Misawa

Power Boating & Jet Ski Operator's Safety Guide

35th Force Support Squadron

Outdoor Recreation Center

Table of Contents

Misawa Air Base Boater's Safety Course

Table of Contents

Misawa Air Base Boater's Safety Course

Table of Contents

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Chapter 1

The Misawa Air Base Boater's Safety Course

The water environment is completely different from the land we live on. It is governed by forces and laws of nature that are beyond our control. The water can introduce life-threatening situations, such as rough seas from sudden weather changes or a hostile environment for someone who accidentally falls in. Because the water can be life-threatening, it demands your respect and constant attention.

The Course

The purpose of the Misawa Air Base Boater's Safety Course is to provide you with the knowledge and skills necessary to safely boat on local waterways, such as Lake Ogawara. The course is conducted in two phases. **Phase One** is the knowledge development portion and consists of carefully reading and reviewing this study guide, and successfully passing a written examination. **Phase Two** is an approximately 2-hour hands-on course to teach (or review for the experienced boater) and evaluate basic boat handling skills. You are required to complete the phases in order.

Whether you're pleasure cruising, pulling wake boarders, skiers, or tubes, or even getting fast and furious on a jet ski, good driving habits are a must. Boats and jet skis are comparatively easy to drive and don't take long to master. However, some special skills and knowledge are essential for safe boating. This guide has been developed to help you become a safe boater, and to help you to prepare for the boat operator's written examination and hands-on boating or jet skiing operator safety course. Read and study the contents, it may save a life!

Licensing Requirements (Power Boats)

- The minimum age to obtain a power boat license is 18.
- A current USFJ Form 4EJ (POV license) is required to obtain a power boat license for all persons who are assigned or attached to Misawa AB (see exception below)
- Persons TDY, TAD, or deployed to Misawa AB who are not eligible/permitted to obtain a USFJ Form 4EJ must present a valid US driver's license and a copy of TDY, TAD, or Deployment orders.
- Complete the Misawa Boater's Safety Written Examination with a passing score of 70% or greater (must be accomplished PRIOR to enrolling in the hands on portion of the course conducted at the base marina.)
- Complete a 2-hour Power Boat Operations and Safety course offered at the base marina by the Outdoor Recreation Center.
- Licenses are valid for 36 months or DEROS (whichever is earlier)

Rental Requirements

- To rent a power boat a valid 35th FSS PWC Operator's License is required *(PWC-jet ski licenses are not accepted for power boat)*

Chapter 1

The Misawa Air Base Boater's Safety Course

Licensing Requirements (Jet Ski)

- The minimum age to obtain a PWC license is 16 (with written consent of a parent or legal guardian)
- A current USFJ Form 4EJ (POV license) is required to obtain a jet ski license for all persons age 16+ who are assigned or attached to Misawa AB (see exception below)
- Persons TDY, TAD, or deployed to Misawa AB who are not eligible/permitted to obtain a USFJ Form 4EJ must present a valid US driver's license and a copy of TDY, TAD, or Deployment orders.
- Complete the Misawa Boater's Safety Written Examination with a passing score of 70% or greater (must be accomplished PRIOR to enrolling in the hands on portion of the course conducted at the base marina.)
- Successfully complete a 2-hour Personal Watercraft Operations and Safety course offered at the base marina by the Outdoor Recreation Center.
- Licenses are valid for 36 months or DEROS (whichever is earlier)

Rental Requirements

- To rent a PWC a valid 35FSS PWC Operator's License is required *(power boating licenses are not accepted for PWC rental)*
- Persons renting a PWC must be at least 18 years of age and have a valid 35th FSS PWC Operator's License. Persons renting a jet ski for licensed operators age 16-17 must be a parent, legal guardian, or FSS Youth Program Staff – and also have a current PWC license.

Know the General Requirements for Small Craft Operators

Be prepared both physically and mentally for safe boating. Some of the preparations required by Japanese laws and DOD regulations are listed below.

- *Pay attention to the weather, local weather conditions change frequently and with little warning.*
- *A small boat should never leave port in conditions of bad weather. However it happens often that boats get into danger, lose direction, or lose sight of land or landmarks. Sudden gusts of wind or thick fog can appear out of nowhere.*
- *Small boats are not designed for strong winds and big waves. The skipper should always exercise caution against sudden gusts of wind and return to the marina when bad weather threatens. Weather reports must be confirmed before leaving the dock.*

Obey the Rules

- The Japanese rules on the water principally consist of "The Law for Preventing Collision at Sea", "Maritime Traffic Safety Law", "Port Regulation laws", and local rules.
- On the water, all boats must obey the rules as we would obey traffic rules on land. A boat powered by a motor of 2HP or greater is considered a light motor vehicle.
- Although some rules are not applied to small craft, you should keep them in mind and practice them until you can react automatically, especially with high-speed craft. Unless you know the

rules, you may fail to make a prompt judgment and lose control in a situation of imminent danger.

- A recreational boat should be courteous and not disturb commercial boats or Japanese fishing boats (pass at low speed and obey all maritime laws)
- To be experienced in controlling a small craft safely at any time and in any situation, skills, knowledge, and technique are required. These abilities include the knowledge and technique to sail the craft, operate the engine, and make minor repairs by yourself.

Prepare Carefully, Avoid Accidents

Operator carelessness is the number one cause of boating and jet ski accidents.

Boating accidents can be more severe than automobile accidents. In a car, you are surrounded by tons of metal, while driving a boat you have a small amount of protection below you. When operating a jet ski you have even less material around you to offer protection. While skiing or wakeboarding, you are completely vulnerable. As a boat operator, you must realize the additional responsibility required to safely operate a boat. Vehicles on the road have a clear path outlined with paint or barriers. The traffic on the water can come from any direction, at any time, and at any speed.

It is not enough to pay attention to weather conditions, obey the rules, and be experienced in controlling a watercraft. You must have the basic safety equipment and know how to use it in case of emergency or accident. Every small craft, by law, has a requirement to carry safety equipment in case of an accident. It is the skipper's responsibility to ensure the equipment is onboard and that it will operate properly. The skipper is also responsible for his or her crew. Every person onboard should be aware of the safety equipment available and how to use it. Before leaving the marina, the skipper should review each crewmember's responsibilities carefully.

A Few Words about Privately-Owned Power Boats and Jet Skis

If you bring a privately-owned power boat or jet ski to Misawa AB, or purchase one locally, you are required to comply with all applicable Japanese licensing, inspection, and insurance laws. While these craft are considered motor vehicles under Japanese law, they are not covered under the provisions of the Status of Forces Agreement which allow you to operate a private motor vehicle (i.e. car or motorcycle.) Obtaining a Japanese boat captains license, or personal watercraft license (for jet skis) is a lengthy and costly process that is not available in English in the local area. Courses are offered in Tokyo and on the island of Okinawa. Your Misawa AB boating or jet ski license is valid ONLY for FSS-owned power boats and jet skis at the base marina operated in authorized areas of Lake Ogawara.

The Misawa AB marina does not permit the launching or operation of any privately-owned powered watercraft unless the operator presents the following documents:

- A current Japanese boat captain license of the appropriate classification (based on boat/engine size.)
- Japanese boat registration document and JCI document (and decals on the boat)
- Current Japanese marina liability insurance

No Motor? No Problem!

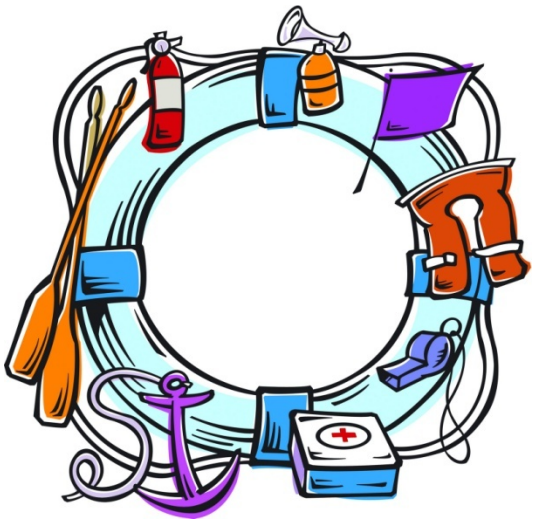
Non-engine powered watercraft like pedal boats, canoes, kayaks, windsurfers, stand-up paddle boards etc, do not require any type of license or registration under Japanese law. Operators of these craft are still however, responsible for knowing the rules of the road for their own safety, and the safety of others on the water. If a paddle or the wind is your engine, take the time to read this guide, it'll make your time on the water safer and more enjoyable!

Non-powered watercraft have right-of-way over power boats or jet skis simply because of their lack of ability to maneuver quickly. While they have right-of-way, operators of these boats should observe common courtesy and avoid high traffic areas when at all possible.

During the summer months canoes, kayaks, windsurfers, and stand-up paddle boards are common on Lake Ogawara!

Chapter 2

Safety Equipment, Signals, and Communications



Safety Equipment Required on Boats

Since you can't walk home when you have trouble in the middle of the lake, there are several pieces of necessary equipment required for safe boating operations.

A boat shall have **a bow line long enough to pull**, or to be pulled by another boat in case of an emergency. These lines can also be used as docking lines to secure the boat to a dock. All power boats (with few exceptions) will have **electric bilge pumps** to remove any excess water that accumulates in the hull of the boat. Some boats with molded hulls will not have bilge pumps since no water can enter the inside. These boats will have side drain openings so any water on the deck will simply flow overboard. A **bailing can** is necessary in case the bilge pump fails and can be used in an emergency to fight a fire.

A boat shall have a **dry chemical fire extinguisher** mounted forward of the stern near the captains chair or position. The boat operator must be familiar with the location and operation of the fire extinguisher.

Oars or Paddles will be onboard in case of engine trouble. You must be able to paddle the boat to the nearest shore if necessary.

A **personal floatation device (PFD ~ or Life Jacket)** must be worn by every person on the boat. If you are towing a skier, wake boarder, or tuber, that person must also be wearing a life jacket.

Additional safety equipment required for boats under 26 feet in length includes a **first aid kit**, **running (navigation) lights**, for operation in limited visibility or darkness, a **whistle or horn**, **signaling device (VHF radio or cell phone)**, an **anchor**, **rope**, **life ring** or other floatation device, and a **bilge ventilator** for boats with internal engines forward of the stern.

Boats longer than 26 feet but less than forty feet must carry an additional fire extinguisher and a bell.

Personal Floatation Device (PFD, a.k.a. *The Life Jacket*)

PFDs come in various shapes, sizes, colors, and materials. Some are made to protect you from cold water immersion. No matter which type you use it is vitally important to make sure it fits

correctly and that it is worn at all times. PFDs come in five types: off-shore life jackets (Type 1), near-shore life jackets (Type 2), Floatation Aid (Type 3), throwable device (Type 4), and special use devices (Type 5).

Off-Shore Life Jacket (Type 1)
A Type 1 jacket is best for open rough water, where rescue may be slow to come. They have the most buoyancy, are designed to turn unconscious victims face-up in the water, and are highly visible. Sometimes Type 1's are too bulky to be worn when movement is required out of the water.

Near-Shore Buoyant Vest (Type 2)
A Type 2 is good for calm inland water, or where rescue will arrive quickly. They are less bulky than a Type 1 and may not turn all unconscious victims face-up in the water. Remember to always connect d-rings or clips inward to prevent snagging other objects.

