSAT and high altitude aircraft.
- Class: B Frequency: VHF-AM, 121.5/243.0 MHz Regulation: Voluntary for vessels more than 20 miles off the coast. Detection: SARSAT and high altitude aircraft.
- Class: C Frequency: VHF-AM, Channel 16/15 Regulation: Voluntary not for use by vessels more than 20 miles off U.S. shore. Detection: stations guarding channel 16 only no detection.
- Class: Cat I Frequency: 406 MHz & 121.5 MHz (homing) Regulation: Float free, specified in Coast Guard carriage rules. Detection: SARSAT.
- Class: Cat II Frequency: 406 MHz & 121.5 MHz (homing) Regulation: Manually activated. Detection: SARSAT.
- Class: Cat III Frequency: 406 MHz & 121.5 MHz Regulation: Manually activated, voluntary use, usable above 32 degrees Fahrenheit only. Detection: SARSAT.

FALSE ALARMS

The international satellite system for EPIRB/ELT detection is directly affected by the time that must be dedicated to tracking down sources of false alarms. Each distress signal received must be tracked down - whether it is an actual emergency or a false alarm. False alarms hamper the search and rescue system not only by diverting limited search resources, but also by interfering with or completely masking true distress signals. (The high false alarm rate of the 121.5/243 MHz beacons is one reason why the U.S. Coast Guard so strongly promotes the use of the 406 EPIRB.)

False alarms are caused by unintentional activation of the beacon through improper handling; equipment failure; or incorrect mounting, disposal, testing or shipment. Mariners can assist in the reduction of the false alarm rate in a number of ways.

- Add an EPIRB check to all "shut-down" checks.
- Monitor the 121.5/243 MHz channel (if capable), prior to departing the craft to ensure the beacon is not transmitting.
- Avoid unnecessary use of the emergency channels for voice transmissions.
- Remove battery before storage, shipment or disposal of an ELT or EPIRB or prior to long vessel maintenance periods.
- Ensure the beacon is properly mounted and stowed.

During course of daily maintenance checks underway (particularly in rough weather), ensure beacon is still mounted and has not accidentally energized. Purchasers can voluntarily register vessel, communication capability, survival gear, and shore side point of contact and other vital information. If registered, this data is printed out automatically when alert information is received at the appropriate Rescue Coordination Center (RCC).

Testing and maintenance of the 406 MHz EPIRB should be done in accordance with the manufacturer's instructions. The following is a list of operating hints for the 406 MHz EPIRB devices:

- Make sure you register your EPIRB with NOAA as soon as possible.
- Correctly mount EPIRB according to manufacturer's instructions.
- Keep it clear of obstructions.
- Maintain EPIRB accordingly. Have batteries serviced and hydrostatic releases changed at the regularly scheduled intervals.
- Test the unit monthly.
- Keep the EPIRB in the "Ready" or "Armed" position. NEVER turn unit OFF while underway!

REGISTRATION OF 406 MHz EPIRBs

Historically, their owners register only about 70% of all 406 MHz EPIRBs. Therefore, the major advantages of using this type of device are lost to 30% of all users. Proper registration of your 406 MHz satellite EPIRB may save your life as well as you from possible violations and fines of up to $10,000 in cases of false activation due to hoax or gross negligence. Registration data also includes points of contact including the vessel owner as well as several alternate people the Coast Guard can contact when a distress signal is received.

An attempt will be made to verify a signal's authenticity and to obtain as much information on the vessel as possible prior to mounting a full-scale search and rescue mission. Information regarding the vessel type, communications equipment aboard, radio call sign, documentation or registration number, home port, and normal berthing areas are kept on file to assist search and rescue personnel. To register you 406 MHz EPIRB free of charge please contact:

NOAA/NESDIS
SARSAT Operations Division E/SP3
Federal Office Building 4, Room 3320
Washington, DC 20233
(301) 457-5678

All EPIRBs registered with NOAA will be issued a dated decal. This provides proof of registration and includes a unique 15 character hexadecimal code, registration expiration date, and the vessel's eight-digit registration code.

In addition to registering your 406 MHz EPIRB or your 121.5 MHz EPIRB with NOAA, you must also add the EPIRBs to your ship radio license as per FCC regulations. A 406 MHz Satellite EPIRB Registration and Identification Card can be found at the end of this section for your use.

TESTING EPIRBS & MAINTENANCE

Testing for 121.5/243 MHz beacons is restricted to five minutes after the hour (example: 0000-0005). Testing 406 MHz beacons may be conducted at anytime since the "TEST" position is only used, the "ON" position is never used for testing. Any "hit" from a 406 MHz beacon adds to the burden of tracking false alarms. The "TEST" position will not cause a false alarm.

The presence of a signal on 121.5/243 MHz EPIRB can be verified with a simple portable FM or AM radio.

A FM radio tuned to 99.5 MHz will pick up a 121.5 MHz EPIRB transmission, provided no local FM station is broadcasting on that frequency. 121.5 MHz is the local oscillator image frequency of 99.5 MHz for most FM radios. The radio can be used to detect a 121.5 MHz signal since low cost FM radios don' have good image suppression circuitry. A FM radio should be able to pick up a 121.5 MHz EPIRB at a distance of up to one half mile.

Any cheap, portable AM radio can pick up an 121.5 MHz EPIRB signal at a distance of up to about six inches, on any frequency. A spectrum analyzer is used for a more sophisticated coherency test.

The licensed operator of a vessel shall make sure that each EPIRB (other than an EPIRB in an inflatable life raft) is tested monthly, using the visual or audible output indicator to determine that it is operative. And has had its battery replaced on or before the marked expiration date and immediately after any use, other than testing.

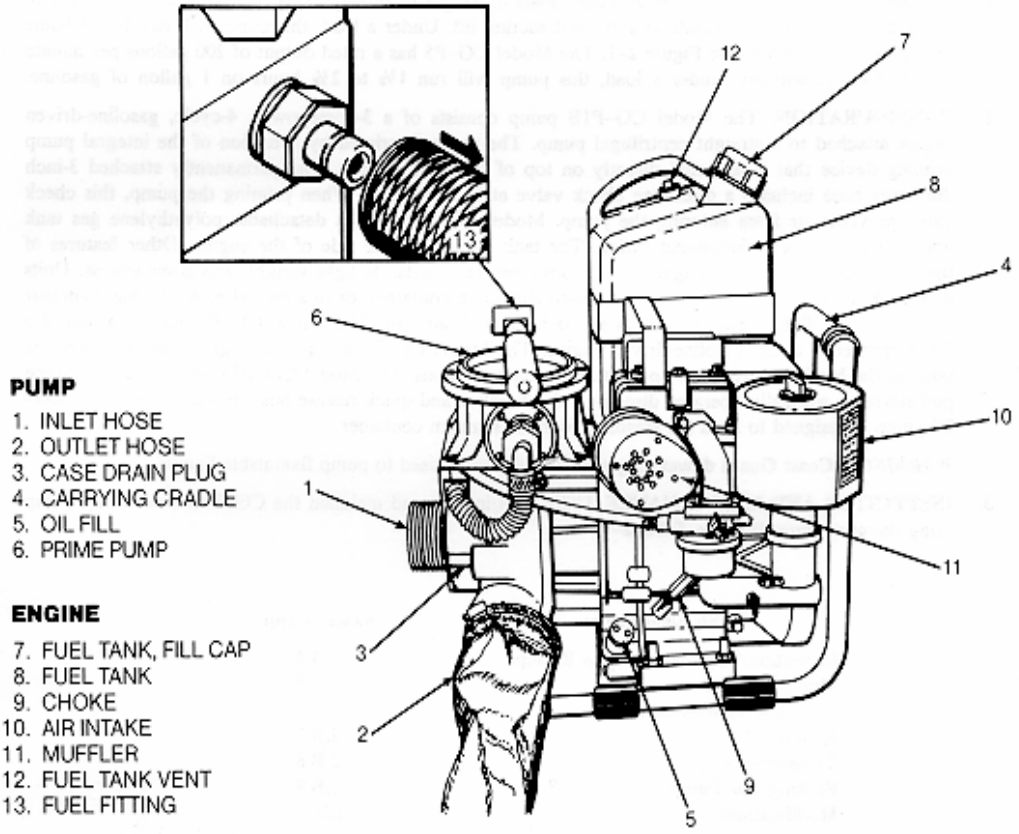
COMMERCIAL ASSISTANCE

The U.S. Coast Guard no longer is required to maintain a referral list of commercial firms considered qualified to render certain forms of routine assistance to boaters in non-emergent situations. The local Coast Guard Commander **does not** inspect any firms in his specific area of responsibility to ensure their capability of handling routine non-emergent requests for assistance. Disabled boats in non-emergency situations should contact the nearest Coast Guard Station by VHF-FM radio channel 16 to report their status. In these situations, the Coast Guard will respond at the earliest possible time by issuing a Marine Assistance Radio Broadcast. The terms and arrangements for any form of commercial assistance, however, remains the responsibility of the boater and the commercial firm

involved. **THE COAST GUARD WILL CONTINUE TO RESPOND TO ALL EMERGENCIES**.

COAST GUARD DROP PUMP

The standard Coast Guard drop pump is capable of rapid delivery. It may be dropped by parachute from Coast Guard aircraft or passed by line from boat to boat. The pump is totally self contained within an aluminum watertight container with a 1 gallon gas can, 15 feet of suction hose, 20 feet of discharge hose, an explosion proof flashlight, starter rope, priming bucket and **complete instructions for use**. The pump is rated at 140 gallons per minute at a 10-foot head.



PUMP

1. INLET HOSE
2. OUTLET HOSE
3. CASE DRAIN PLUG
4. CARRYING CRADLE
5. OIL FILL
6. PRIME PUMP

ENGINE

7. FUEL TANK, FILL CAP
8. FUEL TANK
9. CHOKE
10. AIR INTAKE
11. MUFFLER
12. FUEL TANK VENT
13. FUEL FITTING

B. ✸ BOATING SAFETY ✸

U. S. COAST GUARD BOATING SAFETY INFORMATION

For information on free boating instruction, free safe boat checks and the Coast Guard Auxiliary, please contact:

COMMANDER (oax)
FIRST COAST GUARD DISTRICT
408 ATLANTIC AVENUE
BOSTON MA 02110-3350
(617) 223 - 8310

BOATING SAFETY HOTLINE FACTS

What is the Boating Safety Hotline? The Boating Safety Hotline is a toll-free telephone service operated by the U.S. Coast Guard in Washington, D.C. Hotline operators provide callers with information on boating safety recalls and consumer complaints about possible safety defects. Other safety information and literature concerning recreational boating can also be obtained through the Hotline.

Who can use the Hotline? Anyone with access to a telephone in the United States, including Alaska, Hawaii, Puerto Rico, and the Virgin Islands, by dialing the toll-free number: **(800) 368-5647**.

When can I call? A Hotline operator will be on duty Monday through Friday, 8:00 a.m. to 4:00 p.m. eastern time. Calls received after normal working hours will reach a recorded message.

Will the operator answer all my questions? Hotline operators are trained to answer many questions on boating safety directly over the telephone. If the question is very technical, the operator can ask a Coast Guard specialist to call you back. Or, if the question is too complicated to answer directly over the telephone, the operator may send you written information that covers the subject. If the question deals with a topic outside of the Coast Guard's Recreational Boating Safety program, the Hotline operator will try to refer you to an office or agency that can help.

I have a safety problem with my boat, should I call the Hotline? Yes. Consumers are an important source of information used by the Coast Guard to identify safety problems in recreational boats. When you call to report a safety problem, you will be sent an owner's report form, with a postage-paid return envelope, so you can document the details of the problem. When you mail it back, the information is evaluated to determine if the problem is safety-related. If the Coast Guard concludes that the problem represents a safety defect (a defect that poses a substantial risk of injury), then the manufacturer will be asked to conduct a safety recall.

What are some of the issues addressed on the Hotline? Trained operators are available to answer questions about:

- Boating Safety courses
- Marine toilets
- Coast Guard Boardings
- Licenses
- Courtesy Marine Exams
- Charts
- Boat documentation
- Guns aboard boats
- Rules of the Road
- EPIRBS
- Required equipment
- Hurricanes
- Safety Defect reports
- Recall information

How do I use the Hotline to check Safety Recall information? When a manufacturer conducts a safety recall, a written notice is sent to all owners informing them of the safety defect. But because it is difficult for a manufacturer to keep track of the whereabouts of every owner, it may not be possible to send the notice to everyone who owns the boat or engine named in a safety recall (particularly if the recall involves an older model).

So, if you're buying a used boat or engine, or even if you are the first owner of a relatively new boat or engine, and are wondering if the boat or engine has ever been involved in a safety recall, it is a simple matter to call the Hotline and find out. If the Hotline operator discovers your boat or engine has been named in a safety recall, the operator will send you information on how to go about getting the manufacturer to correct the safety defect.

What consumer questions cannot be answered by the Hotline: Sorry, the Hotline operator is not able to

recommend or endorse specific boats or product lines; nor can the Hotline help the consumer resolve disputes with boat dealers or manufacturers about service or problems that do not involve safety.

HELPFUL HINTS FOR BOATERS

The operator is responsible for the boat and the persons on board. Remember safety is not a set of rules and regulations, safety is an attitude. Prudence and common sense will go a long way in making your outing on the water safer and more enjoyable.

GOOD HOUSEKEEPING – There are few places where good housekeeping is more important than on your boat. This includes properly stowing and securing all equipment and supplies, keeping decks and spaces clean and free from clutter and trash. Perform safety checks and maintenance on a regular schedule and ensure that all repairs are completed properly.

TOOLS AND SPARE PARTS – Carry a few tools and some spare parts and learn how to make minor repairs. A great many rescue cases are caused by minor breakdowns that the operator should have been able to repair.

FUEL MANAGEMENT – Use the "One-third" rule in fuel management. Use one-third fuel to go, one-third to get back and keep one-third in reserve.

ALCOHOL AND DRUGS – Alcohol and other drugs reduce judgement and the ability to react. Furthermore, sun, wind, vibration and noise are very fatiguing, increasing the debilitating effects of alcohol and drugs

Conversion Tables

1.15 MPH	1 Knot
6.90 MPH	6 Knots
11.5 MPH	10 Knots
23.0 MPH	20 Knots
29.9 MPH	26 Knots
34.5 MPH	30 Knots
40.3 MPH	25 Knots

BROCHURE FOR RECREATIONAL BOATERS

The U.S. Coast Guard recently published a new brochure entitled *Our Commitment to Recreational Boaters*" It lists and explains the many services performed by the Coast Guard in its commitment to providing a safe environment for recreational boaters. *Our Commitment to Recreational Boaters* is available by calling the Coast Guard Customer Infoline, **(800) 368-5647**. The number for the hearing impaired is **(800) 689-0816**.

REPORTING BOATING ACCIDENTS

All recreational boating accidents must be reported to the proper law enforcement authority for the state in which the accident occurred. A report must be made when the incident involves the vessel or its equipment and there is:

- Loss of life
- A person is injured and requires medical treatment beyond first aid.
- A person disappears from the vessel under circumstances that indicate death or injury
- Damage to the vessel and/or other property totals more than $500* or is a complete loss.

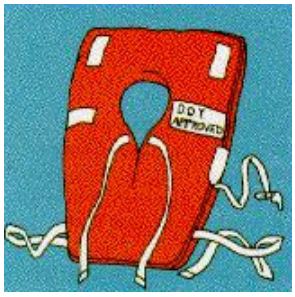
* Note: Many states have set a limit less than $500; contact the local boating authority to determine the amount.

IMMEDIATE NOTIFICATION IS REQUIRED FOR FATAL ACCIDENTS. If a person dies or disappears from a vessel, the operator must, without delay, notify the nearest reporting authority. A formal report of a fatality or injury must be filed within 48 hours. The following information must be provided:

- Date, time, and exact location of the accident.
- Name of each person who died or disappeared.
- Number and name of the vessel.
- Names and addresses of the owner and operator.

Accidents resulting in more than $500 damage must be reported within 10 days. If you need assistance in reporting an accident, contact the Coast Guard Boating Safety Hotline at (800) 368-5647.

LIFE JACKETS and PERSONAL FLOATATION DEVICES



Most drowning occurs way out at sea, right? **WRONG**! Fact is 9 out of 10 drownings occur in inland water, most within a few feet of safety. Most victims owned PFD's, but they died without them. A wearable PFD can save your life, if you wear it. Today's PFDs fit better, look better, and are easy to move around in. Before you shove off, make sure all on board are wearing PFDs. To work best, PFDs must be worn with all straps, zippers, and ties fastened. Tuck in any loose strap ends to avoid getting tangled. When you DON'T wear your PFD, the odds are against you. You're taking a chance with your life.

Most adults need only an extra seven to twelve pounds of bouyancy to keep their heads above water. A PFD can give that "extra lift", and it's made to keep you floating until help comes. But a PFD is a personal flotation device and it's important to get the right one for you.

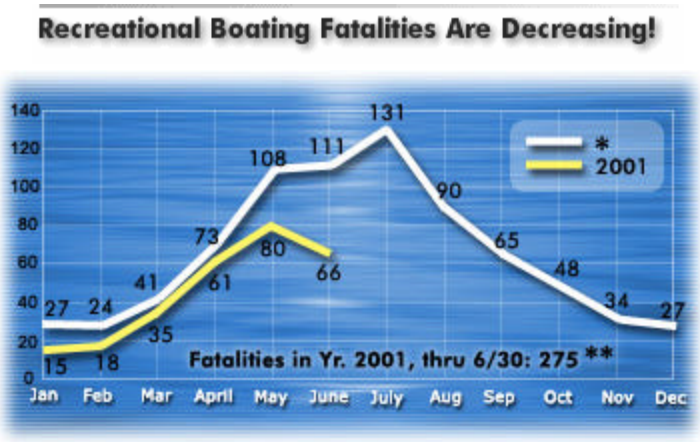
Your weight isn't the only factor in finding out how much "extra lift" you need in water. Body fat, lung size, clothing, and whether the water is rough or calm all play a part. Read the label on your PFD to be sure it's made for people your weight and size. Then in an emergency, don't panic. Relax, put your head back and let your PFD help you come out on top.

Children panic when they fall into the water suddenly. This causes them to move their arms and legs violently, making it hard to float safely in a PFD. A PFD will keep a child afloat, but may not keep a struggling child face-up. That's why it's important for children to know how to put on a PFD and to help them get used to wearing one in the water. A PFD must fit snuggly on a child to work right. To check for a good fit, pick the child up by the shoulders of the PFD. If the PFD fits right, the child's chin and ears will not slip through. PFDs are not baby-sitters. Even though a child wears a PFD when on or near the water, an adult should always be there, too. Inflatable toys and rafts should not be used in place of PFDs.

Since May 1, 1995 persons on recreational vessels under sixteen feet in length are no longer allowed to count type IV **throwable** personal flotation devices as being in compliance with federal regulations that require a PFD for each person on board the vessel. The rules require that one wearable PFD be carried for each person on board. All recreational vessels fewer than sixteen feet, including canoes, are subject to the rule. Type IV PFDs are floatation devices that are not designed to be worn.

For further information on the new regulations covering PFDs, contact the Coast Guard Customer Infoline at **(800) 368-5647.**

BOATING STATISTICS - 2000



*****The statistics are based on the average number of monthly fatalities for the period 1995 - 1999
****** 21 states and 0 territories reporting.

The statistical information on recreational boating accidents below was obtained from Coast Guard Commandant Publication P16754.10, - Boating Statistics - 1996 dated 12 March 1998. The publication is published by Commandant (G-OPB), U.S. Coast Guard, 2100 Second St. SW, Washington, DC 20593-0001.

- Eight out of 10 fatalities occurred on boats less than 26 feet in length. Over 73% of the victims drowned.
- While "Collision with Another Vessel" was one of the most frequently reported of boating accidents, it accounts for only one-tenth of all boating fatalities. In contrast, "Capsizing of a Vessel" is one of the least

reported of accidents, but it accounts for nearly one-half of all fatalities.

- In 1996, drowning caused approximately 80% of all fatalities. More than one-half of all accidents resulting in fatalities involved open motorboats. Nearly all fatal accidents on rowboats, canoes/kayaks, and inflatable boats are drowning.
- More fatalities involved boaters (operators and passengers) between the ages of 29-30 than any other age group.
- Nearly 85% of all boating fatalities occur on boats where the operator had no formal boating instruction.
- The majority of accidents are caused by the boat operator and not by mechanical or equipment failure or environmental causes. Carelessness and failure to maintain a proper lookout are the two primary causes of boating accidents.

65% of all U.S. Coast Guard Search and Rescue cases in 1996, e.g., approximately 26,000 cases, involved assistance provided to recreational vessels.

RECREATIONAL BOAT MANUFACTURING STANDARDS

Under the authority of title 46 of the United States Code, the Coast Guard has established certain federal regulation that recreational boat builders must meet before selling their product. These regulations consist of both administrative requirements and Coast Guard Safety Standards.

The administrative requirements are intended to hold manufacturers responsible for their product. They cover defect notification, hull identification numbers, first purchaser lists and certification of compliance.

The safety standards are intended to eliminate unsafe construction practices and performance characteristics. These standards cover such areas as display of capacity information, safe loading, safe powering, basic flotation, level flotation, fuel systems, electrical systems ventilation, and start-in-gear protection for outboard motors. Commercial boats are not required to meet these safety standards. While a commercial boat operator may be able to substitute his experience for the increased safety provided by these standards, the recreational boater is often inexperienced and takes on an additional unnecessary risk in operating a vessel designed for commercial use. Accordingly, in order for a workboat to be exempt from these safety standards, the manufacturer must be able to verify to the Coast Guard that the boats are manufactured and sold truly for commercial use only.

- The boat must display a statement of the intended use. A placard or label plate with the phrase "commercial boat" or "for commercial use" is sufficient.
- All advertising and displays must prominently indicate that the boat was designed, constructed, and sold for commercial use only.
- On the bill of sale, the words "For Commercial Use Only" and the statement, "Commercial boats are not designed to comply with U. S. Coast Guard requirements for recreational boats" should be prominently displayed.

Anyone who knowingly sells a commercial boat to a person for their use as a pleasure boat violates federal regulations and is subject to civil penalties of up to $2,000 for each violation.

CAPACITY LABELS

REQUIREMENTS FOR CAPACITY LABEL – Monohull boats less than 20 feet, and built after October 31, 1972 must have a capacity label affixed. This is the responsibility of the manufacturer. Kayaks, sailboats, inflatables, and canoes are exempt from this requirement. While Federal Regulations do not prohibit the boat operator from exceeding these capacities, state law may prohibit it. Check with your state's boating authority.

SAFE CARRIAGE FORMULA – If your boat is not required to be equipped with a capacity plate, use this formula to determine the number of people that can be carried safely. NOTE: This formula is meant for good weather and is a general guideline that does not include equipment that is carried and will decrease the space available for people. $\text{PEOPLE} = \frac{L \times W}{15}$

MAXIMUM HORSEPOWER – The maximum horsepower information listed on the capacity label is a guide for selecting an engine for a boat. It's not a violation of Federal Regulation to install or use a larger engine. Boaters should check state regulations for restrictions. They should also take a look at their insurance policy regarding horsepower.

COMBINATION LABELS – Manufacturers often combine the capacity requirements and horsepower information on the same label as the mandatory certification label. Boaters should also check state regulations.

SPECIAL ANCHORAGES

An act of Congress of April 22, 1940 designated Special Anchorage areas throughout the United States. Vessels not more than 65 feet in length at anchor are not required to carry or exhibit anchorage lights. Special Anchorage's are marked on charts and designated as special anchorages. A list of all designated Special Anchorage's can be found in

33 Code of Federal Regulations Part 109-110 or the Coast Pilot for the area in question.

U.S. COAST GUARD AUXILIARY

The U.S. Coast Guard Auxiliary is a volunteer non-military organization established by congress in 1939 to promote safety in recreational boating in the United States. Its approximately 35,000 Members are experienced boaters, amateur radio operators, or licensed aircraft pilots. Auxiliarists' boats must be equipped and maintained to meet high standards of safety, which exceed the requirements of federal law for recreational vessels. Auxiliarists' take pride in the fact that they are known for the promotion of safe boating by setting a good example. To accomplish its goals the Auxiliary carries out three basic programs:

OPERATIONS: To assist the U.S. Coast Guard, members of the Auxiliary engage in rescue and assistance missions, patrol regattas and marine events, inspect private aids to navigation, and add a large measure of safety to the nation's waterways. Many of these operations are performed in conjunction with regular Coast Guard units.

PUBLIC EDUCATION: The Auxiliary offers a variety of boating safety courses, each tailored to a specific need. There are courses for sailors and for power boaters (both novice and expert). Courses are taught by experienced auxiliarists using slides, movies and demonstrations. The multi-lesson "Sailing and Seamanship" and the "Boating Skills and Seamanship" courses cover basic knowledge of Aids to Navigation, Rules of the Road, Boat Handling, Legal Requirements, Marine Engines, Marlinspike Seamanship, Weather, Communications, Locks and Dams, and more. Boaters are also offered a multi-lesson "Advanced Coastal Navigation" course. Youngsters can enjoy the "Water and Kids" safety presentation in their classrooms before summer vacation. The cost of materials and textbooks is usually the only cost involved.

VESSEL SAFETY CHECKS

The Vessel Safety Check program helps to achieve voluntary compliance with federal and state recreational boating safety laws, particularly regarding the carriage of safety equipment. It also raises boaters' awareness of safety issues through one-on-one contact by volunteer vessel examiners who educate boaters through direct, face-to-face boating-safety information exchanges. If your boat meets VSC requirements, a decal is awarded and is your assurance that your boat is properly equipped for safety and fun on the water. If your boat does not pass the examination, the owner is advised of the deficiencies for corrective action. No report is made to any law enforcement agency. See the end of this chapter (page 13) for a sample copy of the Vessel Safety Checklist.

