

Communications for the offshore racer - SSB radio or Satellite Phone?

By Shea Weston, addendum to Jim and Sue Corenman's Communication Article

For an ocean racer's communications needs there are basically two choices; a SSB radio or a satellite phone. Each one has its advantages and disadvantages and the well equipped yacht should consider carrying both for redundancy.

SSB: The traditional choice is the marine SSB radio and it is still my favorite for a properly equipped offshore yacht. The main advantage of the SSB is the "party-line" style of communications on a shared radio channel. This one-to-many type of communication is ideal for distributing information and coordinating efforts in a rescue or emergency situation. Often times the closest help is a fellow racer, not the Coast Guard who may be thousands of miles away.

SSB radio is not without its faults and possible problems. The installation is critical for proper performance and many in my experience are done poorly. The proper functioning of the system must be evaluated and corrected if necessary prior to departure.

All connections to the antenna (usually a backstay) and the ground system must be physically inspected and repaired if necessary. On-board radio frequency (RF) noise sources are often a serious problem and can render the receiver "deaf". Communications should be two-way, so if you can't hear the other guy it can make things difficult! Therefore, evaluation for RF noise generating equipment on board should also be conducted prior to departing.

A properly functioning SSB radio can be useless if you're not familiar with its operation. Make sure you are familiar with the radio's controls and have entered and can find the frequencies/channels used for routine race and distress communications. Also, some familiarity of HF radio propagation is necessary in order to choose the best channel for a given distance and time of day.

Satellite Phone: A satellite phone is the other choice for both routine and emergency communications while crossing an ocean. Installation and operation can be simpler to use than a SSB radio. However, there are some limitations inherent to the sat phone to be aware of.

Because of its point-to-point nature, a satellite phone can be less than optimum in an emergency or rescue situation. Yes, it is easy to call the appropriate RCC (Rescue Coordination Center), but as mentioned previously, help from the Coast Guard or other agencies can be thousands of miles away. A fellow racer may be tens of miles away, but possibly just beyond VHF range. In this situation the CG would have to determine the closest assistance then try to contact and divert them. This is the weakness of a point-to-point system. With the "party-line" nature of SSB radio, these operations can be simpler and quicker.

Just like a SSB radio, the satellite phone must be tested and verified before departure. For a hand-held phone (Iridium and IsatphonePro), a proper marine-grade, permanently mounted external antenna is a must. Ideally the phone should be in a docking station for secure connections to power and external antenna. In hand-held mode, the connections to the external antenna and charging power are fragile at best.

As with the SSB radio, familiarity with the proper operation of the satellite phone is a must. Also, make sure all the required race and emergency contact numbers are programmed into the phone for easy recall before departing. If using a pre-paid account, make sure you have the information on-board to “refill” the card if necessary.

Ultimately, the choice of an offshore capable communication system is yours. However being armed with capabilities and pro/cons of each can make the decision an easier one.