

A Field Day Checklist

Gary Breed—K9AY

k9ay@k9ay.com

Although my recent Field Day operations have been casual, I still vividly remember the years I was Field Day Chairman for the Arapahoe Radio Club, based in Littleton, Colorado.

In the years between 1980 and 1995, the call KØNA was familiar to most FD operators. During those years, the Arapahoe Radio Club had fourteen top scores in their class plus two #2 finishes. I was FD chairman during the last several years of the club's successful reign at the top of the 2A Battery class (and one detour to 3A Battery). When the club disbanded, the trailer, towers, antennas and hardware were passed on to the Colorado QRP Club—which eventually moved their FD operation to our “secret weapon” location in the Pike National Forest. In 2001, the CQC finally broke our 2A Battery record.

They say you learn from your mistakes, and we made enough mistakes to learn a lot! Lots of different rigs and antennas were tried, various battery solutions came and went, we experimented with HF packet, satellite and VHF stations, and had several different Novice/Tech operations.

One year, we even got a Denver television station to send a reporter and cameraman, and got a nice story on the Sunday evening news. That was pretty cool!

Our Most Important Lessons

At the top of our list is this—At Field Day, “winning” takes second place to having fun! There is no substitute for a weekend with people you like, trading real stories, lies and half-truths! As a bonus, our club got to do it at 8200 ft. in the foothills of the Rocky Mountains.

The next lesson is that FD can be successful with many variations in personnel, antennas and equipment. During our successful run of FD “wins,” we had anywhere from 6 to 30 participants, with very ambitious antenna installations as well as more modest setups. I think we tried a different antenna for 40M every year.

We became confident that we could deal with emergency communications effectively—Field Day gave us practice setting up a major comm center in a very short time, in the middle of nowhere.

Field Day Suggestions

I've compiled some lists to help plan your club's next Field Day operation. These may not be a perfect match to your club's FD objectives, and they may not be 100% complete, but they should help get you get started in the planning process.

The final lesson we all should learn

from Field Day is that good planning makes for good results. It's no fun traveling 50 miles into the countryside, only to realize that something important was forgotten!

Have a great 2003 Field Day!

—73 de K9AY

••

Field Day Antennas

Antenna selection for Field Day involves many factors, such as location, amount of help, number of stations and operating objectives (casual or competitive). Here are some notes based on my experience with several different FD operations:

160M and 80M—Summertime noise levels make 160M difficult, and it gets little FD activity. However, 80M has lots of activity, especially East of the Mississippi and on the West Coast. In these areas, a dipole or inverted-V is a simple and effective choice. In 2001, I worked plenty of stations with 5W from Northern Wisconsin using a dipole only 15-25 feet off the ground. In areas where there aren't many short-skip stations (like the entire Mountain Time Zone!), a lower angle of radiation is better, so a vertical with plenty of radials may be the best choice. If you have some really tall trees, a high dipole or a delta loop are also good options.

40M—This band and 20M are the “workhorse” bands during FD. At night, 40M is open everywhere across the continent. If you have only one antenna, make it a dipole up 50 feet or higher. In Colorado, we found that a dipole generated the same overall results as a wire beam or Bobtail Curtain—these big antennas were great in their favored directions, but we missed stations off the back and sides. On the other hand, stations in a “corner” of North America (like Southern California or Florida) can benefit greatly from a Yagi, double-Zepp, Vee-beam or other directive antenna.

20M—To deal with lots of QRM and lots of signals, a gain antenna will pay off. You will need to rotate it regularly to follow propagation or cover different areas, but that's the tradeoff for a bigger signal. A small triband Yagi or quad on a 40-foot mast is a practical portable antenna, but if you have the resources, move up to a big tribander or 20M Yagi. Wire antennas like the Field Day Special 2-element wire Yagi are good choices, but you may need two of them to cover most of the US and Canada.

15M and 10M—Propagation changes regularly on these bands, so a beam antenna that can be rotated will give the best results. Wire antennas can be quite effective, since these bands are usually less crowded. However, summertime absorption can reduce signal strength in the middle of the day and make you wish you had a beam.

Many QRPers use random wires and other simple antenna/tuner combinations on the HF bands. Sometimes they are the only practical choice due to size and weight limitations, but if you can add a higher performance antenna to your arsenal on 40M or 20M, it will dramatically increase the number of QSOs.