Anyone interested in these programs is encouraged to apply for membership in the Auxiliary. For additional information please contact the nearest Coast Guard unit, Auxiliary unit, or write to:

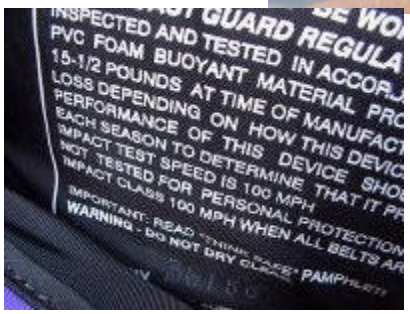
Commandant (G-NAB-1)
U.S. Coast Guard
2100 Second St. SW
Washington, DC 20593-0001
Or call the Coast Guard Hotline at: **(800) 368-5647**

Display of Numbers: The boat's registration number must be permanently attached to each side of the forward half of the boat They must be plain, vertical, block characters, not less than three (3) inches high, and in a color contrasting with the background. A space or hyphen must separate the letters from the numbers. Place State tax sticker according to State policy.

Registration / Documentation: Registration or

Documentation papers must be on board and available. Documentation numbers must be permanently marked on a visible part of the interior structure. The documented boat's name and hailing port must be displayed on the exterior hull in letters not less than 4 inches in height. To be documented a boat must be 5 net tons or greater.

Personal Flotation Devices (PFD): Acceptable PFDs (also known as Life Jackets) must be U.S. Coast Guard approved, in good serviceable condition, and of suitable size for the each person on the boat. Children must have properly fitted PFDs designed for children. Wearable PFDs shall be "readily



accessible." Throwable devices shall be "immediately available." PFDs shall NOT be stored in unopened plastic packaging. For Personal Watercraft riders, the PFD must be worn and indicate an impact rating. Boats 16 Feet or longer, must also have one Type IV.

Visual Distress Signals (VDS): All recreational boats used on coastal waters or the Great Lakes are required to carry a minimum of three Coast Guard approved (current dated) day and night visual distress signals. Some signals (e.g. red flares) can serve for both day and night.

Boats operating on inland waters must have some means of making a suitable day and night distress signal. The number and type of Visual Distress Signals is best judged by considering conditions under which the boat will be operating. Alternatives to pyrotechnic devices (flares) include:

Night	**Day**
Strobe light	Signal mirror
Flashlight	Red or orange flags
Lantern	Hand signals

Fire Extinguishers: Fire extinguishers are required if one of the following conditions exists: (1) Inboard engine(s); (2) Closed compartments that store portable fuel tanks; (3) Double bottom hulls not completely sealed or not completely filled with flotation materials (4) Closed living space (5) Closed stowage compartments that contain flammable materials or (6) Permanently installed fuel tanks NOTE: Fire extinguishers must be readily accessible and verified as serviceable.

Ventilation: Boats with gasoline engines in closed compartments, built after 1 August 1980 must have a powered ventilation system. Those built prior to that date must have natural or powered ventilation.

Boats with closed fuel tank compartments built after 1 August 1978 must meet requirements by displaying a "certificate of compliance." Boats built before that date must have either natural or powered ventilation in the fuel tank compartment.

Backfire Flame Control: All gasoline powered inboard/outboard or inboard motorboats must be equipped with an approved backfire flame control device.

Sound Producing Devices / Bell: To comply with Navigation Rules and for distress signaling purposes boats must carry a sound producing

all

device (whistle, horn, siren, etc.) capable of a 4-second blast audible for ½mile. Boats larger than 39.4 ft. are also required to have a bell (see Navigation Rules.)

Navigation Lights: All boats must be able to display navigation lights between sunset and sunrise and in conditions of reduced visibility. Boats 16 feet or more in length must have properly installed, working navigation lights and an all-around anchor light capable of being lit independently from the red/green/white "running" lights.

Pollution Placard: Boats 26 feet and over with a machinery compartment must display an oily waste "pollution" placard. (See example at the end of section F Environmental Protection)

MARPOL Trash Placard:
Boats 26 feet and over in length must display a "MARPOL" trash placard. Boats 40 feet and over must also display a written trash disposal plan. (See example at the end of section F Environmental Protection)

Marine Sanitation Devices: Any installed toilet must be a Coast Guard approved device. Overboard discharge outlets must be capable of being sealed. (See example at the end of section F Environmental Protection)

Navigation Rules: Boats 39.4 feet and over must have on board a current copy of the Navigation Rules

State and/ or Local Requirements: These requirements must be met before the "Vessel Safety Check" decal can be awarded. A boat must meet the requirements of the state in which it is being examined. Contact your local marine law enforcement agency. State Boating Regulations and Requirements

To access up to date information on state requirements access one or both of the following sites. While we cannot guarantee the accuracy of the information presented, the data presented will answer many questions. For a definitive answer to individual state requirements boaters should check with the boating law agency in the state at issue.

The BoatUS site offers information about State Boating Regulations and State Education Requirements that offers an up to date summary of boating regulations in your state.

The U. S. Coast Guard Office of Boating Safety site can be reached at www.uscgboating.org. On the home page click on "Regulations and Publications." There you will find a "Reference Guide to State Boating Laws" available as a PDF download. This guide is periodic publication supplied by NASBLA and as such may not be completely up to date. If in doubt as to a specific reference, contact the state boating law agency in question.

Overall Vessel condition: As it applies to this Vessel. Including, but not limited to:

a. Deck free of hazards and clean bilge: The boat must be free from fire hazards, in good overall condition, with bilges reasonably clean and visible hull structure generally sound. The use of automobile parts on boat engines is not acceptable. The engine horsepower must not exceed that shown on the capacity plate.

b. Safe Electrical and Fuel Systems: The electrical system - Must be protected by fuses or manual reset circuit breakers. Switches and fuse panels must be protected from rain or water spray. Wiring must be in good condition, properly installed and with no exposed areas or deteriorated insulation. Batteries must be secured and terminals covered to prevent accidental arcing. If installed, self-circling or kill switch mechanism must be in proper working order. All PWCs require an operating self-circling or kill switch mechanism.

Fuel Systems - Portable fuel tanks (normally 7 gallon capacity or less) must be constructed of non-breakable material and free of corrosion and leaks. All vents must be capable of being closed. The tank must be secured and have a vapor-tight, leak-proof cap. Each permanent fuel tank must be properly ventilated.

c. Safe Galley and Heating Systems: System and fuel tanks must be properly secured with no flammable materials nearby.

U.S. POWER SQUADRON

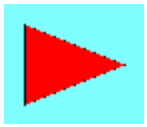
In 1914 the U.S. Power Squadron (USPS) was established as a private, non-profit, non-government and non-military organization to promote safe boating, education of members and participation in civic programs. The educational program available through the USPS cover subjects such as Seamanship, Piloting, Plotting and Position Finding, Celestial Navigation, Cruise Planning, Engine Maintenance and Marine Electronics. The courses are offered as a public service to adults and teenagers in over 500 local areas nationwide and there is a nominal fee to cover costs, including a student workbook, chart and other materials.

For more information on boating classes in your area, or about the U.S. Power Squadron, call **(800) 336-BOAT.**

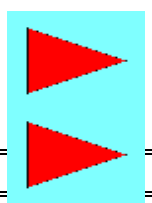
EXPLANATION OF VISUAL DISPLAYS

While the National Weather Service no longer supports the visual display system, many private organizations, and some harbormasters may still display signals relating to the weather. With the advent of Marine Weather Radio and the comparative small cost for receivers, the visual display system is rapidly disappearing. Four Coast Guard Stations, Station Chatham on Cape Cod, Station Shinnecock, Station Jones Beach and Group Moriches on Long Island. The following explanation of visual signals is carried here to assist those mariners living in areas where signals are still displayed.

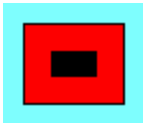
SMALL CRAFT ADVISORY: One RED pennant displayed by day and a RED light above WHITE light at night, to alert mariners to sustained (more than two hours) weather or sea conditions, either present or forecast that might be hazardous to small boats. Mariners learning of a Small Craft Advisory are urged to determine immediately the reason by tuning their radios to the latest marine broadcasts. Any decision as to the degree of hazard will be the boaters' responsibility, based on his experience and size and type of boat. The threshold conditions for the Small Craft Advisory are usually 18 knots of wind (less than 18 knots in some dangerous water) or hazardous wave conditions.



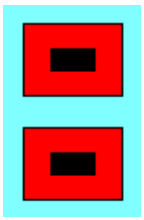
GALE WARNINGS: Two RED pennants displayed by day and a WHITE light above a RED light at night indicate that winds within the range of 34 to 47 knots are forecast for the area.



STORM WARNING: A single square RED flag with a BLACK center displayed during daytime and two RED lights at night to indicate that winds of 48 to 63 knots, are forecast for the area. However, if the winds are associated with a tropical cyclone (hurricane) the STORM WARNING display indicates that winds within the range of 48 to 63 knots are forecast.



HURRICANE WARNING: Displayed only in connection with a tropical cyclone (hurricane). Two square RED flags with BLACK centers are displayed by day and a WHITE light between two RED lights at night to indicate that winds of 64 knots and above are forecast for the area.



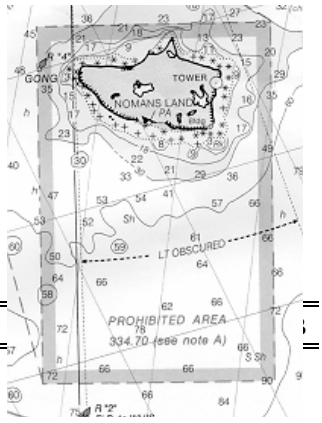
NOTE: A HURRICANE WATCH is an announcement issued by the National Weather Service via press and radio and television broadcast whenever a tropical storm or hurricane becomes a threat to a coastal area.

The **HURRICANE WATCH** announcement is not a warning, rather it indicates that the hurricane is near enough that everyone in the area covered by the WATCH should listen to their radios for subsequent advisories and be ready to take precautionary action in case hurricane warning are issued.

NOTE: A SPECIAL MARINE WARNING is issued whenever a severe local storm or strong wind of brief duration is imminent and is not covered by existing warnings or advisories. No visual displays will be used in connection with the **SPECIAL MARINE WARNING;** boaters will be able to receive these special warnings by keeping tuned to a NOAA VHF-FM station or to Coast Guard and commercial radio stations that transmit marine weather information.

FIRING DANGER AREAS

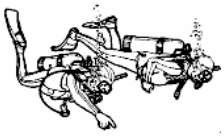
Firing and bombing practice exercises take place occasionally or regularly in numerous areas established for those purposes along the coasts of practically all maritime countries. In view of the difficulty in keeping



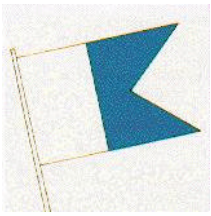
these areas up to date on the charts, and since the responsibility to avoid accidents rests with the authorities using the areas for firing and/or bombing practice, these areas will not as a rule be shown on NIMA charts. National Ocean Service Charts show firing and bombing practice areas defined by Code of Federal Regulations (Title 33, Part 204) in United States waters.

Any permanent aid to navigation that may be established to mark a danger area, any target, fixed or floating, that may constitute a danger to navigation, will be shown on the appropriate charts. Warning signals, usually consisting of red flags or red lights, are customarily displayed before and during the practice, but the absence of such warnings cannot be accepted as evidence that a practice area does not exist. Vessels should be on the lookout for local warnings and signals, and should whenever possible, avoid passing through an area in which practice is in progress, but if compelled to do so should endeavor to clear it at the earliest possible moment.

DIVER FLAG RULE CLARIFICATION



There has been some confusion over the status of the traditional sports divers' flag because of a change to the U. S. Inland Navigation Rules concerning the use of one-meter high rigid replica of the International Code Flag Alpha (a blue and white flag).



The **Alpha flag** is to be flown on small vessels engaged in diving operations whenever these vessels are restricted in their ability to maneuver if divers are attached to the vessel. But in sports diving, where divers are usually free swimming, the alpha flag does not have to be shown and the Coast Guard encourages the continued use of the traditional sports diver flag.

The **Sport Diver flag** is an unofficial signal that, through custom, has come to be used to protect the diver in the water. It is the responsibility of the operator of a diving vessel to determine if his craft's movements are restricted. To be most effective, the sport diver flag should be exhibited on a float in the water to mark the approximate location of the diver.

SPONSORS OF MARINE EVENTS

An application for approval of Marine Events is required in cases where the nature, circumstances, or location of the event will introduce extra or unusual hazards to the safety of life on the navigable waters of the United States. Examples of conditions which require Coast Guard approval include, but are not limited to: an inherently hazardous competition, the customary presence of commercial or pleasure craft in the area, any obstruction of navigable channels which may reasonably be expected to result, and the expected accumulation of spectator craft.

The Coast Guard, First District office, must receive the application at least thirty days prior to the event in order for necessary provisions to be made to serve the sponsor and the boating public. Even though regulations require only 30 days notice, early receipt of your request, especially during peak periods when many must be processed, will assure that your event can receive early attention with sufficient notice to mariners beforehand. Early notice also will provide adequate time to resolve any problems before timing becomes critical. Please pass this word to any interests whom you feel may be contemplating a special marine event. Your cooperation is appreciated.

An approval does not imply endorsement of the activity or guarantee that it will be accident free. By approving an event the Coast Guard does not assume responsibility for the safety of participants. The sponsoring organization is responsible for the safe conduct of the event.

This includes but is not limited to, adequate preparations such as Coast Guard approval, instructions to and qualifications of participants, safety equipment inspections, rescue and first aid facilities, control of activities, and removal of obstructions or hazards to navigation as applicable to the event. Measures to preclude interference with the normal flow of commercial and recreational traffic are also required unless the Coast Guard District Commander issues special local regulations for this purpose.

DANGER FROM SUBMARINE CABLES AND PIPELINES

Submarine cables or pipelines pass beneath various navigable waterways throughout the world. Installation of new submarine cables and pipelines may be reported in the Notice to Mariners; their locations may or may not be charted. Where feasible, warning signs are often erected to warn the mariners of their existence.

In view of the serious consequences resulting from damage to submarine cables and pipelines, vessel operators should take special care when anchoring, fishing or engaging in

underwater operations near areas where these cables or pipelines may exist or have been reported to exist.

Certain cables carry high voltages; many pipelines carry natural gas under high pressure or petroleum products. Electrocution, fire or explosion with injury or loss of life or a serious pollution incident could occur if they are penetrated.

Vessels fouling a submarine cable or pipeline should attempt to clear it without undue strain. Anchors or gear that cannot be cleared should be slipped; no attempt should be made to cut a cable or pipeline.

POSSIBLE DANGER FROM UNLABELED DRUMS

With the many exotic chemicals being transported in drums as deck cargo, increasingly more reports are received of loss overboard of these potentially dangerous containers. Even empty drums may contain residues that are extremely hazardous to touch or smell and a few vapors may be explosive.

When coming upon derelict drums, whether afloat or from the sea bottom, this danger should be considered. Identifying labels will give adequate warning, but containers are more likely to be found with caution labels washed off. Avoid direct contact and notify U. S. Coast Guard of any sightings in U. S. coastal waters (24 HOUR TOLL FREE reporting number 1-800-424-8802), or government authorities of the nearest port state if sighting

KNOWLEDGE OF VESSEL HEIGHT

All mariners (power and sail) are responsible for knowing the actual vertical clearance required for their vessels and for checking the clearance gauges at movable bridges before requesting an opening. A vessel's required vertical clearance is measured from the waterline to the highest structural members excluding appurtenances non-essential to navigation. The bridge clearance gauge is required to identify the available clearance from the water to the low steel of the bridge. This is usually at the fender line. Bridges with a haunch provide additional clearance.

LOWERING OF EQUIPMENT NONESSENTIAL TO NAVIGATION

MARINERS ARE ADVISED: No vessel owner or operator shall signal a drawbridge to open for any non-structural vessel appurtenance which is not essential to navigation or which is easily lowered (e.g. appurtenance not essential to navigation include but not limited to radio, television and loran antennas, collapsible bimini tops, booms and fishing outriggers). This regulation is contained in Title 33 of the Code of Federal Regulations, section 117.11. Whoever violates this rule shall be liable to civil penalty of not more than $1000.00.

BRIDGE SIGNAL

Except were otherwise provided, the sound signal to request a bridge opening is one prolonged blast (4-6 sec) followed by a short blast (1 sec), of a horn, whistle, megaphone hailer or other device capable of producing a sound loud enough to be heard by the bridge tender. The draw tender is required to acknowledge each request within 30 seconds. Bridges equipped with radiotelephones are required to post signs indicating both the calling and the working frequency. Generally, the calling frequency for most bridges is channel 16; channel 13 is the working frequency. However, if radio contact cannot be made or maintained, the sound signals should be used.

BRIDGE OUTAGES AND CLOSURES

Scheduled bridge closures

Bridge owners are required to obtain approval from the Coast Guard Bridge Administration Office for all bridge closures for repair and maintenance. Approved closures are published in the weekly Local Notice to Mariners and when necessary by Safety Marine Information Broadcast. The Bridge Administration Office should be contacted regarding all closures at **(212) 668-7165**, Monday through Friday, 7am to 4pm, daily. Emergencies during off-hours should be reported to your local Coast Guard station.

Emergency Bridge Closures

When a bridge is rendered inoperable because of damage to the structure or vital unscheduled repairs, notice is given to the Captain of the Port and repairs are to be performed with all due speed in order to return the draw to operation as soon as possible. Closures of this nature are made by Broadcast Notice to Mariners.

GENERAL DUTIES OF BRIDGE OWNERS AND TENDERS

Drawbridge owners and tenders are required to operate bridges in accordance with Drawbridge Operation Regulations listed under 33 CFR Part 117, Subpart A – General Requirements. Drawbridges are required to open promptly and fully for the passage of vessels after a request to open is given, except when the Coast Guard has

approved special operating regulations governing the bridge.

Special Operating Regulations for drawbridges are listed under 33 CFR Part 117, Subpart B – Special Requirements. Bridges authorized to operate under special operating regulations are required to post signs both up and down the waterway, plainly visible to the operators of vessels approaching the bridge summarizing the operating regulations. If an advance notice is required to open a drawbridge, the telephone number of the person to be notified must also be indicated.

Failure to comply with drawbridge operation regulations by bridge owners or bridge tenders may make them liable for civil penalties of up to $1100.00 per violation for each day the violation exists. Mariners are requested to write to:

Commander (obr)
First Coast Guard District
Battery Park Building
New York, NY 01004-5073

Or by calling **(212) 668-7165,** Monday through Friday 7am to 4pm, daily.

Report the following information:

- Name, address and telephone number of complainant.
- Name and description of vessel and vessel radio call sign.
- Waterway, name and location of the bridge (and mileage above the mouth, if known).
- Name, address and telephone number of vessel operator/owner.
- Describe the chronology of the delay.
- Your method and time of signal(s) to bridge for an opening.
- Type and time of bridge response.
- Other vessels waiting.
- Time bridge opened/delay or problems that resulted.

The Coast Guard will make appropriate contacts to identify the problem and then advise the delayed vessel of the situation including when he can expect a bridge opening if it can be obtained. The mariner should notify the Coast Guard if his vessel will be in any danger due to the delay, and what assistance, if any is needed.

is near any foreign shores.

FLOAT PLAN

The Coast Guard does not provide float plan services but encourages you to leave a sailing plan with friends or relatives to whom you can report your safe arrival. Should your friends or relative fail to receive information on your arrival when due or within a reasonable time thereafter, they should notify the nearest Coast Guard activity.

A FLOAT PLAN should include the following information at a minimum (a **FLOAT PLAN** is supplied in the back of this section, section B page 12).

- The VESSEL NAME including registration numbers.
- A VESSEL DISCRIPTION, (type, color, length…)
- POINT of DEPARTURE (harbor/marina).
- ROUTE to be taken.
- DESTINATION.
- ESTIMATED TIME of ARRIVAL (ETA).
- NUMBER OF PERSONS ABOARD.
- SAFETY EQUIPMENT ABOARD.
- COMMUNICATIONS EQUIPMENT, including radio frequencies to be monitored and a cellular number.

If any major part of your float plan changes, for example you change routes or stop along the way, you should contact your representatives ashore and update the float plan.

FLOAT PLAN

Complete this before going boating and leave it with a reliable person who can be depended upon to notify the Coast guard or other rescue organization, should you not return as scheduled. Do not file this plan with the Coast Guard.

1. Name of the person operating the vessel and telephone number: _____

2. Description of the boat:

   Type: _____ Color: _____ Trim: _____
   Registration: _____ Length: _____
   Name of Vessel: _____
   Make: _____
   Other information about the Vessel: _____
   _____

3. Engine type: _____ Horsepower: _____

4. Number of Engines: _____ Fuel Capacity: _____

5. Survival Equipment: (circle as appropriate)

Life Jackets (number_____)	Flares	Signal Mirror
Smoke Signals	Flashlight	Extra Food
Paddles	Anchor	Drinking Water
Raft or Dingy	EPIRB	Sun Screen
Sun Glasses	Warm Clothes	Hand Compass
Survival Suit		

6. Radio: YES/NO Type: VHF-FM / HF-AM / CB Freq: _____
   Cellular Phone Number(s): _____

6. Automobile or Truck Information:

   License Number: _____ Make: _____ Model: _____
   Color: _____ Trailer License Number: _____
   Where is it Parked: _____

7. Number of persons on board vessel: _____

8. Name: Age: Address & Phone Number:
   a. _____
   b. _____
   c. _____
   d. _____
   e. _____

9. Trip Information:

   Leaving At: _____ From: _____

   Going To: _____ By Route: _____

   Expected Return or Arrival Time: _____ Call the Coast Guard if not by: _____

   Emergency Numbers: ( ) - **Coast Guard (800) 848-3942 ext. 8555**

VESSEL SAFETY CHECK (VSC)

To be completed by a U. S. Coast Guard approved Vessel Examiner.
See the back of this form for a brief explanation of required items.
A federal Requirements Pamphlet is also available.

Owner / Operator has attended a CGAUX, USPS, State or [ ] Boating Safety Class: Yes [ ] No [ ]	**VSC Decal: Awarded [ ] not Awarded [ ] Number:**
Replaced decal was: Last Year [ ] Outdated [ ] First time [ ]	**Date of VSC: [ ]**
Owner/Operator Name:	Registration or Doc. No.

VESSEL INFORMATION:

Location of VSC - County: State:	HIN:
Length <16 [ ] 16-25 [ ] 26-39 [ ] 40-65 [ ] >65 [ ]	Area of Operations: Inland [ ] Coastal [ ]
Powered by: Gas [ ] Diesel [ ] Sail [ ] Other [ ]	Type: PWC [ ] Open [ ] Cabin [ ] Other [ ]

VESSEL SAFETY CHECK DECAL REQUIREMENTS Item	Yes	No	NA	**RECOMMENDED AND DISCUSSION ITEMS** Item	Yes	No	NA
1. Display of Numbers				**(While encouraged, items below are not VSC requirements)**			
2. Registration / Documentation				**I.** Marine Radio			
3. Personal Flotation Devices (PFD)				**II.** Dewatering Device & Backup			
4. Visual Distress Signals (VDS)				**III.** Mounted Fire Extinguishers			
5. Fire Extinguishers				**IV.** Anchor & Line for Area			
6. Ventilation				**V.** First Aid and PIW Kits (**over)			
7. Backfire Flame Control				**VI.** Inland Visual Distress Signals			
8. Sound Producing Devices / Bell				**VII.** Capacity / Cert. of Compliance			
9. Navigation Lights				**VIII.** Discussion Items: **as applies**			
10. Pollution Placard				a. Accident Reporting / Owner Responsibility			
11. MARPOL Trash Placard				b. Offshore Operations			
12. Marine Sanitation Devices				c. Nautical Charts / Navigation Aids			
13. Navigation Rules				d. Survival Tips / First Aid			
14. State and/ or Local Requirements				e. Fueling / Fuel Management			
15. Overall Vessel Condition: **as applies**				f. Float Plan / Weather & Sea Conditions			
a. Deck free of hazards / clean Bilge				g. Insurance Considerations			
b. Electrical / Fuel Systems				h. Boating Check List			
c. Galley / Heating Systems				i. Safe Boating Classes			

I certify that I have personally examined this vessel and find it meets the above requirements at the time of this Vessel Safety Check. I am a qualified Vessel Examiner of the: CGAUX [ ], USPS [ ], State of _____[ ], or _____[ ]

Printed Name of the Examiner _____ **Examiner Number** _____

Examiner Signature: _____ **Telephone Number** _____

Additional Comments: *This is not an official boarding for law enforcement purposes. It is recommended that you correct any deficiencies noted. This checklist is furnished for your information. There is no assumption of liability of any kind for advice given or opinions expressed in connection to this examination. By accepting the Vessel Safety Check decal you are pledging to maintain your boat and equipment to the standard of safety exhibited during this examination.* **Please remove the Vessel Safety Check decal if the boat is sold or no longer meets these requirements. SAFE BOATING.**

ANSC 7012 - U.S.C.G. AUX FORM 204 (7-2000) PREVIOUS EDITION (1-2000) MAY BE USED

C. ✸ COMMUNICATIONS ✸

EMERGENCY SITUATIONS

WHAT ARE THE MARINE EMERGENCY CALLS

The three spoken international signals are:

- **MAYDAY-**The distress signal MAYDAY is used to indicate a station is threatened by grave and imminent danger and requests ***immediate assistance***.
- **PAN PAN-**The urgency signal PAN PAN is used when the safety of the ship or person is in ***jeopardy***.
- **SECURITY-**The safety signal SECURITY is used for messages about the ***safety*** of navigation or ***important*** weather warnings**.**

NOAA WEATHER RADIO

NOAA Weather Radio broadcasts on 162.40, 162.475 and 162.55 MHz can usually be received 20-40 miles from the transmitting antenna site, depending on the terrain and the quality of the receiver used. Where transmitting antennas are on high ground, the range is somewhat greater, reaching 60 miles or more. The VHF-FM frequencies used for these broadcasts require narrow-band receivers. The National Weather Service recommends receivers having sensitivity of one microvolt or less and a quieting factor of 20 decibels.

