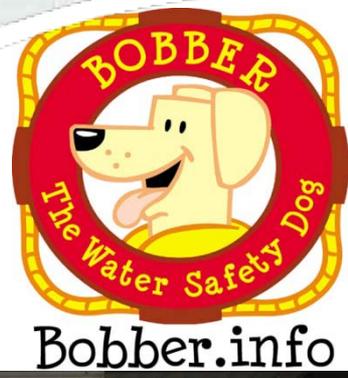


# A Basic Course for Army Personnel on Avoiding Water-related Accidents



US Army Corps of Engineers  
**BUILDING STRONG**





Courtesy  
Deck  
Landings and  
Departures Only



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# *Sam Rayburn Reservoir*

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**Since 1965 there have been 126 fatalities and water related deaths at Sam Rayburn**

- **That is an average of about 3 per year**
- **There are approximately 1.5 million visitors to Sam Rayburn per year**
- **That amounts to about 0.0002%**
- **But one is too many – don't be a statistic!**

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Drowning is second leading cause of accidental death for people 0-44 years old

## Water related deaths on Sam Rayburn Reservoir

- **95% are male**
- **75% are under 44 years of age**
- **2 main activities the victims were engaged in are swimming and boating**

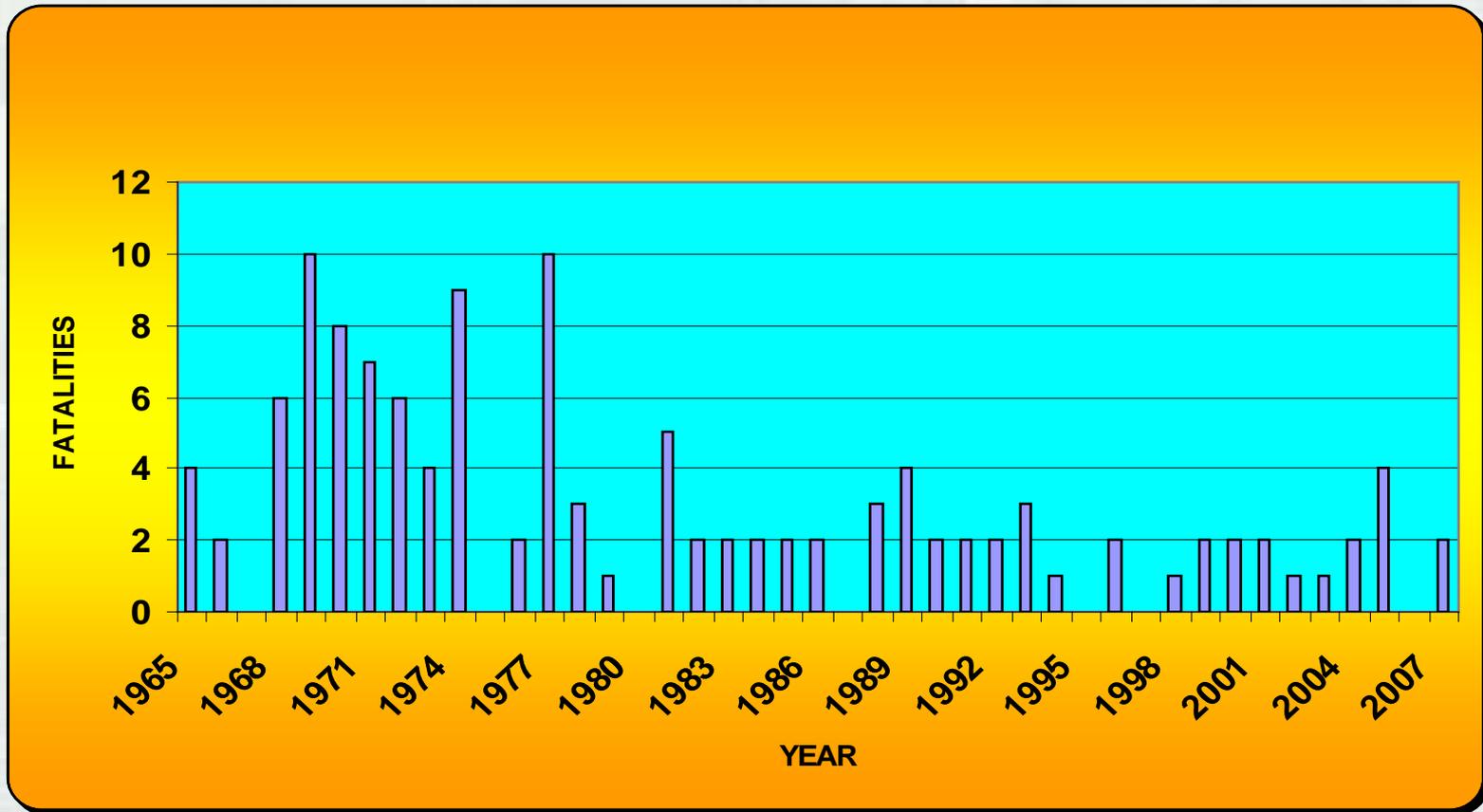
**Almost all knew how to swim**

- **Many water related deaths occur within 10 feet of safety and happen to people who did not intend to be in the water**



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# *Sam Rayburn Reservoir Fatalities by Year Since Impoundment*