Floatation Aid (Type 3)

A type 3 is similar to the Type 2 as it is good for calm inland water, or where rescue will arrive quickly. They are the most comfortable for continuous wear and provide excellent freedom of movement for sports such as water skiing, sailing, and fishing. They are available in many style including coats. They are not recommended for rough water and will not turn an unconscious victim face-up in the water.

Throwable Device (Type 4)

A Type 4 is used in calm and small inland water areas where there is heavy boat traffic and rescue is nearby. This can be thrown to a person in the water; however the person must be conscious and able to grasp the line or device. Life rings, lifeguard rescue buoys and tubes, as well as floating seat cushions are generally Type 4 devices.

Special Use Device (Type 5)

A type 5 is used in special conditions where a PFD is required but would otherwise prevent the activity. The label describes what the device is approved for and its limitations. Uses include sail boarding, stand-up paddle boarding, kayaking, work vests, hybrid PFDs, deck suits, and many others. These vests sometimes fit higher on the torso to allow lower body and waist mobility.

Inflatable Life Jackets

There are Type 3 and Type 5 Inflatable life jackets available but they are not recommended for recreational boating or jet skiing activities. These life jackets require the wearer to activate an inflation device by pulling a handle located somewhere on the vest. While they might provide adequate floatation, the fact that the wearer must be conscious and physically able to activate them makes them unsuitable for most activities. If you are thrown from a boat or jet ski you may be knocked out, even briefly, by the impact with the water. Until the inflator is activated the life jacket provides no floatation whatsoever! Many people have drowned wearing inflatable life jackets that weren't inflated.
Inflatable life jackets (regardless of USCG Type rating) are not permitted on any Misawa AB power boats, jet skis, or pontoon boats.

Most drowning occurs in inland waters within a few feet of safety. Most victims owned a PFD but were not wearing it. Once again, the PFDs are made to save your life, wear them at all times! The PFDs will work properly only if all straps, zippers, and ties are fastened. Make sure all lose straps are tucked in and the d-rings (if so equipped) are facing inwards. Have every person try on their PFD before boarding the boat. Be sure it fits properly and will support the weight of the wearer. Many youth and child PFDs have a crotch strap to keep the PFD from sliding upwards over the wearer's head. Make sure the crotch strap is fastened securely! If there is a doubt about the buoyancy of the PFD, have the person enter the water wearing it for a quick "float check".

Waterproofing Equipment

Equipment and gear used to protect boats from tipping over (capsizing) or foundering is critical to the safe operation of any boat. This equipment checks against flooding and pumps out water as it enters critical spaces of the boats hull.

- ***Watertight Compartments.*** These compartments divide the boat into several areas, each with a watertight construction and impermeable structure to prevent water from entering adjacent compartments.

- ***Double Hull (Bottom).*** By creating a double-hull design (two layers) adds a measure of safety in the event of an outer hull breach.

- ***Scupper Pump (Bilge Pump).*** A pump to efficiently pump water out of areas within the hull of the boat. Bilge pumps will activate automatically on most modern power boats. A float attached to a level will activate the pump when enough water has accumulated in the hull. Bilge pumps can also be activated manually with a switch on the captain's console.

- ***Bailing Cans.*** The bailing can is simply a bucket of some type that can be used to remove water from the boat when necessary. The bailing can also can be used as a fire extinguishing device to throw water onto a fire as necessary (type 1 fires only).

Whistle or Horn

The whistle is aboard for use in signaling during rules-of-the-road situations or emergencies. They can be either hand-held types or mechanical (air-powered) and must be heard from at least ½ mile. A short blast lasts for one second and a long blast is two seconds or more. Use them only in the above situations; never use signaling devices as games or ignore the signals of another boat. Signals are discussed in further detail in Chapter 9.

Ventilators

Ventilators are required on boats with en enclosed engine compartment (inboard motors). The ventilator must be large enough to remove all flammable vapors or exhaust from the engine compartment. The ventilator should always be run for at least 5 minutes before

starting the engine and remain operating whenever the engine is running. Failure to properly vent an engine compartment is a leading cause of boat fires!

Anchors

Anchors can mean the difference between a wrecked boat or one the safely rides out the storm. The anchor also acts as your parking brake when needed. For more information on anchoring see Chapter 5.

Lighting and Signaling Equipment

Equipment used to let other boats recognize the boat's function and it's condition (whether it is underway, anchored, fishing, or not under command or power). Lights are used at night and in limited visibility. Special signaling devices are hoisted on a mast in the daytime.

Japanese Signaling Equipment

Equipment used to communicate with other boats, the condition, status, or function of your boat. Signals are displayed on a mast generally located in the center portion of the boat.

The following are signals typically used by Japanese fishermen. These signals are common on Lake Ogawara and you should be familiar with them.

Figure 1

Figure 2

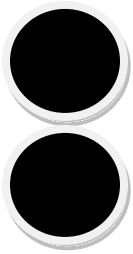


Figure 3

Figure 4

Figure 1. Black Hourglass Figure - indicates a traveling net is being towed behind the vessel.

Figure 2. Black Hourglass Figure and Triangle – indicates a round-haul net is being worked behind the vessel. *(Note: The additional triangle is not pictured. It may be located above or below the hourglass signal.)*

Figure 3. Two Black Balls – indicates vessel not under command. This is typical on Lake Ogawara when fishermen are in the water harvesting clams and nobody is aboard in control of the vessel.

Figure 4. One Black Ball – indicates a vessel at anchor.

Signaling Equipment (continued)

More Japanese fishing boat visual signals.

Figure 5

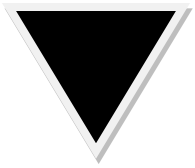


Figure 6

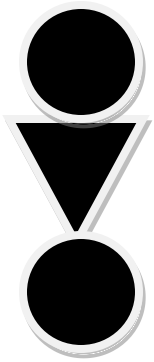


Figure 7

Figure 5. Three Black Balls – indicates a vessel that has run aground or is grounded by a low tide.

Figure 6. Black-Triangle – indicates a vessel that is under power.

Figure 7. Two Black Balls with a Triangle in between – indicates a boat with divers in the water near the vessel. This can be used for commercial working divers as well as recreational scuba divers. The vessel may also display the international blue and white “divers down” flag.

Marine VHF Radio Communications

The most common way of communications between boats and boats to shore is the marine VHF radio. Channels are allocated internationally for various types of marine communication, to include emergency and distress calling.

The Misawa AB marina is equipped with a marine VHF radio in the office and all power boats (not jet skis) are equipped with these radios. It is important all operators restrict their communications to the channel directed by the marina office. You are required to respond to calls and instructions from the marina at all times. Keep all communications brief, clear, and professional.

SPECIAL NOTE: The wearing of headphones or ear buds by any boat or jet ski operator is prohibited. These devices can interfere with the hearing of a radio call or critical communications from a crewmember or other person nearby!

Chapter 3
Boating Accidents and Prevention

Power boat and personal watercraft (jet ski) accidents are caused by engine trouble, capsizing, running aground, inundation (flooding), propeller damage, collision, and fire.

The main cause of these accidents are the operator's carelessness, passenger's carelessness, inadequate maintenance, ignorance of weather and sea conditions, and ignorance of right-of-way rules on the water.

An accident can happen whenever you are afloat! They usually occur without warning and are often caused because a basic safety rule has been ignored or broken. Common factors contributing to boating accidents are:

- Lack of personal floatation devices
- Overloading
- Riding on decks or gunwales
- High-speed turns
- Damage from wakes
- Engine to heavy or overpowering the boat
- Explosion or fire during fueling or from leaking fuel or vapors

Accidental immersion from falling into the water and small open boats capsizing is the number one cause of fatalities in boating accidents. Statistics show most victims never intended to get wet, were not wearing a personal floatation device, and could not swim. Remember, standing, riding on decks or gunwales is prohibited and a quick turn or stop may toss a passenger overboard and possibly into the path of the propeller!

Collision and Running Aground

Collision and running aground are caused by insufficient attention and mishandling of the boat or engine. When underway, the operator must skillfully watch the water, not only in

front of the boat but also to the left, right, and rear of the boat. A skilled operator is one who is aware of anything on or in the water 360 degrees around his or her own vessel.

Capsize (Power Boats)

Capsizing is sudden and usually brings injury or death to power boat operators and their passengers, especially when operating at high speeds. It can happen when a boat turns quickly a high speed, is hit from the side by a high wave, or by flooding of the hull. The most common causes of capsizing are:

- Taking the boat into waters beyond its designed capabilities.
- Overloading a boat with passengers and equipment that exceed its rated capacity.
- Inexperienced boaters.
- Unsafe and reckless operations

Overloading a boat is dangerous! An overloaded boat loses its buoyancy and stability, and then capsizes easily. Sometimes the wake of passing boats or a passenger's sudden movements is enough to capsize an overloaded boat.
Synchronous rolling caused by waves striking the boat broadsides in a continuous pattern can also cause a capsize. Synchronous rolling, unless stopped, is an extremely dangerous situation and will lead to a capsize! The boat operator must immediately take action to stop the rolling as soon as it is detected. Changing the angle into the waves, speed adjustments, or position changes will usually correct the situation.

There are also documented cases of boats running close together on a parallel course at high speed colliding and capsizing. The process of water displacement between the two boats creates a low-pressure area, sucking the boats together until one or both may capsize.

If the boat were to capsize, swim to the boat and hold on. Do not try to swim to shore because it is usually much farther than it appears. It is much easier for a rescuer to spot an overturned boat than a lone swimmer in the water.

Capsize (Jet Ski)

A capsize on a jet ski can also lead to serious injuries if it occurs at a high speed. Jet skis are much easier to capsize due to their small hull size, center of gravity, and high-performance designs. Virtually all jet skis can easily be righted from a capsize condition by the operator if done quickly and correctly before too much water enters the hull. The key to righting a jet ski is to roll it in the correct direction quickly. Always roll a jet ski in a CLOCKWISE direction so the PORT side always faces downward! Rolling in the opposite direction will cause water in the exhaust system to run into the engine and cause serious damage! A jet ski left capsized will fill with water and sink!

The most common causes for capsizing a jet ski are:

- Operating at an unsafe speed for the water conditions
- Failing to shift your weight to the inside of a turn
- A passenger shifts their weight to the outside of a turn

Collision

When a boat or jet ski collides with another boat stop the engines immediately! Check for damage to the hull and check the crew for injuries. If the boat is in danger, or is suffering from

heavy damage, request assistance from the other boat if they are in a position to offer it (i.e. less threatening damage).

When boats collide always watch for people in the water! If someone is thrown overboard you'll need to render assistance as fast as possible by throwing a lifesaving device or rope to them quickly.

To rescue a person out of the water:

- Approach slowly, keeping the person on the starboard (right) side of the boat. The right side is the driver's side so approaching with the swimmer on this side allows the driver to keep them in sight at all times.
- Stop the engine a short distance away.
- Throw a lifesaving device or line to the person and bring them to the stern (rear) of the boat. Balance the boats to prevent it from rolling or pitching too much while the person boards.
- Board from the stern where most boats have a small boarding ladder used for skiers and swimmers.
- Be careful to not overload the boat!

If there are more people in the water than the boat can safely carry bring aboard those most in need of help first and be sure all others have adequate life jackets or floatation devices. Throw a line to the others and secure it to the stern cleat of the boat. Leave 10 or more feet of rope between the stern and the first person. This will allow them to be towed slowly and safely to shore and prevent an overloading situation.

Boats involved in a collision must immediately return to the marina if they are able to safely navigate under power or tow. If a boat is in danger of sinking from taking on water make all attempts to close the breach and remove water. It is sometimes possible to tow a boat a "planning speed" to prevent it from sinking after it has taken on a significant amount of water. Use caution in attempting this and do not endanger the towing boat by overloading it. Once all boats and persons (to include passengers) return to the marina everyone must provide a written accident statement to the marina operator and cooperate in any investigations undertaken.

