

A Maritime Field Day from a Nearby Remote Island

A group of ham sailors entered the fray from a coastal cruiser moored off a tiny island in Narragansett Bay, Rhode Island.

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Sailing isn't a hobby; it's a lifestyle. It has its own music, language, history and heroes. It has seen great tragedies: The *Rose*, HMS *Bounty*, the whale ship *Essex* and the schooner *Pride of Baltimore*. It has made great men: Francis Drake, Horatio Nelson, John Paul Jones and, dare I say it, Jimmy Buffett. It attracts a unique crowd, at one with wind and water; wizened by constant exposure to salt and sun and made wise by the realization that life is about the journey, not the destination.

A friend of mine and I spent several years sailing on a 25 foot sloop. From Memorial Day to Columbus Day we forewent all social invitations, ignored all other interests and spent our spare time sailing Narragansett Bay and the Islands.

It was in the beginning of our second season that my interest in sailing began to expand into other parts of my life, like some giant Kraken coming up from the bottom of the sea to suck in whatever prey it could find.

Ham radio was a natural target. After all, it's not for nothing that a modern "Bermuda" or "Leg-O-Mutton" sail rig is also known as a "Marconi."¹ I commissioned my friend Steve to spend a weekend or two with his head in the bilge wiring up an Alinco dual bander and replacing the marine antenna at the top of the mast with a nice high gain Diamond dual-bander. I was on the air "marine mobile."²

Steve made it quite clear that additional



radio installations would require more headroom and it was soon after that I upgraded to a 29 foot coastal cruising sloop. For many years we've been operating VHF and UHF FM from the boat. We finally bit the bullet this year and installed an HF

setup with the idea of doing a little DXing while cruising the New England coast.

The Floating Station Comes Together

Our HF station is an ICOM IC-706MKII mounted below the aft bulkhead. The remote control head is mounted on a swing-out equipment arm so that it can be operated from either the cabin or the cockpit. The radio feeds an ICOM AH-4 random wire tuner mounted on the starboard taffrail.³ A short run of wire connects the tuner to the backstay, which is insulated about 18" above the deck and a few feet short of the truck of the mast. The VHF/UHF station is a Kenwood TM-V7A mounted in a similar configuration. It feeds a Comet dual band antenna mounted on the larboard taffrail.⁴ (The mast truck is reserved for a VHF marine antenna and the yacht club burgee.) See Figure 1 for the control head layout.

Ground connections can present a unique challenge for a maritime installation. The radio and antenna system are grounded to a sintered bronze plate on the outside of the hull. The sintering makes the bronze semi-porous, giving it an effective surface area many times its physical size. The ground connection also includes the keel, about 4000 pounds of lead in direct contact with seawater. A zinc "grouper" on a thin stainless wire acts provides an additional connection



Figure 1—The control heads for three of the radios. From top to bottom: ICOM IC-706MKII used for HF, Kenwood TM-V7A for VHF/UHF and the VHF marine radio.

¹Notes appear on page 00.

when dropped astern (Figure 2).

The boat is equipped with a bank of two type 27 gel cell batteries, each rated at 90 Ah. They provide power for all the radios as well as the electronics and lighting on board. The batteries are normally charged by the inboard diesel engine's alternator, with additional trickle charging from a 32 W solar panel mounted above the dodger.

We'd already been fairly successful in luring a few fellow boaters to join the ranks of Amateur Radio—Scott, KB1IDD, and Spencer, KB1KSV, have recently gotten their tickets—but we wanted to do more. One evening at anchor, during a chorus of Jon Campbell's modern sea shanty "Tanqueray Martini-O," we decided that Field Day from a remote island in Narragansett Bay would be just the thing to rekindle our own enthusiasm for HF operating and to promote Amateur Radio among the yachting community.

Friday, Three Bells in the Last Dog Watch (2330 UTC)⁵

Brad, KA1SVW, the captain whose call sign we will use; Steve, KA1RCI, our radio engineer, and Scott, KB1IDD, our power engineer, assemble on the float. It looks like rain and the forecast is for thundershowers, but the intrepid crew packs the boat and *Foolish Pleasure* sets sail. Our heading is south from Edgewood, Rhode Island toward our Field Day destination at 41°38.8" N by 71°20.2" W. We have selected a nice isolated spot in a sheltered cove on the eastern side of Prudence Island known as Potter Cove, about a cable length north of Shell Island. We arrive at two bells in the first watch (0100 UTC Saturday) and moor the boat. At sunset we fire the traditional cannon (Figure 3) and lower the colors. We end the evening with a rousing rendition of



Figure 2—A 12 foot stainless steel wire with zinc on the end cast in the shape of a grouper. It is sold as a sacrificial anode to prevent galvanic corrosion. It has been repurposed to act as part of the ground system when not under way.



Figure 3—The QRM eliminator, aka signal cannon. It is based on an L. Francis Herreshoff model of a British long nine. Custom made by R Berkeley George of Madison, Connecticut. It fires a 10 gauge blank shotgun shell.

"What do you do with a drunken sailor."

Saturday, Eight Bells in the Morning Watch (1200 UTC)

The crew awakens to the smell of coffee. It is bitter, but strong and hot. Demons from the previous evening are slowly exorcised. Fog surrounds us like a blanket, muffling the noise of the boat and the wildlife on the nearby island. We can hear the foghorn from Warwick Light in the distance. We fire the 8 AM cannon and hoist the colors. People raise anchor and quickly move away from us. We're not sure if it's the TVI or the cannon that encourages them to keep their distance.