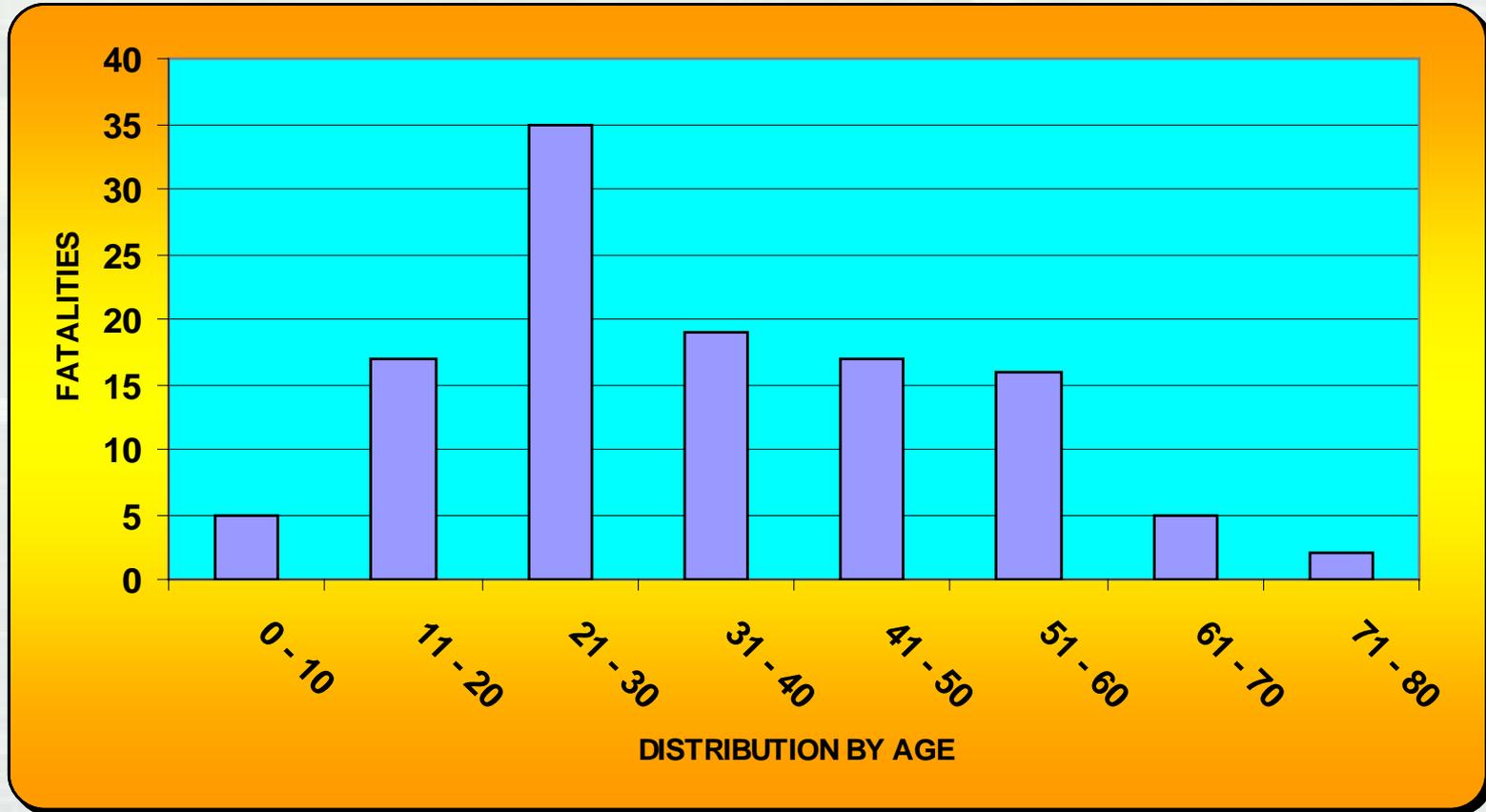


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# *Sam Rayburn Reservoir Fatalities by Age Since Impoundment*