Running Aground

When a boat runs aground, stop the engine immediately and check the following:

- The presence of damage to the hull and it's extent
- The time of the ebb and flood tides (not applicable to most lakes), the current, the depth of water and the nature of the bottom.
- The status of the engine and propeller, can they still be used?

The boat must not attempt to reverse course immediately without checking the above items. With the case of a hard bottom or rock or coral there is a risk of tearing a larger hole in the hull. For bottoms composed of mud or sand there is a risk or clogging engine cooling water intakes. If the boat damage is slight, and there no difficulty in navigating, the operator should try to refloat the boat. If refloating is not possible because of heavy damage, anchor the boat and call for assistance. Remain with the boat until help arrives. Keep the boat as steady and stable as possible.

Rudder, Steering Gear, or Propeller Trouble

When a boat is navigating in a harbor or marina, narrow channel, fairway, or near the shore, the anchor should be dropped to avoid drifting. In large waves or at sea where anchoring is impossible, a sea anchor should be used if available.

Rudder and Steering Gear

When the rudder and the steering gears are damaged, the following emergency measures should be taken. The correct measure varies on a case by case basis.

Small outboard engines can be steered directly by means of a tiller. Outboard boats generally have no rudder since the direction of the propeller controls direction of travel. The engine casing around the propeller acts as a rudder also.

Repair the gear if possible or try to make a jury-rigged rudder to navigate with. Anything that is simple and allows the boat to hold a course will work. Oars can be used to steer a boat as a rudder. Passengers can weight-shift themselves on the boat to induce course changes. A long rope can be towed behind the boat to help hold a straight course (the center-drag effect acts as a rudder).

Propeller

When the propeller is damaged, check the extend of the damage and if navigation is still possible, return to the marina at a slow speed. Operating the engine at normal or high speed will cause unnecessary pressure on the propeller and drive shaft. A propeller that is out of balance can cause serious damage to the engine drive shaft and gears and excessive vibrations can damage the engine mounts themselves. If a spare propeller is available, replace the damaged one before proceeding.

Distress

When a boat is in distress, the signals for requesting assistance are as follows:

- Attempt to get the attention of another boat nearby using a whistle or horn.
- Attempt to get the attention of another boat nearby by waving your arms overhead in a sweeping motion.
- Use the marine VHF radio on the designated marina channel to call for assistance. When doing so provide detailed information on the condition of the boat and passengers.
- Use a cell phone to contact the marina or other authorities who are capable of assisting.

Remember; never use these type of signals unless you are actual in need of assistance!

Towing a Boat

A boat that can't sail under its own power because of a damaged engine, propeller, or hull must be towed back to the marina.

When towing a boat, the rope needs the strength to endure the shock of acceleration, wind, and waves. A ski rope does not have the strength to tow another boat safely. A rope that has snapped under tension will whip around, endangering passengers in its path! Select towing ropes carefully and favor ropes designed for high-tension loads. The length of a towing rope should be (at least) three times the length of both boats combined. In rough water increase this to four or five times the length to prevent a collision. The rope should be fixed to the stern and bow cleats with a bowline know in the rope. When towing, keep both boats on the straightest course possible. Side-angle towing increases rope stress and reduces the effectiveness of the tow.

Keep the boat being towed as light as possible. If possible remove all crew except the captain and a lookout to the towing boat. The boat towing should position passengers forward in case the rope snaps, and maintain a watch on the towed boat for any difficulties.

Fishing Nets and Floating Obstacles

An accident is apt to happen when a boat runs into, or is snagged by fishing nets. Most nets are easy to identify and avoid. The following types of nets are commonly used in Japan:

Fixed Shore Nets – these are very common on Lake Ogawara and the location can change from season to season. These nets may be a hundred meters or more from the shoreline but anchored to the shore by a long line just below the surface of the water. They are generally identified by surface floats on the nets and along the line leading to shore. Never operate a propeller-driven boat across these nets or lines!

Long Line Nets – these are similar to the fixed shore nets but lacking the shore anchor feature. They are generally located closer to the shoreline but may be more easily moved.

Shrimp Nets – Set close to shore and do not generally pose a threat to boaters

Eel traps – Set with Styrofoam floats or old plastic bottles as markers. These are common on Lake Ogawara and can be located anywhere on the lake.

Others – There are many type of floats used by the Japanese and sometimes it is hard to identify floating objects as something that should belong there. As a rule, treat any object that appears to be anchored somehow as a float for a net or trap below.

Avoidance of Nets

Lake Ogawara is NOT part of Misawa Air Base and as such all recreational boating activities must yield right of way to Japanese fishermen and boaters regardless of the circumstances. Avoid all surface floats and never cross lines anchoring nets to shorelines. When fixed nets are present move all activities to an area where there is no danger of crossing or running over nets. Courtesy and yielding the right of way will maintain good relations with those who rely on the lake for their livelihood. If an accident does happen and damage to a net occurs, return to the marina and file an accident report immediately!

Floating objects

Various objects floating on or just below the surface of the water can cause serious damage to the hull of a boat or jet ski operating at high speeds. Common examples of these more hazardous objects are:

- Wood (both trees and dimension lumber)
- Bamboo Poles
- Rope
- Home Appliances (Yes! Japanese refrigerators, washer, dryers etc have been known to float in the lake!)

You will also encounter:

- Plastic bags and tarps
- Fishing lines and ropes
- Seaweed and grass cuttings from agricultural activity

- Algae grows (seasonal)

These less threatening objects can cause clogging of intakes on both power boat and jet ski engines. If intakes are clogged the engine will overheat quickly. The first thing you should do is stop the engine immediately. Then you'll need to do the following:

- Raise the engine so the propeller is clear of the water
- Remove any and all debris from the propeller and around water intakes
- Let the boat drift (or row with oars) out of the area if you are still surrounded by floating seaweed or algae concentrations.
- Restart the engine and move away slowly until clear of the area.

For Jet Skis:

If the intake of a jet ski is clogged with debris the engine will overheat and a warning tone will sound to alert the operator. You will also notice an immediate loss in power and the engine may stall. Stop the engine immediately to avoid further damage!

- Remove the engine cutoff switch from the start button.
- Enter the water and reach under the center part of the jet ski where the intake is located. Always keep one hand on the jet ski so you do not lose contact and drift apart.
- Remove as much of the debris cogging the intake as possible.
- Remount the jet ski from the rear and take your seat
- Put the engine cutoff switch back on the start button and attempt to restart the engine. If the overheating condition still exists stop the engine and wait 5 to 10 minutes before attempting to start it again.

If surface conditions are rough and you cannot enter the water safely to clear the intakes, signal for assistance and remain on the jet ski. Floating sea grass is common in Lake Ogawara during August and September and clogged intakes will happen! Do not continue to operate a jet ski when the engine overheat warning flashes! You will cause serious engine damage!

Fire

Most motor boats and jet skis use gasoline as a fuel, making fire a serious concern.

Explosive gasoline vapors are especially dangerous in a boat. The vapors are heavier than air and accumulate in the bilge and bottom of the boat's hull. Special attention must be given to the gasoline engine in inboard and inboard/outboard (I/O) type boats because the engine is in an area with little ventilation. The vapors stay in the compartment, and then if the engine creates an electric spark or backfires, an explosion will occur. Explosions of fuel vapors inside an engine compartment can have enough force to completely destroy a boat and severely injure or kill all of the persons aboard. Operators of jet skis should remove the seat and allow the engine compartment to air out for a few minutes prior to starting the engine. This is especially important if the jet ski has not been used recently or is in a hot environment.

To prevent a fire caused by vapor accumulation you'll need proper ventilation systems and a Type II fire extinguisher (for fuel, oil, electrical fires) that has a current inspection tag and has not expired. Regular inspections of the fuel system and fuel lines to the engine are critical in identifying possible leaks that cause vapor accumulation.

The biggest decision to make in the event of a boat fire is whether to stay aboard and fight the fire or abandon ship. If the fire is minor, such a smoldering trash container, upholstery, or electrical the easy choice might be to decide in favor of using the Type II extinguisher to fight the fire quickly. If the fire involves the fuel system the danger the danger of an explosion increases rapidly! If it is necessary to abandon ship make sure all passengers are wearing a PFD. You may attempt to use the marine VHF radio to issue a quick distress call but do not delay abandoning ship if danger of explosion is imminent. Swim well clear of the boat and have everyone else to do the same, remain together if possible for safety and support. Remember, burning fuel can spread quickly on the surface of the water so the more distance between yourself and a burning boat the safer you are.

If a fire occurs:

- Stop the engine immediately and cut the supply of fuel if possible. If your boat uses a portable fuel tank you can remove the hose and remove the tank from the fire.

- Use the fire extinguisher. If the fire can't be completely extinguished with the extinguisher pour water on it with a bailing can or bucket.
- All the crew members must assist in fighting the fire, except one. That one person should radio or make a distress call on a cell phone to the marina.
- Do not tow the boat – wind will spread the fire even more!
- If the fire appears to be beyond your control it is time to abandon ship quickly and move to a safe distance.

Flooding or Sinking

Flooding or sinking can occur for various reasons, the main cause of which is operator carelessness. A continuous leak by a hole in the hull or inundation by a breaking wave over the deck are two major sources of water getting into a boat. Boats do not sink on their own!

When a power boat is flooded for some reason the boat can sink completely or will float awash on the surface. The former case usually occurs in those boats more than 26 feet in length due to limited internal floatation. Boats of shorter length have built in floatation and more often than not float with decks awash. Boats identified with the US National Marine Manufacturers Association certificate have sufficient flotation to prevent sinking. Jet skis have little internal floatation and can sink quickly.

A boat is apt to be inundated when navigating in wind whipped waters or in heavy rain. When the operator makes a mistake steering in the waves, large amounts of water may suddenly enter the boat. Inundation describes a large amount of water, quickly flooding a boat and exceeding the capacity of the bilge pumping system. A 5-foot wave breaking over the gunwales of a small boat would quickly inundate the boat. Flooding, if even a little, hinders a boat's maneuvering ability and safety. It is especially dangerous if the flooding causes failure of the engine and electrical systems, leaving the boat without the ability to navigate and communicate.

Avoid bad weather, be alert to avoid collisions, obey the sailing rules, and ensure the engine is in good running condition BEFORE you sail from the marina!

Repair of Leaks

When the boat leaks, you must stop the leak immediately, pump out the water, and steer the boat to the marina for repairs as soon as possible.

When the boat springs a leak at a point under the waterline, stop the boat and try to plug the hole. Use any available material (cloth, clothing, a mat, tape) to stuff into the hole. There are differences depending on whether the hull is made from FRP, light alloy, or wood. On small boats it's possible to stuff the material into the leak from the outside and reinforce it with rope wrapped around the hull. A larger boat may require a collision mat to stop the leak.

If your boat is the planning type, you can probably operate the boat at planning speed, making it easier to pump out the water. Before operating, you must inspect the damaged area and make sure the boat can operate at a high speed. With a small boat, it occurs often that a great deal of water enters the boat in a short time and must be pumped out immediately. There are several type of equipment for pumping out water; these include electric bilge pumps, manual pumps, or buckets. If the bilge pump is automatic (most are) and the valve can't remove water fast enough you'll have to use a bucket (bilge can) to help remove water.

