

 **Boats or Floats** 16.687



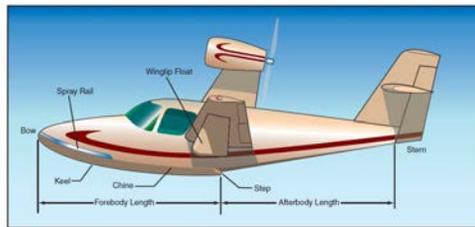
Figure 2-1. Flying boats, floatplanes, and amphibians. Source: Public Domain

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Bush Pilot Wisdom

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- The big purpose-built flying boats, such as the 1940s Grumman, have a good reputation
- Otherwise, a Cessna on floats is better
- Maximum power is critical, which favors turboprops



Source: Public Domain

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Our local Alaska: Maine!

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Moosehead fly-in every Sept

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- September 5-8, 2019 ([site](#))



Get on the Step

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Figure 4-6. Plowing position.



Figure 4-7. On the step. The altitude is nearly level, and the weight of the seaplane is supported mostly by hydrodynamic lift. Behind the step, the floats are essentially clear of the water.

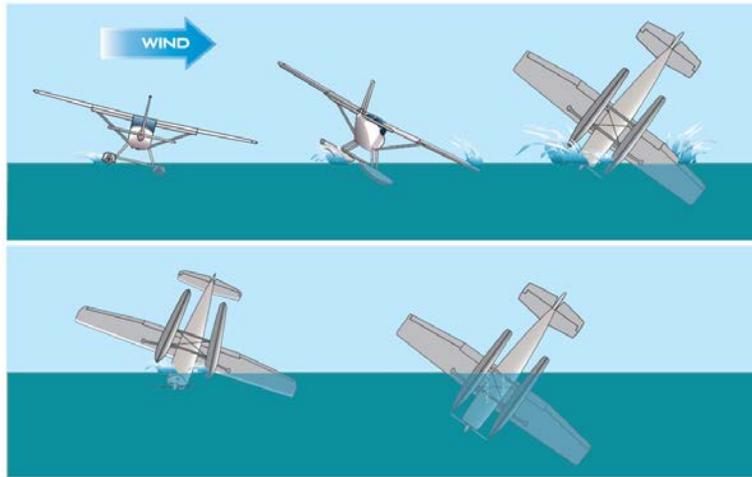
Source: Public Domain

[YouTube](#)

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Crosswind Landing

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Source: Public Domain

Glassy Water Landing

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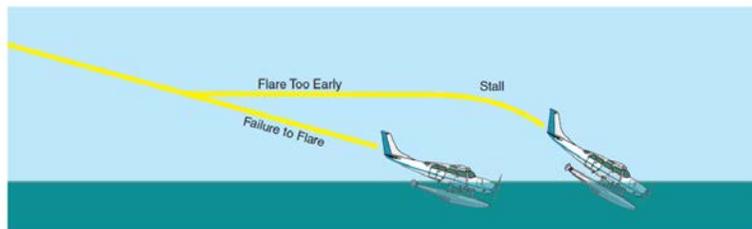


Figure 6-6. The consequences of misjudging altitude over glassy water can be catastrophic.

Source: Public Domain

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Docking/Beaching

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1. Pull mixture to kill engine
2. Turn off magnetos
3. Jump out before plane drifts away
4. Scramble around near the propeller, which could start up and break your arm (see 1 and 2)
5. Grab the lines and tie up

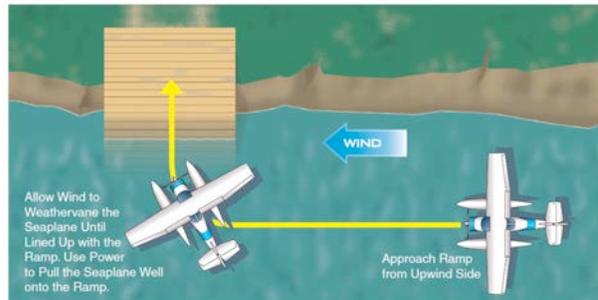


Figure 6-10. Crosswind approach to a ramp.

Source: Public Domain

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Bad things to do in a Seaplane

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- Land in the actual sea (waves more than 1')
- Land on a glassy lake
- Land an amphibious plane with the wheels down ([sad YouTube video](#))
- Land in salt water
- Splash water on the rapidly spinning propeller

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Seaplane Pilot Skills

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- Evaluating size of the lake
- Evaluating wind direction (glassy water side of the lake is where the wind is coming *from*; think about shelter from trees)
- Evaluating height of the waves
- Evaluating runway condition (floating logs?)
- Evaluating boat traffic situation (no ATC to clear you to land)
- Land on [straight floats in the grass](#)
- Take off on [straight floats from a towed dolly](#)

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Land vs. Sea

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- Error on the land runway: slide into grass
- Error on the water runway: dig in and flip over

Enhance safety with a two-pilot crew or...

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49 CFR Part 830 - Accidents



830.2 - Definitions

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- Aircraft Accident - Any occurrence when someone is onboard aircraft for flight and there is death or serious injury, or substantial damage to aircraft
- Fatal Injury - Any injury resulting in death within 30 days of accident



830.2 - Definitions

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- Serious Injury
 - 48+ hours hospitalization within 7 days
 - Bone fracture, except simple fractures of fingers, toes, or nose
 - Severe hemorrhages, nerve, muscle, or tendon damage
 - Involves any internal organ
 - 2nd or 3rd degree burns on more than 5% of body

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830.5 - Immediate Notification

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- Flight control system malfunction or failure
- Flight crewmember illness or injury
- In-flight fire
- Mid-air collision
- Damage to property other than aircraft with more than \$25,000 damage
- The fancy screens (more than 50 percent) go dark
- Overdue aircraft believed to have been involved in an accident

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Additional Regs.

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- 830.6 - Required info when notifying
- 830.10 - Preserve wreckage, except for safety reasons
- 830.15 - File a report within 10 days of accident, or 7 days if aircraft still overdue
- All reports go to NTSB field office

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Bottom Line

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- Combines the hazards of a boat and a plane
- Requires the skills of a sailor and a pilot
- Impress friends with a “splash and dash”
- Hard to eliminate the risk and therefore insurance is expensive, especially for amphibians
- Military has switched to helicopters, which can be controlled within a few inches (x,y,z)

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Light Sport flying boats

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- [Searey](#) (real)
- [Icon A5](#) (real soon now; see [Philip's 2010 review](#))



(The Icon is marketed to folks with zero flying experience.)



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Questions?

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