



THINK 60 - Cold Water Danger

Paddle Craft Risk

What: In conjunction with the United States Coast Guard (USCG) Sector Virginia the “**THINK 60** - Cold Water Danger” paddle craft risk program has been created to identify the combination of “fair” warm days when a significant number of paddle craft are expected on the water when waters remain cold, increasing the risk of drowning from capsizing incidents.



Criteria: **THINK 60** - The Cold Water Danger criteria were established with the USCG identifying heightened risk days based water temperatures below 60 degrees and air temperatures above 60. To clarify, even on days when the weather criteria are not met, cold water is always dangerous.

Weather Element	Criteria
Max Temperature (MaxT)	> 60 F
Sea Surface Temperature (SST)	< 60 F
Wind Speed	< 20 kts
Diff Between Air Temp & SST	> 15 F

Issuance: The program will be in effect generally from *March through April and November into early December*. When a risk day is identified, the NWS in Wakefield will provide alerts via social media using Facebook and Twitter.

NWS social media **#paddlecraftrisk**



#think60
/NWSWakefieldVA



@NWSWakefieldVA

Your Role: Monitor social media and when there is a “Cold Water Danger – Paddle Craft Risk” (**#paddlecraftrisk**, **#think60**) for your area, take the necessary precautions and be prepared for the cold water danger. This includes having all the proper gear and notifying others of your float plan.

Resources:

- Virginia, Maryland and Northeast NC Forecasts www.weather.gov/akq/
- USCG Sector Virginia / Hampton Roads
- <http://www.atlanticarea.uscg.mil/Atlantic-Area/Units/District-5/Sector-Hampton-Roads/>
- USCG Boating Safety <http://www.uscgboating.org/>
- Cold Water Survival <http://live.cgaux.org/?p=872>

The USCG reports that statistically cold water incidents peaked on nice, sunny weekends. Research has shown that the two factors which best relate to cold water fatalities are “Cold Water Shock” and hypothermia. Cold Water Shock occurs when water is below 60 degrees and the difference between the water and air temperature is > 15 degrees. Hypothermia threat increases significantly in water temperature less than 60 degrees

Water Temp (°F)	Loss of Dexterity (with no protective clothing)	Time to Exhaustion or Unconsciousness	Expected Survival Time
32.5 °F	Under 2 minutes	Under 15 minutes	Under 15 – 45 min
32.5 – 40°F	Under 3 minutes	15 – 30 minutes	30 – 90 minutes
40 – 50°F	Under 5 minutes	30 – 60 minutes	1 – 3 hours
50 – 60°F	10 – 15 minutes	1 – 2 hours	1 – 6 hours
60 – 70°F	30 – 40 minutes	2 – 7 hours	2 – 40 hours
70 – 80°F	1 – 2 hours	2 – 12 hours	3 hours – Indefinite
> 80 °F	2 – 12 hours	Indefinite	Indefinite

The table below shows the 2015 deaths by vessel type. Boats are by far number one, with deaths in kayaks number two. There has been an increasing trend in kayak and paddleboard related incidents and fatalities over the last decade.