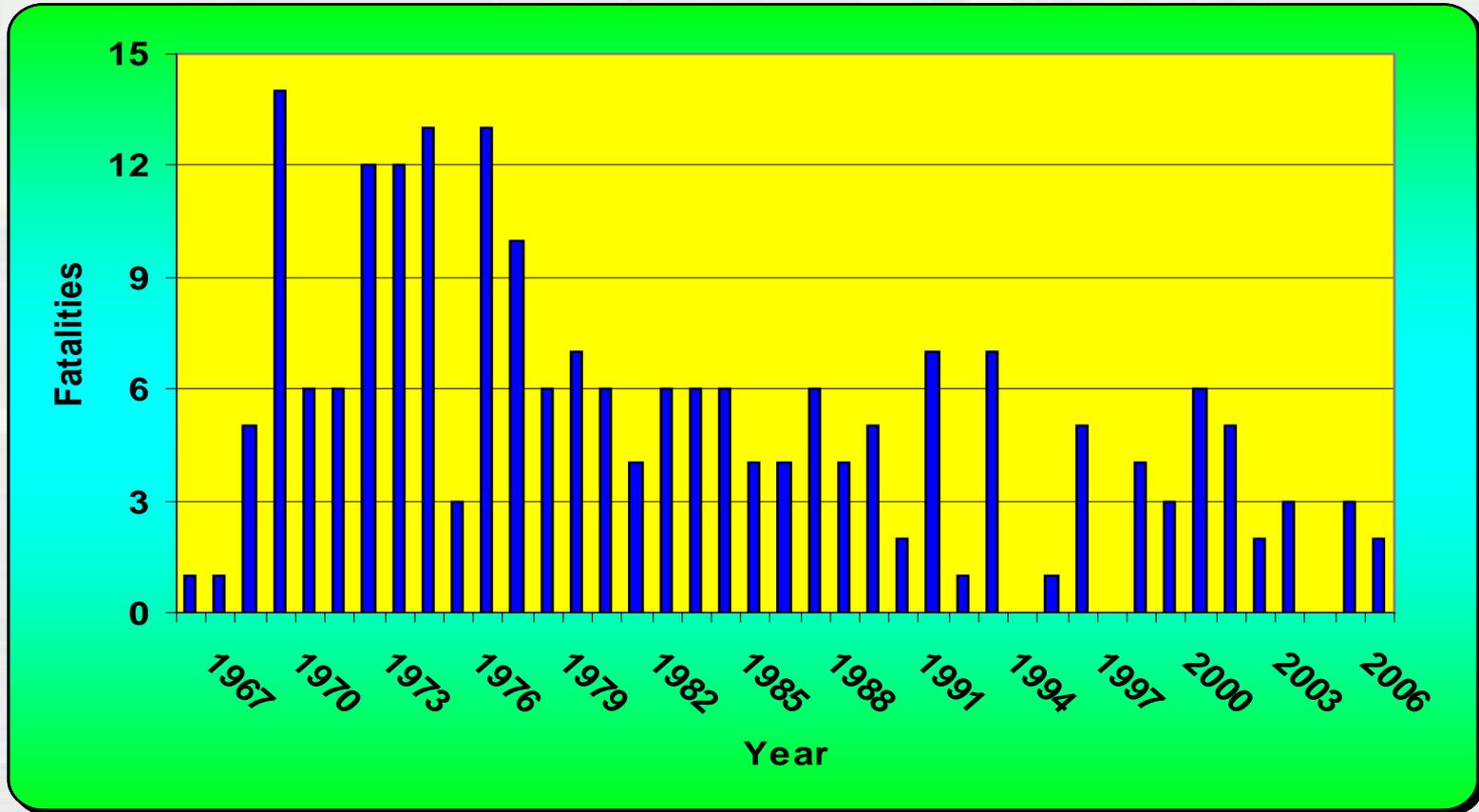


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# *Toledo Bend Reservoir Fatalities by Year Since Impoundment*