Chapter 5

Life Saving – The Basics for Boaters

Reach, Throw, Row, Go

If someone falls overboard or has difficulty in the water and needs assistance, your first instinct might be to jump in and swim to them to help. Wrong! This can create a potential for disaster with two victims instead of one.

Your first option should always be to reach something to them (a ski, a short line, a boat hook pole etc) so they can grab on and be pulled back towards the boat.

If the person is just beyond reach it's time to throw a floatation device to them. The life ring or a lifeguard-type rescue tube or buoy with a line attached it the best.

Your third choice would be to move the boat closer to the person if this can be done without endangering them with the boats propeller. Jet skis are great because you can easily glide right up to a person to assist without the worry of a spinning propeller in the water (just remember to cut the engine as you approach).

The last option is to enter the water and get them. Take a floatation device with you (even and extra PFD if it's all you have). Approach the person but stay just out of their reach and push the floatation device towards them so they can grab it. In-water rescues are best left for trained lifesavers whenever possible.

The Life Ring

A life ring is a simple floatation and life-saving device made of polyethylene coated-cork or other buoyant materials. In many cases the name of the boat is written on the outer covering of the ring. A line is attached to the ring so it can be thrown and retrieved. When someone falls overboard throw the life ring while keeping a firm hold (or foot) on the other end of the rope. As with any throw-type rescue device, try to throw beyond the person, not at them. It's always better to over-throw and pull the device back towards them than come up short and have to retrieve it for another throw.

The Life Jacket or Personal Floatation Device (PFD)

Life jackets are made of many different materials and come in varied US Coast Guard ratings for different water activities. Always make sure the life jacket you choose and use is a US Coast Guard approved device; check for the logo and approval rating label on the inside of the jacket.

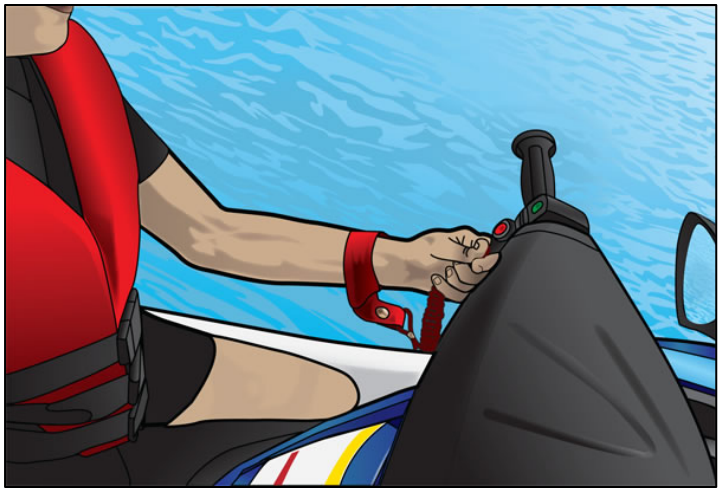
US Forces Japan, and Misawa Air Base regulations require all military personnel to wear an approved personal floatation device at all times when on any type of watercraft (excluding surfboards). 35th FSS requires ALL PASSENGERS of any FSS-owned watercraft to wear an approved PFD at all times when on the water.

Water Activated Light

Water activated lights or strobe beacons are often attached to life rings or personal floatation jackets. This feature makes night or limited visibility rescues easier by allowing the victim to see the device when it is near them.

Safety (Shut-off or Kill) Switch

This is the most important feature on both power boats and jet skis! If the driver is thrown overboard the engine is stopped immediately and there is no danger of the boat or jet ski circling and striking the person in the water. The kill switch is located on the throttle for power boats and near the on/off switch on the handlebar for jet skis. A clip is inserted into the switch and a lanyard connects the clip to the person. If the driver falls overboard, or moves to far away the clip pulls out and kills the engine. Boaters generally attach the lanyard to the bottom of the PFD. Jet skiers use a wristband to attach the safety kill switch lanyard to them.



Water Rescue

Occasionally a passenger or crewmember will fall overboard. There are also times when you might have to assist in rescuing persons in the water from another boat in distress. Be prepared! Rescues often happen in less than ideal weather and sea conditions. Remember, you are required by law to assist other boats or people in the water as long as there is no immediate danger to your boat or safety. Keep in mind “Reach, Throw, Row, Go” and never put yourself in danger.

To do a quick rescue, always obey the following:

- Always wear a PFD
- Assign a member of the crew to keep a watch on the person in the water so you don't lose sight of them. When the number of victims is unknown, keep a careful watch for others and steer carefully. Assign additional lookouts as you have crew available.
- Contact people on the shore through a marine VHF radio or cell phone if additional assistance or emergency medical care is required.
- If the waves are high and the boat is small approach the victim from the leeward side. No matter if the victim appears dead or alive, approach as closely as you safely can. When starting the actual rescue shift the boat to neutral and stop the engine. Jet skis may idle if needed to maintain some degree of steering since they lack a rudder.
- If the victim is in good condition, throw a life ring with the rope attached and pull them towards your boat. If you must enter the water to swim to the victim, tie a rope between yourself and the boat, taking a life ring to the victim.
- When operating in stormy weather or near rocks or reefs be careful not to make matters worse by allowing your boat to run aground and sustain damage.

Cold water immersion can quickly result in hypothermia; a life-threatening condition. Any prolonged exposure to water that is less than 80 degrees (F) will cause hypothermia with time.

HYPOTHERMIA RATES

Water Temp	Loss of Dexterity (with no protective clothing)	Time to Exhaustion or Unconsciousness	Expected Survival Time
32.5 °F	Under 2 min.	Under 15 min.	Under 15 - 45 min.
32.5-40 °F	Under 3 min	15 to 30 min	30 to 90 min
40 - 50 °F	Under 5 min	30 to 60 min	1 to 3 hrs
50 - 60 °F	10 to 15 min	1 to 2 hrs	1 to 6 hrs
60 - 70 °F	30 to 40 min	2 to 7 hrs	2 to 40 hrs
70 - 80 °F	1 to 2 hrs	2 to 12 hrs	3 hrs to indefinite
> 80 °F	2 to 12 hrs.	Indefinite	Indefinite

When the victim is aboard:

- Dry them off as quickly as possible.
- Protect the victim from further exposure – keep them dry and get them out of the wind or rain if possible.
- Wrap them in a blanket or extra clothing to re-warm them.
- Give them something warm to drink if you have it.
- If the victim isn't breathing perform CPR in accordance with your training. Remember, chest compressions cannot be done in the water; you must get them into the boat first! Always treat life-threatening emergencies first!

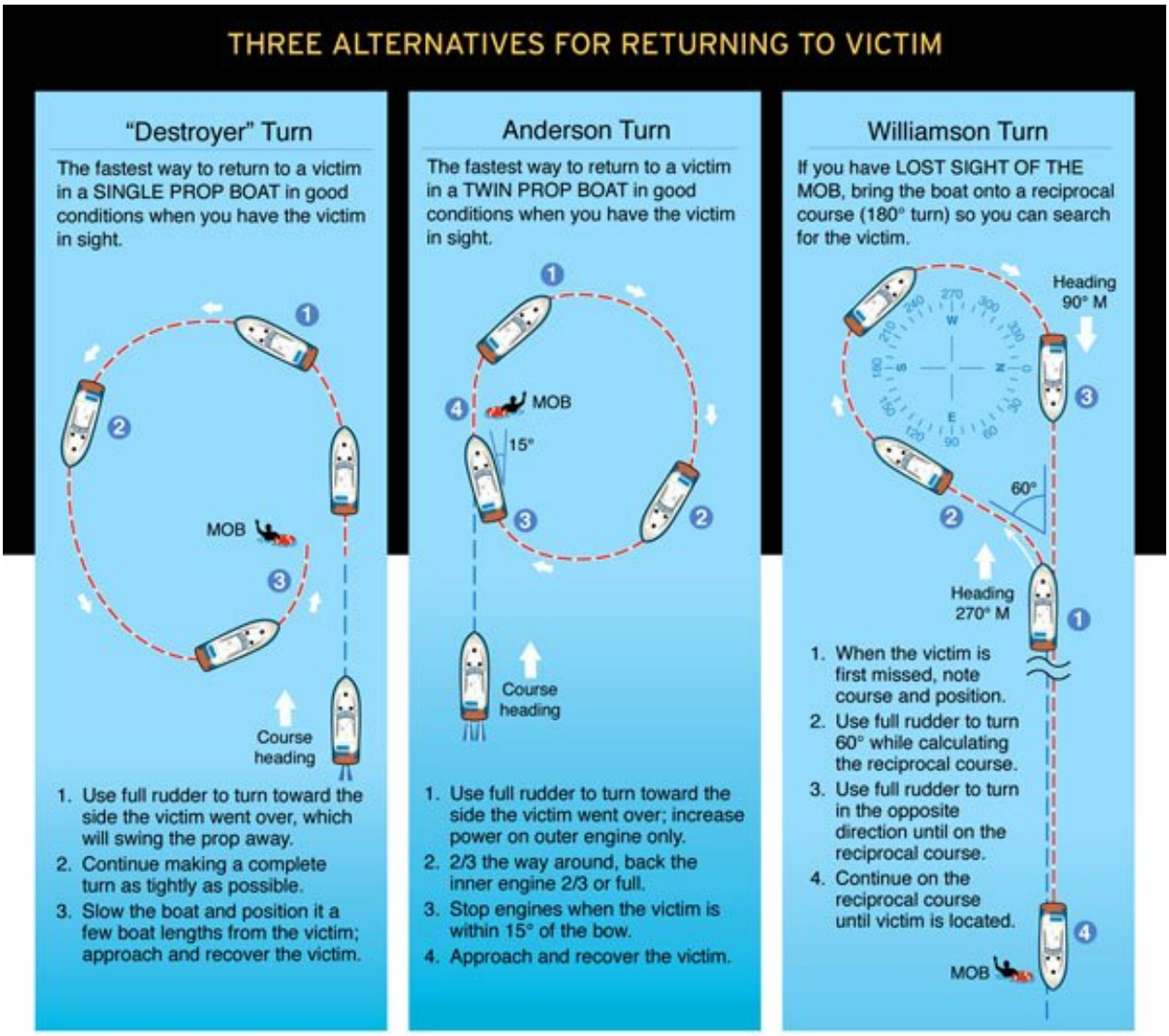
If you are aware of a person in the water (at a greater distance) needing a rescue, be sure not to lose sight of them as you prepare to assist. In the case of rough sea conditions or poor visibility you can throw a floating object into the water to make their position. Often times the object can drift towards or with them if you are upwind.

If you fall overboard without a life jacket you can float initially with the air in your clothes (provided your wearing enough clothing!). While you're in the water relax and take deep breaths to help your float. Take off your shoes and any other heavy items. If the water temperature is cold consider leaving on the extra clothes as insulation (as long as they are not dragging you down because of their weight.)

Person Overboard Procedures for Power Boats

If a person falls overboard this is what you'll need to do:

- Immediately turn the boat to the side the person fell from. This "kicks" the motor and propeller at the stern away from the person in the water.
- Throw a life ring or other floatation device, even if the person can swim and is wearing a PFD.
- Slow the boat and start the approach.
- Always keep the person in view. Other crew should act as lookouts and guide the captain to the person. On small power boats the captain can keep the person in view by keeping them on the right (starboard) side of the boat where the captain's chair is generally located.
- Try to approach the person from downwind or into the waves. Always use common sense and good judgment. Consider existing conditions such as water temperature, physical condition and ability of the victim, and what other help is available.
- Help the person aboard the boat. If a person is cold and tired from exposure to cold water or rough seas it is difficult to climb aboard a boat ladder and they will require as much help as you can give.
- Depending on the size and configuration of the boat always bring people aboard from the stern.
- Remember, whenever anyone goes over the side or is coming aboard – STOP THE ENGINE!



