

## **Small Boat Qualification Guide**

### **Introduction**

Recreational boating is a popular leisure-time activity. If basic safety precautions are ignored, however, it can be very dangerous. Harbors and waterways are becoming more congested every year as tens of thousands new boats are launched. Nationally, recreational boating is second only to highway transportation in the number of fatalities which occur each year.

Most boating accidents involve capsizes of small boats and people falling overboard. Four out of five fatalities are caused by drowning. The U.S. Coast Guard estimates over 75 percent of drowning victims were not wearing personal flotation devices (life preservers). Most devices are kept stowed under seats, out of the way, and can not be reached when needed.

The overwhelming majority of boat operators who have fatal accidents have never taken a safe boating course. The main causes of these accidents are collision and falling overboard. Alcohol and drug use is often a factor.

### **Safety Precautions**

Acquire training in the safe operation of the boat you plan to use. In addition, you may determine that it would be wise to have another member of your boating group be trained in the safe operation of that boat.

The Safe Boating Course offered by the Coast Guard Auxiliary is designed to teach the fundamentals so you and your passengers can return home safely. It is offered at night and on weekends to suit the schedule of most people. Auxiliary phone numbers are usually listed in the white business section of the telephone directory. Other agencies that offer safe boating classes are the American Red Cross and the United States Power Squadrons.

You must not only know how to avoid trouble but also must be prepared to take prompt action in the event of an emergency. What do you and the occupants of the boat do when something happens may mean the difference between life and death. Talk over a plan prior to operation of the boat. Determine who does what and when. Assure that you are knowledgeable in the safety devices present on the boat; know where the fire extinguisher and other safety devices are in the boat. Check each before leaving the dock.

Drinking while boating is dangerous; operating a boat while intoxicated is illegal. Intoxicated operators cause 50 percent or more of all serious boating accidents. The effects of alcohol on recreational boaters are particularly severe. Because of the rocking motion of small boats, heat, and glare, the effects of alcohol are more severe for boaters than for people driving on the highway. Balance, decision-making abilities and side vision are adversely affected. A moment of dizziness or mis-step can quickly cause a fall overboard; slow reaction time caused by poor decision-making can also cause an accident and the inability to see swimmers or other boats can be disastrous. Boaters who have fallen in the water with alcohol present in their blood stream have been found to have swum to the bottom rather than to the top due to the inability to determine which way was up.

A federal law concerning operating a boat under the influence went into effect January, 1988, making it illegal for anyone with a blood alcohol concentration of 0.08 percent or more to operate a boat on federal waters. The law carries a \$1,000 civil penalty and criminal penalties of up to \$5,000, one year in jail, or both.

Hypothermia usually kills victims by compromising their ability to swim or stay afloat. The colder the water, the greater the likelihood of drowning. Cold water quickly causes hypothermia, a condition in which the body loses heat faster than it can be reproduced. One effect of hypothermia is that muscles refuse to work resulting in an otherwise strong swimmer being unable to swim.

The American Red Cross reports the chances of survival in water with temperature of 50 degrees Fahrenheit is only 50-50 if exposed for 50 minutes. Children and older people are most susceptible. Spring, early summer, fall and winter can generate hypothermic conditions. For water sports, when air and water temperatures add up to less than 100 degrees Fahrenheit, conditions are severe and a wetsuit should be worn.

If you fall into cold water you should leave your clothing on because it

traps air bubbles next to the body, and helps to keep you warm. You should then climb out of the water as quickly as possible, even if only onto an overturned boat or floating debris.

Attempting to swim long distances is not recommended because water moving across the body will lower body temperature. The head, armpits and groin must be protected for they are the areas from which most body heat is lost.

Forty percent of the body's heat is lost from the head. Wearing a hat is very important. Assuming the "H.E.L.P." (heat escape lessening position) position with the knees drawn up and ankles and arms crossed can help extend survival time. Huddling together, particularly with children, is extremely beneficial as well.

Check local weather conditions before leaving home and again upon arrival at the dock. Weather may change dramatically in a short period of time, obtain a weather forecast and listen to local weather reports just prior to beginning any boating venture.

### **Safe Boating Requirements**

Always prepare a float plan. The purpose of the float plan is that someone not on your boat will have an idea when to worry when you do not arrive or check in as prearranged. Indicate where you are going, number of passengers, start time, estimated return time, boat number, type and color of boat, where your car is parked and what time to notify the proper agency, if you have not returned. This float plan should be revised if you make changes in your plans.