Some receivers are equipped with a warning device that can be turned on by a tone signal controlled by the National Weather Service Office involved. All stations broadcast 24 hours per day.

NOAA WEATHER BROADCAST STATIONS

City	*Station*	*Frequency*
Dresden, ME	WXM-60	162.475/WX3
Ellsworth, ME	KEC-93	162.400/WX2
Portland, ME	KDO-95	162.550/WX1
Boston, MA	KHB-35	162.475/WX3
Hyannis, MA	KEC-73	162.550/WX1
Providence, RI	WXJ-39	162.400/WX2
New London, CT	KHB-47	162.550/WX1
Meriden, CT	WXJ-42	162.400/WX2
Riverhead, NY	WXM-80	162.475/WX3
New York, NY	KWO-35	162.550/WX1
Atlantic City, NJ	KHB-38	162.400/WX2

- Broadcast tapes are updated every 3 to 6 hours and amended as required. The broadcast contents vary, but in general contain the following information:
- Descriptions of the weather patterns.
- Regional and state forecasts with outlook for the third day.
- Marine warnings and forecasts for coastal waters.
- Weather observations from selected National Weather Service and Coast Guard stations.
- Radar summaries and reports.
- Local weather observation and forecast.
- Special bulletins and summaries concerning severe weather.
- Tide reports.
- Special Marine Safety Broadcasts - upon Coast Guard request.
- Special fisheries announcements.

NATIONAL WEATHER SERVICE (NWS) BROADCASTS

Coastal Marine Warnings and Forecasts are issued for the following areas:

- Eastport, ME to Merrimack River, MA - out to 25 nm
- Merrimack River, MA to Block Is, RI-out to 25 nm
- Boston Harbor
- Buzzards Bay
- Cape Cod Bay
- Narragansett Bay
- Watch Hill, RI to Manasquan Inlet, NJ - out to 20 nm
- Long Island Sound to Montauk Point, NY
- Watch Hill, RI
- New York Harbor

Offshore Marine Warnings and Forecasts are issued for New England water bounded by the U.S./Canadian border, the 1000 fathom contour, and the Hudson Canyon for the following areas:

- Gulf of Maine
- Georges Bank
- South of New England

The latest offshore Warnings and Forecasts are broadcast via narrow band, direct printing NAVTEX from U.S. Coast Guard Communications Station-NMF, Marshfield, Massachusetts, on 518 KHz commencing at 0045 UTC and every 4 hours thereafter.

USCG Station NMF broadcasts maps of North Atlantic weather and sea state conditions and forecasts daily via

High Frequency radiofax. Broadcasts are transmitted simultaneously on 6340.5 kHz, 9110.0 kHz and 12,750.0 kHz in time blocks (UTC) 0230-0440, 0800-1030, 1430-1553, 1720-1801, and 1900-2230.

NWS MARINE PRODUCTS

Mariners utilizing National Weather Service (NWS) marine products (e.g., high seas, coastal and offshore forecasts; special mariners warnings; marine weather statements; and open lakes and near shore forecasts on the Great Lakes) are encouraged to provide evaluations of these same items. No one knows better how useful, accurate, and timely these products are than the people who go to sea.

MARINE WEATHER SERVICE CHARTS

Marine Weather Service Charts, published by the National Weather Service, are a series of 15 charts covering the waters of the United States and Puerto Rico. Each lists National Weather Service radio stations and office telephone numbers; commercial radio broadcast stations that broadcast marine weather information along with the schedules, and the location of visual storm warning display sites.

Price is $1.25 each. The entire series, or individual charts, are available from:

Distribution Division (N/AC33)
National Ocean Service
Riverdale, MD 20737

Mariners are asked to comment on usefulness, reception, coverage adherence to schedules, clarity, accuracy, etc. through their local NWS office, through their local Port Meteorological Officer, or by writing directly to:

NOAA/NWS, Marine and Applied Services Branch
SSMC2, 1325 East-West Highway
Silver Spring, MD 20910

These comments will be used as a basis for broadcast priority and as a means to improve the value of the various products.

BROADCAST NOTICE TO MARINERS (BNM)

The Coast Guard is responsible for broadcasting information concerning Aids to Navigation maintained under the authority of the Commandant. Broadcasting is confined to information concerning new establishment, discontinuance, changes, or deficiencies in Aids to Navigation which shipping interests should receive without delay. Important information, such as marine obstructions, temporary changes in bridge clearance or operation of drawbridges, dredging operations, shoaling, channel conditions, military exercises and hazards to navigation on inland or coastal waters will be broadcast if considered necessary for the safety of navigation.

Broadcast Notice to Mariners is not intended to be the source of chart and light list corrections, but rather to inform the mariner of the latest navigational information. The information contained in Broadcast Notice to Mariners that remain current will be included in the next published Local Notice to Mariners.

VHF-FM MARINE SAFETY BROADCAST STATIONS

The First Coast Guard District stations listed below announce all Broadcast Notice to Mariners. Initial call-up on 2182 kHz (SSB) and/or 156.8 MHz (Channel 16 VHF-FM) and request the mariner shift to either 2670 kHz (SSB) or 157.1 MHz (Channel 22 VHF-FM) where the complete broadcast text is read. These stations broadcast marine information and weather information upon receipt and on the following scheduled times and frequencies.

METHOD	UNIT/ EFFECTIVE AREA	TIMES (Z)
VHF SSB	GRU SOUTHWEST HARBOR Canadian border to Port Clyde, ME	1135, 2335
VHF SSB	GRU PORTLAND Marshall Pt to Great Boars Head, Hampton, NH	1105, 2305
VHF SSB	GRU BOSTON Great Boars Head to Manomet Pt, Plymouth, MA	1035, 2235
VHF SSB	GRU WOODS HOLE Manomet Point to Watch Hill, RI	1005, 2205
VHF SSB	GRU LONG ISLAND SOUND Watch Hill to Port Chester, CT	1120, 2320
VHF SSB	ACTIVITIES NEW YORK Port Chester to Midland Beach, Staten Island to Burlington, VT Midland Beach to Shrewsbury River, NJ	1050, 2250
VHF SSB	GRU MORICHES Midland Beach to Montauk Light	0020, 1220

FCC LICENSES

SHIP RADIO STATIONS

On October 26, 1996, the FCC released a Report and Order in WT Docket No. 96-82, FCC 96-421, eliminating the individual licensing requirement for voluntary ships operating domestically which are not required by law to carry a radio. The paragraphs below describe how the new rules affect the maritime public.

WHO NEEDS A RADIO?

Although recreational vessels less than 20m (65.6 feet) in length are not required to have VHF radios, before you purchase anything else, make sure you have a VHF marine radio. If you plan to travel more than a few miles offshore, you should strongly consider purchasing an HF or single side band radiotelephone or mobile satellite telephone, an emergency position indicating radio beacon, or EPIRB, and a second VHF radio or cellular telephone as well. Mobile satellite telephones are becoming more common and more inexpensive. The mobile satellite will provide easier and clearer communications than the HF radiotelephone, but the HF radiotelephone will receive high seas marine weather warnings.

DO I NEED A RADIO LICENSE?

The Telecommunications Act of 1996 permits recreational boaters to have and use a VHF marine radio, EPIRB, and marine radar **without** having an FCC ship station license. Boaters traveling on international voyages, having an HF single sideband radiotelephone or marine satellite terminal, or required to carry a marine radio under any other regulation must still carry an FCC ship station license.

Those not exempted by the Telecommunications Act of 1996 must still have an FCC ship station license. A ship station license application is made on FCC Form 605, available from local FCC Field Offices, by writing to the **FCC, P.O. Box 1050, Gettysburg PA 17326**, or by calling the FCC Forms Distribution Center at **(202) 418-3676** or the toll-free number **(800) 418-FORM**. Forms can also be obtained from most marine electronics dealers.

Radios can be used immediately upon license application. The license is not transferable if a boat is sold or if the installed radio equipment is moved from one boat to another.

You do not need a license to operate a marine VHF radio, radar, or EPIRBs aboard voluntary ships operating domestically. The terms "voluntary" and "domestic" are defined below. Although a license is no longer required for these ships, you may still obtain a license (and call sign) by following the procedures outlined in Section IV of this Fact Sheet and writing "VOLUNTARY SHIP" in large letters across the top of the application form.

WHICH SHIPS ARE VOLUNTARY?

The term "voluntary ships" refers to ships that are not required by law to carry a radio. The following types of ships ARE NOT voluntary:

- Cargo ships over 300 gross tons navigating in the open sea;
- Ships certified by the U.S. Coast Guard to carry more than 6 passengers for hire in the open sea or tidewaters of the U.S.;
- Power driven ships over 20 meters in length on navigable waterways;
- Ships of more than 100 gross tons certified by the U.S. Coast Guard to carry at least one passenger on navigable waterways;
- Tow boats of more than 7.8 meters in length on navigable waterways; and,
- Un-inspected commercial fishing industry vessels required to carry a VHF radio.

WHAT IS DOMESTIC OPERATION?

Ships operating domestically do not travel to foreign ports or transmit radio communications to foreign stations. Sailing in international waters is permitted, so long as the previous conditions are met. If you travel to a foreign port (e.g., Canada, Mexico, Bahamas, British Virgin Islands) a license is required. Additionally, if you travel to a foreign port, you are required to have an operator permit as described in Section III of this Fact Sheet.

DO I NEED A PERMIT TO OPERATE A RADIO?

The FCC Restricted Radiotelephone Operator Permit is required for boaters having an HF radiotelephone, for boaters having a VHF transceiver and traveling in foreign waters, or where fitting of a marine radio is required by law (e.g. on boats 20m long or larger). Applications and information is available from local FCC Field Offices or by writing to the **FCC, P.O. Box 1050, Gettysburg PA 17326**.

If you plan to dock in a foreign port (e.g., Canada or the, Bahamas) or if you communicate with foreign coast or ship stations, you must have a RESTRICTED RADIOTELEPHONE OPERATOR PERMIT (sometimes

referred to by boaters as an "individual license") in addition to your ship radio station license. However, if (1) you merely plan to sail in domestic or international waters without docking in any foreign ports and without communicating with foreign coast stations, and (2) your radio operates only on VHF frequencies, you do not need an operator permit.

HOW DO I OBTAIN A SHIP RADIO STATION LICENSE?

Obtain FCC Forms on line at http://www.fcc.gov/formpage.html) and file it with the FCC. The FCC will mail the license to you and it will be valid for ten years. Don't forget to sign and date your application and include any applicable fees, otherwise it may be returned.

NOTE: A ship radio station license authorizes radio equipment aboard a ship, while the restricted radiotelephone operator permit authorizes a specific person to communicate with foreign stations or use certain radio equipment (e.g., MF/HF single sideband radio or satellite radio).

HOW DO I OBTAIN A RESTRICTED RADIOTELEPHONE OPERATOR PERMIT?

Obtain FCC Forms on line and file it with the FCC. You do not need to take a test to obtain this permit. The FCC will mail the permit to you and it will be valid for your lifetime. Don't forget to sign and date your application and include any applicable fees, otherwise it may be returned.

MAY I OPERATE A MARINE RADIO WHILE MY APPLICATIONS ARE BEING PROCESSED?

You may operate your marine radio after you have mailed your application(s) to the FCC so long as you fill out, detach, and retain the temporary operating authority attached to the application form. The temporary operating authority is valid for 90 days after you mail your application to the FCC and should be kept with your station records until you receive your license/permit through the mail.

HOW DO I MAKE CHANGES DURING MY LICENSE TERM?

If you change your mailing address, legal name, ship name, ship official number, or state registration number you must notify the FCC in writing. There is no fee required. No action is required when you add or replace a transmitter that operates in the same frequency band. Send your written notice of change to: Federal Communications Commission, 1270 Fairfield Road, Gettysburg, PA 17325-7245.

HOW DO I RENEW MY LICENSE?

The FCC will send you a computer generated renewal application approximately 120 days prior to the expiration date of your license. If you do not receive this form within 30 days of the expiration date of your license, you should contact the FCC to determine the status of your license. If you send an application for renewal before your current license expires, you may continue to operate until the FCC acts on your application. You do not need a temporary permit but you should keep a copy of the renewal application you send the FCC. You must stop transmitting as soon as your license expires, unless you have already sent your renewal application to the FCC.

WHAT DO I DO IF MY LICENSE HAS EXPIRED?

If your station license has expired, you must apply for a NEW station license. There is NO grace period. You may use the temporary operating authority to operate your marine radio while your application is being processed.

SHOULD I RENEW MY LICENSE?

If you operate a marine VHF radio, radar, or EPIRBs aboard a voluntary ship operating domestically, you are not required to apply for a new license or renew your current license. Although a license is no longer required for these ships, you may still renew your license and retain your call sign.

Even though a station license may no longer be required, you must continue to follow the operating procedures for calling other stations, maintaining a safety watch, and relaying distress messages as specified in the FCC Rules. You may identify your ship station over the air using your FCC-issued call sign, the state registration number or official number of your ship, or the name of your ship.

MAY I USE MY RADIO ON MORE THAN ONE VESSEL?

If you can provide justification for the use of a single transmitter from two or more ships, a portable ship station license may be issued. This could authorize various types of marine radio equipment to be carried from ship to ship.

WHAT RADIO EQUIPMENT MAY I USE?

You do not need a license to use marine VHF radios, any type of EPIRB, any type of radar, GPS or LORAN receivers, depth finders, CB radio, or amateur radio (an amateur license is required). Ships that use MF/HF single side-band radio, satellite communications, or telegraphy must continue to be licensed by the FCC.

WHAT IF I HAVE A MARINE RADIO WITH DIGITAL SELECTIVE CALLING (DSC) CAPABILITY?

You must obtain a nine-digit maritime mobile service identity (MMSI) and have it programmed into the unit before you transmit. Prior to obtaining an MMSI, you will be asked to provide certain information about your ship. It is important that you obtain an MMSI because the U.S. Coast Guard uses this information to help speed search and rescue operations.

You may obtain an MMSI by filing FCC Form 506 with the FCC. The FCC is presently examining alternative ways to assign MMSI's (e.g., through private sector organizations). Before applying for an MMSI, you should contact the FCC at **(800) 322-1117** to find out the current procedure.

IF I HAVE A RADIO DO I HAVE TO LISTEN TO ALL THAT NOISE?

Even though you may not be required to carry a VHF radio, if you do (and you should) you must maintain a watch on channel 16 (156.800 MHz) whenever the radio is operating and not being used to communicate.

Recently a charter boat whose radio was not tuned to the proper channel missed a severe storm warning. By the time the captain learned of the storm, it was too late to return to shore. The ship sank and a couple of persons died. A yacht in trouble off the west coast of Mexico and far from help saw a passenger ship. What should have been a quick rescue almost turned to disaster when the passenger ship (improperly) had its radio off. The yacht was able to attract the ship's attention, however, and was rescued. Misunderstanding of passing intentions by approaching vessels and near collisions have repeatedly been averted by working radios tuned to the proper channel.

The International Telecommunications Union established three VHF marine radio channels recognized worldwide for safety purposes:

- Channel 16 (156.800 MHz) - Distress, safety and calling
- Channel 13 (156.650 MHz) - Intership navigation (bridge-to-bridge)
- Channel 70 (156.525 MHz) - Digital Selective Calling

THERE ARE SO MANY CHANNELS, HOW DO I KNOW WHICH TO USE?

Anyone (boaters included) wishing to call a commercial ship or shore activity would do so on channel 16. Recreational boaters may call the Coast Guard and any commercial facility on channel 16.

Channel 16 is the distress, safety and calling frequency. FCC regulations require boaters having VHF radios to maintain a watch on channel 16, whenever the radio is turned on and not communicating with another station.

Channel 16 is used for "hailing" (calling another vessel) only. Once you have contacted a vessel you should move your conversation to a "working channel". That is, one designated as "non-commercial" such as channel 68.

Another channel you should be aware of is channel 22A. This channel is reserved for the U.S. Coast Guard to relay marine information broadcasts. You may on occasion hear on channel 16 an announcement by the USCG telling all boaters that they have information that may be of importance to you. They would request that anyone wanting to listen to the information switch to channel 22A to hear the information.

The available channels are listed at the end of this chapter.

OKAY, SO I HAVE A RADIO, HOW DO I USE IT?

The standard procedure for a non-emergency call such as calling another vessel, marina, or restaurant to ask where to tie up for dinner is as follows.

1. You should call the vessel, marina or restaurant on channel 16 in the following manner.
2. Name of station being called, spoken three times.
3. The words "THIS IS", spoken once.
4. Name of your vessel and call sign (if you have a station license) or boat registration number, spoken once.
5. The word "OVER".
6. Then you wait for the station being called to answer. Their answer should be in the same manner as your call.
7. Once answered you should suggest going to a working channel to carry on your conversation.
8. The word "OVER".

9. Wait for reply or confirmation from the station being called, switch to the working channel and repeat the process.

An example might be:

Calling Station: "Safe Harbor Marina, Safe Harbor Marina, Safe Harbor Marina, THIS IS the motor vessel My Dream, WAI1234, OVER" (WAI should be spoken Whiskey, Alpha, India, wun, too, tree, fow er) If you think this sounds cool and very official you can view the phonetic alphabet at the end of this chapter.

Responding Station: "My Dream, My Dream, My Dream, THIS IS Safe Harbor Marina, WBC5678, OVER" (WBC should be spoken Whiskey, Bravo, Charlie, fife, six, seven, ait)

Calling Station: "Please switch and listen channel 68, OVER."

Responding Station: "Switching channel 68, OVER."

You would then switch to channel 68 and call Safe Harbor Marina using the same procedure and conduct your business. All conversations whether on a hailing channel or a working channel should be kept short and to the point.

WHAT ABOUT IN AN EMERGENCY SITUATION LIKE MAYDAY! MAYDAY! MAYDAY?

You may only have seconds to send a distress call. Here's what you do. Transmit, in this order:

1. If you have an HF radiotelephone tuned to 2182 kHz, send the radiotelephone alarm signal if one is available. If you have a VHF marine radio, tune it to channel 16. Unless you know you are outside VHF range of shore and ships, call on channel 16 first.
2. Distress signal "MAYDAY", spoken three times.
3. The words "THIS IS", spoken once.
4. Name of vessel in distress (spoken three times) and call sign or boat registration number, spoken once.
5. Repeat "MAYDAY" and name of vessel, spoken once.
6. Give position of vessel by latitude or longitude or by bearing (true or magnetic, state which) and distance to a well-know landmark such as a navigational aid or small is land, or in any terms which will assist a responding station in locating the vessel in distress. Include any information on vessel movement such as course, speed and destination.
7. Nature of distress (sinking, fire etc.).
8. Kind of assistance desired.
9. Number of persons onboard.
10. Any other information which might facilitate rescue, such as length or tonnage of vessel, number of persons needing medical attention, color hull, cabin, masks, etc.
11. The word "OVER"

Stay by the radio if possible. Even after the message has been received, the Coast Guard can find you more quickly if you can transmit a signal on which a rescue boat or aircraft can home in.

An example of a Mayday call:

MAYDAY-MAYDAY-MAYDAY
THIS IS LUCKY DUCK- LUCKY DUCK- LUCKY DUCK WAI1234
MINOTS LIGHT BEARS 185 DEGREES MAGNETIC-DISTANCE 2 MILES
STRUCK SUBMERGED OBJECT
NEED PUMPS-MEDICAL ASSISTANCE AND TOW
THREE ADULTS, TWO CHILDREN ONBOARD
ONE PERSON COMPOUND FRACTURE OF ARM
ESTIMATE CAN REMAIN AFLOAT TWO HOURS
LUCKY DUCK IS THIRTY TWO FOOT CABIN CRUISER-WHITE HULL-BLUE DECK HOUSE
OVER
Repeat at intervals until an answer is received.

WHAT DO YOU DO IF YOU HEAR A DISTRESS CALL?

If you hear a distress message from a vessel and it is not answered, then **you** must answer. If you are reasonably sure that the distressed vessel is not in your vicinity, you should wait a short time for others to acknowledge.

WHAT DO YOU DO IF YOU ARE OUT OF RANGE OF OTHER VESSELS, AND NO ONE RESPONDS TO YOUR DISTRESS CALL?

Tune your HF radiotelephone to an HF channel guarded by the Coast Guard, and repeat your mayday call. Activate your EPIRB.

HOW DO I KNOW IF THERE ARE STORM WARNINGS?

The Coast Guard announces storm warnings and other urgent marine information broadcasts on VHF channel

16 and 2182 kHz before making the broadcasts on VHF A and 2670 kHz respectively.

ABOUT RADIO CHECKS, O I KNOW MY RADIO IS NG?

e the amount of "chatter" on VHF channel st Guard does not conduct radio checks on quency is for call up and distress only. If radio is not working properly, switch to l working channel and call for a radio check.

WHAT ABOUT MAYDAY RADIO CHECKS AND OTHER HOAXES?

A growing number of boaters unsuccessful in getting a radio check are calling MAYDAY to get a response. Every hoax, including MAYDAY radio checks, is subject to prosecution as a Class D felony under Title 14, Section 85 of the U.S. Code, liable for a $5000 fine plus all costs the Coast Guard incurs as a result of the individual's action. Since hoaxes can lead to loss of life, the Coast Guard and Federal Communications Commission will work closely together, using, when necessary, FCC equipment capable of identifying the electronic signature of the offending radio.

WHAT HAPPENS IF THE COAST GUARD BOARDS MY SHIP?

On April 17, 1996, the U.S. Coast Guard suspended enforcement activities concerning FCC Radio Station Licenses carried aboard voluntary ships.

WHAT MUST I DO IF I SELL MY VESSEL?

If you sell your ship, you must send your SHIP STATION LICENSE, marked "cancel" to: Federal Communications Commission, 1270 Fairfield Road, Gettysburg, PA 17325-7245.

You cannot transfer your SHIP STATION LICENSE to another person or ship. The new owner cannot modify your license, but must apply for a NEW license. If you have a RESTRICTED RADIOTELEPHONE OPERATOR PERMIT, you should retain it for future use since it is authorized for your lifetime.

MAY I USE MY HAND-HELD MARINE VHF RADIO ON LAND?

You must have a special license, called a Marine Utility Station License, to operate a hand-held marine radio from land-a ship station license IS NOT sufficient. You may apply for this license by filing FCC Form 503 with the FCC. To be eligible for a marine utility station license, you must generally provide some sort of service to ships or have control over a bridge or waterway. Additionally, you must show a need to communicate using hand-held portable equipment from both a ship and from coast locations. Each unit must be capable of operation while being hand-carried by an individual. The station operates under the rules applicable to ship stations when the unit is aboard a ship, and under the rules applicable to private coast stations when the unit is on land.

HOW TO OPERATE YOUR MARINE VHF RADIO

WHAT TYPES OF MARINE VHF RADIOS ARE ACCEPTABLE?

The power output of your radio must not be more than 25 watts. You must also be able to lower the power of your radio to one watt or less. Your radio must be able to transmit on 156.8 MHz (Channel 16), 156.3 MHz (Channel 6) and at least one other channel. Your radio must be type accepted by the FCC. You can tell a type accepted radio by the FCC ID label on the radio. You may look at a list of type-accepted radios at any FCC field office or at FCC headquarters.

MAY I INSTALL AND SERVICE MY MARINE VHF RADIO BY MYSELF?

You may install your radio in your ship by yourself. All internal repairs or adjustments to your radio must be made by or under the supervision of an FCC-licensed technician holding at least a General Radiotelephone Operator License. It is recommended that the radio be inspected by the service person when installed.

WHAT MARINE VHF CHANNELS MAY I USE?

The marine VHF channels are divided into operational categories, based on the types of messages that are appropriate for each channel, and are available for the shared use of all boaters. You must choose a channel that is available for the type of message you want to send. Except where noted, channels are available for both ship-to-ship and ship-to-coast messages. A list of the marine VHF channels

and their designated uses are shown at the end of this chapter. The channels listed in the table are the only channels you may use, even if your radio has more channels available.

HOW DO I MAKE A CALL?

Monitor Channel 16. Whenever your radio is turned on (and not being used for messages), keep it tuned to Channel 16.

Power. Try one watt first if the station being called is within a few miles. If there is no answer, you may switch to higher power.

Calling coast stations. Call a coast station on its assigned channel. You may use Channel 16 when you do not know the assigned channel.

Calling other ships. Call other ships on Channel 16. You may call on ship-to-ship channels when you know that the ship is listening on both a ship-to-ship channel and Channel 16. NOTE: To do this the ship has to have two separate receivers.

Limits on calling. You must not call the same station for more than 30 seconds at a time. If you do not get a reply, wait at least two minutes before calling again. After three calling periods, wait at least 15 minutes before calling again.

Change channels. After contacting another station on Channel 16, change immediately to a channel that is available for the type of message you want to send.

Station identification. Identify in English, your station by your FCC call sign or ship name at the beginning and end of each message.

WHAT COMMUNICATIONS ARE PROHIBITED?

YOU MUST NOT TRANSMIT-

- False distress or emergency messages.
- Messages containing obscene, indecent, or profane words or meaning.
- General calls, signals, or messages, except in an emergency or if you are testing your radio (these are messages not addressed to a particular station), or when your ship is on land (for example, while the ship is on a trailer).

DO I HAVE TO KEEP A RADIO LOG?

You do not have to keep a radio log.

DO I NEED A COPY OF THE RULES?

Voluntary boaters are not required to keep a copy of the FCC's rules. Regardless of whether or not you have a copy of the rules, however, you are responsible for compliance. This Fact Sheet is furnished for your information and guidance. If you would like a copy of the rules, refer to Section VI of this Fact Sheet.

DO I HAVE TO MAKE MY SHIP STATION AVAILABLE FOR INSPECTION?

Your station and your station records (station license and operator license or permit, if required) must be shown when requested by an authorized FCC representative.

WHAT HAPPENS IF I VIOLATE THE RULES?