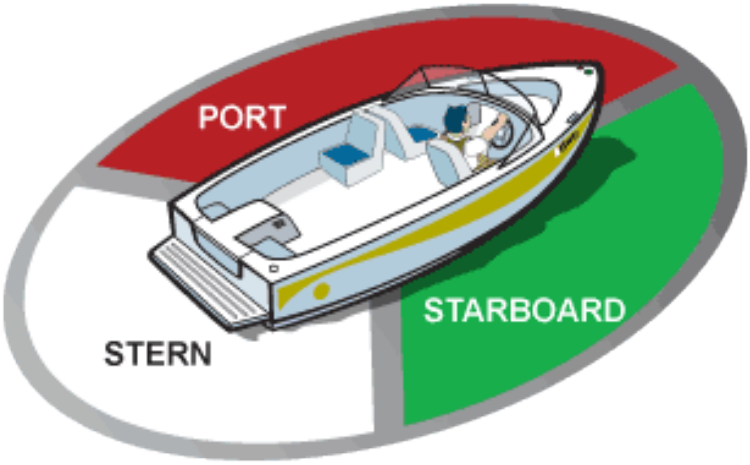
When helping other, remember

- Always be ready to help whenever possible.
- Help save lives but don't risk a life to save equipment.
- Never take unnecessary chances, use equipment to save lives.
- Don't panic!

Chapter 6

Navigation and the Rules of the Road

Just like on land, rules of the road are necessary laws to protect against collisions on the water. All boats, powered, sailed, rowed, or paddled, are expected to obey these rules as they navigate any waterway. There may not be lines on the road or traffic lights on the water, but there are still regulated waterways, restricted navigation areas, and rules for right-of-way/ In Japan these laws are regulated under the "1972 Treaty Regarding International Regulations for Preventing Collisions at Sea." Every type of boat operating on the ocean, in bays, rivers, lakes, or ponds must follow the regulations provided under this treaty. As a boat captain it is your responsibility to AVOID COLLISIONS!



Definitions

Aground: A ship that cannot move because it is wholly or partially resting on the bottom.

Boat, Ship, or Vessel: Any and all types of watercraft.

In View: The condition where ships can easily see each other.

Length: the total length of a power-driven boat.

Power Boat or Powered Boat: Any boat driven by an engine or a combination of engine and sail.

Restricted Visibility: Any condition where visibility is limited by mist, haze, snow, fog, rain, or darkness.

Sailing Vessel: A ship propelled by sails only.

Underway: The condition when a ship is not anchored or moored, nor aground.

Vessel Engaged in Fishing: Ships with fishing gear such as nets and lines in the water that restrict their maneuverability.

Vessel Not Under Command: A ship that cannot move out of the course of other ships because of a breakdown of the engine or steering.

Vessel Restricted in Ability to Maneuver: A ship that cannot move from the course of the other ships due to the operation it is performing (examples include but are not limited to: installation of navigation lights, buoys, or dredging.)

Vessel Constrained by Draft: A power-driven vessel restricted by the water depth and unable to change course.

Watch (or Lookout)

A ship must maintain a lookout at all times using any appropriate method such as sight and sound in order to observe the surroundings and avoid the danger of collisions with others.

Safe Speed

A ship must maintain a safe speed in order to avoid collisions. To determine this speed the following should be considered:

- Visibility at the time
- Frequency of boat traffic in the area
- Maneuverability of the ship
- Existence of lights on shore, reflections of the ships own lights, etc.
- Conditions of the winds, sea surface, and currents; also the proximity of obstructions along the route.
- Relationships between the draft of the ship and the depth of the water.

Danger of Collision

When two ships are approaching each other it is important to judge if there is a possibility of colliding. The rules of the road say “unless there is a definite change in the compass bearing of the other ship, a collision may occur. Even when a change in compass bearing occurs, there is still a chance of collision. When another ship is sighted, a judgment must be made whether a collision is a possibility or not before the ships approach to near each other to maneuver.

Action to Avoid Collision

When taking any action to avoid a collision the following must be considered:

- A change in speed and course must be made with clear and apparent motion immediately.
- Alter the course of the ship so as not to create another situation with a third ship.
- Keep a safe distance by decreasing speed, stopping the engine, or reversing course as necessary.

Narrow Channel Navigation

Ships navigating in a narrow channel would always keep to the right as much as possible. Powered boats are required to yield right of way to sailing ships that are only able to navigate in narrow channels.

Ships crossing narrow channels must not become an obstruction to those navigating the channel. If such a condition may occur the ship intending to cross must yield right of way to those already in the channel. Careful navigating must be done when a ship cannot see channel traffic because of obstacles such as curves in the channel. Ships must avoid lingering or anchoring in a narrow channel unless the situation is unavoidable.

Navigation around the Entrance to a Breakwater

When two ships are entering and leaving a port through the entrance of a breakwater, the departing ship has right of way. Boats entering or exiting around a breakwater must signal their presence with one long blast of their horn. As the approach the entrance or exit.

- *For Sailing Vessels.* When two ships have the wind on different sides the ship with the wind on its port (left) side must yield right of way to the ship with the wind on its starboard (right) side. When both ships have the wind on the same side, the ship that is to the windward side must keep clear of the leeward ship.

- *For Ships Overtaking.* The overtaking ship must keep out of the way of the ship that is being overtaken until it is free and clear of the ship.

Navigation for Ships Approaching Head-on

When two ships approach in a head-on, or almost head-on situation there is always a danger of collision.

Each of the ships must change course to the starboard (right) to be able to pass to the port (left) side of the other ship.

When a judgment cannot be made if two ships are on a head-on course, assume they are and change course accordingly.

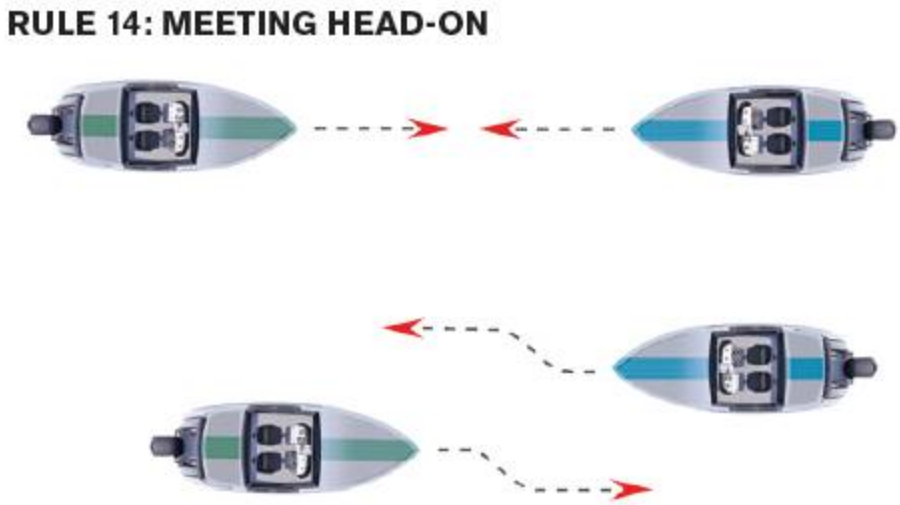
Head-on, or almost head-on means that a vessel is meeting another on a reciprocal or near-reciprocal course. If you see two mast lights or both (red/green) navigation lights of the ship this is a good indicator of a head-on course.

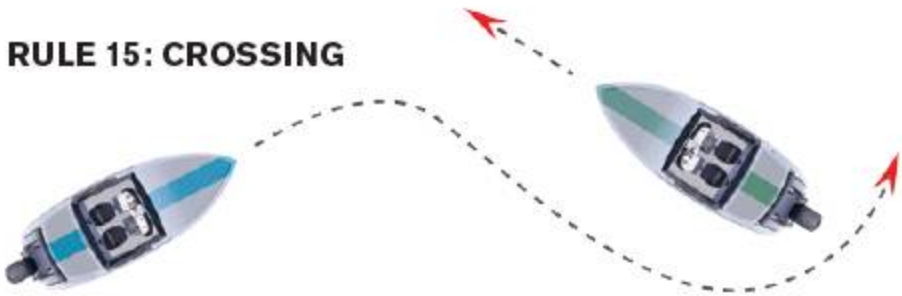
Navigation in a Crossing Situation

When two ships cross each other's course and a possibility of collision exists, the ship that sees the other on its starboard (right) side must yield right of way. In situations like this a ship must avoid crossing the bow of the other unless unavoidable.

Give-Way Ship: Under the rules of the road, a ship (the give-way) ship which is required to yield right of way to the other must slow its speed and change course as soon as possible.

Stand-On Ship: The stand-on ship must keep its course and speed, or take immediate action to avoid a collision when the give-way ship fails to alter course and speed.





Navigation between Different Types of Ships

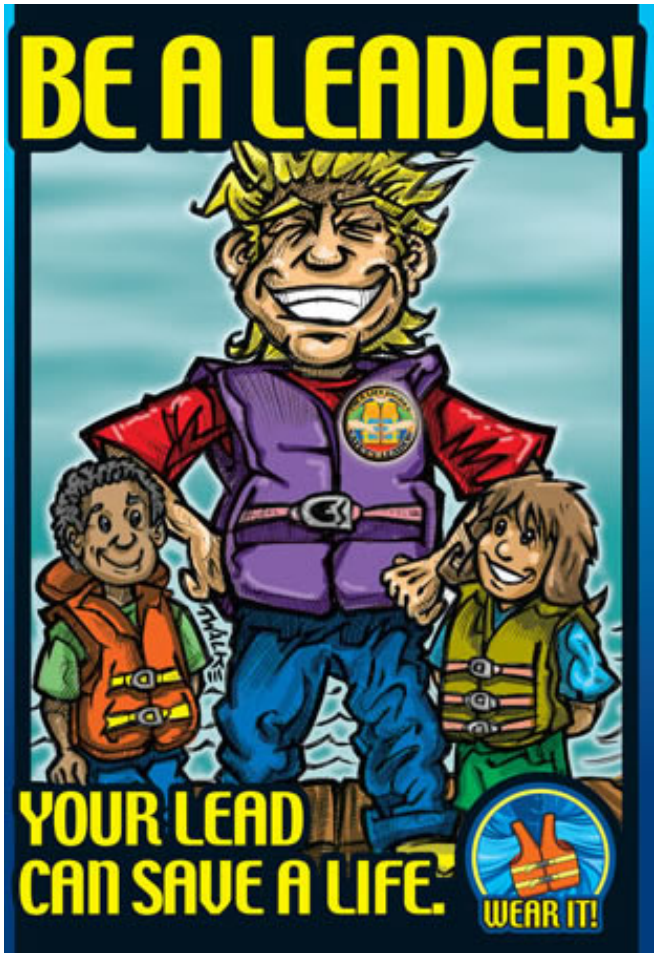
A power driven vessel underway must keep out of the way of ships that are defined as not under command, restricted in ability to maneuver, engaged in fishing, and all sailing and other non-powered boats.

Local Laws and Regulations for Misawa AB / Lake Ogawara

For current Misawa Air Base Marine rules and regulations pertaining to power boats, jet skis, pontoon boats, and non-powered watercraft see the appropriate appendices to this guide.