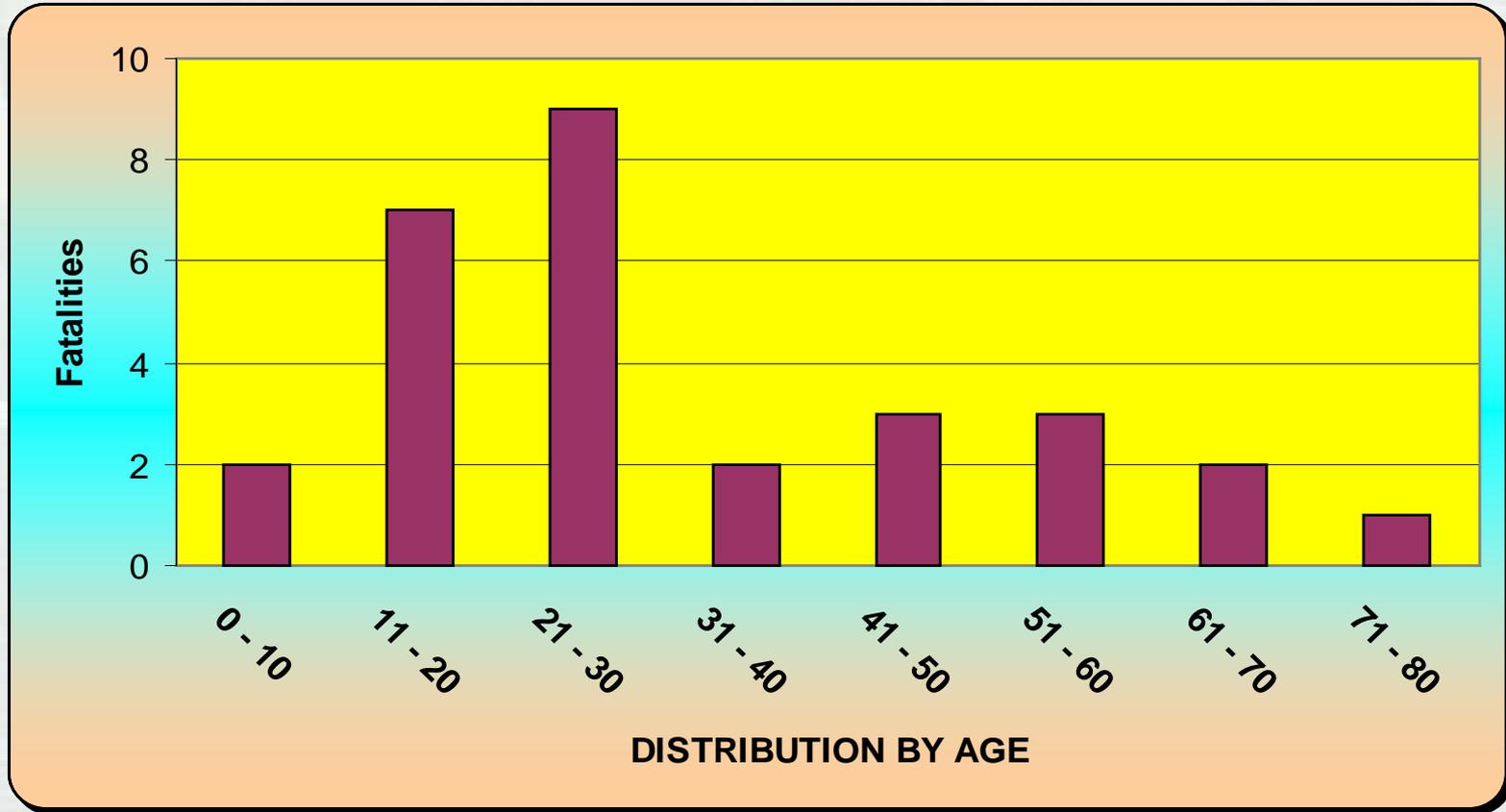


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# *Toledo Bend Reservoir Fatalities by Age Since Impoundment*

