

# Fording Steps for Military Vehicles



## 1. Each vehicle is different

Read and understand the water fording procedures in the operator technical manual (TM). The operator -10 TM provides vital instruction for determining the acceptable water depth in which vehicles may travel. This includes assessing the ground beneath the water to see if it is hard enough to support the weight of the vehicle. Many of the heavier vehicles recommend operators add an extra foot to the water depth when the ground is soft to account for the vehicle sinking in mud. Neglecting to comply with maximum water fording depths in the TM may cause water to enter the air intake, resulting in costly engine damage. Even worse, ignoring TM instructions may result in an overturned vehicle, endangering the crewmembers' lives.

## 2. Assess the strength of the current

Even if the depth seems relatively shallow, a strong current may make a crossing impassable. The best way to assess if the current is too strong is to mark out a 100-foot path along the side of the river. Use a water bottle or something else recognizable that will float and throw it into the strongest part of the current at the beginning of the 100- foot path. Time how long it takes the bottle to travel the entire distance. A time greater than 20 seconds indicates the water is traveling less than 5 feet per second and should be safe for crossing. Times less than 20 seconds indicate a very strong current that is unsafe to cross.

#### 3. Do not assume the water level is constant

Rivers and water crossings rise with storms and winter thaws. Just because you safely passed the water crossing during the dry season last year does not mean you can pass it now. Conduct a recon of the depth before driving vehicles into the water.

### 4. Someone may get wet

To assess how deep the water is, a Soldier may have to recon it using a depth gauge or stick. Ensure the water current is safe (see tip No. 2 above) before sending a Soldier in to recon the depth. In addition, ensure the Soldier is a strong swimmer and is wearing a life vest (when available). Make sure you tie a safety rope to the Soldier to safely pull him to shore in the event of an emergency. Tactical situation permitting, ensure the Soldier is not wearing any constrictive or heavy gear such as body armor that may weigh him down and inhibit his ability to swim to shore safely.

## 5. Conduct a risk assessment prior to every water crossing

This step applies equally to mission planners that direct Soldiers to use known water crossings as it does to hasty risk management when crews unexpectedly encounter a water crossing during torrential rains and flash floods. As with all risk management, leaders must know and use ATP 5-19 to identify and assess hazards, develop controls, and make decisions. When the residual risk exceeds the risk acceptance authority of leaders on the ground, the chain of command must be notified for approval before any movements begin. This may result in a change of mission using an alternate route to bypass the hazardous water crossing. Remember, commanders get paid to make these types of decisions. Do not take unnecessary risks and jeopardize Soldiers' lives in an attempt to make the mission happen by conducting an unsafe water crossing.

Don't let this be your unit, check the weather and understand what rainfall can do!







Blackland Research & Extension Center Water Science Laboratory 720 E. Blackland Rd, Temple, TX 76502 | blackland.tamu.edu | 254-774-6000

Safe https://safety.army.mil/MEDIA/ Risk-Management-Magazine/ArtMID/7428/ ArticleID/6229/Safe-CrossingsCrossings (army.mil)