When using a trailer to transport a boat, the boat must be winched tight and balanced. Most of the weight should be over the wheels with a slight balance toward your car and about 5 to 10 percent of the total weight on the trailer hitch. Use restraining straps and a safety chain. The hitch should be bolted or welded to the frame. Do not use a hitch that clamps to the bumper. Be careful to use only designated launching ramps and have someone act as a guide when backing. Additional rear view mirrors may be required to improve visibility. Before leaving the ramp, check the trailer's turn signals for proper operation.

Small boats are very unstable if not loaded properly. For a guide, check the manufacturer's load capacity plate; it is usually located on the stern. It states passenger, horsepower and load restrictions. Also talk with the renter or owner of the boat prior to loading for any special tips regarding the stability of the boat. Prior to leaving the dock, move around the boat as you would on the water, to determine if the boat feels stable or rocks severely.

When boarding a small boat such as a canoe from a dock or low pier, step aboard into the center of the boat. Stay low and hold on to the sides to keep your balance. Never stand in a boat unless you are sure it is large enough and stable enough to do so safely. Boats with narrow beams and low freeboard are particularly hazardous. If you must move about in a small boat, stay low.

Allowing passengers to sit on the sides of a boat or with their feet and legs hanging over is dangerous. A sudden roll or wave could cause them to fall overboard, into the path of the boat.

When passing near marinas and fishing or swimming areas, reduce speed to prevent your wake from damaging boats or structures in the area. Reducing your wake also will keep your boat from swamping or severely rocking other boats. You are liable for any damages resulting from careless boat operation.

If a person falls overboard, immediately throw a flotation device in the water, then slow the boat, keeping the victim in view. Turn the boat and always stop the motor when close to the person in the water. Bring the person back into the boat over the stern; use a ladder if you have one.

If your boat capsizes, stay with it. Most boats will continue to float and afford basic flotation, enough to keep you and your passengers afloat. Because of its size, it will be easier for rescuers to spot than a swimmer alone in the water. From a distance only a swimmer's head is visible to rescuers, making sighting very difficult.

Many water skiers and boaters are not aware of the hazards of water skiing. As a result, skiers can be seriously hurt and even killed. Showing off is the chief cause of skiing accidents. To prevent skiing accidents always have two people in the boat while a water skier is in the water. One of the occupants of the boat acts as an observer and

the other should operate the boat. Make sure everyone knows and uses the proper hand signals. The skier, observer and boat operator must all use the same signals. The skier will wear a Coast Guard approved personal flotation device.

Other safety precautions include: if mooring near wharves or piers, allow enough clearance for a full circular swing of the boat and the swing of boats moored nearby. Don't depend on the current alone to keep the boat in line. When anchoring the boat use an anchor with at least five times as much line as the depth of the water and only anchor from the bow. Also use caution when fueling; do not smoke or use open flames and make sure containers are of the approved type. Explain what are approved and non-approved types.

Monitoring fuel consumption is another safety precaution. For any trip you should measure your fuel by thirds. One third to go where you plan to go, one third to get back and one third in reserve.

### **Rules of the Road**

Unlike cars and trucks, boats do not travel on clearly marked lanes. Channels are only safely navigated if vessels stay to the right side of the channel they are traveling. If a dangerous situation is observed, do not wait until contact is imminent. Take evasive measures immediately; small boats are highly maneuverable. Collisions are avoidable if a proper lookout is maintained. Assure the operator of the boat clearly understands the rules of the road, e.g., which boat moves left and which moves right under what circumstances.

The Marine Inland Rules of the Road state the vessel that must give way is called the "give-way" vessel. In all cases the "stand-on" vessel must hold course and speed and the "give-way" vessel must keep out of the way of the stand-on vessel by altering course or speed or both.

a. In meeting situations on inland waters, both vessels are "give-way". Each shall turn to starboard (the right) and pass port to port (left side to left side). This should be done well in advance to visually alert the other boat operator.

b. In an overtaking situation on inland waters, the boat being overtaken (stand-on) has the right of way and must hold course and speed so the overtaking boat can pass safely.

c. In a crossing situation on inland waters, when two boats are approaching each other, the boat which has the other on her own starboard side is the "give-way" vessel; it shall keep out of the way of the other boat. Requirements are the same as for cars and trucks meeting in at an intersection. The vehicle to the right has the right of way.

d. Rowboats and canoes and other boats propelled by paddles and oars have the right of way over motorboats. Additionally, a sailboat always has the right of way over a motorboat except in special circumstances. A sailboat proceeding under power alone or under power and sail is considered to be a motorboat and is afforded no special privileges. Sailboats and motorboats must stay clear of large power driven vessels in a narrow channel because of their limited maneuverability.

