



### DANGEROUS SQUALLS AND SQUALL LINES

This article addresses the situation where the skipper is cruising (not racing) in an auxiliary cruising boat with friends and family on inshore waters and is confronted with what has become known as “severe weather”, usually a line of discrete cells, any one of which is capable of producing straight line winds over 50 knots. It is assumed that not all of the crew are seasoned sailors. Another article on the CCA Safety-at-Sea webpage addresses the numerous ways to predict bad weather. The cells we are talking about here will be visible in advance as black menacing clouds, usually coming from the west or southwest, giving enough lead time to undertake the below suggestions.

1. Make sure all halyards are properly made and sheets cleared so that sails may be taken down or reefed prior to the arrival of the cell. Seriously consider furling and taking down all sails, unless there is a valid reason just to have a small bit of the jib rolled out and the main reefed to the numbers. A valid reason may be that your engine won't start and you are off a lee shore. I am sure there are others but I think they need to be good ones. Why would you want any sail up in a 60 mph blow that will probably last no more than ten or so minutes?
2. Start the engine well in advance. Note, by sail and/or engine it may be possible to maneuver to avoid the worst cells and/or put distance between the boat and a lee shore.
3. All should put on PFDs and prior to the arrival of the weather. All children and non-sailing spouses and friends should go below. The skipper should determine who should remain on deck, tethered in.
4. As visibility will be poor to non-existent:
  - a. Turn running lights on;
  - b. Monitor VHF ch.16 from the cockpit;

- c. Have AIS on if you have it;
  - d. Have an air horn in the cockpit;
  - e. Be ready if necessary to transmit your position by reference or lat/long. in a sécurité broadcast;
  - f. The radar should be warned up and the radar reflector hoisted;
  - g. Just before weather hits and you lose visibility, determine what other boats are in the vicinity.
5. Do not run for home unless you are absolutely sure you can be tied up or securely anchored in advance. Half way into a harbor or anchorage is no place to be blasted.
  6. “The time for taking all measures for a ship’s safety is while able to do so.” - from ... *Lessons of Damage by Typhoon* by Adm. Chester Nimitz. Once the squall hits, preparation is done and reaction and situational awareness take over. First, be prepared to react to a sudden change in wind direction so as to avoid a sudden jibe or tack, both of which will be dangerous for boat and crew. After the wind direction has been clarified, consider placing the wind on your quarter if the situation so allows. This will take pressure off the rig, keep the boat on its feet, mask the headsail for reefing and allow greater maneuverability when needed to reef the main or avoid traffic.

All of this sounds perhaps overly dramatic for an inshore squall but there is no question that severe or extreme weather has become more frequent particularly in areas like Long Island Sound and the Chesapeake Bay. Obviously, all dark clouds do not produce winds over 60 miles per hour so some judgment is needed before you scare the hell out of your family and friends (and you can always take down the CCA burgee at the same time you take down the sails!).

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