Ham Bootcamp

A beginner-friendly program to mentor new and upgraded hams, developed by the Nashua Area Radio Society.

Getting Hams On the Air

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For the last 5 years, the Nashua Area Radio Society (NARS) in Nashua, New Hampshire, has been actively providing licensing classes and training to help new amateur radio operators develop their skills. Our club has helped over 420 people earn or upgrade their licenses.

The Nashua Area Radio Society has spent quite a bit of time trying to understand why so many of the people who earn a license or an upgrade don't get on the air. The number one reason we discovered is that the amateur radio community isn't providing the mentoring that many hams need to get active. Some examples of the necessary mentoring include:

- Help getting a handheld transceiver or base radio programmed for repeater use
- Guided practice making contacts on the air
- Help to overcome "mic fright"
- Help choosing equipment for their first VHF/UHF or HF station
- Help setting up an effective first HF station

Beyond these basic items, the club has also found that mentoring in the following areas helps boost interest in getting on the air among new and upgraded hams:

- An introduction to foxhunting
- An introduction to low-Earth orbit (LEO) satellite operations
- An introduction to operating on the 6-meter band
- Getting set up and learning how to use *WSJT-X* and FT8/FT4 modes
- A basic introduction to contest participation
- A guide to working DX and confirming receipt of transmissions
- Help with basic physical station-building issues such as grounding, getting cables into a building, and putting up simple antennas and feed lines

Above: Mackenzie Pooler, KE1NZY, and her father, Dan Pooler, AC1EN, mentor hams by explaining how to get started with satellites at Ham Bootcamp.

Creating Ham Bootcamp

Our solution was a new program created by our club, called Ham Bootcamp. This program was designed to address the barriers preventing newly licensed and upgraded hams from getting on the air. The addressed barriers were shared by the club's license students via surveys.

Creating this type of program is not difficult. Before agreeing to launch Ham Bootcamp, the concept was discussed among license-class instructors. The initial program was taught by three volunteers from our instructor pool.

We took the most noted feedback items and scheduled a three-session inaugural Ham Bootcamp. It was taught at our station (AB1OC-AB1QB) in New Hampshire. Ham Bootcamp is free to anyone who wants to participate. The club learns more about what topics best meet the needs of attendees each time the program is offered, and the items covered are continuously improved upon.

Effective mentoring needs to be hands-on and personal. This requires spending time with hams to understand what they want to do with amateur radio, and each Ham Bootcamp begins with this discussion.

Program Structure

Ham Bootcamp includes hands-on demonstrations of the on-air activities that new licensees seem to enjoy most. This is done so that attendees can figure

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out what interests them. We also spend time talking about and demonstrating the basics of building VHF/UHF and HF stations.

New and recently upgraded hams are interested in a broad range of topics. With this in mind, NARS created specific activities for each level of ham radio licensees. The topics are taught via demonstrations and hands-on activities. For example, instructors conduct a practice repeater chat net on a UHF simplex channel, where all program attendees can check in and practice participating in a net. During the program, hams assemble and work with demonstration HF stations and the associated computer and software applications for logging and digital operation. This approach gives them a chance to work with similar gear that they'll be using to build and operate their own stations.

Most young and new hams come to Ham Bootcamp with a great deal of concern about making mistakes while operating on the air. To help with these problems, a focus is placed on practicing basic operating techniques to get attendees comfortable with being on the air.

Program Locations

NARS has been scheduling a Ham Bootcamp series after each set of our spring and fall license classes. This gives the Technician-, General- and Amateur Extra-class licensees (as well as other hams) a chance to participate in the program shortly after they earn their licenses or upgrades. Each Ham Bootcamp series consists of two Saturday meetings to cover the Technician-, General-, and Amateur Extra-class license items, and an evening visit to the local Ham Radio Outlet store. This

James Finchum, AC1DC, explains how to assemble an HF station at Ham Bootcamp.

The start of Ham Bootcamp at the 2019 New England HamXposition in Boxborough, Massachusetts.

format is offered to small groups of 10 – 20 attend-ees and is taught at our station, where they have access to a complete set of equipment for hands-on demonstrations and use.

Ham Bootcamp is also offered at the Northeast HamXposition in a group format. The program occurs on a Saturday morning with about 80 people, and the format consists of two tracks — one for Technicians and unlicensed hams and one for Generals and Amateur Extras. After the main sessions, attendees receive a guided tour of NARS's ham radio display and vendor area at the show.

The hamfest format is delivered in a large conference room with groups of about eight hams at each table. The instructors rotate from table to table delivering their elements of the hands-on presentation and demonstration of their topics. This format requires 8 – 10 instructors, which the club staffs from our license-class instructor pool.

Ham Bootcamp and Social Distancing

Ham Bootcamp has continued safely during the COVID-19 pandemic. The program is offered as an online activity via three Zoom sessions, structured the same way as the in-person program. The Ham Radio Outlet trip is replaced with an online shopping trip where attendees look at various equipment choices online using vendor websites. The topics for the online shopping trip are chosen through Zoom polls completed by program participants.

Getting On the Air After Ham Bootcamp

The Ham Bootcamp program is only 2 years old, so it's still relatively new. Program results have been encouraging, however. More than half of the program attendees are building stations and getting on the air. Ham Bootcamp has a been an effective motivator for both newly licensed and upgrading hams, as well as those who had their license for a while and weren't active before attending the program.

Conclusion

Ham Bootcamp is continuously evolving as time goes on. NARS will be opening online license classes and online Ham Bootcamp to all licensed and prospective hams in North America. Contact **classes@n1fd.org** to sign up for the next set of license classes and the next online Ham Bootcamp. For more information on Ham Bootcamp, visit **www.n1fd.org/ham-bootcamp**.

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