

Docking the Lake

Docking a seaplane is one of the more difficult aspects of operation for the pilot to master since every situation will be somewhat different. Currents, obstructions and especially wind will change each approach to the dock, ramp or mooring and each must be taken into account.

Before operation on water, the aircraft should be appropriately outfitted. In addition to safety equipment, there should be a paddle, bowline and anchor aboard. The bowline ideally will be good quality rope, 50 feet in length, and have a clip attached at one end securing it to the retainer found inside the bow locker on most Lakes. In this way, it can be employed as an anchor line, mooring line, and a dock line when routed around the bow cleat. A folding grapple type of anchor in a 3 pound or even 1 one weight size is suitable and may be stowed in the bow locker along with the bowline. The paddle is commonly wood or aluminum and should be stout for rugged use and short enough to stow in the cockpit. If beaching is anticipated, a shovel can be very useful since you will occasionally become mired in sand. A camping type of shovel which folds three in three sections will fit nicely in the nose locker along with the other items. Additional items to check in a pre-flight inspection are water rudder operation, hull plugs, bilge pump operation and breached hull sealant. Install a key float on the main ignition key and keep a spare ignition key and spare hull plugs in the aircraft.

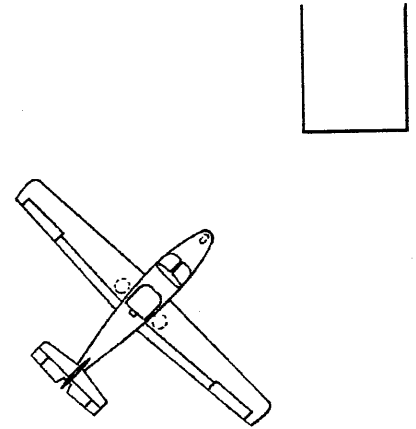
Thoroughly brief passengers, particularly those unfamiliar with the aircraft, as necessary for the water operations anticipated. This should include life vest usage, seatbelt and door latch operation, emergency egress, ELT operation and anything else specific to the aircraft.

A well executed docking will start with a carefully thought out plan. Upon arrival over the landing area when you can see the "big picture", arrange the direction of landing and touch down point so the aircraft is in close proximity to the dock to minimize taxiing. Pre-plan the taxi to the dock considering wind and currents and look for obstructions such as rocks, over-hanging trees, boat traffic, etc.

Once upon the water, after lowering the water rudder and taxiing to the dock, the cabin should be prepared. Undo seatbelts, remove headsets, turn off unnecessary equipment, ensure the paddle is easily accessible, brief passengers and unlatch or open the canopy door. It is very important at this point to think ahead. During the final phase of the approach, the engine must be shut down and the aircraft allowed to continue on its own momentum to the dock. The timing of this can be difficult as there are many variables. If doubt exists, and it generally will, stop the engine sooner and paddle the final distance. Remember that directional control will deteriorate as the aircraft slows and the effects of wind will be more prevalent. Upon arrival at the dock, the pilot must exit the cabin and secure the aircraft with the bowline initially.

Wind is generally the most significant variable the pilot will be faced with approaching a dock. A calm wind condition is ideal as long as the pilot allows for the considerable distance the aircraft will travel once the engine is stopped. A strong offshore wind is also a manageable situation which results in a slow closure rate to the dock and short stopping distance. The more demanding conditions are

winds that parallel the shore, variable or gusty winds due to mechanical turbulence, or an onshore wind. To minimize the possibility of damaging the sponsons or wings, an approach angle of 45 degrees to a corner of a dock allows the aircraft to yaw the greatest amount before contact is made. Once at the dock, the aircraft can be maneuvered by hand or with ropes to the desired orientation. An onshore breeze will make stopping very difficult or impossible plus a tendency to weather vane will be present. With a strong gusty wind or a strong onshore breeze, it may be best to seek a more suitable dock or shoreline.