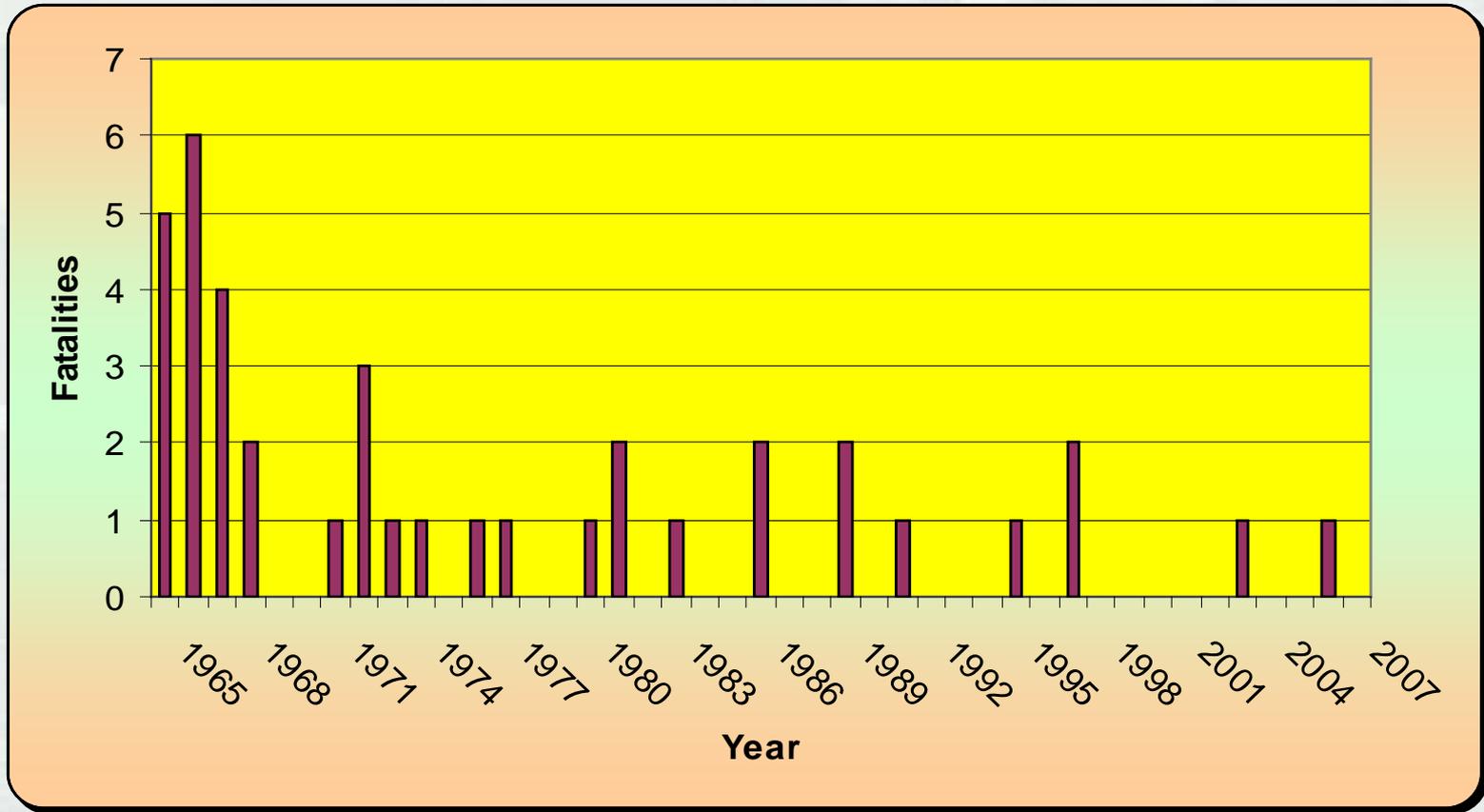


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# *B. A. Steinhagen Reservoir Fatalities by Year Since Impoundment*



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# Causes of Adult Swimming Fatalities

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## TOP TEN



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# Causes of Adult Swimming Fatalities

## **TOP TEN**

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### 10. Overestimating one's ability

**Got a sinking feeling?**  
*You underestimated the distance. Now what?*



Be aware that conditions of open waters, such as current, temperature and distance, may challenge your strength and swimming skills.

