

TOO MANY ELECTRONICS

▲ By Captain Art Pine

Do you have *too many* electronics on your boat? Chartplotters, VHF-FM radios, and AIS transceivers are fine, but you may be going overboard—at least figuratively—if you load your vessel with an excessive amount of electronic devices, some veteran mariners say.

Coping with too large an array of such devices can distract you from keeping tabs on what's going on around you and could lead to a serious accident that you might have avoided if you'd kept your eyes on the water, says Iver Franzen, an Annapolis-based naval architect who has spent 39 years as a commercial captain.

"You can get so mesmerized by all that stuff that you lose your situational awareness, and get into big trouble—just as often happens with videogames," Franzen warns. On some devices, particularly those with stubborn touch-screens or where it takes several steps to obtain the complex overlay display you want, the risk gets even greater, he says.

Rick Perri, a veteran commercial captain who heads the Virginia-based National Seafarers Academy, a training school, agrees. "If you have too many electronics on your boat, you risk task-overloading," Perri says. "If you don't keep your eye on the horizon, you can end up missing things

such as that navigation aid that you would have seen."

How do you tell if you have too many electronics onboard? Franzen has a couple of simple tests. For sailboats, just look at the steering wheel pedestal in the cockpit. "Some of them are so festooned with electronics that you can just *see* they've overdone it," he says. "It's hard to keep tabs on all the devices; some even interfere with the others."

For powerboats, Franzen has a different measure. "If you need to lean over so far that you have to take your hand off the wheel to use some of these devices, then you ought to consider cutting back," he says. "The fancy electronics may be nice, or even useful, but your major obligation is to keep a constant eye on the water."

To be sure, not all mariners are wary about acquiring electronic equipment. Barry Cohan, a Baltimore dentist, equipped his 44-foot Carver cabin cruiser with a full array of electronic devices when he bought the vessel in 2005 and has never regretted it or found it distracting.

His \$100,000-plus package included "all the electronics I thought I would need to go wherever I wanted to go," Cohan says, from a sophisticated marine radio, radar, and dual chartplotters with 14-inch screens and all the other bells and whistles. And he upgrades the software every year.

"I've got so much safety with these compared to what I had in prior boats, and I feel very comfortable with it," Cohan asserts. He may have found it somewhat daunting initially, Cohan says, but "I used to fly airplanes, and I love electronics. I've been in situations where I couldn't see a quarter of a mile, and I've been able to operate safely."



■ Rick Perri, a veteran commercial captain who heads the National Seafarers Academy says, "If you have too many electronics on your boat, you risk task-overloading."

Somewhere in the middle is Scott Wells, a North East, MD, boater who has an older, 35-foot sloop that he bought from salvage a few years ago. Wells recently scrapped the chartplotter and other devices that came with the vessel and replaced them with an iPad, which he has laden with apps that provide him with charts, GPS, and AIS receiver.

The apps are linked with software that effectively updates itself as he uses them, and the whole array takes up far less room than his old gear, so he can avoid some of the distractions that might have arisen with a wider array of equipment. "I know some people like to have a lot of gadgets, but I'm a minimalist," he says.

How many electronics should you have on your boat? The answer varies according to the kind and size of vessel you have, where and how you plan to use it, and your own skills and those of your crewmembers in using the devices without risking them distracting you from your duties as a lookout or from your ability to operate your boat.

Here's a guide, compiled from interviews with commercial captains and recreational boaters:



■ Capt. Iver Franzen warns mariners not to get so mesmerized by electronics that they lose situational awareness.

BASIC PACKAGE

For all boats, even small ones:

- Magnetic compass
- VHF-FM marine radio (with digital selective calling and integrated GPS)
- Depth-sounder

NEXT STEP

For medium-sized recreational boats, add:

- Chartplotter
- Automatic Identification System (AIS) receiver or transceiver
- Radar set (stand-alone or integrated with your chartplotter)
- Pair of stabilized binoculars

Electronic safety gear for all boats:

- Electronic Position-Indicating Radio Beacon (EPIRB) for the boat, or a Personal Locator Beacon (PLB) for each person.

Some tips on buying electronic gear:

- Build your system gradually, not all at once. Install the minimum devices you need to start, and then add components as you need them.
- Do some serious research before you choose. Ask yourself whether you really need all those functions. If you don't, look for a simpler device.
- Pick the best quality equipment that you can afford, not the cheapest. Quality gear lasts longer, Perri points out. "Spend more, and you won't outgrow it," he says.
- Learn to use them on days when there is good visibility; then you'll be more confident when you really need them.
- Integrate your electronic devices wherever possible, so that you can overlay your radar images on your electronic charts, for example.
- Build in some redundancy in case the device on which you're depending fails. Buy a hand-held VHF-FM radio and Global Positioning System (GPS) device to supplement your fixed-mount equipment.



Barry Cohan used to fly airplanes, so he loves electronics and feels safer with more.

- With your VHF-FM radio, don't forget that you need to obtain a Maritime Mobile Service Identity (MMSI) number and connect your radio to a GPS receiver for the DSC function to work properly.
- Be sure you maintain your ability to navigate using paper charts just in case your GPS devices fail. "Sooner or later, the magic box will go out," Franzen warns.

About the Author: Art Pine is a Coast Guard-licensed captain and a longtime sailor and powerboater on the Chesapeake Bay.

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