VHF—Gain is essential, especially at QRP power levels. Fortunately, VHF Yagis are relatively small, which makes them easy to transport, even fully assembled. They only need to be raised above nearby objects, on a short mast or hung from a tree limb.

General Field Day Planning

I. One Month (or More) Before Field Day

- Form a Field Day Committee and assign areas of responsibility—antennas, radios, transportation, generator or batteries, logging/computers, GOTA station, VHF station, publicity, information table, etc.
- Decide on practical matters like food and shelter—what will be done as a club, what will be each participant's personal responsibility. Are water and sanitary facilities available? If not, are portable facilities required?
- Choose the location and make reservations (required for many public parks). Make one or more advance scouting trips to plan station and antenna locations.
- Inspect and inventory any stored FD equipment and hardware. Replace missing items and fix or replace what's broken.
- Send out publicity and invitations to elected officials and public agencies!

II. One Week Out

- Identify any last-minute problems and deal with them before you're on-site.
- Collect all materials to make sure everything is ready—ideally, everyone bringing FD gear should lay out the things he/she is responsible for in the garage or yard. This will quickly identify missing pieces. Wrong or missing cords and cables are usually the biggest on-site problems!
- Make an operating plan—hour-by-hour scheduling is useful for the first 6 or 8 hours, but expect things to change “on the fly” during FD, depending on conditions, activity and available personnel.
- Remind club members about FD via Net, E-mail or telephone.

III. Arrival On Site

- Locate stations, unload equipment, get helpers started with setup—begin with the fundamentals of shelter and power.
- Make contact with local authorities if necessary (e.g. at public locations).

IV. Setup

- This is where planning can pay off in a big way! You should already know where the stations will be set up, where antennas go, etc. If not, be sure to think through each item before committing to its installation.
- SAFETY FIRST! Wear hard hats around towers, tie off guy wires securely, use proper ropes and knots! Put flags or other markers on low ropes and cables. Be especially careful with generator fuel. (Or just use batteries!)
- Remember safety again when climbing trees, using slingshots, compressed air guns or “spud guns” to install antennas. And watch for power lines!!!

V. Operating

- Get everyone involved!
- Use experienced operators to teach the less-experienced, explain what's going on to non-hams, split headphones so others can listen.
- Use the opportunity to explore new modes—try out PSK, build code speed, see how satellites work, etc.
- Make lots of contacts! When activity is high, have a good operator at the key or mic to get a good QSO rate—pileups are a bit intimidating for the less-experienced ops anyway, so give them a chance to watch the pros at work.

VI. Tear Down

- SAFETY FIRST! The crew will be tired and anxious to head home.
- Clean up the equipment and pack it neatly—too much FD equipment gets put away wet or dirty, and kinked coax is a no-no.
- Be good citizens and leave the FD site cleaner than you found it!

Possible Pitfalls

Learn from the mistakes of others! Here are some things that can make your Field Day more of a hassle than necessary.

Dead batteries—QRP battery is a popular operating class, but it's easy to underestimate the number of amp-hours necessary to run all the radios. This is especially true at class 2A and higher, where the club operates a Get On The Air (GOTA) station and VHF station. And, batteries cannot be recharged during Field Day, except with a natural power source like solar cells or water-driven generator.

Untested computer logging—I've sure heard some interesting stories about computer logging at Field Day! I'm amazed at how many operations had no test setup to get the bugs out before FD, and no operator training on the software to be used. Just remember that logging is every bit as important as the rigs and antennas, and you'll be OK.

Lack of basic creature comforts—That high ridge outside of town may be a great radio location, but the lack of water, shelter and sanitary facilities can make Field Day a lot more stressful than necessary. If your club plans such a remote operation, be sure you have some experienced campers and RVers who can help plan this important non-radio part of FD.

Broken equipment—Many clubs have antennas, towers, coax and other equipment that is only used for Field Day. Problems are guaranteed if these things were not packed away carefully after last year's outing. Check over FD equipment *before* you head to the site! Another problem is club members borrowing FD gear for “temporary” personal use over the winter. These loaners need to be tracked down and returned.

Entry not submitted—Believe it or not, a surprising number of major Field Day efforts have missed the deadline for submitting their entries to the ARRL! Usually, everyone thinks someone else is taking care of it. Don't let this kind of communication failure keep your club from getting its results into QST!