



# MAYDAY!

## We Are Lost & Sinking!

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**S**earch & Rescue (SAR) is the most recognizable and time-honored task of any mariner, especially the United States Coast Guard (USCG). Having saved well over one million lives since its founding in 1790, the USCG has changed with the times. It embraces risk management, technology, and the latest life-saving techniques in the Command Centers and on the search vessels to spring to action when a *Mayday* cry comes in.



*Having come upon a capsized jet skier with driver in the water, crew assists in righting craft and then getting driver and disabled jetski safely back to shore*

technology at the disposal of the SMC back at the Command Center, such as the Rescue-21 radio/direction-finding system.

Which steps the USCG takes once they arrive at the scene depends on the details of the situation at hand. Is it a person in the water that is the subject of the SAR mission? Is it a missing vessel, whose last known position was this point on Earth? In either case, how long ago were they here? What “vectors” (wind, current, tides) have been at play since then, and what is

### Risk Management

Every search and rescue event has some degree of risk. Some risks are impossible to predict until the situation is at hand. Therefore, each instance requires balancing the risk by applying adequate controls and resources (which may be in short supply for the task at hand). As time is never an ally in an emergency, the USCG Command Center needs information from a boater in distress to advise the SAR Mission Coordinator (SMC). Inquiry will be made as to the nature of the distress (out of fuel is one thing, while sinking or on fire is another), along with:

expected going forward? As good information narrows the search area, while poor sources expand it, gauging the scene is like a detective case. Who said what? Did he or she actually see it or hear about it over the radio from another boater who thought he saw something? Have weather and tidal data changed from the time of the event to now, or is it consistent with what we see?

1. **Last known position;**
2. **A description of the vessel in distress (or a person lost overboard);**
3. **The number of people on board/involved (so no one gets left behind); and**
4. **What are the weather/sea conditions at the scene?**

Ideally, the rescue crew will drop a radio buoy or other self-locating device overboard to calibrate what actual vectors are at work at the scene (this is called “dropping datum”). Upon arrival, as well as during the course of the SAR exercise, the crew will perform an “aural search” by quieting down everyone

*Pre-sail crew – (l to r) Vin Pica, CXN, Mike Gilmartin, crewman, (back to camera) and Dean Satler, crewman, discussing pre-underway readiness*

The answers determine what tasks the SMC assigns the coxswain and crew of the rescue vessel. The rescue crew then uses the time until it arrives at the scene to assign lookouts (and establish rotations to minimize fatigue and maximize effectiveness) and prepare search patterns and associated charting. If the vessel or crew in distress is equipped with Electronic Positioning Indicating Radio Beacons (EPIRBs) and/or Personal Locator Beacons (PLBs), the rescue crew coordinates the electronic homing devices onboard with





*Training knots – (l to r) Rudi Pica, crewman, John Bigrow, crew candidate, Greg A Sarafin, crewman, discussing optimal way to stow mooring lines for quick and easy access with Vin Pica, CXN*



*Training- (l to r), Tom Ogno, crew candidate, being tested by Gregory T Sarafin, Flotilla Training Officer, on crew requirements*

and everything possible while listening for a faint call for help. Lookouts are often posted as far from the engines and radios as possible to assist in the listening part of the SAR.

The next decision made is what kind of search pattern to run. If the missing person or vessel was lost in a river, the boundaries of the search pattern are well defined. The SMC may even post a vessel at the mouth of the river, to prevent the missing person or vessel from passing all the SAR vessels and heading out into the open sea.

If the search area is large, the last known location is approximate, and perhaps debris was found, the search pattern is likely to be a “creeping line” – back and forth across the search area and moving away from the last known position in the direction of the vectors.

In any event, the last thing that the SMC wants to hear the crew say is “No joy...,” as this means they have done everything that they could and have reached the end of their mission without the joy of finding the missing person or vessel. The SMC will send additional searchers out as long as there is hope, as USCG crews eat, sleep, and breathe safety of life at sea. ⚓



*Captain Pica elaborates on Rescue 21 and search patterns on our website.*

*If you are interested in being part of USCG Forces, email [JoinUSCGAux@aol.com](mailto:JoinUSCGAux@aol.com) or go to DSO-HR and we will help you “get in this thing...”*