**Be smart. Know your limits.**

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<http://watersafety.usace.army.mil/>

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# Causes of Adult Swimming Fatalities

## **TOP TEN**

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### 9. Falling off flotation TOYS



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# Causes of Adult Swimming Fatalities

## **TOP TEN**

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**8. Cold water –  
Hypothermia decreases  
physical ability**

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# Causes of Adult Swimming Fatalities

## TOP TEN

### 7. Falling in without intending to

**WOW!** What an embarrassing way to go.

*Don't let a fall overboard put you under.*



Nearly 90% of drownings on Corps of Engineers lakes could have been prevented had the victim been wearing a life jacket.



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**Be safe. WEAR a life jacket.**

<http://watersafety.usace.army.mil/>

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# Causes of Adult Swimming Fatalities

## **TOP TEN**

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### 6. Swimming after wind-blown objects



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# Causes of Adult Swimming Fatalities

## **TOP TEN**

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### **5. Wading off steep drop-off**



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# Causes of Adult Swimming Fatalities

## **TOP TEN**

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**4. Jumping off cliffs or bridges  
or other high risk behaviors**

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# Causes of Adult Swimming Fatalities

## **TOP TEN**

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### **3. Swimming to rescue someone else**

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# Causes of Adult Swimming Fatalities

## **TOP TEN**

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## **2. Alcohol or drug use**

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# Causes of Adult Swimming Fatalities

## **TOP TEN**

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**1. Not admitting you are a poor swimmer  
(to yourself or to your group)**

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## Recognize the drowning “Look”

- Drowning is called the “Silent Killer”
- Vertical in water, head back, arms out, working to keep head out of water

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# Ways to Decrease Swimming Drownings in Open Water

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- **Education - teach basic water safety concepts**
- **Teach “Reach, Throw, Row- Don’t Go!”**
- **Natural Hazards – water level fluctuations, submerged stumps, weather changes, etc.**





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# Ways to Decrease Swimming Drownings in Open Water

---

- Watch your children – stay within an arm's reach
- Swim with a group – (Battle Buddy = Swim Buddy)
- Easy on the booze
- Respect the water – It is very unforgiving.
- Respect the weather - In Texas it changes fast.

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## *Summary of Swimming Safety*

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**Know swimming safety rules**

**FOLLOW them**

**Avoid high risk behaviors**

**Swim with a buddy**

**Easy on the booze**

**Know your limitations**

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*Break*





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# ***Boating safety resources***

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Know Before you GO! Take a boating course

Texas Parks and Wildlife on-line

Texas Parks and Wildlife instructor-led classes –  
Check web site for classes

US Coast Guard Aux and US Power Squadron



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**Single best way to prevent boating fatalities is to  
Wear a PFD.**

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## PFDs – Life Jackets

### Type I - Offshore

- Extra flotation,
- Will turn an unconscious person face up,
- For use when rescue may be a long time coming



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**Single best way to prevent boating fatalities is to  
Wear a PFD.**

---

## **PFDs – Life Jackets**

### **Type II - Nearshore**

- Cheapest and most common,
- Will turn an unconscious person face up,
- Uncomfortable, so rarely worn



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**Single best way to prevent boating fatalities is to  
Wear a PFD.**

---

## PFDs – Life Jackets

### Type III – Flotation Aid

- More comfortable,
- Will NOT always turn an unconscious person face up,
- For use with specific water sports



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**Single best way to prevent boating fatalities is to  
Wear a PFD.**

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## PFDs – Life Jackets

### Type IV - Throwable

- Ring Buoy or seat cushion,
- Good to have a line attached to it,
- Must have one on boats over 16 feet long



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**Single best way to prevent boating fatalities is to  
Wear a PFD.**

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## PFDs – Life Jackets

### Type V - Hybrids

- Kinds that don't fit other categories,
- Inflatables and work vests included



Industrial Work Vest  
Type III/V

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# Single best way to prevent boating fatalities is to Wear a PFD.