Responsibility for Passenger Safety and Conduct

The captain of the boat is responsible for the safety, conduct and behavior off all passengers at all times. You are required to ensure all passengers are familiar with the personal floatation devices and wear them properly at all times when on the boat. Passengers must be warned not to ride on the gunwales, open decks, or on seat backs which could cause them to be thrown overboard if the boat maneuvers suddenly. While not required, it is recommended at least one other licensed operator be on the boat in case the driver is incapacitated.



Chapter 7

The Misawa Air Base Boater's License

Getting a Misawa AB Power Boat License

- The minimum age to obtain a power boat license is 18.
- A current USFJ Form 4EJ (POV drivers license) is required to obtain a power boat license for all persons who are assigned or attached to Misawa AB (see exception below)
- Persons TDY, TAD, or deployed to Misawa AB who are not eligible/permitted to obtain a USFJ Form 4EJ must present a valid US driver's license and a copy of TDY, TAD, or Deployment orders.
- Active duty Air Force members must provide a copy of the AF Form 4391, High Risk Activities Worksheet signed by their commander, supervisor, or unit HRA rep PRIOR to participating in any power boat or jet ski training or operations.
- Download the Misawa AB Boater Safety Guide (PDF) available on the 35th FSS website (www.35fss.com) and successfully pass a written examination available at the Outdoor Recreation Center or marina office during regular hours of operation.
- Enroll in, and successfully complete a 2-hour Power Boat Operations and Safety course offered by the Outdoor Recreation *Center (note: to enroll in this course you must first pass the written examination)*
- Licenses are valid for 36 months or DEROS (whichever is earlier)

Getting a Misawa AB Jet Ski License

- The minimum age to obtain a PWC license is 16 (with written consent of a parent or legal guardian who must be present at the start of the actual operators course at the beach)
- A current USFJ Form 4EJ (POV license) is required to obtain a jet ski license for all persons age 16+ who are assigned or attached to Misawa AB (see exception below)
- Persons TDY, TAD, or deployed to Misawa AB who are not eligible/permitted to obtain a USFJ Form 4EJ must present a valid US driver's license and a copy of TDY, TAD, or Deployment orders.

- Active duty Air Force members must provide a copy of the AF Form 4391, High Risk Activities Worksheet signed by their commander, supervisor, or unit HRA rep PRIOR to participating in any jet ski or power boat training or operations.
- Download the Misawa AB Boater Safety Guide (PDF) available on the 35th FSS website (www.35fss.com) and successfully pass a written examination available at the Outdoor Recreation Center or marina office during regular hours of operation.
- Successfully complete a Personal Watercraft Operations and Safety course offered by the Outdoor Recreation Center.
- Licenses are valid for 36 months or DEROS (whichever is earlier)

To get a Pontoon Party Boat Endorsement

- Complete all requirements for the power boat license as described above.
- Participate in an orientation of the pontoon boat and its specific features, rules, and requirements.

Persons NOT Eligible for a powered watercraft license (all categories)

- A person who's USFJ POV Drivers License has been suspended or revoked. This includes temporary suspensions of driving privileges for various traffic offenses.

- A person whose power boat or jet ski license has been previously revoked by the 35th FSS Outdoor Recreation Center for cause.

- Persons not under SOFA status and who do not possess a USFJ POV Drivers License (other than the exceptions cited above for TDY/TAD personnel)

The Scope of the Misawa AB Power Boat or Jet Ski License

- The license is issued by the Director, 35th FSS Outdoor Recreation Center.

- Licenses issued are valid only for 35th FSS-owned power boats, jet skis, and pontoon boats.

- Licenses are not valid for any personally-owned watercraft. *Note: All personal watercraft powered by an engine of 2HP or greater must comply with applicable Japanese laws. A Japanese boat operator or personal watercraft operator license, marine liability insurance, registration, and a current marine JCI inspection and insurance are required.*

- Licenses are valid only for specified areas of Lake Ogawara, Aomori Prefecture, Japan.

- A License is not required to operate non-powered watercraft such as pedal boats, canoes, kayaks, windsurfers, and stand-up-paddle boards. For your safety however, proper training in the use of these is highly recommended.

Revocation of a License for Cause

Licenses may be revoked for any cause by the Director, 35th FSS Outdoor Recreation Center or the on-duty staff of the Misawa AB marina. The following actions will result in the immediate revocation of a power boat or jet ski license:

- Reckless operation of a power boat or jet ski that has a high potential for causing serious bodily injury or damage to property. Examples of this include (but are not limited to)
    - wake jumping,
    - operating in close proximity of another watercraft at high speeds,
    - playing "chicken" with other watercraft (powered or non-powered)
    - hot starts in the marina no-wake area.
    - entering a swimming or other off-limits area (except in an emergency)
    - running aground by failing to obey the 600ft distance rule from shore

- Bringing, or attempting to bring alcohol onto a ski boat or jet ski (by any person aboard the boat). All coolers and bags brought aboard are subject to inspection by the marina staff. Exemptions may exist for pontoon party boats. Consult marina staff for current regulations pertaining to these boats.

- Attempting to rent a powered boat or jet ski while knowingly under the influence of alcohol.

- Operating a power boat without wearing a PFD, or with any person on the boat not wearing a PFD.

- Failure to use a spotter when towing a skier, wake boarder, or tube (all types and capacities.)

- Exceeding the passenger capacity of the boat or jet ski.

- Flipping and flooding a jet ski with resulting engine damage.

Weather

The weather is the biggest factor to consider when planning any recreational activities on the water, whether in powered or non-powered watercraft. A responsible boat operator should use good judgment based on reliable information concerning marine weather conditions.

General Weather Conditions

Before engaging in any recreational activities on the lake or ocean is is critical to get an the most current and accurate weather information possible. Weather over water can change quickly and it is not often easy to predict. In winter months a squall can be easily seen as the wall of white moves across the water. In summer months a rain squall is harder to see as it may be hidden in dark clouds against the horizon. Changes in wind direction, surface conditions, and the color of the water are good indicators of possible bad weather.

Fog

Fog is common on Lake Ogawara from May through August and can occur at any time of day and appear from any direction. The most common type of fog encountered on the lake is sea fog that approaches from the East over Misawa AB or the Northeast where Lake Ogawara is closest to the ocean. For a boat operator, fog can create extremely hazardous navigation conditions with visibility reduced to almost zero! Navigation in fog requires precision instruments such a GPS system, reliable marine compasses, and accurate nautical charts. These instruments are not common on small recreational power boats and jet skis. At the first sign of fog you must return to the marina immediately.

Thunderstorms and Lightning

When a thunderstorm appears there is absolutely NO SAFE PLACE ON THE WATER! At the first sign of a thunderstorm, whether it is the large ominous clouds approaching, or the distant rumble of thunder, you must return to the marina immediately!

The Misawa AB Marina Weather Condition Indicators

The marina uses three colored flags to indicate the weather conditions and to signal boat operators of changes in these conditions. The flag is displayed on a pole at the end of the peninsula enclosing the marina. Boaters are required to remain within visual distance of the flag at all times. The flags are flown only during the established hours of operation of the marina office. The colors used are green, yellow, and red. Weather warnings will also be broadcast over the marine VHF radio.

GREEN Flag Conditions

When the green flag is displayed weather conditions are favorable and all recreational boating activities are permitted without restriction.

YELLOW Flag Conditions

A yellow flag indicates approaching weather or other conditions requiring caution when operating a powered or non-powered watercraft on the lake. Common examples of yellow flag conditions include approaching fog, limited visibility due to overcast conditions, rain squalls in the forecast, winds that create whitecap conditions on the lake. Some restrictions may apply during yellow flag conditions. Examples of these conditions include (but are not limited to): cancellation of pedal-powered boat rentals and use, cancellation of stand-up paddle board, kayak, and canoe rentals and use, and cancellation of any towing activities (especially during whitecap sea conditions.)

RED Flag Conditions

Red flag conditions require the IMMEDIATE return of all powered and non-powered watercraft to the marina and the cessation of all marina and beach operations.

Chapter 9

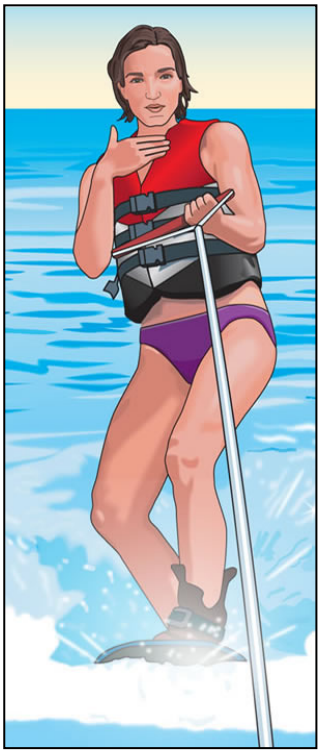
Water Ski, Wake Boarding, and Tubing Safety

As a boat operator you may be dealing with water skiers, wake boarders, or pulling an inflatable tube as part of your water recreational activities. You will no doubt encounter people who have little or no experience in these activities; your experience and influence in teaching will have a great impact on their safety and enjoyment.

Water skiing, wake boarding, and tubing are generally safe activities on the water but accidents, serious injuries, and even deaths do occur from time to time. Let's put things into perspective a bit. All of these activities are perfectly safe IF simple precautions and rules are followed.

The Water Skier's (and Wake Boarder's) Safety Code

All drivers and skiers must be well-versed in these fundamental safety rules.



Rule 1: Always wear a personal floatation device. A properly fitted floatation device should fit snugly so it won't ride up on the wearer during a fall. The recommended type is a jacket that covers the chest, abdomen, and back. Wearing only a wetsuit for floatation is unacceptable. To check, have the skier enter the water without skis to see if the device will support them with their head out of the water.

Rule 2: Always make sure your equipment is in good condition. The skiers personal safety and enjoyment depend on the equipment used. Remind the skier to check their equipment regularly. Check skis for sharp or protruding surfaces that cold cut or scrape. Check tow lines for fraying or broken bridles and handles. Repair (or better yet) replace broken or damaged equipment!

Rule 3: Don't give the signal to start until the slack is out of the line and you are sure you're clear. Keep your ski tips up!

Rule 4: Do not ski near docks, pilings, other boats, or swimmers.

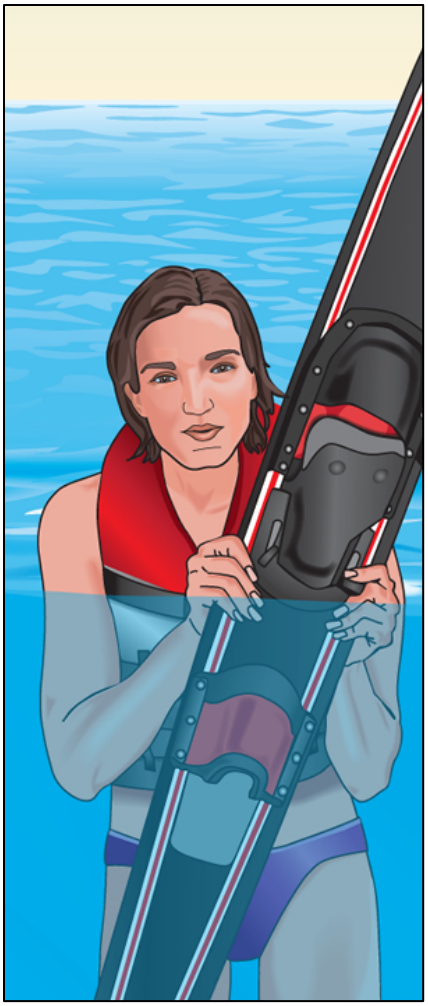
Always look ahead and be sure and be aware of your surroundings and where you are going at all times. This may sound silly, but the majority of skiing injuries result from collisions with docks or other solid objects!