At night, lights on boats tell if they are meeting, overtaking or crossing. If the red and green lights on the bow are both visible, the boat is meeting yours; if only the white light on the stern of the other boat is visible, you are overtaking it with your boat. If only the red bow light and white stern light are visible, you are approaching its port (left) side. Lights are required for all boats operated between sunset and sunrise. Boats using only oars or paddles are only required to show one white light such as a flashlight to prevent a collision.

The Federal and State Waterway Marking Systems use buoys and beacons to mark channels. When proceeding from seaward up a bay, river, creek or harbor, red markers designate the starboard (right) side of the channel and green ones mark the port (left) side. On Guam the left side channel markers are Red and the right side are green. Red buoys and beacons have even numbers and the green have odd numbers. The numbering starts at the seaward end of the channel. The numbers get larger as you proceed shoreward or upstream. Navigational charts should be used as road maps to guide you through unfamiliar waters. They show channel markers and water depths as well as underwater obstructions.

### **Safety Equipment**

Most people who drown while boating have personal flotation devices (life jackets) aboard their boats, but when they die, are not wearing them. The U.S. Coast Guard requires boats which are 16 feet and longer to be equipped with one Type I, II, III or V

wearable device for each person aboard plus one Type IV (cushion or life ring). To be Coast Guard approved, a Type V must be worn while underway. Boats less than 16 feet in length are required to carry one Type I, II, III, or V for each person aboard. Operators and passengers aboard MWR/MCCS rented boats will wear Coast Guard approved personal flotation devices (PFDs) while underway.

(a) Coast Guard approved PFDs

1. Type I (Offshore Life jackets) - Should be used on oceans and exposed waters. They are designed to turn an unconscious person face up and slightly backwards in the water. Type I's provide the best protection.

2. Type II (Near-Shore Buoyant Vests) - Should be used for lakes, rivers and protected waters. They are designed to turn an unconscious person face up and slightly backwards. It is not as effective as a Type I in rough waters or for a long period of time.

3. Type III (Flotation Aids) - Often used for water sports. Has little or no turning ability and may not turn an unconscious person upright. Most comfortable to wear.

4. Type IV (Throwable Devices) - A throwable device that will provide adequate support for a person in an emergency. Examples: ring life buoys and seat cushions. Type IV's provide the least protection.

5. Type V (Special Use Devices) - Use is for specific activities such as canoeing, rafting, sailing and kayaking. It must be worn to be approved.

Jacket type flotation aids provide a greater measure of protection for water skiers and personal watercraft operation. Some of these may also provide a measure of impact resistance that reduces the impact to the body.

In event of an emergency while underway, to increase your chances of fast recovery, know how to use distress signals. The most frequently recognized distress signal for a small boat is to slowly raise and lower your arms outstretched on each side repeatedly.

Boats less than 16 feet are required to carry three Coast Guard approved visual distress signals at night while operating in coastal waters. Boats 16 feet and longer must carry three signals for daytime as well as nighttime use.

All boats must be able to produce audible navigational signals. Audible signals such as whistles, horns or bells can prevent collisions in narrow, restrictive waterways such as channels. They are also useful in conditions of restricted visibility such as rain and fog. They must be given and returned as follows:

- a. One blast = I will leave you on my port
- b. Two blasts = I will leave you on my starboard
- c. Three blasts = My engines are in reverse
- d. Four or more = Danger

Boats less than 26 feet in length are not required to carry a fire extinguisher unless construction could entrap flammable gases or vapors but it is recommended they do. They must be Coast Guard approved. Dry chemical and carbon dioxide extinguishers are the most common types. Their use can greatly reduce property damage and the chance of severe injury. If you carry one in your boat, be sure it is accessible and be familiar with operating instructions.

Other safety equipment, although not required, includes an anchor, anchor line, spare fuel, paddle or oar, bailing device, tool kit and mooring lines. These items are highly recommended to ensure safe boating.

**References:**

1. OPNAVINST 5100.25A and BUPERSINST 1710.11C or MCO 5100.30A
2. Commission of Game and Inland Fisheries Basic Boating Manual
3. U.S. Coast Guard Federal Requirements for Recreational Boats