## Life Jackets:

- Number required
- Easily accessible
- In good condition
- Right size for passengers on board
- Throwable PFD required for boats > 16'

The most expensive cushion in the world.  
Not wearing it could cost your life.

Nearly 90% of drownings on Corps of Engineers lakes could have been prevented had the victim been wearing a life jacket.

Don't sit on it! WEAR it!

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<http://watersafety.usace.army.mil/>

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**Single best way to prevent boating fatalities is to  
Wear a PFD.**

---

## **Life Jackets:**

- **New styles more comfortable and no longer “geeky”**
- **Inflatables are now USCG approved**



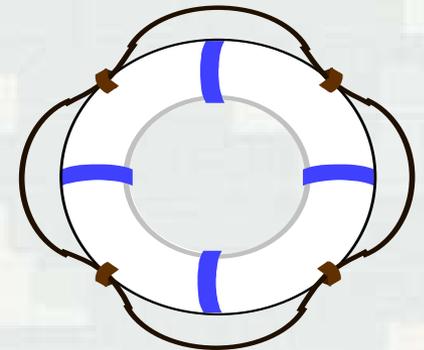


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# Required Safety Equipment on Board

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- Life Jackets – float cushions, life rings, throw ropes
- Proper ventilation (inboards & inboard/outboards)
  - Boat identification/registration, Certificate of Numbers
  - Sound producing device
  - Fire extinguishers-current date
  - Navigation lights if out at night



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# Required Safety Equipment on Board

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## LIVES acronym

- **L**ife Jackets
- **I**dentification/Registration of Boat
- **V**entilation (Inboards and Inboard/Outboards)
- **E**xtinguishers
- **S**ound Producing Device

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# Top 10 Causes of Boating Fatalities

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- Careless/reckless operation
- Operator inattention
- Excessive speed
- Operator inexperience
- Passenger/skier behavior
- Alcohol/drug use
- Hazardous waters
- No proper look- out
- Machinery system failure
- Weather



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# Best Practices on Board

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- **Basic boating equipment - basic tools, oar or paddle, anchor, boat ladder**
- **Be prepared for unexpected- flashlight, first aid equipment, maps**
- **Let someone know where you are – File a float plan**
- **Working cell phone**
- **Know the “rules of the road”**
- **Easy on the alcohol!**

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# Personal Watercraft (PWC)

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- **Extremely fast**
- **Ridden by people with very little experience or training**
- **Does not steer unless under power – opposite to natural instinct of avoiding collisions**
- **Additional Laws for Operation**
  - **Must wear a PFD**
  - **50 foot rule**
  - **No night operation**



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# Boating Safety Summary

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## Know Before You Go!

You Train as a Soldier – You Should Train as a Boater

## Wear A PFD!

You Gear up for Battle – You should Gear up for Boating

## Think – Don't Sink!





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# ***OTHER RESOURCES***

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**National Safe Boating Council -**

<http://www.safeboatingcouncil.org/>

**National Water Safety Congress-**

<http://www.watersafetycongress.org/>

**US Army Corps of Engineers National  
Water Safety Program-**

<http://watersafety.usace.army.mil/>

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# ***OTHER RESOURCES***

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National Safety Council -

<http://www.nsc.org/library/facts/drown.htm>

American Red Cross Water Safety -

[http://www.redcross.org/article/0,1072,0\\_312\\_6726,00.html](http://www.redcross.org/article/0,1072,0_312_6726,00.html)

More Water Safety Lesson Plans-

<http://corpslakes.usace.army.mil/employees/watersafety/pdfs/resguide.pdf>

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# ***PARTING SHOT***

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**IN SHORT, WHEN YOU GO OUT ON LEAVE,**



**MAKE SURE YOU COME BACK...**

**WEAR YOUR LIFE JACKET**

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Photo By: Sgt. 1<sup>st</sup> Class Dexter D. Clouden

Courtesy of the U.S. Army