Rule 5: Never put any part of your body through the handle/bridle or wrap the line around yourself in any way.

Rule 6: Never ski in shallow water or in any area where there might be obstructions above or just beneath the surface. For Lake Ogawara, NEVER ski within 600 feet of any shoreline – the water is extremely shallow except for an area in the center of the lake! If you can see seaweeds under you the bottom is near and the water is too shallow! Not only do you risk serious injuries if you fall, but a boat operating at high speed and running aground can be fatal!

Rule 7: When a fall is inevitable, try to fall backwards or to either side. A forward fall increases the chance of contacting the ski.

Rule 8: Know and use the proper skier hand signals. Most importantly, signal OKAY if you are okay after a fall. Insist that ALL skiers and boarders use the standard hand signals shown in this guide and insist on signaling OKAY after a fall (if they are indeed okay that is!)



Rule 9: If you fall in an area where there is other boat traffic, lift one ski more than half way out of the water as a signal to other boaters *(see illustration at right)*. Insist that the skier hold the ski out of the water until the tow boat has returned to their side. All of Lake Ogawara must be considered a high traffic area from sunrise to sunset.

Rule 10: Never ski to the point of extreme fatigue. Normally a skier will be tired within 15 minutes and should take a break.

Rule 11: Always ski during daylight hours. Power boating or jet skiing on Lake Ogawara is prohibited prior to sunrise, and from 30 minutes after sunset.

Rule 12: Never ski directly in front of another boat or jet ski.

Rule 13: Only one skier or boarder may be pulled. Jet skis may pull only inflatable tubes. When pulling tubes closely follow all speed limits posted on the tube. Exceeding these limits may cause the tubes to become unstable and throw the passenger into the water.

Rule 14: Always ensure the motor is OFF when a person is entering or exiting the boat.

Rule 15: Always have an observer in the tow boat. The observer must be familiar with all of the hand signals and

procedures for towing. An observer (or “spotter”) is mandatory and should be at least 15 years of age.

Communications

Communication between the towing boat crew and the skier is essential. With the skier in the water before starting there are three important verbal signals.

- **IN-GEAR** tells the driver to gently idle forward away from the skier until the slack is taken out of the line.
- **NEUTRAL** tells the driver to shift into neutral, stopping the boat.
- The word **NO** can easily be mistaken for **GO** so insist on using **NEUTRAL**.
- When the rope is clear of the skier, slack is taken out, and the skier is ready to go they should yell **HIT IT** to signal the driver to accelerate.

Once the skier or wake boarder is up on the water effective verbal communications are all but impossible because of the distance and engine noise. Hand signals are the only way you’ll be able to communicate. The following are standard hand signals used worldwide. All skiers, wake boarders (and even tubers) should be familiar with them. Insist on the use of these signals!

Standard Hand Signals - Know them! Use them!

Speed Up

Slow Down

Turn Right

Turn Left

Turn the Boat

Back to Starting Point

I'm OKAY! (after a fall)

Fallen or Injured Skiers

Falling while water skiing, or wake boarding, is all part of the game and learning process. Occasionally a fall can result in various injuries!

As already stated, in the case of a fall the person in the water should give the “I’M OKAY” signal by clasping the hands over the head if they are okay; insist on this! If the sign is not given you should assume the skier is injured and move the boat safely towards them immediately and ensure their head and face are out of the water.

The most common injuries encountered in skiing are bruises, scrapes (from falling on your equipment), rope burns, pulled muscles, and just “getting the wind knocked out” by a hard fall. Ruptured ear drums and being knocked unconscious can also happen in more serious falls. If you have an unconscious skier situation immediately check for breathing (remember basic life support – Airway, Breathing, Circulation – ABC!) In the case of a serious injury have a member of the crew contact the marina office via the VHF radio or a cell phone and request emergency medical assistance to the beach.

The observer should be prepared to quickly slip into the water to assist the injured skier. Assess the airway and breathing in the water immediately – don’t wait to remove them from the water to do this.

If the skier is unable to climb back into the boat with little or no assistance, they should be placed on a back board by professional rescuers or floated to shore if possible. Under no circumstances should an injured skier be hauled over the side of a boat! Doing so can cause further (and possibly very serious) injuries. One exception to this is if the distance to shore is considerable and the temperature of the water makes prolonged exposure a hazard. In this case the victim may be lifted on board if there enough people on board to lift the victim on a backboard or some other support. Make sure to lift head first.

Boat Driving & Safety

The boat driver is the person ultimately responsible for ensuring the skier has a safe and enjoyable tow. The driver’s performance and attitude convey to the skier and onlookers the true quality of the water skiing and boarding program. Experience boat drivers develop a feel for proper acceleration and speed that will aid the beginner immeasurably. A competent observer is also required to communicate signals from the skier to the driver and help with rope handling or retrieving skis.

The Ski Area

You should always scout out the entire desired ski area for any floating debris or other hazards prior to skiing. If anything is found, attempt to remove it if it is small enough. For larger items notify the beach staff and move to another area. You should be especially careful after storms or high winds that tend to move debris into the lake.

The area required for water skiing or wake boarding does not have to be very large. A power boat moving at 15 to 25 mph should be able to travel in a straight path for a minute or more with room for broad sweeping turns at either end.

Because Lake Ogawara is a shallow body of water the boat must stay at least 600 feet from any shoreline at all times. There are some areas where a distance greater than 600 feet is required. A good rule to follow is if you can see the bottom, or sea grass growing from the bottom, the area is too shallow for operating a power boat (at any speed, unless you are entering or exiting the marina).

The surface of the lake should be as calm as possible, away from wind-blown areas and other boat traffic. Remember to avoid swimming areas, Japanese fisherman, Japanese marinas and docks, and floating nets in the water.

Tow Boats

Many different type of boats are use for towing water skiers and wake boarders. The driver should be familiar with the type of boat being used and it's performance characteristics.

A boat designed for water skiing should be equipped with a tow pylon or a tower attachment. A tow boat should also have an accurate speedometer, a rear-view mirror, and seating to allow the observer to face to the rear but remain close enough to the driver so they are able to communicate.

The Observer

The crew of a tow boat must include a competent observer whose responsibility is to watch the skier and keep the driver informed of their condition. It goes without saying that the observer must be wearing a PFD (as well as everyone else on the boat as well!) The observer should always be prepared to enter the water immediately if needed. The observer's three main responsibilities are:

1. Keep the driver informed of the skier's progress and condition.

2. Relay the skier's signals to the driver.

3. Help the driver to be aware of possible safety hazards.

The Driver's Checklist

Before leaving the dock the driver should go through a quick checklist. Make sure the following equipment is available.

- Gas
- Paddles (boat oars)
- Bailing Can
- Rope

- Fire Extinguisher
- Competent observer (make sure the person knows the rules and responsibilities)
- Extra clothing, sunscreen, sunglasses, rain gear etc.

Starts

When the skier is ready to go he shold call **"in-gear"** signaling the driver to gently idle forward to take up the slack in the rope. When the skier calls **"hit it!"** you must make a quick check to ensure the rope is tight and the skier is straight behind the boat. Also check that the engine/rudder is lined up straight on the boat.

Ask the observer to do what is sometimes called "overlap". You start with a quick glance forward to ensure there is nothing in your way and then look back at the skier. The starting method of overlap consists of these basic points:

- The observer watches to the front and side of the boat for other boat traffic or abstacles.
- The driver watches the skier so he'll know when to apply and regulate the power.
- The driver is in command and is responsible for double-checking the front with a quick look ahead just prior to the start.
- When underway, the observer watches the skier and the driver focuses forward and stays the course.

Water starts must be done carefully for beginners. Very little power is required to plane lightweight skiers or youth. If you're teaching someone to ski and acting as an instructor in the water here's some helpful advice.

- Chose an area no less than 3 feet deep, free from rocks, floating debris, fishing nets, and seaweed. Make sure the boat is in a bit deeper water!
- Line the skier up in a center line behind the boat.
- When the boat goes "in-gear" and the slack is out the instructor can help stabilize the skier to assume the correct start position.
- Never start from a dock or shore!

Driving Patterns

There are several acceptable boat patterns for towing beginner skiers. A large loop is often preferred, as it does not require the skier to cross the boat's wake. Make sure the turns are large enough for the skier to easily negotiate the turning.

When skiers have advanced to more competent levels of skiing ability, a looped end pattern may be used. This pattern resembles a dumbbell with a long straight course and looping turns at either end. This pattern helps to disperse the wake and leaves the skier a smoother surface to ski on.

Picking up Fallen Skiers

When and if a skier falls, the driver should immediately pull back on the throttle and turn the boat to the right (starboard) in idle speed while looking towards the skier for the "I'm OKAY"

hand signal. If there is no signal, carefully but quickly return to the skier. Slow the boat before approaching the skier in the water. Consider these points:

- Be sure the OK signal is given.
- Approach the skier at idle speed.
- Always approach the skier on the driver's side at least 12 feet away.
- Be aware of winds and currents that may push the boat toward the skier. Always pass the skier downwind or down current to eliminate this risk.
- Ensure the boat is in neutral as you drift by the skier.

Two different patterns may be used when picking up a fallen skier. The first is sometimes referred to as a half-turn method. This is used to avoid any possibility of the rope becoming entangled around the skier.

The second method is known as a keyhole. It is used by more experienced skiers who can handle the rope moving around them by lifting it over their head and allowing it to slowly pass through their hands.

With both methods, keep the speed of the boat dead slow when playing the rope through the skier's hands. Be prepared to reverse speed if the skier gets tangled in the rope. Neutral may be required should the skier not be ready to go.

Landing a Skier

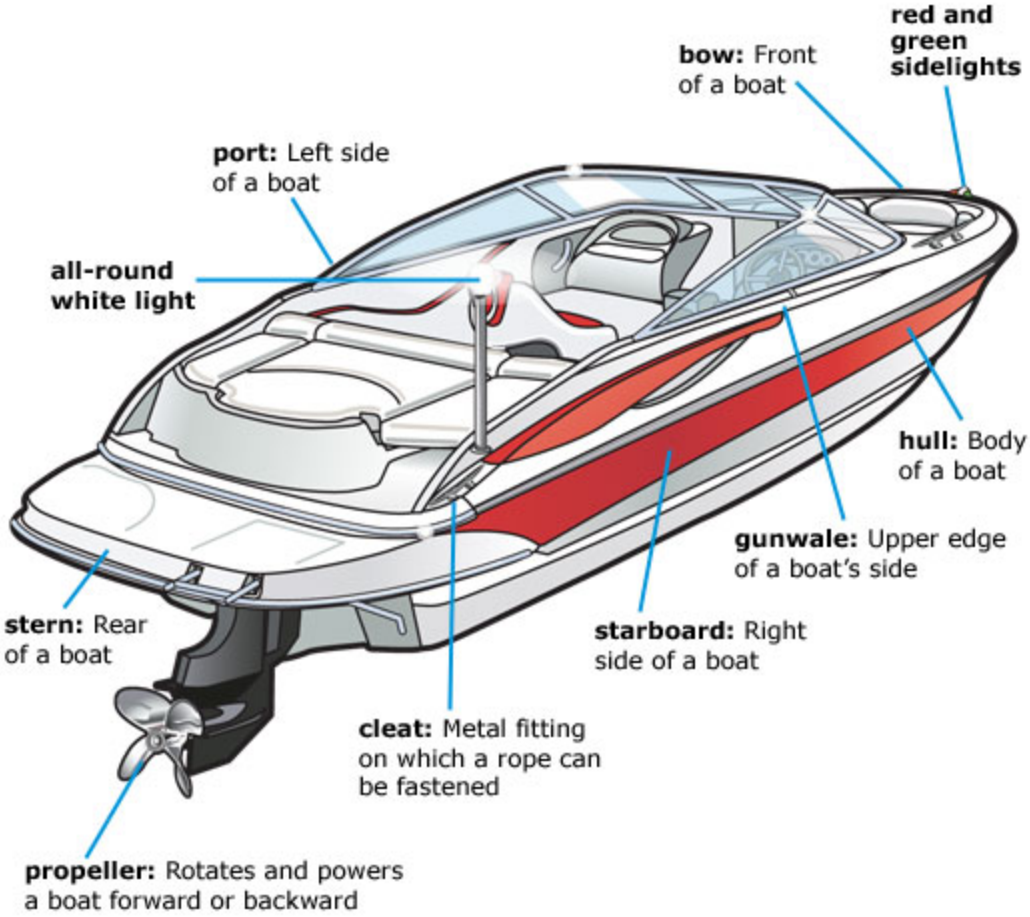
Due to the shallow water of Lake Ogawara, bringing a skier to land near a dock or in shallow water is prohibited!