If it appears to the FCC that you have violated the Communications Act or the rules, the FCC may send you a written notice of the apparent violation. If the violation notice covers a technical radio standard, you must stop using your radio. You must not use your radio until you have had all the technical problems fixed. You may have to report the results of those tests to the FCC. The commercial operator who conducted the test must sign the results. If the FCC finds that you have willfully or repeatedly violated the Communications Act or the rules, your authorization to use the radio may be revoked and you may be fined or sent to prison.

HOW DO I CALL ANOTHER SHIP?

- Make sure your radio is on.
- Speak directly into the microphone in a normal tone of voice— clearly—distinctly.
- Select Channel 16 (156.8 MHz) and listen to make sure it is not being used.
- Press the microphone button and call the ship you wish to call. Say "[name of ship being called] THIS IS [your ship's name and call sign (if applicable)].
- Once contact is made on Channel 16, you must switch to a ship-to-ship channel. The ship-to- ship channels are listed in the chart on page 13 of this Fact Sheet.
- After communications are completed, each ship must give its call sign or ship name and switch to Channel 16.

HOW DO I PLACE A CALL THROUGH A PUBLIC COAST STATION?

Boaters may make and receive telephone calls to and from any telephone with access to the nationwide telephone network by utilizing the services of Public Coast Stations.

Calls can be made to other ships or telephones on land, sea, and in the air.

IMPORTANT: A ship owner who plans on using these services should register with the operator of the Public Coast Station through which he/she plans to operate. If a person is not registered with the Public Coast Station, then billing information must be given to the Coast Station operator each time a call is made, which results in additional time and effort.

MAKING SHIP TO SHORE CALLS

- Select the public correspondence channel desired.
- LISTEN to see if the channel is busy (i.e., speech, signaling tones, or busy signal).
- If not busy, say, for example, "Pleasure craft [name of ship] calling
- [Name of Public Coast Station] on Channel XX.
- If busy, wait until the channel clears or switch to another channel.
- When a coast station operator answers, say, "This is [name of ship and ships phone or billing number if assigned] placing a call to [city and phone number desired]." Give the operator billing information. If billing information for your ship has not been registered, the operator will ask for additional identification for billing purposes.
- At completion of call say, "[Name of ship] OUT."

RECEIVING SHORE TO SHIP CALLS

To receive public Coast Station calls on VHF-FM frequencies, the receiver must be in operation on the proper channel. Coast stations will call on 156.8 MHz (channel 16) unless you have Ringer Service (which requires a second receiver).

SHIP TO SHIP CALLS

Contacts between ships are normally made directly but you can go through your coast station using the same procedure as ship to shore calls.

PLACING SHORE TO SHIP CALLS

Dial "0" for operator and ask for the "marine operator." It is necessary to know the name of the ship being called (not the owner's name) and its approximate location so the marine operator will know which coast station to place the call through. Other useful information is the channel generally monitored for receiving calls, the ringer number (if applicable) and the Coast Station through which calls can generally be received.

FCC INFORMATION

FORMS

- FCC Forms Distribution Center **(800) 418-FORM (3676)**
- FCC Fax-On-Demand system—call **(202) 418-0177** from the handset of your fax machine. Follow the recorded instructions to have FCC Form 506 (document retrieval number 000506) or FCC Form 753 (document retrieval number 000753) sent directly to your fax machine.

FEES

- FCC Consumer Center **(888) 225-5322**

RULES

All details concerning radio service eligibility, application procedures, operating requirements, and equipment are not required to carry a copy of the rules.

Maritime Service Rules 47 C.F.R. Part 80 Operator License Rules 47 C.F.R. Part 13

The rules are available for a fee from the Government Printing Office at **(202) 512-1803.**

Voluntary ship operators who would like an abbreviated version of the rules, including all requirements for voluntary ships, may want to obtain a copy of the Radio Technical Commission for Maritime Service's publication titled "Marine Radiotelephone Users Handbook". The latest edition may be ordered from RTCM, P.0. Box 19087, Washington DC 20036.

FCC REGULATIONS-CHANNEL 16 VHF-FM

FCC Regulations prohibit radio checks with the Coast Guard on VHF-FM Channel 16, 156.8 MHz, except when conducted by FCC representatives, qualified radio technicians installing or repairing equipment, or when requested by the Coast Guard.

NAVTEX STATIONS

In the U.S., NAVTEX is presently operating from Boston, MA with a coverage radius of about 250 nm; from New Orleans, LA, with a coverage radius of about 450 nm; from Miami, FL, with a coverage radius of about 250 nm, and

from Portsmouth, VA, with a coverage radius of about 250 nm. The U.S. Coast Guard has reached it's goal of completing installation at all 12 U.S. Coast Guard Communications Stations and remote sites. Now that installation is complete, NAVTEX coverage should be reasonably continuous to 100 nm off the U.S. East, Gulf and West coasts, including Puerto Rico, Southwest Alaska, Hawaii and Guam. NAVTEX is fully operational in the U.S., and the U.S. Coast Guard has phased out Morse code (MF) Broadcasts.

BRIDGE TO BRIDGE RADIOTELEPHONE REGULATIONS

Channel 13 (156.65 MHz) – This is the Bridge-to-Bridge Radiotelephone frequency. The Vessel Bridge-to-Bridge Radiotelephone Act is applicable on navigable waters of the United States inside the boundary lines established in 46 CFR 7. In all cases, the Act applies on waters subject to the Inland Rules. In some instances, the Act may apply all the way out to the three-mile limit, depending on where the boundary lines are located. In no instance does the Act apply beyond the three-mile limit.

In 1992, many changes were made to the Vessel Bridge-to-Bridge Radiotelephone Regulations. These changes were advertised in the Federal Register on April 21, 1992, (57 FR 14483) and have been published as changes to Navigation Rules; International-Inland. The following is a summary of the substantive changes:

- For power-driven vessels, the minimum size requirement for application of the regulations will change from 300 gross tons to 20 meters (65.5 feet) in length. This means that all power-driven vessels 20 meters in length or greater, passenger vessels of 100 gross tons or greater, towing vessels 26 feet in length or greater, and most dredges will be required to abide by these regulations.
- All vessels subject to the regulations must be capable of transmitting and receiving on VHF-FM channel 22A (157.1 MHz) the Coast Guard Marine Information Broadcast and Communications Channel. NOTE: Most VHF-FM Marine radios commercially available in the United States are already capable of transmitting and receiving on this channel.
- Vessels subject to these regulations, operating in a designated area on the lower Mississippi River and its approaches, must have equipment capable of transmitting and receiving on channel 67 VHF-FM (156.375 MHz) and are required to monitor this channel instead of channel 13.

In order to maintain an effective and continuous watch on the designated bridge-to-bridge channel (channel 13 or 67), a second VHF-FM radio must be available to meet watch requirements on Channel 16 (156.8 MHz Distress, Safety and Calling channel) or a separately assigned Vessel Traffic Service (VTS) channel and to communicate on other required channels (e.g. channel 6 - Intership Safety) and channel 22A (Coast Guard Marine Information Broadcast and Communications Channel) or such other channels as required for the vessel's service (e.g. port operations channel or designated working channel). Any of the following combinations of equipment are acceptable to meet these requirements:

- Two multi-channel VHF-FM radios capable of transmitting and receiving on the bridge-to-bridge channel (channel 13 or 67), channel 16, channel 22A, and such other channel as required for the vessels service.
- One single channel VHF-FM radio capable of transmitting and receiving on channel 13 and 67 and a second multi-channel VHF-FM radio capable of transmitting and receiving on channel 16, 22A, and such other channels as required for the vessel's service.
- One multi-channel VHF-FM radio with two separate receivers capable of continuously monitoring VHF-FM channel 13 or 67 through one receiver and channel 16, or a separately assigned VTS channel, through the other receiver. A single VHF-FM radio capable of scanning, or sequential monitoring (often referred to as "dual watch" capability) will not satisfy this requirement.

NOTE: A portable (hand-held) radio may be used to meet the bridge-to-bridge requirements. However, this radio must be permanently associated with the vessel and it must have a connection for an external antenna (FCC regulations 47 CFR 80.1017). Foreign vessels entering into U.S. waters may use portable equipment, not permanently associated with the vessel, which is brought aboard by the pilot. However, foreign vessels transiting U.S. waters without a pilot on board must still meet the provisions above.

The following are some important provisions of the vessel bridge-to-bridge regulations:

- The operator, or whoever is designated to pilot the vessel, must maintain a listening watch on the designated frequency while underway on the navigable waters of the United States. The designated frequency is VHF-FM channel 13 (156.65 MHz) except on portions of the lower Mississippi River, where VHF-FM channel 67 is the designated frequency.
- The Bridge-to-Bridge VHF-FM maritime channel shall only be used to exchange navigational information or necessary tests.

- The person maintaining the listening watch must be able to communicate in English.

The use of channel 13 for other than information necessary for the safe navigation of vessels is strictly prohibited. Violations of the Bridge-to-Bridge Radiotelephone Act are subject to a civil penalty of not more than $500.00. Additional information on Bridge-to-Bridge Radiotelephone regulations can be found in 33 CFR 26 and Navigation Rules International-inland COMDTINST M16672.2C. Technical information on telecommunications can be found in 47 CFR 80

CELLULAR TELEPHONE USE ABOARD VESSELS

Cellular telephones are fast becoming the land mobile communications link of choice throughout the United States. Their lowered cost, increased coverage, and ease of use have made them very popular. Cellular telephone coverage, however, is primarily optimized for the land areas, with limited cellular coverage offshore.

Cellular telephones have several limitations when compared to VHF-FM marine band radios. These include:

- Lower power. Cellular phones are limited to 3 watts output power. Installed marine VHF-FM transceivers have as much as 25 watts when put on the "high power" setting.
- Point-to-point communications. A call made on a cellular telephone "connects" one phone to another - no one else can (legally) monitor the call. If a cellular phone is used for distress, nearby vessels are unable to hear the distress call and render assistance.
- No communications with CG units. A distressed vessel calling the Coast Guard for assistance will be able to contact a shore unit (if within cellular range of the shore) but will not be able to communicate with a CG cutter or aircraft. The mariner would still need a VHF-FM radio to communicate with the cutter or aircraft for coordinating the rescue.
- No radio watches on cellular. The Coast Guard monitors Channel 16 VHF-FM through a system of overlapping transceiver sites. Calling on Channel 16 never results in a "busy signal" the way a telephone call might. The possibility also exists that the mariner could, in using cellular telephone, call the wrong CG unit, which could result in a delay in his being rescued.

THE BOTTOM LINE IS:

The Coast Guard, by law, is required to monitor Channel 16 VHF-FM 24 hours a day. Cellular phones are nice, but the mariner's primary method of communication with the Coast Guard should continue to be VHF-FM radio.

DIGITAL SELECTIVE CALLING

Digital Selective Calling (DSC) is part of the international effort, called the Global Maritime Distress and Safety System (GMDSS), to apply new technology to marine distress communications. The GMDSS includes VHF-FM and high frequency (HF) DSC, the new 406 MHz Emergency Position Indicating Radiobeacons (EPIRB) and medium frequency navigational and meteorological warning text (NAVTEX) transmissions.

VHF-FM DSC uses Channel 70 as an alerting channel. DSC-equipped radios transmit and receive "packets" of information on Channel 70. These packets indicate the "calling" station, the "called" station, the "channel requested," and even its location. Mariners using DSC can "dial" another vessel using its DSC "phone" number, and the radio on the called vessel will alert the vessel operator that there is an incoming call and display the caller's identification. Both radios then automatically switch to a regular marine ship-to-ship channel (the "channel requested") for the communications to take place. This eventually will relieve the mariner of maintaining a constant watch on a channel to hear another unit calling his vessel.

An emergency alerting feature enables the operator to transmit a distress signal that is received by all DSC-equipped radios within transmission range. This distressed "packet" contains the vessel's identification, the nature of distress, and can indicate the vessel's latitude and longitude if the DSC radio is connected to a navigational device such as a LORAN or GPS receiver. Commercial vessels are required to monitor VHF Ch 70 and can relay your distress to the nearest Coast Guard Group.

Additional features of DSC receivers include a scrollable directory for storage of other vessels' DSC identification numbers, to enable the caller to scroll through until he sees the vessel he wants to call, and then initiating the call without having to "dial in" the number. A second feature includes another directory, which would contain shore side telephone numbers. Selection of one of these numbers would initiate a call to the local marine operator facility and automatically dial the shore side number, without having to go through the marine operator.

DSC is required aboard all commercial vessels constructed after 1 July 1995 and will be required on all existing commercial vessels after 1 July 1999. Use and carriage requirements for recreational and non-commercial vessels have not yet been determined.

U.S. VHF Marine Radio Channels and Frequencies

Channel Number	*Ship Transmit*	*Ship Receive*	*Use*
01A	156.050	156.050	Port Operations and Commercial. VTS in selected areas.
05A	156.250	156.250	Port Operations. VTS in Seattle
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 >noel 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 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. Government only
22A	157.100	157.100	Coast Guard Liaison and Maritime announced on channel 16.
23A	157.150	157.150	U.S. Government 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 in selected areas.
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
80A	157.025	157.025	Commercial
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. Government 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	161.975	Public Correspondence (Marine Operator)
88	157.425	162.025	Public Correspondence in selected areas only.
88A	157.425	157.425	Commercial, Intership only.

Frequencies are in MHz. Modulation is 16KF3E or 16KG3E.

Note that the letter "A" indicates simplex use of an international duplex channel, and that operations are different than international operations on that channel. Some VHF transceivers are equipped with an "International - U.S." switch for that purpose. "A" channels are generally only used in the United States, and use is normally not recognized or allowed outside the U.S.

Boaters should normally use channels listed as Non-Commercial. Channel 16 is used for calling other stations or for distress alerting. Channel 13 should be used to contact a ship when there is danger of collision. All ships of length 20m or greater are required to guard VHF channel 13, in addition to VHF channel 16, when operating within U.S. territorial waters. Users may be fined by the FCC for improper use of these channels.

The Phonetic Alphabet

The phonetic alphabet should be used for radio transmissions in plain language or in code.

A - Alpha	**H - Hotel**	**O - Oscar**	**V - Victor**
B - Bravo	**I - India**	**P - Papa**	**W - Whiskey**
C - Charlie	**J - Juliet**	**Q - Quebec**	**X - X-ray**
D - Delta	**K - Kilo**	**R - Romeo**	**Y - Yankee**
E - Echo	**L - Lima**	**S - Sierra**	**Z - Zulu**
F - Fox-trot	**M - Mike**	**T - Tango**	
G - Golf	**N - November**	**U - Uniform**	

If you need to spell out a word you should say, ***"I spell"*** after pronouncing the word and then spell it using the phonetic alphabet.

Numerals should be pronounced:

1 - wun	**6 - six**
2 - too	**7 - seven**
3 - tree	**8 - ait**
4 - *fow* er	**9 - nin er**
5 - fife	**0 - zero**

D. ✸ ELECTRONIC NAVIGATION ✸

NAVIGATION CENTER

Providing GPS/LORAN Information, and Online Access to the Local Notice to Mariners

The U.S. Coast Guard is the government interface for civil users of GPS and has established a Navigation Center (NAVCEN) to meet the needs of the civil users. NAVCEN is a Coast Guard facility manned 24 hours a day, 7 days a week, and is located in Alexandria, Virginia. The Navigation Information Service (NIS) (formerly GPSIC) is part of NAVCEN and provides GPS status information to civilian users of the system at no charge. To reach the NIS write:

Commanding Officer (NIS)
US Coast Guard Navigation Center
7323 Telegraph Rd
Alexandria VA 22315-3998
Telephone: **1-703-313-5900**

Fax: **1-703-313-5920**

Internet: http://www.navcen.uscg.gov or
Mirror Site: www.navcen-mirror.com

E-mail: mailto:nisws@navcen.uscg.mil

Fax on Demand (FOD):

Navigation Information is available through a Fax on Demand System 24 hours a day at:
Telephone: **1-703-313-5931/5932**

NIS 24-Hour GPS Recording:
GPS: Telephone **1-703-313-5907**

WWV/WWVH Radio Broadcast Users can hear WV*RV broadcasts by telephone or radio at 14-15 minutes past the hour and WVNH at 43 - 44 minutes past the hour.
Radio frequencies: 2.5, 5, 10, 15, 20 MHz
Telephone: **1-303-499-7111**
Telephone: **1-800-368-5647**

LORAN INFORMATION

LORAN-C, which was first established in 1958, is the last form of Loran still in use today. LORAN-C is the logical extension of LORAN-A and offers greatly increased range and accuracy to the user. It operates in the 90-110KHZ band and the time difference measurements are made utilizing both the pulse envelopes and the phase for the cycle within the pulse envelope to obtain a highly accurate reading.

LORAN-A:

LORAN-A has been discontinued throughout the world.

LORAN-C:

LORAN-C has been selected by the Federal Government as the Civil Navigation System for the U. S. Coastal Confluence Zone. The expansion of LORAN-C to enable coverage for all areas of the Coastal Confluence Zone and the Great Lakes has been completed.

All LORAN-C tables carry Publication Series numbers of LCPUB221 and LABUB221, respectively and are so indexed in the National Imagery and Mapping Agency, P Catalog of Hydrographic Products (NIMA Stock Number CATP2V10).

The publication number, pertinent suffix, and station pair will fully identify the table for requisitioning purposes. LORAN-C chart coverage is in volume 1 through X (DMA Stock Numbers CATP2V01 through CATP2V10).

- There are many types of LORAN-C receivers available. They employ various techniques for acquiring and tracking the LORAN-C signals, and indicating the time difference or position information to the user. A LORAN-C receiver which will be useful to the limits of the Coast Guard's advertised LORAN-C coverage for the U. S. Coastal Confluence Zone, and which is capable of measuring position with accuracy which is advertised for LORAN-C has the following characteristics:

- It acquires the LORAN-C signals automatically, without the use of an oscilloscope.
- It identifies master and secondary ground wave pulses automatically, and accomplishes cycle matching on all eight pulses of each master-secondary pair used.
- It tracks the signals automatically once they have been acquired.
- It displays two time-difference readings, to a precision of at least one-tenth of a microsecond.

- It has notch filters to minimize the effects of radio frequency interference in the area of its operation.
- It automatically detects blink and alerts the operator. Blink is a condition of blinking on and off the first two of the eight pulses of a secondary station to indicate an out of tolerance condition for that master-secondary pair.

LORAN-C coverage presently exists along most of the Western Coast of North America from the Bering Sea southward along the Gulf of Alaska, Western Canada, and the U. S. West Coast down to the Gulf of Mexico. Along the East Coast, coverage exists from Nova Scotia southward along the entire East Coast to the southern tip of Florida including the entire Gulf of Mexico area and the Great Lakes. The Mid – Continent Chain also provides coast to coast coverage for land navigation purposes

World wide LORAN-C coverage (including that described above may be found on the LORAN-C Coverage Diagram at the end of this section.

The Radio Navigation Bulletin, distributed quarterly by the U. S. Coast Guard, presents current information on various radionavigation systems and related items of interests. To be placed on the mailing list for this free publication write, Commanding Officer Coast Guard Navigation Center, Attn: Joyce Brown, 7323 Telegraph Rd., Alexandria Va. 22315-3998, or call **(703) 313-5846**. Radio Navigation questions should be directed to the Navigation Information Service (NIS) at the same address or call **(703) 313-5900**.

The current operational status of all Atlantic Area LORAN-C stations is available from the four Chain Operations Control Officers (COCOs). The COCO monitors the day-to-day operations of the LORAN-C chain and responds to queries directed to the COCO personally. Pertinent telephone numbers follow:

COCO Great Lakes (8970) and Northeast (9960) chain is located at the Navigation Center, 7323 Telegraph Rd., Alexandria, Va. 22315, COCO: **(703) 313-5887**.

COCO Southeast (7980) chain is located at the Navigation Center, 7323 Telegraph Rd., Alexandria, Va. 22315, COCO: **(703) 313-5873**.

COCO Canadian East Coast (5930) chain is located at LORAN station St. Anthony, NFDL, Canada. COCO (709) 454-2392

If after contacting COCOs additional information is required, contact The Navigation Information Service (NIS) at (703) 313-5900.

AVAILABILITY OF "LORAN-C USER HANDBOOK" AND LORAN-C CHARTS

LORAN-C radio navigation system users can purchase the 1992 revision of the U.S. Coast Guard's 1980 "Green Book" by mail or telephone. The updated and expanded handbook explains in detail the installation and use of technological advances such as solid-state transmitters and state-of-the-art receivers. It provides guidance on such topics as position determination and accuracy, practical aspects of marine navigation, and use of LORAN-C charts. There are many fine publications on LORAN that are commercially available through chandlers and marine suppliers.

To order the current edition (1992) by mail, send a check or money order payable to "Superintendent of Documents" or by telephone using VISA or MasterCard between the hours of 8 a.m. and 4 p.m. Ask for the publication by name and give stock number 050-012-00331-9. Send written requests to:

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402

To order by phone, call **(202) 783-3238** and give the name and stock number of the publication. Navigational charts overprinted with LORAN-C lines of position are published by:

Defense Supply Center Richmond
Attn: DSCR-JNB
8000 Jefferson Davis Hwy
Richmond VA. 23297-5339

And may be purchased directly from NOS. Alternative sources are the National Imagery and Mapping Agency, Combat Support Center, Attn.: PMSS, 6001 MacArthur Blvd. Bethesda, MD 20816-5001 or through local chart sales agents.

OMEGA NAVIGATION

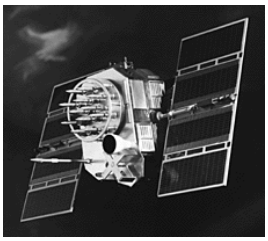
Omega operations terminated permanently on 30 September 1997 as addressed in the 1996 Federal Navigation Plan. On 11 October 1996, the U.S. Coast Guard published a Federal Register Notice of Intent for the Omega Radio navigation System Termination that included terminating the existing bilateral Omega agreements with the six partner nations (Argentina, Australia, France, Japan, Liberia and Norway). A formal letter was also delivered to the Interna-

tional Civil Aviation Organization (ICAO) for distribution to the 184 member states.

FOR FURTHER INFORMATION CONTACT:

Mr. Stewart Shoulta
Radio Aids Division (G-OPN-3),
U.S. Coast Guard Headquarters,
2100 Second St., SW,
Washington, DC 20593-0001
Phone: (202) 267-6052

GLOBAL POSITIONING SYSTEM - (GPS)



GPS satellites, 24 in all, orbit 11,000 miles above the Earth. Ground stations located worldwide continuously monitor them. The satellites transmit signals that can be detected by anyone with a GPS receiver.

GPS ELEMENTS

The space part of the Global Positioning System (GPS) is composed of 24 satellites, each in its own particular orbit 10,900 nautical miles above the Earth. The other two main components of the GPS system are the receivers, which you can hold in your hand or mount in your car, and the ground stations (five of them, located around the world) that make sure the satellites are working properly.

HOW GPS WORKS – AN AMAZING SYSTEM

One trip around the Earth in space equals one orbit. The GPS satellites each take 12 hours to orbit the Earth. Each satellite is equipped with a very accurate clock to let it broadcast signals coupled with a precise time message. The ground unit receives the satellite signal, which travels at the speed of light. Even at this speed, the signal takes a measurable amount of time to reach the receiver. The difference between the time the signal is sent and the time it is received, multiplied by the speed of light, enables the receiver to calculate the distance to the satellite. To measure precise latitude, longitude, and altitude, the receiver measures the time it took for the signals from four separate satellites to get to the receiver.

The GPS system can tell you your location anywhere on or above the Earth to within about 10 meters. Even greater accuracy, usually within less than three feet, can be obtained with corrections calculated by a GPS receiver at a known fixed location.

So you can more easily understand some of the scientific principles that make GPS work, let's discuss the basic features of the system. The principle behind GPS is the measurement of distance (or range) between the receiver and the satellites. The satellites also tell us exactly where they are in their orbits. It works something like this: if we know our exact distance from a satellite in space, we know we are somewhere on the surface of an imaginary sphere with radius equal to the distance to the satellite radius. If we know our exact distance from two satellites, we know that we are located somewhere on the line where the two spheres intersect. And, if we take a third measurement, there are only two possible points where we could be located. One of these is usually impossible, and the GPS receivers have mathematical methods of eliminating the impossible location.

U.S. GLOBAL POSITIONING SYSTEM POLICY

The President has approved a comprehensive national policy on the future management and use of the U.S. Global Positioning System (GPS) and related U.S. Government augmentations. Background The Global Positioning System (GPS) was designed as a dual-use system with the primary purpose of enhancing the effectiveness of U.S. and allied military forces. GPS provides a substantial military advantage and is now being integrated into virtually every facet of our military operations. GPS is also rapidly becoming an integral component of the emerging Global Information Infrastructure, with applications ranging from mapping and surveying to international air traffic management and global change research. The growing demand from military, civil, commercial, and scientific users has generated a U.S. commercial GPS equipment and service industry that leads the world. Augmentations to enhance basic GPS services could further expand these civil and commercial markets.

The "basic GPS" is defined as the constellation of satellites, the navigation payloads which produce the GPS signals, ground stations, data links, and associated command and control facilities which are operated and maintained by the Department of Defense; the "Standard Positioning Service" (SPS) as the civil and commercial service provided by the basic GPS; and "augmentations" as those systems based on the GPS that provide real-time accuracy greater than the SPS. This policy presents a strategic vision for the future management and use of GPS, addressing a broad range of military, civil, commercial, and scientific interests, both national and international.

POLICY GOALS

In the management and use of GPS, we seek to support and enhance our economic competitiveness and productivity while protecting U.S. national security and foreign policy interests.

Our goals are to:

(1) Strengthen and maintain our national security.

(2) Encourage acceptance and integration of GPS into peaceful civil, commercial and scientific applications worldwide.

(3) Encourage private sector investment in and use of U.S. GPS technologies and services.

(4) Promote safety and efficiency in transportation and other fields.

(5) Promote international cooperation in using GPS for peaceful purposes.

(6) Advance U.S. scientific and technical capabilities.

POLICY GUIDELINES

We will operate and manage GPS in accordance with the following guidelines:

(1) We will continue to provide the GPS Standard Positioning Service for peaceful civil, commercial and scientific use on a continuous, worldwide basis, free of direct user fees.