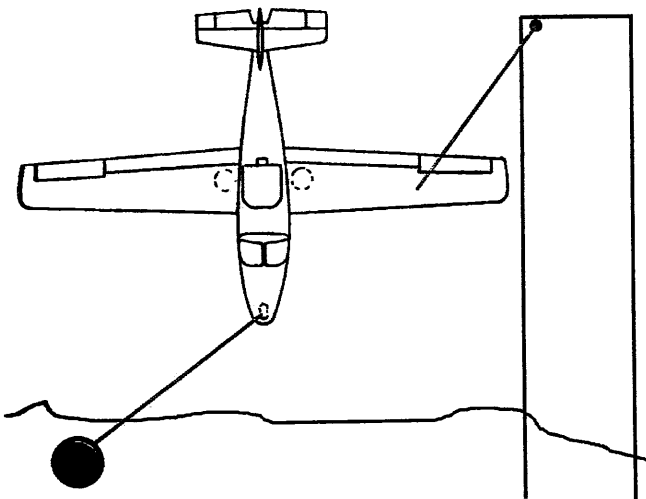
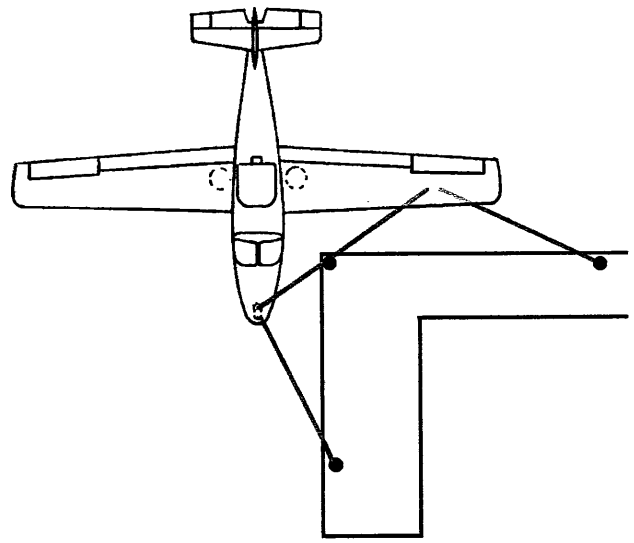
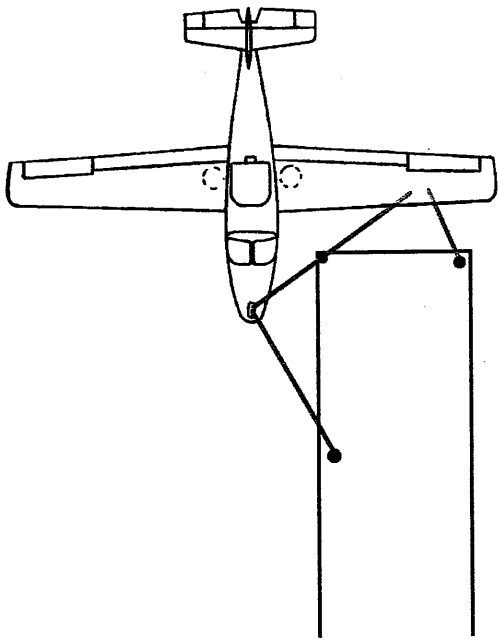
A common error is stopping the engine too late and arriving at the dock with too much speed. In a Lake, the pilot may slow down by back paddling while seated in the cockpit or lowering the landing gear. Should the engine power be cut too early, the aircraft is easy to paddle from the cockpit or while perched on the nose. The Lake also has a unique ability to be sculled short distances using the water rudder.

There are a variety of methods for securing a Lake to a dock, shoreline or mooring ring, examples of which are illustrated on the accompanying diagrams. The bow cleat and wing tie downs are most often used as points to attach ropes. If the water is shallow, the water rudder is best retracted to prevent possible damage.

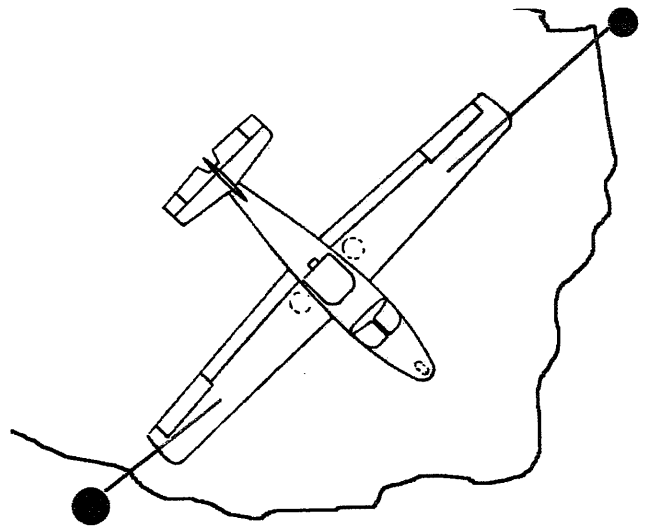
The Lake aircraft has the unique capability of taxiing up onto a beach. However, the pilot must be very selective about choosing the beach. For the sand to be firm enough to support the aircraft, it should be moist. A beach with its surface height a short distance above that of the water and a shallow slope into the water are clues to one suitable for use. As a precaution, taxi out of the water at an angle to the beach. If the sand is found to be soft, the pilot then has an opportunity to turn back toward the water before getting stuck. After successfully taxiing onto the beach, move far enough out of the water so that wave action will not reach the aircraft's wheels and wash sand from underneath the tires.

The various scenarios encountered by the pilot during docking, ramping and beaching operations cannot all be described herein. By using the information discussed here and blending it with a large amount of common sense, the seaplane pilot can develop through experience the savvy required to competently deal with this phase of water operations.

Docking Arrangements



Tree or Rock



Tree or Rock

WING PLAN

