



**UNITED STATES COAST GUARD**  
U.S. Department of Homeland Security

**MARINE SAFETY ALERT**

***Inspections and Compliance Directorate***

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Washington, DC

Safety Alert 07-21

**UNEXPECTED HEAVY WEATHER DANGERS:**  
**WEATHER WILL CHANGE, WHETHER YOU ARE READY**  
**OR NOT!**

Unexpected heavy weather events and rapid changes in weather have contributed to multiple notable and deadly marine casualties over the past several years. These casualties involved a wide range of vessels, including sailboats, passenger vessels, offshore vessels and recreational boats. While different size vessels normally operate in diverse geographical areas and different types of vessels may need to implement unique safeguards, there is a common theme – if you are not ready for heavy weather or rapid changes in weather, you and your vessel may suffer devastating consequences.



*The capsized lift boat SEACOR POWER.*

Heavy weather events or rapid changes in weather can be even more severe if you do not know about the approaching conditions. Operating on the water may provide a clear view of approaching weather, but it is not always indicative of the severity of a storm.

Although modern day forecasting has improved, and mariners and recreational boaters have the ability to receive updates and warnings through a wide variety of means, weather related maritime disasters continue to occur. This introduction of modern day technology into weather forecasting also increases the complexity in determining if the forecast applies to the geographical area where the vessel is actually operating.

To prepare for heavy weather events or rapid changes in weather, the Coast Guard **strongly recommends** that all vessel owners, operators, mariners, and recreational boaters take the following actions:

- Ensure that your vessel is equipped with at least two different and reliable methods to obtain information about changing weather conditions. This may include, but is not limited to, some combination of NOAA weather radio, NOAA or National Weather Service (NWS) on Twitter, a smart phone app with RADAR, local news, NAVTEX, satellite-based internet service with weather forecasting websites, GMDSS, and local emergency notifications on a cell phone. It

is important to understand the limitations of the forecasting tools:

- Understand if your vessel is operating in a designated NWS marine zone. Near shore bodies of water, inland lakes, bays and sounds, and rivers may not be large enough to warrant a separate marine area designation. Weather forecasts for these locations are land-based forecasts, which do not account for higher wind speeds that may occur over water.
  - If your vessel does operate in one or more marine zones, ensure it is equipped to receive special marine warnings from the NWS. Systems automatically. Automatic delivery is far more preferable than systems that require an individual to pull the information from the provider.
  - If your vessel's primary method to obtain weather reports is not provided by the NWS, ensure you understand how frequently your weather provider updates the information. Third party weather products that provide tailored voyage planning and graphics often take additional time to compile.
  - Weather moves quickly in different directions, so if your vessel operates on or near the boundary between two NWS marine zones, ensure that you check the forecasts and special marine warnings for all of the nearby marine zones.
- Maintain a proper lookout at all times to recognize changing environmental conditions.
  - Ensure that one or more individuals on the vessel have the designated responsibility to check weather on a regular basis and share updates with others onboard. Weather checks should

Rapidly intensifying thunderstorms and tropical cyclones have contributed to significant marine casualties:

**August 27, 2021:** *Drillship NOBLE GLOBETROTTER II sustained damage, crew injuries, and loss of propulsion while attempting to evade Hurricane Ida in the Gulf of Mexico with 115 people on board.*

**August 24, 2021:** *Eighteen sailing vessels capsized near Evanston, IL with 23 persons rescued.*

**August 15, 2021:** *Tour Boat LAKE CONROE QUEEN capsized while underway on Lake Conroe, TX resulting in the loss of one life and 52 persons rescued.*

**April 13, 2021:** *Lift boat SEACOR POWER capsized while transiting in the Gulf of Mexico off the Louisiana coast resulting in the loss of 13 lives and six persons rescued.*

**August 2, 2020:** *Container vessel CMA CGM BIANCA was blown off the dock while offloading cargo in New Orleans, LA resulting in three containers overboard and \$15 million in damage to the gantry cranes.*

**July 19, 2018:** *Small passenger amphibious vessel STRETCH DUCK 7 swamped and sank while transiting on Table Rock Lake near Branson, MO resulting in the loss of 17 lives and 14 persons rescued.*

**April 25, 2015:** *Eight sailing vessels sank in Mobile Bay, AL during a Dauphin Island Sailing Regatta resulting in the loss of six lives and 40 persons rescued.*

always be conducted just prior to getting underway, and should also be conducted at least once per watch, with more frequent checks for watches that exceed four hours in length or for situations involving deteriorating environmental conditions.

- Understand your vessel's operating limitations and key factors, e.g., vessel loading, down flooding points, profile and sail area, with respect to weather conditions.
- Prepare for heavy weather events ahead of time. Organize training with the crew and passengers, conduct heavy weather drills, and review response and potential storm evasion options.
- Create an atmosphere of open communication onboard, so everyone feels comfortable discussing weather conditions and any related concerns.
- If weather conditions start to deteriorate, take quick and decisive action to alter course or to abort an operation to protect human life. Build in a safety buffer that allocates time for storm preparation and evasion operations.

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