

## Boat Measurements for Stream Sites Generic Job Hazard Analyses

**Required Protective Clothing and Safety Equipment:** No required equipment

Sequence of Basic Job Steps	Potential Accidents/Hazards	Recommended Safe Job Procedures
Prior to deploying boat, check maintenance and user records. Inspect trailer lights, bow-eye connection, and hitch.	Accident Prevention	Boat operator must be a USGS certified Motorboat operator. Recertification is required every 5 yrs. All employees working onboard are required to have In-Water training. File written or verbal float plan with supervisor and notify supervisor of any changes. All sampling/measuring activities require a minimum crew of two. SM 445-2-H CH 31, Watercraft Safety
Responsibilities	Accident Prevention	Watercraft Operators. (1) The operator will complete a float plan and file the plan with their supervisor or someone knowledgeable of their intent to operate a watercraft. (2) The operator will routinely conduct weather checks, aborting activity anytime weather or sea conditions affect the operator's ability to pilot the watercraft in a safe manner. (3) The operator has absolute final authority over operation of the watercraft. (4) The operator must perform no tasks while underway other than operating the watercraft. (5) The operator will not operate a watercraft continuously for more than 2-hours without an appropriate break. (6) The operator will brief passengers on the location and use of all emergency equipment on the watercraft including PFD's.
Prior to entering lake or stream.	Boat Sinking, mechanical trouble, USGS and Coast Guard Safety Requirements	Check boat safety supplies before launching - use checklist. Make sure the drain plug is in the place.
Prior to entering lake or stream.	Ramp traffic, parking areas, close contact with public	Use good ramp etiquette, perform all equipment loading in parking area, not on the ram.
Loading and unloading equipment	Pinching, crushing, or laceration to hands, fingers, feet and toes. Back strain.	Use caution, be aware of hand placement, use proper lifting techniques (i.e. lift with legs not back, get assistance as necessary). Wear gloves, steel-toed shoes, and back support. Use trailer jack to lift tongue. Work together to launch and recover watercraft
Launching boat	Becoming stuck, damage to trailer and boat.	If launching in area without a ramp, select launch site carefully -minimum grade and maximum traction. Use a 4-wheel drive vehicle.
Making measurement	Submerged trees and rocks	Retrofit all "B" reels (and modified A reels) for a break-a-way cable. Be alert to debris, have cutters ready
Making measurement	Boat traffic.	Keep a good watch, have method to warn oncoming boats if needed (i.e. marine radio, air horn). DO NOT MEASURE IN BENDS, select stream reach for maximum visibility. Contact appropriate officials if working in navigation lanes.

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Making measurement	Infectious water-borne diseases.	Thoroughly disinfect with a biocidal agent (germicidal soap or alcohol) any exposed skin that has come in contact with potentially contaminated waters.
Navigation	Collision with submerged trees and rocks, dry docking on submerged islands, flats, and debris.	Use lake top-spot map for approximate channel locations. Do not use the map for the purpose of navigation. Map will add insight on where points, islands and submerged tree are located. Use depth finder.
Working in winter and cold water	Hypothermia	Wear float coat suit in winter months. Select appropriate PFD's for the job and weather. Remove and replace wet clothing as soon as possible.
Fluctuating stream or lake levels	Grounding and ramp access	Use caution and lookout when operating in shallow or unfamiliar areas.
Refueling	Explosion, fire, hazardous vapors, splashing fuel in eyes, spills.	Wear eye protection, shut off engine, refuel in well ventilated area, keep fuel away from sparks or open flame, transport fuel in approved containers, have spill kit ready in case of fuel spill. Remove portable fuel tanks from the boat before filling.
Medical Emergencies	Time and distance to medical services.	All field crewmembers will be responsible for necessary medications and personal requirements. Watercraft operators are required to be current in CPR and First Aid. All field crew members should be aware of potential medical conditions or treatments for existing medical conditions of the other field party members, such as allergic reactions, Diabetes, coronary problems, etc. Protect yourself from sun and heat exhaustion. Use sunblock, wear light protective clothing, sunglasses, and hat.

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For additional information about Job Hazard Analyses visit <http://1stop.usgs.gov/safety/topic/jha/index.html>