(2) Through a Presidential Order GPS Selective Availability (SA) was set at zero for increased accuracy to civilian and commercial users.

(3) The GPS and U.S. Government augmentations will remain responsive to the National Command Authorities.

(4) We will cooperate with other governments and international organizations to ensure an appropriate balance between the requirements of international civil, commercial and scientific users and international security interests.

(5) We will advocate the acceptance of GPS and U.S. Government augmentations as standards for international use.

(6) To the fullest extent feasible, we will purchase commercially available GPS products and services that meet U.S. Government requirements and will not conduct activities that preclude or deter commercial GPS activities, except for national security or public safety reasons.

(7) A permanent interagency GPS Executive Board, jointly chaired by the Departments of Defense and Transportation, will manage the GPS and U.S. Government augmentations. Other departments and agencies will participate as appropriate. The GPS Executive Board will consult with U.S.

Government agencies, U.S. industries and foreign governments involved in navigation and positioning system research, development, operation, and use.

This policy will be implemented within the overall resource and policy guidance provided by the President.

REPORTING REQUIREMENTS

Beginning in 2000, the President will make an annual determination on the use of GPS Selective Availability. To support this determination, the Secretary of Defense, in cooperation with the Secretary of Transportation, the Director of Central Intelligence, and heads of other appropriate departments and agencies, shall provide an assessment and recommendation on SA use. This recommendation shall be provided to the President through the Assistant to the President for National Security Affairs and the Assistant to the President for Science and Technology.

DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS)

The United States Coast Guard provides a Differential Global Positioning System (DGPS) service for the Harbor and Harbor Approach (HHA) phase of marine navigation. DGPS technology is the first to economically offer geodetic accuracy meeting the Federal-planning requirement of sub10 meters for harbor and harbor approach navigation. The DGPS service coverage area includes the coastal United States, Great Lakes, Puerto Rico, and most of Alaska and Hawaii. This DGPS service is available to the public navigator as an all-weather navigation sensor to supplement traditional visual, radar, and depth sounding techniques.

Differential GPS (DGPS) is a system in which differences between observed and predicted GPS signals at a particular location are transmitted to users as a differential correction to upgrade the precision and performance of the user's receiver processor. The DGPS will use fixed GPS reference stations that will broadcast pseudo-range corrections using maritime radiobeacons and will provide radionavigation accuracy better than 10 meters for U. S. harbor and harbor approaches.

DGPS ARCHITECTURE

The functional elements of the U.S. Coast Guard DGPS Navigation Service include:

- Reference Station - Precisely located GPS receiving equipment that calculates satellite range corrections based on a comparison of the satellite navigation message to its known location.
- Integrity Monitor - Precisely located GPS receiver and MSK radio beacon receiver that apply differential corrections. The corrected position is compared to its known location to determine if the correction broadcast from the Reference Station is in tolerance.
- Broadcast Site - A marine radiobeacon transmitting correction data in the 285 to 325 kHz band.
- Control Station - Site for human centralized control of the DGPS service elements. DGPS performance data processing and archiving is accomplished here. The

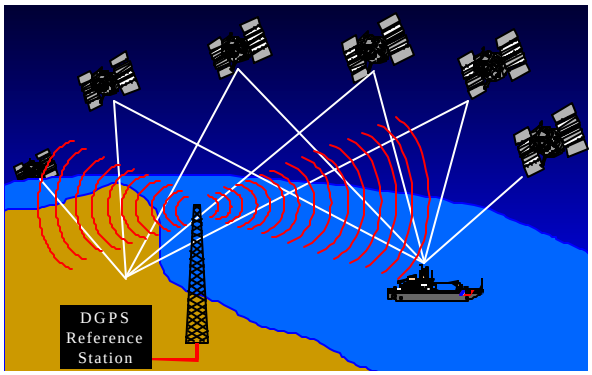
East Coast Control Station is located at the USCG Navigation Center in Alexandria, Virginia. The West Coast Control Station is located at the Navigation Center Detachment in Petaluma, California. Both sites are manned 24 hours per day.

- Communication Network - An X.25 packet-switched service providing connectivity between broadcast sites and control stations.
- DGPS User Equipment - Consists of two interfaced receivers with a display; a radiobeacon receiver for MSK demodulation and a GPS receiver capable of applying differential corrections.

SYSTEM PERFORMANCE [Broadcast Standard]

-Accuracy- The position accuracy of the USCG DGPS Service is within 03 meters (2drms) in all specified coverage areas. A reasonable approximation for determining the achievable accuracy at a given point is to take the typical error at a short baseline from the reference station (approximately 0.5 meters), add an additional meter of error for each 150 kilometers of separation from the reference station broadcast site, and add an additional 1.5 meters for the user equipment. Some high-end user sets are achieving pseudorange measurement accuracy of less than 30 centimeters in the absence or the abatement of multipath. Hence, the user with high-end equipment who is within 300 kilometers from a given broadcast can achieve accuracy better than 3 meters (2drms). The continuous velocity accuracy of the system (i.e. the vessel's speed over ground) is better than 0.1 knots rms in VTS areas that utilize Dependent Surveillance.

-Availability- This is defined as the percentage of time in a one-month period during which a DGPS Broadcast site transmits healthy pseudorange corrections at its specified output level. The DGPS Navigation Service was designed for, and is operated to, maintain a broadcast availability level that exceeds 99.7%, assuming a complete and healthy satellite constellation is in place (i.e. HDOP<2.3). Any DGPS area of coverage that falls within a Vessel Traffic Service region that utilizes 'dependent surveillance' for vessel tracking will maintain signal availability in the coverage area of 99.9%. Signal availability will be higher than broadcast availability if a coverage area receives more than one broadcast.



-Integrity- System integrity is built upon the foundation of the monitor stations. The Integrity Monitors will ensure broadcast and signal strengths are in tolerance. Users are alarmed within 10 seconds if an out-of-tolerance condition exists. The user equipment suite plays a significant role in assuring that the integrity of the system is preserved. It should be capable of automatically selecting the appropriate radio beacon. A satisfactory broadcast is one that is classified as healthy, is presently monitored, and the pseudorange time out limit of 30 seconds for at least four satellites has not been reached. The user need not be within the advertised range of the broadcast for it to be satisfactory.

-Coverage- The USCG DGPS Navigation Service is designed to provide coverage at the specified levels for all "Harbor and Harbor Approach Areas" and other "Critical Waterways" for which the U.S. Coast Guard provides aids to navigation. Due to the omnidirectional nature of the broadcasts, and that a high power radiobeacon may cover more than one harbor, coverage often extends into additional areas. As a result, complete coverage of the coastline of the continental United States is provided out to 50 nautical miles. Coverage is also provided for the Great Lakes, most of Hawaii, Alaska, and Puerto Rico.

The Coast Guard DGPS service is available for positioning and navigation. Users may experience service interruptions without advance notice. Coast Guard DGPS broadcasts should not be used under any circumstances where a sudden system failure or inaccuracy could constitute a safety hazard.

For more information and discussion check out the Coast Guard NAVCEN Web Site:

http://www.navcen.uscg.mil

WHAT IS DGPS?

Differential GPS (DGPS) is the regular Global Positioning System (GPS) with an additional correction (differential) signal added. This correction signal improves the accuracy of the GPS and can be broadcast over any authorized communication channel.

HOW DOES DGPS WORK?

The GPS determined position of a reference station is computed and compared to its surveyed geodetic position. The differential information ... some systems use the error in fix position, while others use individual satellite range errors ... is transmitted to user receivers by radio or other means.

WHY USE DGPS?

DGPS accuracy and integrity are better than GPS.

Accuracy improvement (2drms): Positions of 10 meters or better are achievable using DGPS (USCG signals) vs. 100 meters or better for GPS (Standard Positioning Service)

Integrity improvement: Provides an independent check of each GPS satellite's signal, and reports whether it's good or bad.

WHERE DO I GET RTCM DOCUMENTS?

The Coast Guard does not provide RTCM documents. You can order them directly from the RTCM. Their phone number is (703) 684-4481, fax (703) 836-4229. All orders must identify specific documents being ordered and number of copies. Orders, with payment, should be sent to:

Radio Technical Commission for Maritime Services
1800 Diagonal Road, Suite 600
Alexandria VA 22314
USA

HOW IS DGPS USED?

DGPS receivers collect navigational signals from all GPS satellites in view, plus differential corrections from a nearby DGPS site. (Many DGPS receivers consist of two units: a GPS receiver, with a data "port" for DGPS corrections, directly connected to a radio receiver.) DGPS receivers display position, velocity, time, etc., as needed for their marine, terrestrial, or aeronautical applications.

WHAT ARE THE COAST GUARD'S PLANS FOR DGPS?

The Coast Guard is developing a DGPS service for public use in harbor entrance and approach (formerly harbor and harbor entrance) areas of the continental United States, the Great Lakes, Puerto Rico, and portions of Alaska and Hawaii. The DGPS signals will be broadcast via USCG marine radiobeacons.

REPORTING DGPS DISCREPANCIES

If you have experienced a problem using the Coast Guard DGPS Service, we would like to know about it. Please notify the NIS watchstander at **(703) 313-5900** or send an e-mail or fax.

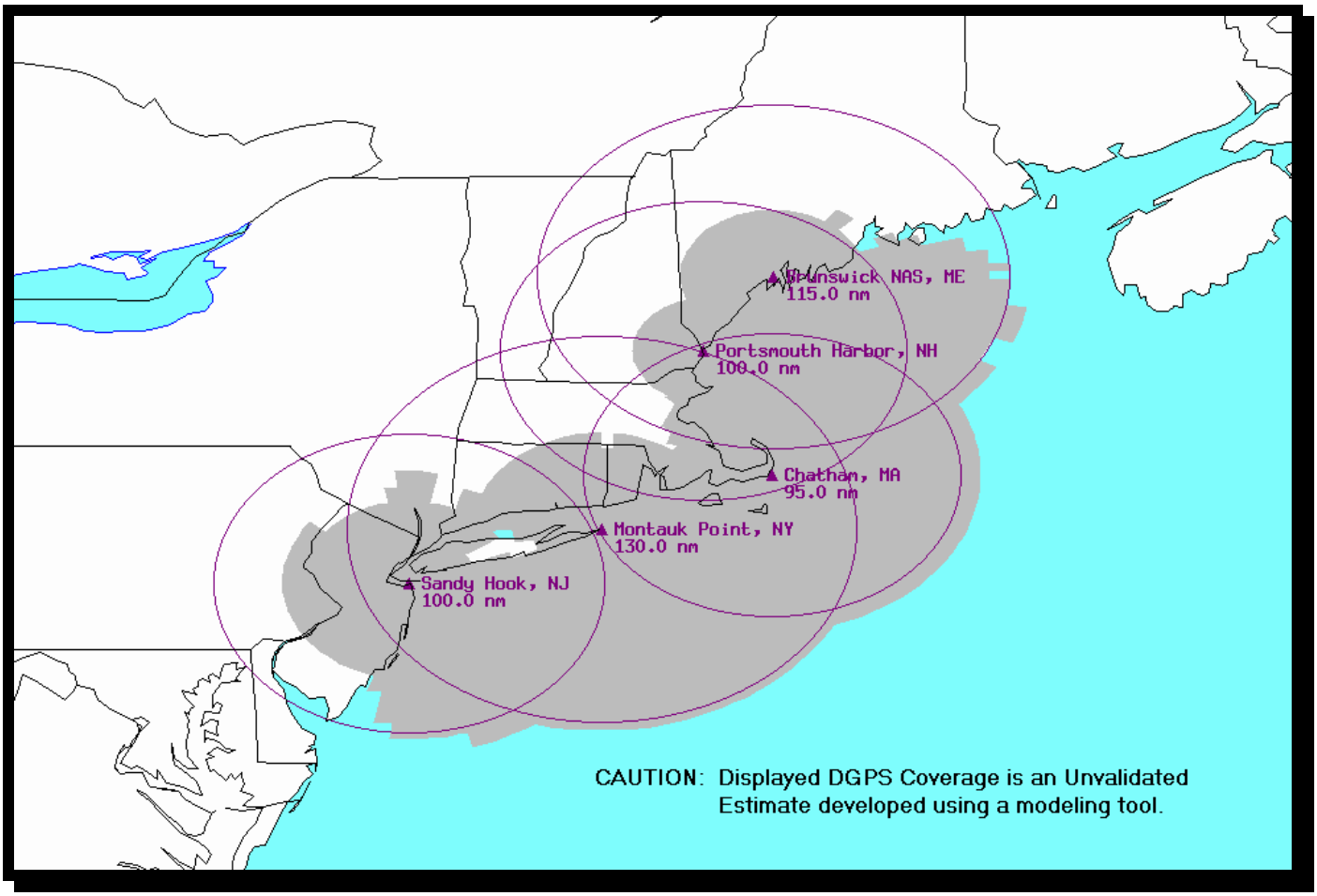
There are some specific questions we'd like you to answer in your report. Here is the information needed:

- Date:
- Vessel/Unit/Person's Name:
- General Geographic Location:
- Vessel Position: Latitude: Longitude:
- Vessel Activity:
- Weather Conditions:
- Wind:
- Sea State:
- Temp:
- Visibility:
- Bearing and range (apx.) to electrical storm:
- Time of Outage:
- Did GPS work?
- Number of satellites tracked on GPS receiver:
- DGPS/Radiobeacon Site Using:
- Normal Radiobeacon Operational:
- DGPS Beacon Receiver Signal Strength (SS) Reading;
- DGPS Beacon Signal to Noise Ratio (SNR) Reading:

United States Coast Guard DGPS Site Information
Atlantic Coast and Gulf Coast

Broadcast Site	Frequency	Trans. Rate BPS	Latitude (N)	Longitude (W)	Range (NM)	Radiobeacon ID
NAS Brunswick, ME	316	100	43 53.70	69 56.28	115	800

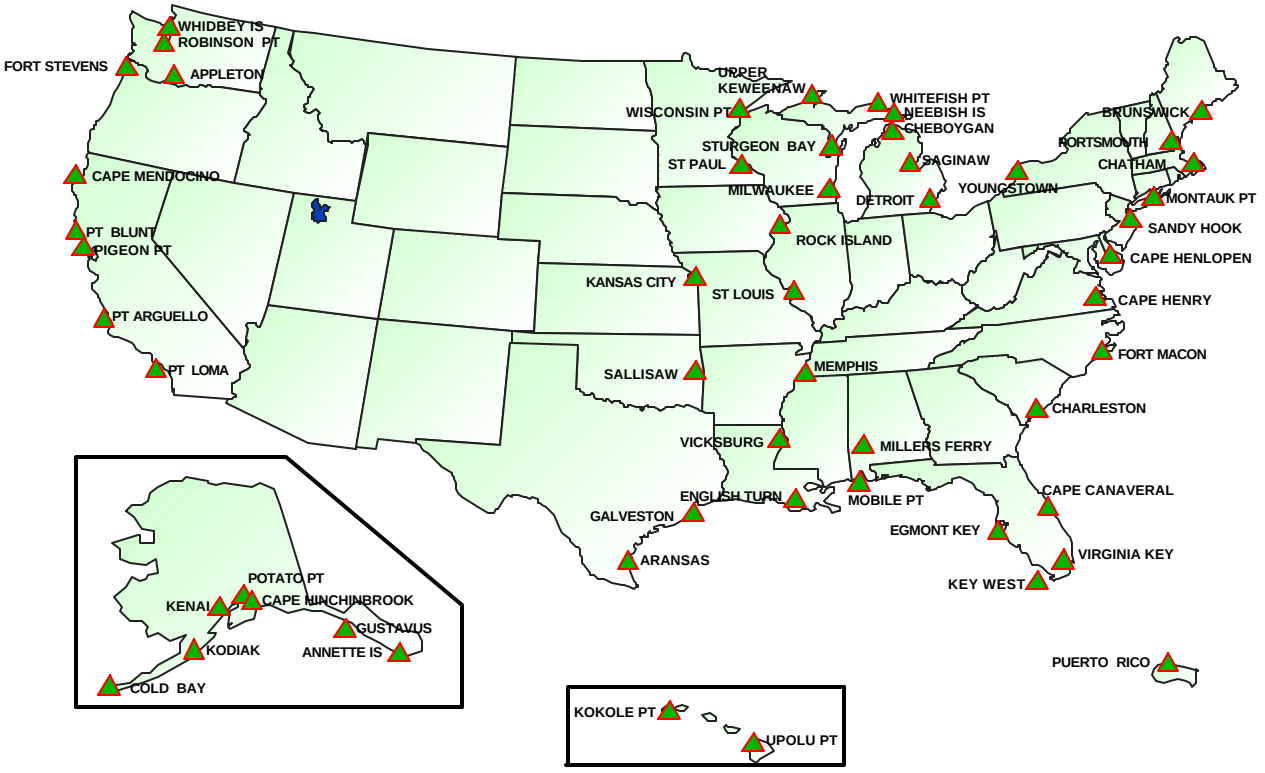
Portsmouth Harbor, NH	288	100	43 04.26	70 42.59	100	801
Chatham, MA	325	200	41 40.27	69 57.00	95	802
Moriches NY	293	100	40 48.3	72 45.68	130	803
Sandy Hook, NJ	286	200	40 28.29	74 00.71	100	804
Cape Henlopen, DE	298	200	38 46.61	75 05.26	180	805
Cape Henry, VA	289	100	36 55.58	76 00.45	130	806
Fort Macon, NC	294	100	34 41.84	76 40.99	130	807
Charleston, SC	298	100	32 45.45	79 50.57	150	808
Cape Canaveral, FL	289	100	28 27.60	80 32.60	200	809
Miami, FL	322	100	25 43.97	80 09.61	75	810
Key West, FL	286	100	TBD	TBD	110	811



1st District DGPS Coverage Map

Ft Mc Dill, FL	312	200	27 51.00	82 31.57	210	812
Puerto Rico	295	100	18 27.77	67 04.01	125	817
Mobile Point, AL	300	100	30 13.65	88 01.45	170	813
English Turn, LA	293	200	29 52.74	89 56.50	170	814
Galveston, TX	296	100	29 19.79	94 44.21	180	815
Aransas Pass, TX	304	100	27 50.30	97 03.53	180	816

DGPS Sites


WHIDBEY IS
ROBINSON PT
FORT STEVENS
APPLETON
CAPE MENDOCINO
PT BLUNT
PIGEON PT
PT ARGUELLO
PT LOMA
UPPER KEWEENAW
WISCONSIN PT
STURGEON BAY
ST PAUL
MILWAUKEE
ROCK ISLAND
KANSAS CITY
ST LOUIS
SALLISAW
MEMPHIS
VICKSBURG
ENGLISH TURN
GALVESTON
ARANSAS
WHITEFISH PT
NEEBISH IS
CHEBOYGAN
SAGINAW
DETROIT
YOUNGSTOWN
BRUNSWICK
PORTSMOUTH
CHATHAM
MONTAUK PT
SANDY HOOK
CAPE HENLOPEN
CAPE HENRY
FORT MACON
CHARLESTON
MILLERS FERRY
MOBILE PT
CAPE CANAVERAL
EGMONT KEY
VIRGINIA KEY
KEY WEST
PUERTO RICO
POTATO PT
KENAI
CAPE HINCHINBROOK
GUSTAVUS
KODIAK
ANNETTE IS
COLD BAY
KOKOLE PT
UPOLU PT

E. ✸ CHARTS, PUBLICATIONS AND TABLES ✸

LOCAL NOTICE TO MARINERS

The Local Notice to Mariners (LNM) is the mariner's primary source for nautical information with the Broadcast Notice to Mariners (BNM) providing supplementary, last minute information. The LNM is published weekly and may be obtained free of charge by writing:

Commander
First Coast Guard District
Aids to Navigation Office
408 Atlantic Ave.
Boston, MA 02110

or call **800-848-3942**, extension **8335**. It may also be obtained by accessing the Coast Guard Navigation Information Service's (NIS) website can be accessed at http://**www.navcen.uscg.mil** or **ftp.navcen.uscg.mil**.

LNM CONTENTS

U.S. Department of Transportation

United States Coast Guard

LOCAL NOTICE TO MARINERS
COASTAL WATERS FROM EASTPORT, MAINE TO SHREWSBURY, NEW JERSEY

WEEKLY SUPPLEMENT

** INTERNET ADDRESS **

OR

COMMANDER, FIRST COAST GUARD DISTRICT (oan)

BROADCAST NOTICE TO MARINERS

I SPECIAL NOTICES

SANDY HOOK DGPS SITE CERTIFICATION TESTING

MONTAUK POINT DGPS SITE CERTIFICATION TESTING

II DISCREPANCIES

Local Notice to Mariners No. 22 Page 1 of 5 28 May 1997

- FRONT PAGE - The beginning and ending Broadcast Notice to Mariners numbers will be listed since the last LNM. These numbers reflect all active broadcasts.
- SECTION I - Special Notices - Operations or information pertaining to unscheduled gunnery or pyrotechnic exercises, closures of waterways, safety zones and other information that concerns pilotage and marine traffic not included in other sections will be listed.
- SECTION II - Discrepancies and Discrepancies Corrected - This section contains a listing of currently discrepant navigational aids and aids which have been corrected since the last LNM. The list of discrepant aids includes the aids status, a reference chart on which the navigational aid appears, the Broadcast Notice to Mariners number that initiated the information and the LNM number in which the discrepancy first appeared.
- SECTION III - Temporary Changes - This section contains a summary of existing temporary changes, a list of new temporary changes and a list of corrected temporary changes to navigational aids. In the summary of existing temporary changes, the navigational aids are listed by light list number and include the temporary status of the aid, charts affected and a LNM number where the original change was made. Mariners should make the appropriate chart changes as they appear in the chart correction section (Section V).
- SECTION IV - Chart Corrections - A brief explanation of the format for chart corrections is given. The mariner should correct charts to reflect changes. Chart changes should be considered permanent unless the word (Temp) appears below the chart number. Mariners should ensure that corrections are applied to the current edition of the chart.
- SECTION V - Advance Notice of Changes in Aids To Navigation- This section contains brief articles pertaining to changes that have been approved and that will be completed in the near future. Changes will normally be published four months prior to a change in a major seacoast aid and two months for other aids.
- SECTION VI - Proposed Changes to Aids to Navigation - This section contains information on proposed changes to navigational aids. Mariners are given a comment period in order to respond to the proposed changes.
- SECTION VII - General - This first part of this section includes information on safety, communications, electronic navigation, general changes to the buoyage system, anchorage regulations, restricted areas, etc. Common categories of information, such as dredging, bridge information and shoaling are published as a summary of existing articles.
- Articles about hazardous conditions, such as military firing exercises, other large scale military operations or safety information of short duration and other potentially hazardous events will be published weekly in its entirety.

- SECTION VIII - Enclosures - This section contains corrections for the Coast Guard Light List, Volume I, and enclosures for Tabulations of controlling depths, U.S. Coast Pilot volumes 1-3, construction schedules, and various charts and diagrams are also included.

Each week the LNM is prepared on Wednesday, printed on Thursday and in the first class mail by Friday.

BROADCAST NOTICE TO MARINERS

The Coast Guard is responsible for immediately broadcasting important safety information concerning navigational aids. Broadcasts include such information as new establishment, discontinuance, changes or deficiencies in aids to navigation which mariners should receive without delay. Important information, such as marine obstructions, temporary changes in bridge clearance or operation of drawbridges, dredging operations, shoaling, and channel conditions, military and hazards to navigation will be broadcast.

Broadcasts Notice to Mariners are consecutively numbered starting with 0001 for each calendar year commencing at 0001 Greenwich Mean Time on January 1st. Each Coast Guard Group (Southwest Harbor, Portland, Boston, Woodshole, Long Island Sound, Moriches, and New York) initiates broadcasts for their Area of Responsibility (AOR), (see section G for brief descriptions of Group AORs). Reported defects are broadcast immediately without waiting for positive verification. The wording will make a reference to the defect as "reported" unless a Coast Guard unit has positively verified the defect. If the information is current by publication time for the Local Notice, it will be included in the respective section.

NAUTICAL CHART SYMBOLS AND ABBREVIATIONS

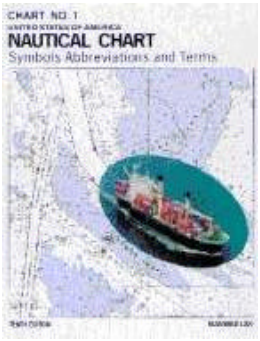


CHART NUMBER 1 – Due to the increasing production costs in the publication and distribution of its nautical products, the National Ocean Service (NOS) no longer publishes Chart No. 1, United States of America Nautical Chart Symbols and Abbreviations in a hard copy form. However, to ensure that the information in Chart No. 1 is available to the maritime community, a digital copy can be accessed through the Office of Coast Survey home page, http://chartmaker.ncd.noaa.gov, where it can be view or downloaded.

PRINT ON DEMAND CHARTS

Using cutting edge technology, NOAA now updates charts daily and they're printed only when your chart agent places an order. All Notices to Mariners and other critical changes are fully applied just before yours are printed. The new charts show you the latest discoveries like channel changes and other hazards, so you sail safer.

There are other improvements too. These rugged charts are water-resistant and have a tough coating that's easy to write on. Brighter colors are easy to read. And there are two versions with boatloads of useful information in the margins -- tide tables, emergency numbers, frequencies, rules of the road -- one version for recreational boaters and one for professionals.

Waterways change like the tides. So the next time you're ready to cast off, put safety first. Ask for the new, up-to-date nautical charts from your marine supplier or call 1-800-584-4683 for more information from NOAA. For a list of the available charts and closest sales agents go to http://chartmaker.ncd.noaa.gov.