Of our crew of three, two of us haven't done a Field Day in 10 years and the third is about to receive his baptism. A review of the rules and operating procedures follows. Two Charlie (2C is an ARRL Field Day classification with the "2" meaning a maximum of two transmitters operating simultaneous and the "C" indicating operating from mobile battery system) or not Two Charlie—that is the question. A brief conversation with our own Elmer, N1DKF, and Two Charlie it is. We also decide that we'll try QRP first and see how we do before we give up the multiplier, though we will later abandon 5 W for the full 100 W.

After the morning java has lifted our spirits and cleared the cobwebs of the previous evening's revelry, we address our Field Day power requirements. The layer of fog and clouds precludes the effective use of the solar panel. Fortunately, we've shipped a small Honda 4 cycle, 1 kW generator (Figure 4). We make it fast to the foredeck and run a 30 A power cable back to the boat's shore power connector. This powers a three-stage dual-bank battery charger that keeps our house batteries topped off. With the generator in "eco-throttle" mode we should get about 14 hours of run time out of its 0.6 liter gas



Figure 4—Our little Honda generator keeps the lights on.



Figure 5—The battle flag visible through the Marconi rig.

tank. We're pleased to discover that the little Honda does not seem to generate much RFI at all, though the on-board ac operated battery charger does have quite a hum, especially on 15 meters.

At three bells in the forenoon watch (1330 UTC) we hoist the ARRL battle flag and fly "CQ" from the larboard signal halyard (see Figures 5 and 6). Some of the crew take a brief catnap to prepare for the marathon operating stint ahead.

Field Day is On!

The games begin at four bells in the afternoon watch (1800 UTC) with a contact with WØERE/mobile in Kentucky (see Figure 7). By four bells in the first dog watch (2200 UTC) we have a pileup going on 15 meters. Over the next two hours, Steve, KA1RCI, makes contacts at the rate of one a minute. We make our only marine mobile contact, W8VCK from Ohio. By eight bells (0000 UTC) our batteries are sorely in need of recharging—Steve's with steak and the boat's with electricity. We break for dinner and a recharge, using both the generator and the alternator. Between the two we should get about 40 Ah, which will keep us running into the evening. While the grill is heating up we fire the sunset gun for evening colors, creating another stir in this quiet cove.

Our sloped backstay provides a little bit of directionality and as the boat swings on the mooring our reception gets better in the direction of the stern. The wind starts out of the north, which gives us great "ears" to Florida and the Atlantic coast. As the wind shifts to the west, much to our frustration we find it harder to work North America and start picking up European stations, including a DL station and a GØ station. Fortunately the wind shifted again and we were back in business. By seven bells in the first watch



Figure 6—CQ flies from the larboard spreader.

(0330 UTC) the bands are starting to settle down and it's hard for our remaining operator to make out calling stations from the audio frequency interference generated by the snoring crew down below. We call it a night.

Though mariners are a hearty bunch, waking up before the crack of dawn to the sound of CQ Field Day in your ear is too salty even for us. We wait until one bell in the forenoon watch (1230 UTC) and fire up the generator for some operating on 40, 20 and 15 meters. We are disappointed by the performance of our V/UHF station—we make only a handful of contacts before giving up entirely and concentrating on HF. We know Steve is committed to the experience when he declines lunch.

By four bells in the afternoon watch (1800 UTC) we had racked up almost 400 contacts and our novice operator had be-

come a pro, having survived a two hour operating watch with clear copy. But like all journeys this one too must come to a close, and it is with a mixture of disappointment and relief that we celebrate the end of the Field Day weekend with a nice merlot and a group photo (see Figure 8). The cry calls out "make fast the grouper, cat the anchor and up spirits,"⁶ and we set sail for home.

Notes

¹When the rig first became common in the early part of the last century, many thought that the complex of lines and wires needed to support the mast made the whole boat resemble an early Marconi wireless station.

²Within the territorial waters of the United States one uses the designator "marine mobile," and outside the boundary "maritime mobile."

³The taffrail is a 1 inch stainless steel railing that makes up part of the boat's lifeline system.

⁴Larboard is an older term for the side of the boat now known as "port."

⁵In the days of fighting sail, the ship's day was divided into five watches of four hours each and two watches of 2 hours each. They were known respectively as the first watch (which started at 8 pm), middle, morning, forenoon, afternoon, and first and second dog watches (these being "cur-tailed" as Patrick O'Brien explains).

⁶"Make fast the grouper" means to raise the counterpoise; to "cat" the anchor is to raise it clear of the water and secure it with line. "Up spirits" means break out the strong drink.

Brad Shipp, KA1SVW, grew up and still lives in Providence, Rhode Island. He learned to sail as a teenager and has been sailing out of Edgewood Yacht Club in Cranston for the past 10 years. Brad and crew are just finishing the refit of his new boat, Bellerophon—a 46 foot cutter-rigged ketch. It should launch this spring, masts bristling with antennas. Look for them on HF, 2 meters, 70 cm and on APRS. In his professional life, Brad is the Vice President of Information Technology for Cox Communications of New England. He is a graduate of Williams College in Williamstown, Massachusetts and Moses Brown School in Providence. Brad can be reached at ka1svw@arrl.net.



Figure 7—"Two-Charlie"—From left to right: Steve Hodell, KA1RCI, on VHF and Scott Duckworth, KB1IDD, operating HF.



Figure 8—"Up Spirits!"—From left to right: Brad Shipp, KA1SVW, Scott Duckworth, KB1IDD, and Steve Hodell, KA1RCI.