Recovering a Skier

Use the same procedure to approach the skier in the water as you would for a fallen skier or man-overboard. Approach at idle speed with the skier on the driver's side (starboard) about 12 feet away from the boat. Place the engine in neutral and stop the engine before reaching the skier and drift slowly towards them. Have the skier board from the rear of the boat using the boarding ladder. The observer can assist as needed. If another skier will take their turn leave the rope in the water. If you're done for the day the observer will retrieve the rope.

Appendix 1
Definitions & Diagrams

The Parts of a Typical Power Boat



Anchor Line A rope that attaches to an anchor that is of sufficient length to safely anchor a boat in the depths of water expected in the operating area.

Bow The front of the boat or jet ski

Cabin A cabin is a room on the boat to protect passengers or crew from the weather. A cabin can be located below the bow deck and used for sleeping or resting.

Cleat A post used to fasten mooring lines. Cleats are located on the boat and dock.

Combing The border that covers the joint of the hull and upper deck. The combing is generally padded to absorb slight bumps again docks or other boats.

Deck The area inside the cockpit where seating is located on small recreational power boats. For jet skis the deck is the area where the operator and passengers feet contact around the engine compartment and seat.

Appendix 1

Definitions & Diagrams

Draft The depth of the boat from the waterline to the keel

Fender The fender is a device on the exterior of the boat designed to prevent the boat from rubbing when it moors alongside a dock or other boat. Fenders are generally rubber, foam rubber, or even old tires.

Gunwale The gunwale is the upper side of the boat where the side joins with the deck. The gunwale is generally covered in a non-slip surface to aid in boarding for passengers.

Helm The helm of a recreational power boat is located on the deck and generally on the right side. The helm consists of the driver's seat, steering, throttle, instruments, and radio equipment.

Hull The main structure of the boat from the combing downwards. The hull can be single or double walled. Jet skis and small recreational power boats are typically single-hulled.

Impeller The impeller is a small propeller-like device that draws water into the bottom intake of a jet ski or jet boat at a variable pressure and forces it out a steerable outlet at the rear to generate propulsion.

The Basics of a Jet Ski

Keel The centerline of the hull that extends from the bow along the bottom of the boat to the stern.

Mooring Lines Lines attached to the boat or dock for the purpose of securing the vessel.

Port The left side of a watercraft as viewed from the helm towards the bow.

Appendix 1

Definitions & Diagrams

Propeller

Starboard The right side of a watercraft as viewed from the helm towards the bow.

Throttle A lever where the engine can be placed in forward, neutral, or reverse gears. The engine trim lever is generally incorporated in the grip of the throttle.

Transom The reinforced portion at the rear of the boat where the outboard engine is mounted.

Trim For the purpose of small power boats the trim generally refers to the engine's position in the water. When operating in extremely shallow water the operator may increase the trim (raise the propeller) to avoid striking the bottom. Trim can also refer to the boats horizontal position in the water at operating speeds.

Appendix 2

Misawa AB Power Boating Rules & Regulations

Operating Requirements/Limitations

- Each person operating, riding in, or being towed behind a power boat must wear an approved non-inflatable Type I, II, III, or V personal flotation device. *Inflatable personal flotation devices are prohibited.*
- Passengers on a power boat are limited to 5 regardless of age. Passengers who are not of sufficient height to sit on any seat with at least 1 foot flat on the boat's deck must be seated next to an adult on either the bow or stern bench seats.
- The load limit of the power boat is 1100lbs.
- The operator of a power boat must attach the engine cutoff switch lanyard to his/her person, clothing, or PFD.
- Allowing an unlicensed person to operate a power boat is prohibited.
- All operators and passengers should be competent swimmers.

General Operating Rules

- Power boats may only be operated within a designated area of Lake Ogawara *(A map of this area is available at the beach office.)*
- Power boats may only be operated during GREEN FLAG weather conditions and during the established beach hours of operation. Operations during YELLOW FLAG conditions may be restricted by the beach staff as necessary for safety.
- When operating a power boat under the following conditions you MUST operate at headway speed (Headway speed = Slow, idle speed, or speed only fast enough to maintain steerage)

    1. When inside the marina area
    2. When inside any area designated as "no wake"
    3. When the water depth is less than 4 feet
    4. When within 50 feet of another power boat, jet ski, vessel, platform, person, object etc.

- Wake or wave jumping is prohibited.
- Do not follow directly behind another or boat at a distance that would make a collision possible in the event of a turn or sudden slowing.
- Avoid sharp turns or other maneuvers that make it hard for others to avoid you or understand where you are going.
- Never operate while under the influence of alcohol or other substances. The beach staff WILL inspect any coolers or bags brought onto all watercraft. Attempting to bring alcohol onto a ski boat or jet ski will result in the immediate suspension of the operator's license.

Appendix 2

Misawa AB Power Boating Rules & Regulations

- Never operate a power boat at a rate of speed greater than is reasonable and prudent or greater than will permit him to bring such boat to a stop within the assured clear distance ahead.
- Never operate within an area designated as bathing, fishing, swimming, or otherwise restricted for any purpose.
- Never operate in shallow water where the propeller may be damaged by sand or rock strikes. For Lake Ogawara, remain at least 600 feet or more from all shorelines unless entering or exiting the Misawa AB marina.
- Never operate in a circular course around any other boat or PWC occupied by a person engaged in fishing, waterskiing, wakeboarding, or similar activity.
- Operate so as not to cause a hazardous wake or wash.
- Do not moor or attach to any buoy, beacon, light marker, stake, flag or other aid to safe operation, or to move, remove, displace, tamper with, damage or destroy the same.
- Do not anchor in the traveled portion of the marina channel so as to prevent, impede, or interfere with safe passage of any other boat through the same area.
- Give ONE long blast of the horn when entering or exiting the marina just prior to reaching the blind spot at the end of the peninsula.
- Do not operate a power boat, swim or dive from a power boat within two hundred feet of any commercial or recreational Japanese fishing boat except for maintenance purposes.
- Never operate any vessel or manipulate any water skis, aquaplane or similar device, in a willful or wanton disregard of the rights or safety of others and at a speed or in a manner so as to endanger or be likely to endanger any person or property.
- Maneuvering a power boat by weaving through congested vessel traffic, or when visibility around the vessel is obstructed, or swerving at the last possible moment to avoid collision is classified as reckless operation of a vessel and will result in the immediate suspension of the operator's license.
- The operator must stop the engine and pull the engine shut-off key any time a passenger is using the re-boarding step at the rear of the boat.
- When pulling a skier, wake boarder, or any inflatable tube type device, a spotter must be used (minimum age is 15). The spotter must maintain visual contact of the person/persons in the water at all times and be knowledgeable of all hand signals.

Appendix 3

Misawa AB Jet Ski Rules & Regulations

Operating Requirements/Limitations

- Each person operating, or riding on a personal watercraft (PWC) must wear an approved non-inflatable Type I, II, III, or V personal flotation device. *Inflatable personal flotation devices are prohibited.*
- Passengers on a PWC are limited to 1 regardless of age. Passengers must be of sufficient height so that they are able to place their feet flat on the deck of the PWC while seated. At no time will a passenger be seated in front of the operator.
- The load limit of the jet ski is 496lbs.
- The operator of a personal watercraft must attach the engine cutoff switch lanyard to his/her wrist.
- Operators under the age of 18 must be supervised by a licensed adult who is either a passenger on the same jet ski or operating a jet ski in the immediate vicinity.
- No more than 2 youth licensed operators may be supervised by 1 adult operator unless participating in an organized FSS youth program under the supervision of adult staff.
- All operators and passengers should be competent swimmers.

General Operating Rules

- PWC may only be operated within a designated area of Lake Ogawara *(A map of this area is available at the beach office.)*
- PWC may only be operated during “green flag” weather conditions and during the established beach hours of operation. Operations during YELLOW FLAG conditions may be restricted by the beach staff as necessary for safety.
- When operating a PWC under the following conditions you MUST operate at headway speed (Headway speed = Slow, idle speed, or speed only fast enough to maintain steerage)

    1. When inside the marina area
    2. When inside any area designated as “no wake”
    3. When the water depth is less than 4 feet

4. When within 50 feet of another PWC, power boat, vessel, platform, person, object etc.

- Wake or wave jumping is prohibited.
- Do not follow directly behind another jet ski or boat.
- Avoid sharp turns or other maneuvers that make it hard for others to avoid you or understand where you are going.
- Never operate while under the influence of alcohol or other substances.
- Never operate a PWC at a rate of speed greater than is reasonable and prudent or greater than will permit him to bring such boat to a stop within the assured clear distance ahead.
- Never operate within an area designated as bathing, fishing, swimming, or otherwise restricted for any purpose.
- Never operate in shallow water where the impeller may be damaged by sand or rock intake. Parking a jet ski on the shoreline is prohibited.
- Never operate in a circular course around any other boat or PWC occupied by a person engaged in fishing, waterskiing, wakeboarding, or similar activity.
- Operate so as not to cause a hazardous wake or wash.
- Do not moor or attach to any buoy, beacon, light marker, stake, flag or other aid to safe operation, or to move, remove, displace, tamper with, damage or destroy the same.
- Do not anchor in the traveled portion of the marina channel so as to prevent, impede, or interfere with safe passage of any other boat through the same area.
- Do not operate a PWC, swim or dive from a PWC within two hundred feet of any commercial or recreational Japanese fishing boat except for maintenance purposes.
- Never operate any vessel or manipulate any water skis, aquaplane or similar device, in a willful or wanton disregard of the rights or safety of others and at a speed or in a manner so as to endanger or be likely to endanger any person or property.
- Maneuvering a personal watercraft by weaving through congested vessel traffic, or when visibility around the vessel is obstructed, or swerving at the last possible moment to avoid collision is classified as reckless operation of a vessel.
- Normal swimwear offers no protection in the event you hit the water at high velocity. Wetsuits or clothing that retards the velocity of the water moving through it is highly recommended. Water or deck shoes are highly recommended.
- The operator must stop the engine and pull the engine shut-off key any time a passenger is using the re-boarding step at the rear of the jet ski or re-boarding from the side.
- Jet skis may tow only inflatable devices capable of carrying a maximum of 2 people. Towing a water skier or wake boarders is not permitted.