NOS TIDE TABLES
TIDAL CURRENT TABLES

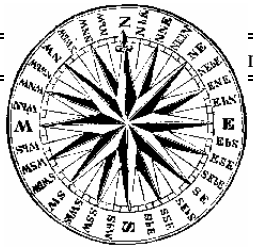
THE NATIONAL OCEAN SERVICE IS NO LONGER PRINTING AND DISTRIBUTING THE TIDE AND TIDAL CURRENT TABLES

Tide and Tidal current data continue to be updated, generated and published by the NOAA/National Ocean Service; however, the printing and distribution in book-form is now done by private companies working from information provided by NOS

NOS now offer three new vehicles for obtaining predictions. First, the complete set of Tables as camera-ready page-images will be available on CD-ROM. Second, for the approximately 3700 domestic tide stations in the tidal prediction database, limited predictions will be offered on the Tidal Information Distribution and Education System (TIDES) electronic bulletin board which is accessible by telephone modem or the Internet. Third, for domestic tide reference stations, limited predictions are available on the NOS, Coastal and Estuarine Oceanography Branch, Mosaic Homepage via the Internet

http://tidesonline.nos.noaa.gov/monitor.html

Tidal current charts are published by NOS for various locations. These charts depict the direction and speed of the current for each hour of the tidal cycle. They present a comprehensive view of the tidal current movement in the



respective waterways as shown, and when used with proper current tables or tide tables supply a means for readily determining for any time the direction and speed of the current at various locations throughout the area covered. Tidal current charts may be ordered from:

National Oceanic and Atmospheric Administration
Distribution Branch
6501 Lafayette Ave.
Riverdale, MD 20737
(301) 436-6990.

Tidal current diagrams, published by NOS, are a series of 12 monthly computer constructed diagrams used in conjunction with the Tidal Current Charts for a particular area. The diagrams present an alternative but more simplified method for calculating the speed and direction of the tidal currents in bays, estuaries and harbors. Tidal current diagrams may be ordered from:

National Oceanic and Atmospheric Administration
Distribution Branch
6501 Lafayette Ave.
Riverdale, MD 20737
(301) 436-6990.

LIGHT LIST VOLUME I

Lights and other marine aids to navigation, maintained by or under the authority of the United States Coast Guard, on the ATLANTIC COAST from St. Croix River, ME to Shrewsbury River, NJ are included in this volume.

This list, published annually, is intended to furnish more complete information concerning aids to navigation than can conveniently be shown on charts. It is not intended to be used in navigation in place of charts or Coast Pilots and should not be so used. The charts should be consulted for the position of all aids to navigation. It may be dangerous to use aids to navigation without reference to charts.

The Light List should be corrected each week from the Local Notice to Mariners or Notices to Mariners as appropriate.

U. S. COAST PILOT

The United States Coast Pilot published by National Ocean Service (NOS) of the National Oceanic and Atmospheric Administration (NOAA), is a series of nine nautical books that cover a wide variety of information important to navigators of coastal and intercostals waters and the Great Lakes. Most of the information contained in the Coast Pilot cannot be shown graphically on the standard nautical charts and is not readily available elsewhere. The subjects in the Coast Pilot include, but are not limited to, channel descriptions, anchorages, bridge and cable clearances, currents, tide and water levels, prominent features, pilotage, towage, weather, ice conditions, wharf descriptions, dangers, routes, traffic separation schemes, small craft facilities, and Federal regulations applicable to navigation. Coast Pilots may be ordered from:

National Oceanic and Atmospheric Administration
Distribution Branch
6501 Lafayette Ave.
Riverdale, MD 20737
(301) 436-6990.

Mariners and others are encouraged to report promptly to the National Ocean Service errors, omissions, or any conditions found to differ from or to be additional to those published in the Coast Pilot or shown on the charts in order that they may be fully investigated and proper corrections made. **A Coast Pilot Report form is included at the end of each Coast Pilot volume.** This report and/or suggestions for increasing the usefulness of the Coast Pilot should be sent to the address on the form.

CAUTION: Amendments are issued to this publication through U.S. Coast Guard Local Notice to Mariners. The Coast Pilot is corrected through the dates of Notices to Mariners shown on the title page and should not be used without reference to the Notices to Mariners issued subsequent to those dates. Changes to the Coast Pilot that affect the safety of navigation and reported to NOS in the interim period between editions are published in the Local Notices to Mariners. All amendments are also issued in NIMA weekly Notices to Mariners.

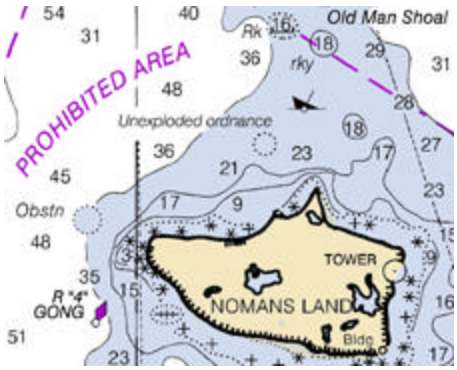
LIGHT CHARACTERISTICS AND ABBREVIATIONS FOR AIDS TO NAVIGATION

The changes listed below have standardized and shortened the chart marking system throughout the world, resulting in a system which is less confusing to international mariners and allow more information to be shown on charts:

- Alt (Altemating) and Occ (Occulting) have become Al and Oc respectively.

- Group-Flashing and Group-Occulting light descriptions no longer include the abbreviation Gp. but the number of flashes or eclipses along with the period are shown (e.g. Gp. Fl. W, 15s 2FL has become Fl (2) W 15s.
- Equal interval lights are now termed Isophase and abbreviated Iso with the period shown. Period is defined as the interval of time between the commencement of the identical aspect or phase in two successive cycles of a rhythmic light. The period of an Isophase light is from the beginning of one flash to the beginning of the next flash. E. Int. R. 6s, a red light with a 3 second light phase and a 3 second eclipse phase for a period of 6 seconds, is now referred to as Iso R 6s.
- Quick Flashing lights are now termed simply Quick lights, and Qk. Fl. has been shortened to Q. The abbreviation Int. (Interrupted) has been shortened to I, for example I Q W 10s.
- F (Fixed), Fl (Flashing), and Mo (Morse) remain unchanged.

NAUTICAL CHARTS



Nautical charts are published primarily for the use of the mariner, but serve the public interest in many other ways. They are compiled principally from NOS basic field surveys, and supplemented by data from other government organizations.

Users are requested to report all significant observed discrepancies in and desirable additions to NOS nautical charts, including depth information in privately maintained channels and basin, obstructions, wrecks, and other dangers; new landmarks or nonexistence or relocation of charted ones; uncharted fixed private aids to navigation; and deletions or additions of small craft facilities. All such reports should be sent to:

Director, Coast and Geodetic Survey
Attention: N/CS22
National Ocean Service
1315 East-West Highway
Silver Spring, Maryland 20910-3282.

The date of a chart is of vital importance to the navigator. When charted information becomes obsolete, further use of the chart for navigation may be dangerous. Announcements of new editions of nautical charts are usually published in the Local Notices to Mariners and NIMA Notice to Mariners.

Heights are in feet above the tidal datum used for that purpose on the charts, usually mean high water. However, the heights of decks of piers and wharves are given in feet above the chart datum for depths.

Information received by NOS from various sources concerning depths, currents, facilities and other subjects, which have not been verified by government surveys or inspections, is often included in Coast Pilots; such "unverified information" is qualified as "reported", and should be regarded with caution.

Depths are in feet or fathoms, below chart datum of the chart unless otherwise stated. The CONTROLLING DEPTH of a channel is the least depth within the limits of the channel; it restricts the safe use of the channel to drafts less than that depth. The CENTERLINE CONTROLLING DEPTH of a channel applies only to the channel centerline; lesser depths may exist in the remainder of the channel. The MID-CHANNEL controlling depth of a channel is the controlling depth of only the middle half of the channel.

FEDERAL PROJECT DEPTH is the design dredged depth of a channel maintained by the U. S. Army Corps of Engineers; the project depth may or may not be the goal of maintenance dredging after completion of the channel and, for this reason, project depth must not be confused with controlling depth. Depths alongside wharves usually have been reported by owners and/or operators of the waterfront facilities, and have not been verified by government surveys. Since these depths may be subject to change, local authorities should be consulted for the latest controlling depths.

In general Coast Pilots give the project depths for deep-draft ship channels maintained by the U. S. Corps of Engineers. The latest controlling depths are usually shown on the charts and published in the Notices to Mariners. For other channels, the latest controlling depths available at the time of publication are given.

MAINTAINING UP-TO-DATE CHARTS

The importance of maintaining corrected nautical charts cannot be stressed enough. Natural and artificial changes, many of them critical occur constantly. When charted information becomes obsolete, further use of the chart for

navigation may be dangerous. The prudent mariner will correct their charts with the latest information provided weekly free of charge from the U.S. Coast Guard's Local Notice to Mariners or from the National Imagery and Mapping Agency's weekly Notice to Mariners. To obtain a subscription for either of these vital publications call:

- First Coast Guard District's Local Notice to Mariners at **(617) 223-8335**.
- National Imagery and Mapping Agency's Notice to Mariners at **(301) 227-2495**.

NOTES REGARDING DIFFERENT CHART DATUMS

Particular caution should be exercised during a passage when transferring the navigational plot to an adjacent chart upon a different geodetic datum or when transferring positions from one chart to another chart of the same area that is based upon a different datum. The transfer of positions should be done by bearings and distances from common features.

Notes on charts should be read with care, as they give important information not graphically presented. Notes in connection with the chart title include the horizontal geodetic datum, which serves as a reference for the values of the latitude and longitude of any point or object on the chart. The latitude and longitudes of the same points or objects on a second chart of the same area, which is based upon a different datum, will differ from those of the first chart. The difference may be navigationally significant.

NATIONAL IMAGERY and MAPPING AGENCY

National Imagery and Mapping Agency Hydrographic/Topographic Center (NIMAHTC) provides hydrographic, navigational, topographic, geodetic data, charts, maps, and related products and services to the U.S. Armed Forces, other federal agencies, merchant marine and mariners in general. Publications include Sailing Directions, Tables of Distances, Radio Navigation Aids, List of Lights, International Code of Signals, American Practical Navigator (Bowditch), and the Notice to Mariners, which is published weekly. Sales of all NIMAHTC products are handled by:

National Imagery and Mapping Agency
Combat Support Center
Attn: PMSS
6001 Macarthur Blvd.
Bethesda, MD 20816-5001

Public sales of all NIMA unclassified products are now handled by NOS. Please call or write:

Distribution Branch (N/CG33)
National Ocean Service
Riverdale, MD 20737-1199
(301) 436-6990

NAVIGATION RULES

The Navigation Rules establish proper navigation lights and actions to be for ready reference, a copy of the Inland Navigation Rules. Operators are liable to a civil penalty of not more than $5,000 for failure to comply with this requirement.

The International Rules are applicable seaward of the COLREGS demarcation lines, and the Inland Rules apply inside these lines. The demarcation lines are printed on most navigational charts and are published in the **NAVIGATION RULES International-Inland (COMDTINST M16672.2C)**. The vessel operator is responsible for knowing, understanding and following the applicable navigational rules.

AVAILABILITY OF "NAVIGATION RULES, INTERNATIONAL-INLAND"

Copies of "**Navigation Rules, International-Inland", COMDTINST M16672.2C**, may be purchased by mail or telephone. To order by mail, send a check or money order for $14.00 payable to "Superintendent of Documents". Payment may also be made using VISA or MasterCard by supplying the following information: Identification of card type (VISA or MasterCard), name as it appears on the card, card number, and expiration date. Ask for the publication by name and give stock number 050-012-00376-9. Call or Send requests to:

Superintendent of Documents
U.S. Government Printing Office
P.O. Box 371954
Pittsburgh, PA 15250-7954
Toll Free (866) 512-1800 (Phone Orders)
(202) 512-2250/1355 (Fax)

or on line at http://www/access.gpo.gov

F. ✹ ENVIRONMENTAL PROTECTION ✹

OCEAN DISPOSAL OF PLASTICS BAN AND GARBAGE DUMPING RESTRICTIONS

On December 31, 1988, a new federal law took effect prohibiting all vessels in U.S. waters from discharging plastics at sea. The new law, the Marine Plastic Pollution Research and Control Act (MPPRCA), implements an international treaty known as **MARPOL Annex V**. Besides prohibiting the discharge of plastics, the law also restricts dumping of other vessel-generated garbage at sea including paper, glass, metal and food wastes.

Garbage in our waters not only looks bad, but it can cause problems for boaters and for wildlife that live in or around the water. The MARPOL treaty requires a placard on all U.S. vessels 26' or longer. One or more placards must be prominently posted for all crew and passengers to read. In addition, a written waste management plan is required on all U.S. oceangoing vessels 40' or longer, which are engaged in commerce or are equipped with a galley and berthing.

Boaters who witness suspected violations of vessel garbage dumping laws may report the violations to the nearest Marine Safety Office or Captain of the Port. If you witness a violation, get as much information as possible about the suspected vessel, including the vessel's registration number and state, the vessel's name and description, what was thrown overboard, and the location and time of the incident.

A sample placard outlining the restrictions is located at the end of this section. For further information contact the nearest Coast Guard Marine Safety or Captain of the Port Office.

OIL POLLUTION COMPLIANCE WITH THE FEDERAL WATER POLLUTION ACT

The Federal Water Pollution Act prohibits discharges of harmful quantities of oil into U. S. navigable waters or adjoining shorelines. Further, the person in charge of a vessel or facility that discharges oil in violation of the Act is required to notify the Coast Guard's National Response Center at (800) 424-8802 as soon as he or she has knowledge of the spill.

The penalty for illegal discharges is a civil penalty of up to $125,000 against the owner, operator, or person in charge of the source. Failure to notify the Coast Guard of a discharge is punishable by a criminal penalty of fines or up to 5 years imprisonment or both, against the person in charge of the source.

The owner or operator of the source of a discharge is also liable for all removal costs, as well as claims of loss or injury by third parties.

Harmful quantities of oil have been defined by the Environmental Protection Agency (EPA) as those that violate applicable water quality standards or cause a film or sheen on the surface of the water, or cause a sludge or emulsion to be deposited beneath the surface of the water or on adjoining shorelines.

Discharge of oil placards must be at least 5" x 8" and fixed in a conspicuous place in each machinery space, or at the bilge and ballast pump control station. Placards must be printed in the language or languages understood by the crew. **A sample discharge of oil placard is at the end of this section**.

MARINE SANITATION DEVICES (MSD)

MSD regulations have been in effect for all vessels since January 30, 1980. A vessel that operates in U.S. territorial waters (generally, within three miles from shore) and has installed toilets must be equipped with an MSD. This includes fishing vessels, U.S. and foreign flag merchant vessels and recreational boats.

The following are the most commonly asked questions about MSD's **See image of an MSD at the end of this section.**:

Q: Are there "grandfather" clauses or other regulations to ease the requirements for vessels built prior to the MSD regulations?

A: Generally, no. The Commandant of the Coast Guard may grant a waiver if space or power constraints prevent installation of any commercially available MSD. Typical fishing vessels of the New Bedford fleet have sufficient space and electrical power and waivers have not been granted for this type of vessel.

Q: Is there any area where raw sewage may be discharged overboard from a vessel?

A: Yes. When a vessel operates outside of U. S. Territorial waters, generally more than three miles offshore, untreated sewage from installed toilets may be discharged overboard.

Q: Can a vessel be in compliance with the MSD regulation by closing and locking the overboard discharge valve from installed toilets while inside of U. S. Territorial waters?

A: No. If a vessel has installed toilets and operates in U.S. Territorial waters then it must be equipped with a certified MSD. If a vessel does not have installed toilets or the system is rendered "permanently" inoperable, then MSD regulations

do not apply. Locking the overboard discharge valve does not render the system "permanently" inoperable. To be permanently inoperable, fixtures, piping, etc., must be removed from the vessel.

Q: Are portable systems (port-a-potties) acceptable?

A: Portable systems are self-contained and therefore are not considered to be installed facilities. Many recreational vessels are equipped with only portable systems and are considered to be in compliance. Vessel owners wishing to avoid the expense of installing a certified MSD may totally remove the installed system and put a portable system onboard, thus making themselves no longer subject to the MSD regulations. This is sometimes feasible on recreational vessels but impractical for most commercial fishing vessels.

Q: Are MSD's required to be Coast Guard certified?

A: Type I and Type II devices must be Coast Guard certified and have a label with a certification number attached to the MSD. The Coast Guard certifies some Type III devices, holding tanks, without review. Holding tanks that store sewage and flushwater at ambient temperature and pressure are self-certified under **33 Code of Federal Regulations, Part 159.12(a)**.

Q: What capacity should the holding tank for a Type III device be?

A: This depends on the number of crew onboard, the amount of time the vessel is operated in Territorial waters and the number of gallons used per flush. Remember, it is not a violation to discharge sewage overboard when outside U. S. Territorial waters.

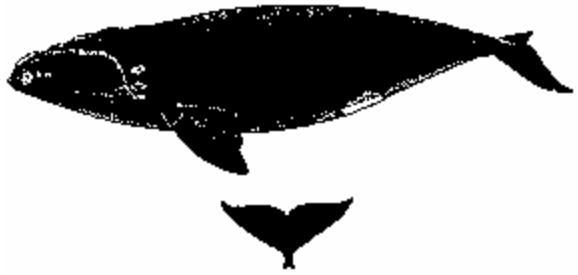
NEW ENGLAND'S PROTECTED WHALES

Whaling, a major New England industry until the mid 1850's caused the decline of whale populations. The great whales became scarce off New England by the 1700s. The replacement of whale oil by mineral oil in the 1900s, and the worldwide depletion of whale stocks stopped most whaling activity. A worldwide International Whaling Commission moratorium on whaling became effective in 1986.

The Gulf of Maine is a semi-enclosed area of 638 square miles bounded by the New England states, Nova Scotia, and Georges Bank. It is a productive area offering significant habitat to several endangered whale species. Large whales commonly occur over the sandy shoals of Stellwagon Bank, Jeffreys Ledge, and Cape Cod Bay. These three high-use areas are major feeding grounds for baleen whales, although breeding and nursing activities also may occur there. Whales in these areas are known to occur closer to shore than in other areas of the Gulf of Maine. Therefore, it is extremely important to keep a sharp lookout for whales at all times when boating in the Gulf of Maine.

The habitat of whales continues to be threatened, directly and indirectly, by urban, agricultural, and industrial waste discharges; ocean dumping; commercial fishing; and commercial, recreational, and private boating activities. Therefore, some whale species remain on the U.S. endangered species list. The following whale species are on New England's endangered species list.

RIGHT WHALE



Drawing courtesy of Center for Coastal Studies

The right whale population is the most severely depleted in all oceans. Right whales are large (up to 50 feet and 60 tons), robust, slow-moving baleen whales. Distinctive features of right whales include the lack of a dorsal fin, and white, crusty growths on the tops of their upper jaws and heads called "callosities." These whales appear to spend a significant part of their lives in New England waters. They occur in the Gulf of Maine from about April through January, although some may reside in the area year-round. They can be seen on Jeffreys Ledge and Stellwagon Bank off the coasts of Maine, New Hampshire, Cape Ann, and Cape Cod. Calving is believed to occur off Florida and Georgia, although calves have been seen in the New England area. However, seasonal and annual movements of right whales are not well understood and may be more sensitive to human activities than other great whales.

Recent evidence indicates Right Whales are frequent victims of collisions with boats and ships. Vessel operators should be alert for the presence of these whales and should take all necessary precautions to avoid them.

There are two designated Critical Habitats for the Northern Right Whale off the New England Coast. In addition, all type whales also frequent the Stellwagon Bank National Marine Sanctuary. Mariners should be especially alert for whales in these areas (especially during February to May in the Cape Cod Bay and during April to May in the Great South Channel

habitat areas) and should avoid close approaches or collisions. The designated Critical Habitat areas are:

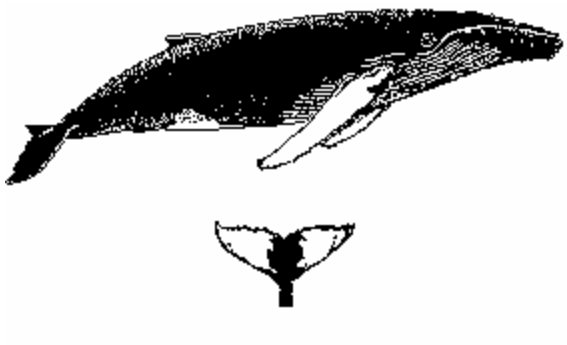
Great South Channel: The area bounded by 41-40N 69-45W; 41-00N 69-05W; 41-38N 68-13W; and 42-10N 68-31W.

Cape Cod Bay: The area bounded by 42-04.8N 70-10W; 42-12N 70-15W; 42-12N 70-30W; 41-46.8N 70-30W; and on the south and east by the interior shoreline of Cape Cod, MA.

RIGHT WHALE INFORMATION NETWORK

NMFS has organized a seasonal effort to locate Northern Right Whales so that boaters can avoid Right Whale concentration areas. From January through June, Coast Guard and the Center for Coastal Studies aircraft and boats will conduct periodic surveys to locate whales in Cape Cod Bay and the Great South Channel. The general location of whale concentrations will be distributed via Coast Guard safety broadcasts and NOAA weather radio. On occasion, survey boats and aircraft may contact boats to warm them of whales in their path. Boaters are strongly urged to avoid these areas of concentration.

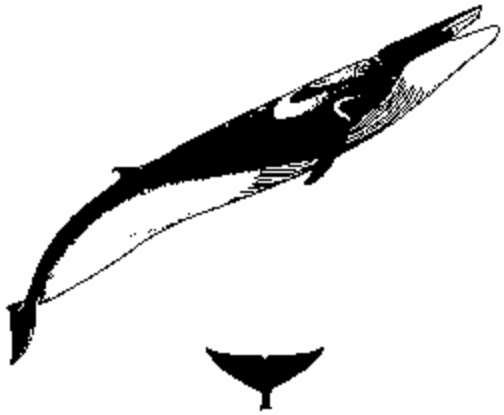
HUMPBACK



Drawing courtesy of Center for Coastal Studies

Humpback whales are large, stocky baleen whales, named for their habit of arching their backs before they dive. Humpbacks can attain lengths of 50 feet and weigh 30 tons. These whales have bumps on their heads and their dorsal fins are small and vary in size and shape. Their "flukes" or tails have saw-toothed trailing edges and vary in color from all white to all black. Humpbacks can be seen on Jeffreys Ledge and Stellwagon Bank off the coasts of Maine, New Hampshire, Cape Ann, and Cape Cod from spring through fall. In late fall and early winter, they leave New England waters and migrate to the Caribbean Sea to breed and calve.

FIN WHALE



Drawing courtesy of Center for Coastal Studies

Fin whales are very large, slender, fast-swimming, baleen whales that can reach lengths of 70 feet and weigh 50 tons. They are the largest whales in New England waters, second only to the blue whales. Fin whales are named for their large well-formed dorsal fin. The "chevron", a white streak that starts behind these animals' blowholes and continues along each side of their bodies, is another distinctive feature. Fin whales can be seen on Jeffreys Ledge and Stellwagon Bank off the coasts of Maine, New Hampshire, Cape Ann, and Cape Cod, and off the coast of Long Island from spring through fall. They move south and/or offshore into deep water in the winter.

The National Marine Fisheries Service (NMFS) is a federal agency responsible for protecting whales within U.S. waters under the Marine Mammal Protection Act of 1972 (MMPA) and the Endangered Species Act of 1973 (ESA). These Acts make it illegal to harass or otherwise harm any marine mammal. "Harassment" is defined as any intentional or negligent act that substantially disrupts the normal behavior of an animal. Reactions by whales that may indicate a disruption of normal behavior patterns include, but are not limited to, rapid changes in direction or speed; prolonged diving; apparently evasive swimming patterns; interruption of feeding, nursing, or breeding activities; and protective movements to shield a calf from a vessel. Continued harassment may result in whales abandoning important feeding grounds or in other less obvious effects.

To prevent harassment of whales, NMFS has developed guidelines for vessel operators in New England waters. Failure to observe these guidelines may result in harassment of whales. Harassment is a violation of the MMPA and ESA, and may result in fines or civil penalties of up to $25,000 or criminal

penalties of up to $50,000, plus imprisonment, and/or seizure of vessel and other personal property.

Very recently an agreement between the U.S. Coast Guard and the National Marine Fisheries Service was signed to provide additional enforcement. Under the agreement, Coast Guard vessels will add routine surveillance to their other duties and will stop and board vessels caught fishing or dumping illegally or threatening endangered species. Special patrols will monitor the area, especially between April and October, when there are the most recreational boaters and commercial fishermen.

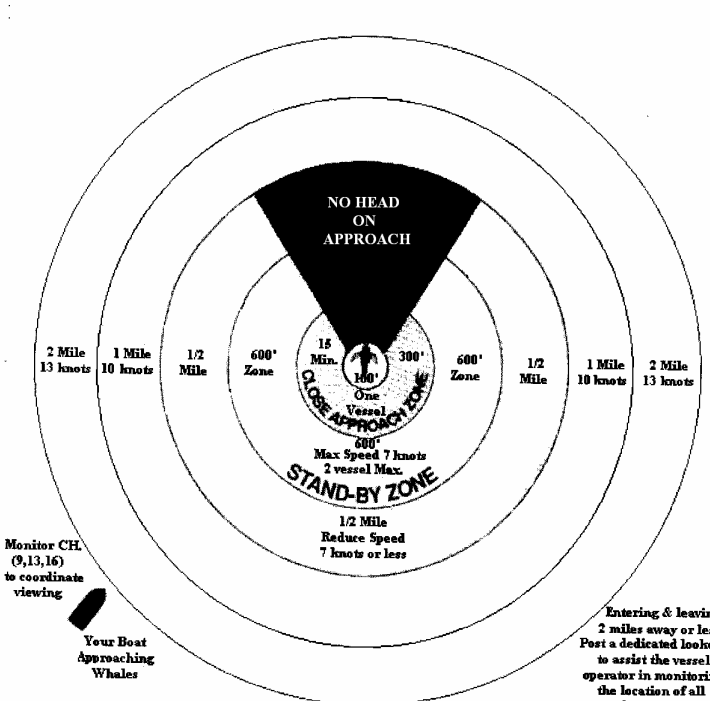
For more information contact: National Marine Fisheries Service, Northeast Region, One Blackburn Drive, Gloucester, MA 01930-2298; **(508) 281-9254**.

WHALE INFORMATION NETWORK

NMFS has organized a seasonal effort to locate Northern Right Whales so that boaters can avoid Right Whale concentration areas. From January through June, Coast Guard aircraft and Center for Coastal Studies boats will conduct periodic surveys to locate whales in Cape Cod Bay and the Great South Channel. The general location of whale concentrations will be distributed via Coast Guard safety broadcasts and NOAA weather radio. On occasion, survey boats and aircraft may contact boats to warn them of whales in their path. Boaters are strongly urged to avoid these areas of concentration.

WHALE WATCH GUIDELINES

NMFS has issued final regulations (50 CFR 222.32) that restrict the approach of boats to Northern Right Whales. These regulations make it illegal to approach to less than five hundred yards from the right whale. If a vessel is within 500 yards of a right whale, the following avoidance measures are to be taken:



- If underway, vessels must steer a coarse away from the right whale and immediately leave the area at a slow speed;
- An aircraft conducting whale watch activities must take a course away from the right whale and immediately leave the area at a slow speed.

These provisions do not apply if compliance would cause imminent and serious threat to person, vessel, or aircraft; or when investigating a right whale entanglement of injury, or when assisting in the rescue or disentanglement of a right whale provided that permission is received from NMFS or a NMFS designee prior to approach.

The following whale watch guidelines should be followed for all other (non-Right Whale) watch activities:

A. When in sight of whales (1/4 mile or 1500 ft):

- Avoid excessive speed or sudden changes in speed or direction.
- Aircraft observe the FAA minimum altitude regulation of 1000 feet over water.

B. Close Approach procedure (300 ft):

- Approach stationary whales at no more than idle or "no wake" speed.
- Parallel the course and speed of moving whales.
- Do not attempt a "head on" approach to moving or resting whales.

C. Multi-vessel approach (within 300 ft):

- All vessels in close approach stay to the side or behind the whales so they do not box in the whales or cut off their path.
- When one vessel is within 300 feet, other vessels stand off at least 300 feet from the whale.

- The vessel within 300 feet should limit its time to 15 minutes in close approach to whales.

D. No intentional approach (within 100 ft):

- Do not approach within 100 feet of whales.
- If whales approach within 100 feet of your vessel, put engine in neutral and do not re-engage props until whales are observed at the surface, clear of the vessel.

Active whales require ample space. Breaching, lobtailing, and flipper slapping whales may endanger people and/or vessels. Feeding whales often emit sub-surface bubbles before rising to feed at the surface. Stand clear of light green bubble patches. In all cases do not restrict normal movement or behavior of whales, or take actions that may evoke a reaction from whales or result in physical contact with a whale. Diving on whales is considered to be an intentional approach of whales and may be considered a violation of federal law.

ENTANGLED WHALES

In recent years, an increasing number of large whale entanglements with fishing gear have been reported in New England and Mid-Atlantic waters. An institution in Provincetown—the Center for Coastal Studies (CCS)—has been contracted by NMFS to conduct disentanglements. The CCS is currently the only organization in the Northeast with a Letter of Authorization to respond to large whale entanglements. Disentanglements can be dangerous to both the whale and human lives.

One of the most critical ways in which you can assist the CCS disentanglement team is in your role as a reliable observer out on the water. In order for the CCS team to plan a successful disentanglement effort, indirect assistance with reporting and monitoring provided by vessel operators in crucial. Very often the first reports of an entanglement, even from a trained observer, are filled with alarm and little fact. The correct decision on whether to attempt a disentanglement effort cannot be made if observers do not accurately describe the entanglement. CCS needs detailed information on the time and location of incident, time of the report, description of the entanglement (type of gear, etc.), whale's appearance and behavior, and if there is any evidence of a vessel collision. Sightings of entangled whales should be reported to the Coast Guard or CCS (1-800-900-3622 or 508-487-3622).

DISCHARGE OF OIL PROHIBITED

The Federal Water Pollution Control Act

prohibits the discharge of oil or oily waste into or upon the navigable waters of the United States, or the waters of the contiguous zone, or which may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States, if such discharge causes a film or discoloration of the surface of the water or causes a sludge or emulsion beneath the surface of the water. Violators are subject to substantial civil penalties and/or criminal sanctions, including fines and imprisionment.

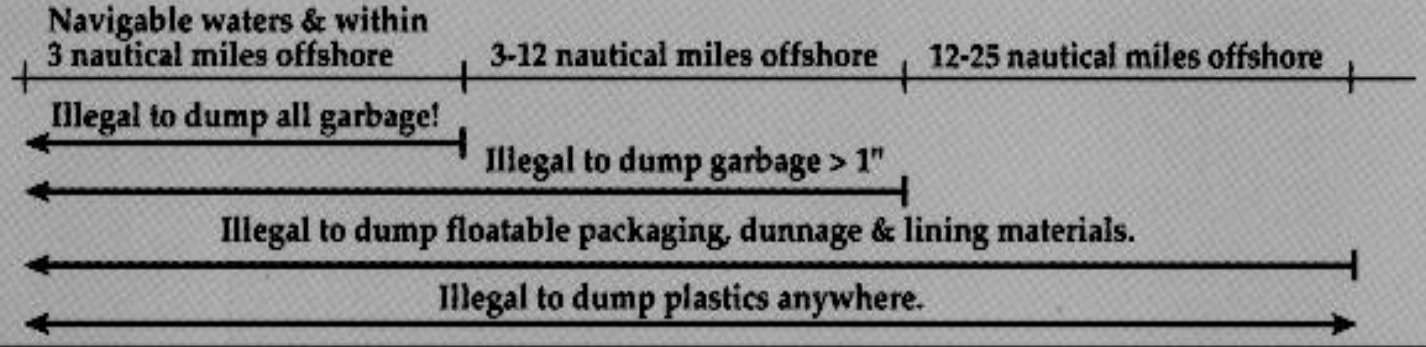
Report all discharges to the National Response Center at 1-800-424-8802 or to your local U.S. Coast Guard office by phone or VHF radio, Channel 16.

MARPOL Garbage Dumping Restrictions

Under U.S. federal law, it is illegal to discharge plastic or garbage mixed with plastic into any waters. Regional, state or local regulations may also apply. All discharge of garbage is prohibited in the Great Lakes and their connecting or tributary waters.

Violators are subject to a civil penalty of up to $25,000, a fine of up to $500,000, and 6 years imprisonment.

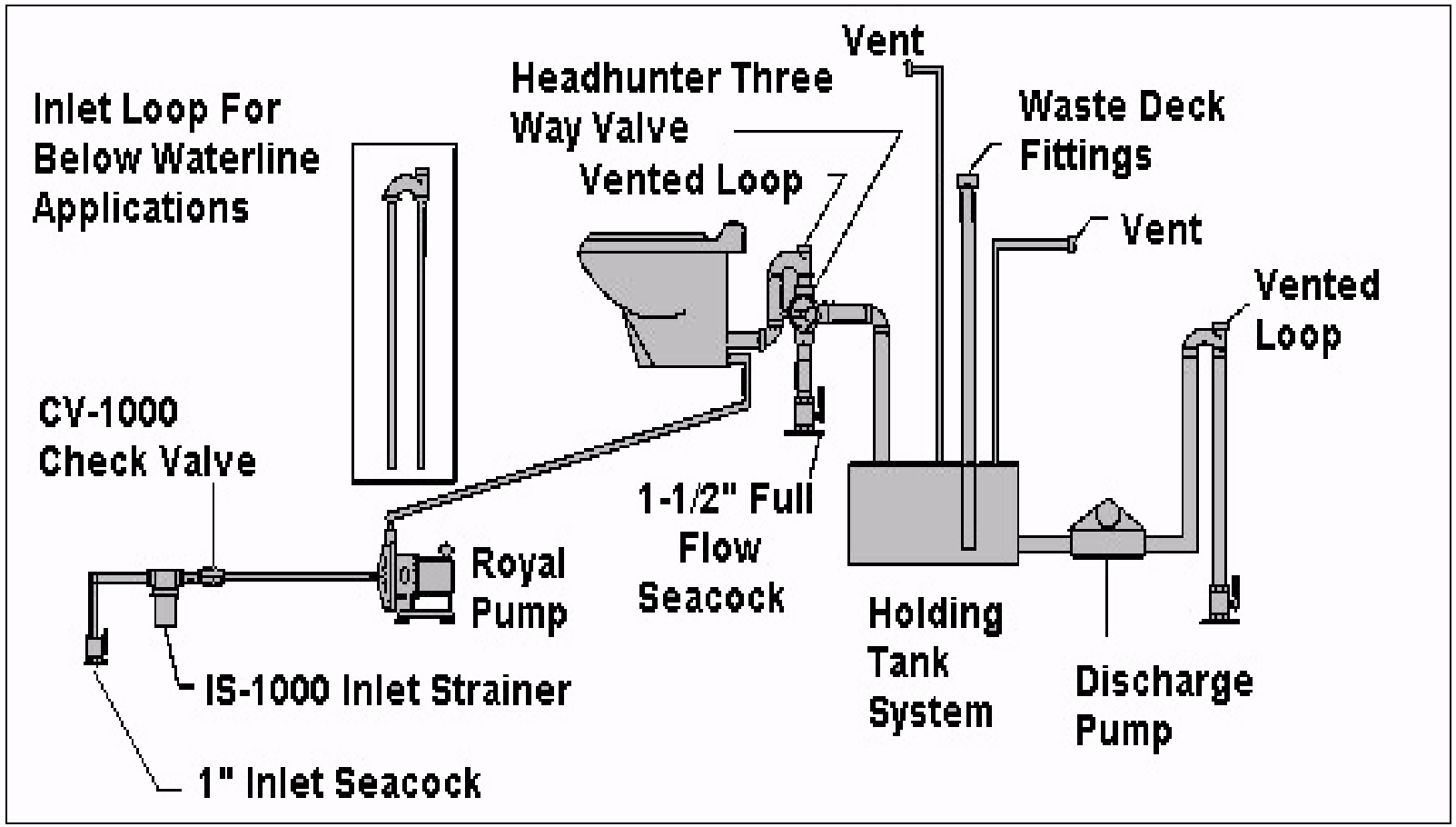
Open Ocean Restrictions



Report marine pollution incidents to the National Response Center at 1-800-424-8802 or to your local Coast Guard office by phone or VHF radio, channel 16.

Keep our nation's waterways clean-it's the law!

MARINE TOILET AND MARINE SANITATION DEVICE (MSD)



G. ✸ COAST GUARD AND OTHER ✸ GOVERNMENT AGENCIES

COAST GUARD AIDS TO NAVIGATION MISSION

The function of the Coast Guard's aids to navigation in the First District is divided in two parts; short range aids and radio navigation aids.

Short-range aids are positioned along the coastline to assist marine navigation and warn mariners of hazards to navigation. These short-range aids to navigation consist of a system of lighthouses, smaller lights, daybeacons, lighted and unlighted ranges (two aids that appear in line to assist in steering a desired course), lighted and unlighted buoys. Shape, color, numbering and the characteristic of lights if used identify the aids. Many aids are equipped with radar reflectors to intensify the radar return. Radio navigation aids include Radar Beacons (RACONS), Radiobeacons, LORAN-C, the Global Positioning System (GPS) and Differential GPS.

In a Typical Coast Guard Day

Saves **10** lives... Assists **109** people... Saves **$2.8 million** in property value... Conducts **109** SAR cases... Responds to **20** oil or hazardous chemical spills... Boards **90** large vessels for port safety checks... Inspects **64** commercial vessels… processes **120** seamen's documents... investigates **17** marine accidents... Conducts **128** Maritime Law Enforcement boardings and identifies **97** violations of the law... Seizes **84** lbs of marijuana... Seizes **148** lbs of cocaine...(Street value of all contraband: **$9.6 million** per day)... Services **150** aids to navigation... and Interdicts **22** illegal migrants.

In the First District the Coast Guard is responsible for 680 light structures, 1101 lighted and 3601 unlighted buoys, 292 daybeacons and over 3372 private aids.

To assist in the completion of the Coast Guard Aids to Navigation mission we employ the services of 6 major tenders, 11 icebreakers and 9 Aids to Navigation Teams (ANT's) and of course the officers and crew that operate them.

VESSEL TRAFFIC SERVICE NEW YORK

BACKGROUND

As part of a major effort to improve safety and protect the environment in the New York area, congress provided funding to the U.S. Coast Guard to reestablish Vessel Traffic Service New York (VTSNY) in 1991. VTSNY is the waterway manager for the Port of New York and New Jersey, helping to protect the people, property and environment of the Port by promoting good order and predictability on the waterways. This is accomplished by coordinating vessel movements through the collection, verification, organization, and dissemination of information.

The VTSNY area consists of the waters of the Lower New York Bay bounded to the east by a line drawn from Norton Point to Breezy Point, then south to the entrance buoys at Ambrose, Swash, and Sandy Hook Channels, and to the west by a line drawn in the Raritan Bay from Great Kills Light on Staten Island to Point Comfort in New Jersey. In addition, VTS New York encompasses the waters of the Upper New York Bay, including the Kill Van Kull south to the Arthur Kill Railroad Bridge and Newark Bay north to the Lehigh Valley Draw Bridge, and in the Hudson River, north to a line drawn east-west from the Holland Tunnel ventilator shaft at 40 43.7'N, 074 01.6'W, and east to the Brooklyn Bridge.

The Vessel Traffic Center (VTC) located at Staten Island, currently receives radar and closed circuit television (CCTV) information from thirteen remote sites throughout the Port of New York/New Jersey. There is a radar, CCTV and VHF-FM communications site at Mariners Harbor in the Kill Van Kull; a radar and CCTV site in New Brighton in the Kill Van Kull (near the Salt Docks); a radar, CCTV and VHF-FM site on Governors Island and a radar and VHF-FM site at Sandy Hook, New Jersey; a radar and CCTV site at Perth Amboy; a radar. CCTV and VHF-FM site at Sea Warren, New Jersey; a radar and CCTV a site at Travis on Staten Island; a radar and CCTV site at the Gothels Bridge; a radar and CCTV site at the Brooklyn Navy Yard; a radar, CCTV and VHF-FM site at Wards Island; a radar and CCTV site at Halletts Point; a radar, CCTV and VHF-FM site at Port Morris and a radar and CCTV site at Throgs Neck. The remote VHF-FM sites are designed to permit low power (1 watt) communications from any where in the VTS area.

The VTC makes extensive use of technology to assist operators in providing accurate, timely advisories to VTS participants. A database containing the names and characteristics of all regular VTS participants is immediately available for assignment to radar images. This system allows VTS operators more time to monitor traffic and foresee possible developing problems without having to

interpret raw radar data. Statistical information is also easier to retrieve.

NATIONAL VTS REGULATIONS

On 13 October 1994 the National VTS Regulations became effective throughout the country.

These new regulations made PARTICIPATIONS in VTS mandatory for the following categories of vessels (called VMRS Users):

- Power-driven vessels of 40 meters or more in length, while navigating:
- Towing vessels of 8 meters or more in length while navigating: or,
- Vessels certificated to carry 50 or more passengers for hire, when engaged in trade.

The regulations also require ALL vessels subject to the Bridge-to-Bridge Radiotelephone Act MONITOR the VTS frequency (Channel 14 VHF-FM for VTS New York) when navigating in the VTS area. This rule applies to the following categories of vessels (called VTS Users):

- Power-driven vessels greater than 20 meters in length while navigating;
- Towing vessels of 8 meters or more in length while navigating; or
- Every vessel greater than 100 gross tons carrying one or more passengers for hire while navigating; or
- Dredges and floating plants.

The regulations also simplify existing VTS regulations by incorporating:

- Standard national vessel traffic management rules applicable to all VTS's;
- Vessel movement reporting requirements for certain vessels operating in VTS areas; and,
- Geographic descriptions and local regulations pertaining to specific VTS areas.

Additionally, the regulations re-designate other rules, not unique to VTS operations, into more appropriate parts within Title 33. The rulemaking does not significantly change Coast Guard VTS procedures or requirements.

The final rule is intended to promote safe vessel movement by reducing the potential for collisions, rammings, and groundings and their attendant loss of lives, property and environmental harm, as well as standardize VTS participation procedures in all ports equipped with a Vessel Traffic Service.

During conditions of vessel congestion, adverse weather, reduced visibility or other hazardous conditions, the VTC CAN issue directions to control and supervise traffic by specifying times when vessels may enter, move within or through, or depart from ports, harbors or other waters in the VTSNY area.

VTS New York wishes to stress that under normal circumstances the VTC will not exercise the direct MANEUVERING of a vessel. The maneuvering of a vessel remains the sole responsibility of the Pilot/Master.

ANCHORAGE ADMINISTRATION

Under the supervision of Captain of the Port New York (COTP NY), VTSNY exercises the authority, duties and responsibilities of COTP NY pertaining to certain Federal Anchorages outlined in **33 CFR 110.155(d)(1)-(15) and (e)(1)**. These regulations control the use of Federal Anchorages 21A, 21B, and 21C (commonly known as Bayridge Anchorage); Federal Anchorages 23A, 23B and 24 (commonly known as Stapleton Anchorage); and Federal Anchorage 25 (commonly known as Gravesend Bay Anchorage).

For more information on regulations and restrictions for these anchorages, contact VTSNY on Channel 12 VHF-FM or **(718) 354-4088**.

VTS NEW YORK USERS MANUAL

To receive a copy of the VTS New York Users Manual or to be added to the mailing list please write or call:

Commanding
U.S. Coast Guard Activities New York
Vessel Traffic Service
212 Coast Guard Dr.
Staten Island, NY 10305
(718) 354-4088 or **(718) 354-4189**

Suggestions and comments to VTSNY are always welcome. For more information or to arrange for a tour of VTS New York, please contact VTS New York's Operations Officer at **(718) 354-4088**.

MARINE INSPECTION, MARINE SAFETY AND CAPTAIN OF THE PORT OFFICES

Commanding Officer
U.S. Coast Guard Marine Safety Office
103 Commercial St.
Portland, ME 04101-0110
Tel: **(207) 780-3251**
1-800-410-9549
FAX: (207) 780-3567

Marine Safety Field Office Bucksport
PO Box 1909
Bucksport, Maine 04416
(207) 469-2394

Marine Safety Field Office Portsmouth
USCG Station Portsmouth Harbor
New Castle, New Hampshire 03854-0600
(603) 433-7324

Commanding Officer
U.S. Coast Guard Integrated Support Command
Marine Safety Office
455 Commercial Street
Boston, MA 02109-1045
Tel: **(800) 223-3000**

Marine Safety Field Office
New Bedford, Ma.
Tel: (508) 999-0072

Marine Safety Field Office
Cape Cod, Ma.
Tel: (508) 968-6556

Commanding Officer
U.S. Coast Guard Marine Safety Office
20 Risho Avenue
East Providence, RI 02914-1208
Tel: **(401) 435-2300**

Captain of the Port, Long Island Sound
120 Woodward Ave.
New Haven, CT 06512-3698
Tel: **(203) 468-4504**

Marine Safety Field Office
Coram
Tel: (631) 732-0569

Officer in Charge, Marine Inspection
U.S. Coast Guard
Battery Park Building
New York, NY 10004-1466
Tel: **(718) 668-7854**

Commander
U.S. Coast Guard Activities New York
212 Coast Guard Drive
Staten Island, NY 10305
Tel: **(718) 354-4119**

REGIONAL EXAMINATION CENTERS FOR C. G. LICENSES AND SEAMEN'S DOCUMENTS

Regional Examination Center
U.S. Coast Guard Integrated Command Center
455 Commercial Street
Boston, MA 02109-1045
Tel: **(617) 223-3040**

Regional Examination Center
U.S. Coast Guard Marine Inspection Office
Battery Park Building
New York, NY 10004-1466
Tel: **(212) 668-7492**

COAST GUARD GROUP OFFICES

The following is a listing of Group office addresses and their approximate area of responsibility.

Commander, USCG Group Southwest Harbor
Southwest Harbor, ME 04679-5000
Telephone: **(207) 244-4236**

From Canadian border at St. Croix River, ME to Marshall Point, ME.

Commander, USCG Group Portland
259 High Street
S. Portland, ME 04106-0007
Telephone: **(207) 767-0312**

From Marshall Point, ME to Great Boars Head, NH.

Commander, USCG Group Boston
427 Commercial St. Boston, MA 02109-1018
Telephone: **(617) 223-3201**

From Great Boars Head, NH to Manomet Point, MA.

Commander, USCG Group Woods Hole
Woods Hole, MA 02543-1099
Telephone: **(508) 457-3212**

From Manomet Point, MA to Watch Hill Point, RI.

Commander, USCG Group Long Island Sound
120 Woodward Ave.
New Haven, CT 06512-3698
Telephone: **(203) 468-4472**

From Watch Hill Point, RI to Rye, NY including all waters emptying into Long Island Sound.

Commander
U.S. Coast Guard Activities New York
212 Coast Guard Drive
Staten Island, NY 10305
Tel: **(718) 354-4119**

From Rye, NY to the Verrazano Narrows Bridge, including portions of Staten Island and Kill Van Kull to the Outer Bridge Crossing; the waters of Lake Champlaine and the Hudson River north to Albany, NY. Rockaway Inlet, NY to Toms River, NJ, including portions of waters south of Staten Island.

Commander, USCG Group Moriches
100 Moriches Island Road
East Moriches, NY 11940-9791
Telephone: **(516) 395-4405**

From Orient Point, NY to Montauk Point, along the south shore of Long Island to Rockaway Inlet, excluding any waters emptying into Long Island Sound.

COAST GUARD STATIONS

These stations have search and rescue capabilities and may provide lookout, communication, and/or patrol functions to assist vessels in distress. The National VHF-FM Distress System provides continuous coastal radio coverage outwards to 20 miles on channel 16. After contact on channel 16, communications with the Coast Guard should be on channel 22A. If channel 22A is not available to the mariner, communications may be made on channel 12. Selected stations guard the International Radiotelephone Distress, Safety and Calling Frequencies.

VERMONT:

USCG Station Burlington **(802) 862-0376**
SAR ONLY **(802) 864-6791**

MAINE:

USCG Station Eastport **(207) 853-0684**
SAR ONLY **(207) 853-2845**
On east side of Eastport Harbor, north of breakwater.

USCG Station Jonesport **(207) 497-2134**
SAR ONLY **(207) 497-5700**
Near north end of bridge over Moosabec Reach.

USCG Base Southwest Harbor **(207) 244-5517**
SAR ONLY **(207) 244-5121**
At the southerly end of Clark Point.

USCG Station Rockland **(207) 596-6667**
SAR ONLY **(207) 596-6666**
On west side of Rockland Harbor.

USCG Station Boothbay Harbor **(207) 633-2644**
SAR ONLY **(207) 633-2643**
About 100 yards southwest of the northeast tip of McKown Point.

USCG Station South Portland **(207) 767-0364**
SAR ONLY **(207) 767-0363**
In South Portland on the south bank of the Fore River.

NEW HAMPSHIRE:

USCG Station Portsmouth Harbor **(603) 436-4415**
SAR ONLY **(603) 436-4414**
On New Castle Island, at Portsmouth Harbor Light.

MASSACHUSETTS:

USCG Station Merrimack River **(978) 462-3428**
SAR ONLY **(978) 283-0704**
On the south bank of the Merrimack River west of the American Yacht Club.

USCG Station Gloucester (978) 283-0705
SAR ONLY **(978) 283-0704**
East side of Harbor Cove at Gloucester.

USCG Station Boston **(781) 925-0166**
SAR ONLY **(781) 925-0165**
In Boston Harbor, on the south bank of Charles River at the mouth.

USCG Station Point Allerton **(781) 925-0166**
SAR ONLY **(781) 925-0165**
About 0.4 mile east of Windmill Point on Hull Bay.

USCG Station Scituate **(781) 545-3800**
SAR ONLY **(781) 925-0165**
On the southern shore of Scituate Harbor.

USCG Station Cape Cod Canal **(508) 888-0020**
SAR ONLY **(508) 888-0335**
East entrance to the canal, near Sandwich, Mass.

USCG Station Provincetown **(508) 487-0077**
SAR ONLY **(508) 487-0070**
On southwest side of harbor, about 0.4 mile southwest of town pier.

USCG Station Chatham **(508) 945-3830**
SAR ONLY **(508) 945-0164**
Southeastern Cape Cod, near Chatham Light.

USCG Station Woods Hole **(508) 457-3250**
SAR ONLY **(508) 548-5151**
On west side of Little Harbor, about 450 yards northward of Juniper Point.

USCG Station Brant Point **(508) 228-0398**
SAR ONLY **(508) 228-0388**
On west side of entrance to Nantucket Harbor, near Brant Point Light.

USCG Station Menemsha **(508) 645-2661**
SAR ONLY **(508) 645-2611**
West end of Martha's Vineyard, near Menemsha.

RHODE ISLAND:

USCG Station Castle Hill **(401) 846-3676**
SAR ONLY **(401) 846-3675**
On west shore of Newport Neck, near Castle Hill Light.

USCG Station Point Judith **(401) 789-0444**
SAR ONLY **(401) 783-3021**
On Point Judith, near Point Judith Light, 0.5 mile east of Point Judith Harbor of Refuge.

USCG Station Block Island **(401) 466-5017**
SAR ONLY **(401) 466-2086**
On Block Island, west side of entrance to Great Salt Pond.

CONNECTICUT:

USCG Station New London **(860) 442-4471**
At Fort Trumbull, on west side of main channel northward of Greens Harbor.

USCG Station New Haven **(203) 468-4497**
SAR ONLY **(203) 468-4400/1**
On the north side of jutting point, about 1.5 miles northward of Lighthouse Point.

NEW YORK:

USCG Station Eatons Neck **(631) 261-6959**
SAR ONLY **(631) 261-6868**
Near Eatons Neck Light, north shore of Long Island, east side of entrance to Huntington Bay.

USCG Station Montauk Point **(631) 668-2773**
SAR ONLY **(631) 668-2716**
In Montauk Harbor, Long Island.

USCG Station Shinnecock **(631) 728-0078**
SAR ONLY **(631) 728-1171**
East side of Ponquogue Point, 1.3 miles northwest of Shinnecock Inlet.

USCG Station Fire Island **(631) 661-9101**
SAR ONLY **(631) 661-9100**
Near west end of island, 0.2 mile northeast of Fire Island Light.

USCG Station Jones Beach **(516) 785-2921**
SAR ONLY **(516) 785-2988**
Near Jones Inlet, opposite Meadow Island.

USCG Station Rockaway **(718) 634-2848**
(718) 634-2849
On Rockaway Beach, 2.5 miles east of Rockaway Point.

USCG Station Fort Totten **(718) 352-4422**
On the east side of Little Bay.

USCG Station New York **(718) 354-4101**
On Staten Island.

NEW JERSEY:

USCG Station Sandy Hook **(732) 872-3428**
SAR ONLY **(732) 872-0341**
On the bay side, 0.5 mile south of the point of the hook.

USCG Station Shark River **(732) 775-5029**
SAR ONLY **(732) 776-6730**
About 500 yards west of the entrance, on the north side of Shark River Inlet.

USCG Station Manasquan Inlet **(732) 899-0887/131**
SAR ONLY **(732) 899-0130**
Quarter mile west of inlet entrance, south side.

U.S. ARMY CORPS OF ENGINEERS

The Corps of Engineers is responsible for civil works which includes the administration of certain federal laws enacted for the protection and preservation of navigable waters of the United States; the establishment of regulations for the use, administration, and navigation of navigable waters; the establishment of harbor lines; the removal of sunken

vessels obstructing or endangering navigation; and the granting of permits for structures or operations in navigable waters, and for the discharge and deposits of dredge and fill materials in these waters.

Information concerning the various ports, improvements, channel depths, navigable waters, and the condition of the intercoastal waterways in the areas under their jurisdiction may be obtained direct from the District Engineer offices.

NEW ENGLAND DIVISION
696 Virginia Road
Concord, MA 01742-2751
(978) 318-8338

NEW YORK DISTRICT
26 Federal Plaza
New York, NY 10278
(212) 264-0100

STATE BOATING OFFICES

VERMONT:

Vermont State Police HQs, Marine Division
Telephone: **(802) 878-7111**

MAINE:

Dept. Inland Fisheries & Wildlife
Telephone: **(207) 287-2766**

NEW HAMPSHIRE:

Dept. of Safety Marine Patrol
Telephone: **(603) 293-2037**

MASSACHUSETTS:

Department of Fisheries, Wildlife, and Environmental Law Enforcement Telephone: **(617) 727-8589**
Commissioner's Office: **(617) 626-1500**

RHODE ISLAND:

Dept. of Environmental Mgt.,
Boat Registration Office: **(401) 222-6647**
Law Enforcement Division: **(401) 222-3070**

CONNECTICUT:

Dept. of Environmental Protection,
Marine Patrol Division
Telephone: **(860) 434-8638**

NEW YORK:

Office of Parks, Recreation and Historic Preservation, Marine & Recreational Vehicles
Telephone: **(518) 474-0445**

NEW JERSEY:

New Jersey State Police
Marine Law Enforcement Bureau
Telephone: **(609) 882-2000**

INTERNET RESOURCES

Coast Guard and Related Agencies

U.S. Coast Guard
www.uscg.mil

U.S. Coast Guard Auxiliary
www.cgaux.org

U.S. Coast Guard Recreational Boating Safety Statistics
www.uscgboating.org

Safe Boating Council
www.safeboatingcouncil.org

United States Power Squadron
www.usps.org

USCG First District Auxiliary
http://www.uscgaux.org

USCG First District
http://www..uscg.mil/d1

USCG First District – First Word Magazine
http://www.uscg.mil/d1/newengland/fw.html

USCG First District News
http://www.uscg.mil/d1/newengland/pressrelease.html

Find the nearest Auxiliary Flotilla
http://www.cgaux.org/cgauxweb/getzip.html
Team Cape Cod Division 11
www.capecod.net/uscgaux

Marine/Aviation Weather Information
http://www.marineweather.com/

Local Notice to Mariners
http://www.navcen.uscg.gov/

National Oceanic and Atmospheric Administration
http://www.nws.noaa.gov/

Army Corp of Engineers
Http://www.usace.army.mil/

H. ✸ LAW ENFORCEMENT ✸

U.S. COAST GUARD LAW ENFORCEMENT

An important Coast Guard mission is maritime law enforcement on the high seas and on water subject to Federal laws. Of particular interest are laws dealing with the 200-mile Fishery Conservation Zone, drug smuggling, illegal immigration, and safety and water pollution.

COAST GUARD BOARDING POLICY

To enforce these laws, the Coast Guard is empowered to board and inspect vessels. Many of the laws can be successfully enforced only by boarding a vessel while it is underway. Boardings are not necessarily based on suspicion that a violation already exists aboard the vessel. Their purpose is to prevent violations. The courts have consistently upheld this authority. All Coast Guard officers and petty officers are Federal law enforcement officers and they may board any United States vessel anywhere.

The Coast Guard boarding team is armed. Although most mariners that are boarded are engaged in legitimate recreational or commercial pursuits, even a seemingly innocent pleasure boat boarding sometimes turns into a dangerous confrontation.

The Coast Guard follows a standard procedure before boarding. Coast Guard personnel will always properly identify themselves, will always be in uniform, coveralls, or survival suit displaying Coast Guard insignia, and will always operate from a marked Coast Guard or Navy vessel flying the Coast Guard Ensign.

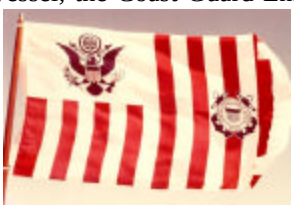
Coast Guard vessels may have their running lights extinguished at night while conducting law enforcement operations. Running lights, if off, will be turned on prior to boarding, and light will usually be directed at the Coast Guard Ensign flying from the mast and red "racing stripe" on the bow so that the Coast Guard vessel is easily recognized.

Once aboard the vessel, the boarding party will check for compliance with federal laws. If, during the inspection, a reasonable suspicion develops that the vessel has been engaged in criminal activity, the boarding officer may investigate further. Coast Guard boarding officers are trained to be courteous to the public.

The Coast Guard strives for a proper balance between avoiding intrusions into the activities of law-abiding individuals and conducting effective law enforcement. Occasionally, however, the Coast Guard will receive a complaint that a boarding was conducted improperly. These complaints involve a very small fraction of all boardings. Nevertheless, any complaints of boardings contrary to Coast Guard policy will be investigated.

COAST GUARD VESSEL MARKING

U. S. Coast Guard vessels are identified by a distinctive stripe, with the words **"U.S. COAST GUARD"** on both sides of the vessel, the Coast Guard Ensign



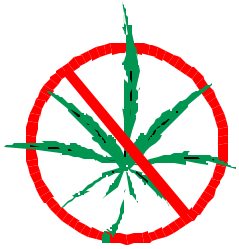
is displayed from the masthead and is manned by uniformed personnel. Coast Guard law enforcement personnel may also be found aboard U. S. Navy and other vessels flying the Coast Guard Ensign.

The Coast Guard has the authority under **Title 14 USC 89** to make inquires, examinations, inspections, searches, seizures, and arrests upon the high seas and waters over which the United States has jurisdiction, in order to enforce federal laws. To compel compliance, the Coast Guard may use necessary force. A vessel underway, upon being hailed by a Coast Guard vessel or patrol boat, is required to stop immediately and heave to, or maneuver in such a way as to permit the boarding officer and boarding party to come aboard. Failure to stop to permit boarding may subject the operator or owner of the vessel to a maximum penalty of $500.00. Forcibly resisting a Coast Guard boarding officer is a felony punishable by up to 10 years in prison and $10,000.00 fine.

A civil penalty of up to $500.00 may be imposed by the Coast Guard for failure to comply with equipment requirements, to comply with numbering requirements, to

observe the Rules of the Road, to report a boating accident, etc.

SMUGGLING



Significant amounts of contraband, specifically narcotics, enter the United States transported on vessels. The most common drugs smuggled are marijuana, hashish, cocaine and heroin. The Coast Guard aims to prevent drug traffic by interdicting drug-carrying vessels at sea. Mariners observing or having information that a vessel may be involved in narcotics trafficking are requested to contact the nearest Coast Guard unit.

HIJACKING

Hijackings at sea are an extremely rare occurrence. Most hijackings occur outside the waters of the United States.

Several protective measures may be taken by the public to lessen the likelihood of their vessel being hijacked:

- Know your crew, particularly the hired crew and tagalong guest that you may meet at the marina yacht club/town dock/city pier, etc.
- Before departure, personally deliver or mail a passenger list and a float plan to a trusted friend or relative with instructions to notify the Coast Guard if you fail to arrive at your destination within a reasonable time. Let all personnel aboard know of this precaution.
- Make a complete check of the vessel for stowaways prior to departing.
- Notify the Coast Guard or any coastal radio station prior to assisting anyone in apparent distress. While preparing to render assistance, be alert to any unusual situation and be wary when the apparently distressed person insists on boarding your vessel.
- Consider clearing local customs before departing on a foreign cruise. While this is not required of pleasure craft, it provides a complete list of crew, firearms, high value personal property and portable vessel equipment.

STOLEN BOAT REPORTING

Stolen boats come under state and local jurisdiction and should be reported to appropriate local authorities as well. When reporting a stolen boat, include the name of owner/operator, physical description, documentation numbers or state registration numbers, hull identification number (HIN), approximate value of the vessel, engine number, sail number. Include all equipment by name and type, easily removable gear and other items that would help to identify the vessel.

NEGLIGENT OPERATION

EXAMPLES OF NEGLIGENT OPERATION ARE:

- Failure to reduce speed in areas where boating is concentrated.
- Operating at excessive speed under storm conditions or in fog.
- Operating while intoxicated or under the influence of drugs.
- Towing water skiers in an area where they might be hit by another vessel.
- Operating within a swimming area.
- Cutting through a regatta or marine parade.

In accordance with Title 46 United States Code, Chapter 23, Section 2302:

- A person operating a vessel in a negligent manner that endangers the life, limb or property of a person is liable to the United States Government for a civil penalty of not more than $1,000.
- A person operating a vessel in a grossly negligent manner that endangers the life, limb or property of a person shall be fined not more than $5,000, imprisoned for not more than one year or both.
- An individual who is intoxicated when operating a vessel as determined under standards prescribed by the Secretary by regulation, shall be:
  - Liable to the United States Government for a civil penalty of not more than $1,000; or
  - Fined not more than $5,000, imprisoned for not more than one year, or both.

For a penalty imposed under this section, the vessel also is liable unless the vessel is:

- Owned by a State or political subdivision of State;
- Operated principally for governmental purposes; and

- Identified clearly as a vessel of that State or subdivision.

BOATING WHILE INTOXICATED (BWI) ENFORCEMENT

The Coast Guard began enforcing new federal regulations prohibiting the operation of a vessel while intoxicated on June 1, 1991. The regulations established both a Blood Alcohol Content (BAC) and a Behavioral Standard of Intoxication.

Based on state boating fatality statistics and studies conducted by the National Transportation Safety Board, the Coast Guard believes that the involvement of alcohol or drugs in recreational boating accidents may actually exceed 50%. The Coast Guard's objective in enforcing federal BWI regulations is to remove intoxicated operators from the water and prevent them from subsequently operating a vessel or motor vehicle while remaining intoxicated; thereby eliminating the threat they pose to themselves and others.

The federal regulations encourage cooperation with state law enforcement agencies. In a state where a BAC level has been enacted, the Coast Guard will apply the state standard. Otherwise the federal standard of 0.08 percent will be enforced. Likewise, the Coast Guard will request that state or local enforcement officers assume custody of intoxicated boaters and their vessels if they are within state waters.

A boat operator may be cited for a BWI violation based on the BAC standard, the behavioral standard or both. The behavioral standard is based on the boarding officer's determination that an individual's manner, disposition, speech, muscular movement or general appearance indicated intoxication. This standard is based, in part, on the premise that intoxication may be caused by nonalcoholic drugs or a combination of drugs and alcohol where the BAC level is not exceeded.

The Coast Guard will not conduct random spot checks, blockades or checkpoints to detect intoxicated operators, nor will any quota systems be employed. A boarding officer will direct a recreational boater to submit to a field sobriety test and/or a breath analyzer test only when he has a reasonable suspicion that an operator is intoxicated or when a marine accident has occurred.

Question concerning the BWI Enforcement program can be directed to First Coast Guard District, **617-223-8244**.

TERMINATION OF USE

A Coast Guard boarding officer who observes a boat being operated in an UNSAFE CONDITION, specifically defined by law or regulation, and who determines that an ESPECIALLY HAZARDOUS CONDITION exists, may direct the operator to take immediate steps to correct the condition, including returning to port. Termination of unsafe conditions may be imposed for:

- Insufficient number of CG Approved Personal Flotation Devices (PFDs)
- Insufficient fire extinguishers
- Overloading condition
- Improper navigation light display
- Fuel leakage
- Fuel in bilge's
- Improper ventilation
- Improper backfire flame control
- Manifestly unsafe voyage

An operator who refuses to terminate the unsafe use of a boat can be cited for failure to comply with the directions of the Coast Guard boarding officer, as well as for the specific violations, which are the basis for the termination order.

PROHIBITION TO SAIL - MANIFESTLY UNSAFE VOYAGE

Under the authority of **46 United States Code 4302 and 4308**, the Commandant, U. S. Coast Guard has authorized the District Commander to prohibit the voyage of any vessel if he determines that said craft is unsuitable for the intended trip. His determination will be based upon the design, condition and outfitting of the vessel in relation to what the District Commander deems necessary for a safe voyage. Operator competency is NOT a factor in the final determination. If a manifestly unsafe ruling is issued, the voyage is terminated and the vessel will be prevented from getting underway. The person making the voyage may appeal.

I. ✸ COMMERCIAL VESSEL REGULATIONS ✸

FISHING VESSEL SAFETY REGULATIONS APPLY TO ALL FISHING VESSELS

Several people have asked the question: Are vessels catching and selling fish, such as Atlantic Bluefin Tuna, Stripped Bass and the like, required to comply with the commercial fishing industry vessel safety regulations?

THE ANSWER IS YES!

The key to the answer is "**Selling**". A vessel engaged in selling "fish" (meaning finfish, mollusks, crustaceans, and all other forms of animal and plant life) is considered to be a fishing vessel, (meaning a vessel that commercially engages in the catching, taking, or harvesting of fish.) The Coast Guard considers even a vessel with a “sport” tuna license from National Marine Fisheries Service (NMFS) a commercial fishing vessel if the **intent** is to sell the catch.

Vessels which sell the catch, or a portion of the catch whether it be Atlantic Bluefin Tuna, Stripped Bass, Scup, Tataug, Winter Flounder, Lobsters, Clams, Mussels, Scallops, what ever, are considered to be "Commercial Fishing Vessels" and are subject to the fishing vessel safety regulations. In addition, a vessel, 5 Net tons or more engaged in commercial fishing, must be documented with the Coast Guard and the Certificate of Documentation must be endorsed for "Fishery".

Vessels carrying passengers for hire are regulated by other safety regulations: either sub-chapter "T" (small passenger vessels) or sub-chapter "C" (uninspected passenger vessels so called "six pack" boats). These vessels are not subject to the commercial fishing vessel safety regulations when operating as a passenger vessel. But, these vessels are required to meet the fishing vessel safety regulations at times when they are not carrying passengers and are commercial fishing—selling the catch.

These provisions may come as a surprise to vessels catching and selling Bluefin Tuna off the coast of New England during the summer months, or vessels fishing for scup in Buzzards Bay. Many vessels that normally think of themselves as pleasure vessels or "yachts" are now confronted with more stringent safety regulations.

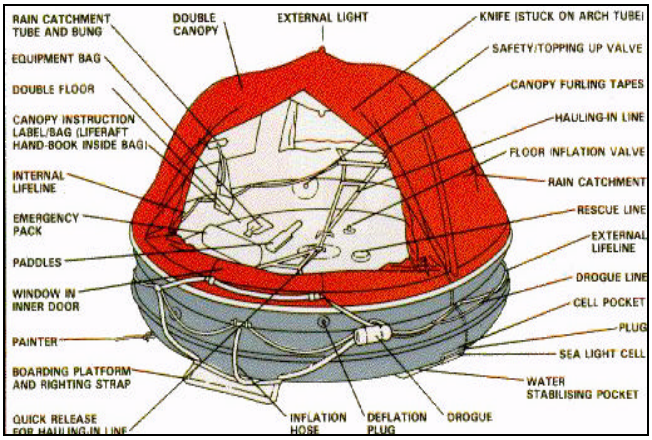
The fishing vessel safety regulations vary depending on several factors, including: (a) state numbered or documented with the Coast Guard, (b) the number of persons on board, (c) the area of operation, and (d) the season of the year.

If you don't have a copy of the new fishing vessel safety regulations or simplified pamphlet or if you have any questions about how to comply with the regulations please contact:

Ted Harrington or Bob Higgins
First Coast Guard District
Fishing Vessel Safety Coordinators
(617) 223-8444

SERVICING LIFERAFTS

All inflatable liferafts and buoyant apparatus must be serviced annually at a Coast Guard approved facility. The only exception is if inflatables are less than two years of age. Generally, approval is granted only to service specific brand name liferafts and the company may represent itself as a Coast Guard approved facility only for that make of raft. A listing of all Coast Guard approved facilities is available from your nearest Coast Guard Marine Safety Office.



A marking system indicating the service dates will be marked by the servicing facility. The U.S. Marine Safety Association has developed a coded decal that is placed on the raft container. It is color coded for each servicing year.

VOLUNTARY DOCKSIDE EXAM

The new Fishing Vessel Safety Initiatives have been in effect for several years, and it appears the vast majority of fishermen are aware that the requirements exist.

One comment still repeated is that the regulations are very complex and difficult to understand. Recognizing this the Coast Guard has initiated a voluntary dockside examination program specifically intended to help the average fisherman understand the new regulations and adapt the exam for his particular vessel.

Voluntary exams focus on education and are conducted in a non-adversarial manner. In other words, the Coast Guard person conducting the exam will only advise the owner of the requirements necessary to bring his vessel into compliance with the regulations. There is no penalty action taken for any deficiencies noted during the examination.

The Coast Guard representative will accommodate any request made for the voluntary dockside exam, at the owner's convenience. The examiner leaves the owner with a helpful packet of information, and does a walk-through of the vessel, informing the owner/operator of any changes necessary for the vessel to comply with the regulations.

The vessel does not have to comply fully while the examiner is on board the vessel. The Coast Guard representative will return to the vessel when the owner has had a chance to obtain the equipment pointed out by the examiner.

Any vessel that successfully completes a voluntary exam will be issued a sticker for the starboard pilothouse window. This tells a Coast Guard boarding team that the vessel has already complied with the regulations. If the vessel with a sticker is boarded, the boarding officer will limit his safety inspection to a spot check. This will save valuable time that could be better spent fishing.

There have been over 4,000 voluntary exam decals issued within the First District. The exam is free, and may save a vessel owner money, not to mention lives.

To request a voluntary dockside exam contact the nearest Coast Guard Marine Safety Office, or the District Fishing Vessel Safety Coordinator Ted Harrington at **(617) 223 8444**.

FISHING SAFETY UPDATE NEWSLETTER

A very informative newsletter dealing with fishing vessel safety and an explanation of some of the fine points of the Commercial Fishing Vessel Industry Safety Act is available on a quarterly basis from:

Commander (m)
First Coast Guard District
408 Atlantic Avenue
Boston, MA 02110-3350

IMPROPER USE OF SEARCHLIGHTS AND FLOODLIGHTS AT SEA

The Coast Guard has received reports that fishing vessels which use high intensity lights when setting and retrieving gear are routinely leaving them lit at all times when the vessel is underway. Although these lights may make a vessel easier to locate at great distances, improper use could interfere with the safe navigation of vessels. This may constitute a violation of the International Regulations for Preventing Collisions at Sea, 1972 (72 COLREGs) if the glare of such lights:

- Interferes with the night vision of mariners operating in the vicinity and the keeping of a proper lookout - **Rules 5 and 20** (proper lookout).
- Obscures the navigation lights of the vessel, making it difficult to determine a vessel's heading and type of operation - **Rule 20** (impair distinctive character of navigation lights).
- Makes it difficult for mariners to identify aids to navigation and their geographical location in the vicinity of the vessel using these lights - **Rule 36** (mistaken for any aid to navigation or embarrass another vessel).

Several reports indicated a vessel using sodium vapor floodlights was mistakenly reported as a vessel on fire, which resulted in a search and rescue response to a false alarm. The use of these high intensity lights may ultimately reduced the level of vigilance on the part of other mariners which could result in an actual distress situation not being reported or answered.

This notice does not prohibit a vessel from using any lights that cannot be mistaken for the lights specified in the 72 COLREGS. Mariners are cautioned that all types of high intensity lights when used at sea must be properly directed or adequately screened to ensure that under any conditions such lights will not embarrass another vessel, be misinterpreted, or illuminate beyond the immediate vicinity of

the vessel. When these lights are not being used for a specific task they should be extinguished.

DRUG AND ALCOHOL TESTING FOR COMMERCIAL VESSEL PERSONNEL

The U.S. Coast Guard has established minimum drug and alcohol testing requirements for the merchant marine industry. These regulations were developed as part of the Department of Transportation (DOT) program to address drug and alcohol use in the U.S. transportation system. The regulations developed by the U.S. Coast Guard set the minimum requirements for testing in the marine industry. Testing conducted under these regulations is limited to six dangerous drugs: marijuana, cocaine, opiates, amphetamines, phencyclidine (PCP) and alcohol. All dangerous drug samples collected as part of these regulations must be analyzed at Substance Abuse and Mental Health Services Administration (SAMHSA, formerly NIDA) certified labs.

Certain crewmembers are subject to the regulations. If a license or Merchant Mariner's Document (MMD) is required by at least one person on the vessel, then at least some crewmembers may be subject to the regulations based upon their responsibilities on the vessel. Testing for drugs is conducted through urine samples, while testing for alcohol in the marine industry may be conducted using breath or blood. If blood is tested, only a qualified medical person may collect. Breath testing may be done by anyone trained to conduct such tests. All urine samples must be collected, handled, analyzed and results reported in accordance with specific requirements. These DOT-wide urine collection requirements are located at **Title 49, Code of Federal Regulations, Part 40**. The samples collected in order to meet the requirements of the U.S. Coast Guard rules may not be tested for any other drugs. If an employer wants to test for other drugs, samples must be collected and processed separately from samples used for DOT tests.

Any one or more of the following may from time-to-time be considered a marine employer: the owner of a vessel, the managing operator, the charterer, the agent, the master, or other person in charge. The marine employer is responsible for administering drug and alcohol testing programs for their employees. A crewmember who holds a license or MMD who refuses to provide a sample should be reported to the nearest Coast Guard Marine Safety/Inspection Office for possible actions against the license, or MMD for misconduct.

The regulations require five types of testing:

- Pre-employment: A crewmember must pass a drug test before an employer may employ him or her or give a commitment of employment. A prospective crewmember that submits a urine sample cannot be employed until the results are known. Few exceptions apply.

- Reasonable cause: An employer shall require any crewmember that is reasonably suspected of using drugs to be tested for drugs.

- Random: An employer must conduct random drug testing of certain crewmembers at an annual rate of not less than 50%.

- Post-Accident: A person (not necessarily a crewmember) who is directly involved in a serious marine incident must be tested for drugs and alcohol.

- Periodic: Periodic tests are the responsibility of the individual mariner, not the marine employer. Whenever a person is required to have a physical examination under Coast Guard regulations, a drug test must be included. The results of those tests must be submitted to the Coast Guard Regional Exam Center at the time of the license or MMD transaction.

NOTE: Effective 24 March 1995, all applicants for the issuance or renewal of Licenses, Certificates of Registry, or Merchant Marine's Documents are required to pass a chemical test for dangerous drugs.

Any crew member who fails any required drug test must be removed from duties which directly affect the safe operation of the vessel as soon as practicable. They would also be denied employment in the case of a pre-employment test. This is until or unless the Medical Review Officer (MRO) determines that person is drug free and at low risk to return to drug use. This requirement applies to all persons who fail drug tests, whether or not they hold any license or MMD.

Marine employers must report positive tests to the Coast Guard for persons holding licenses or MMDs. Those personnel should expect revocation of their Coast Guard papers for drug use, and revocation or suspension of their Coast Guard papers for alcohol intoxication. A civil penalty of $1000 can be assessed for intoxication (blood alcohol level greater than .04) on board a commercial vessel. There are also provisions for penalties of up to $250,000 and imprisonment for one year.

Citations to the Code of Federal Regulations (CFR) where the Coast Guard and DOT drug testing regulations are located in:

33 CFR 95 Coast Guard - Operating a Vessel while Intoxicated

46 CFR 4.06 Coast Guard - Marine Casualties and post accident testing and when it is required

46 CFR 16 Coast Guard - Chemical Testing: types of testing required and procedures for the marine employer (when and who to test)

49 CFR 40 DOT - Procedures for Transportation Workplace Drug Testing Programs: procedures for all DOT - regulated drug testing, includes technical regulations for collection and testing.

THE PASSENGER VESSEL SAFETY ACT OF 1993

On 21 June 1994, the Passenger Vessel Safety Act of 1993 was implemented. The new law will increase safety requirements for chartered vessels. Chartered vessels carrying more than 12 passengers are most significantly affected. For more information on how the Passenger Vessel Safety Act affects the charter boat fleet, please contact your local Coast Guard Marine Safety Office or Inspection Office.

If you wish to obtain a copy of the **Navigation and Inspection circular 7-94** entitled "Guidance on the Passenger Vessel Safety Act of 1993", please contact:

Superintendent of Documents
Government Printing Office
(202) 783-3238

FISHING VESSEL VOLUNTARY DOCKSIDE EXAMINATION CONTACTS