

The Monitor



May 2004

Upcoming Events

- TSRC Meeting May 8, 2004, 9:00am
EBAs, Hanover, NH
- TSRC Meeting June 12, 2004, 9:00am
EBAs, Hanover, NH

Marathon

Patriots' Day, April 19, saw the 108th running of the Boston marathon; one of the largest regularly occurring events in the country that relies on amateur radio communications. This year I had the opportunity to participate as one of the ham operators.

In contrast with a disaster operation, communications for the marathon is carefully planned well in advance of the event. As you know, the marathon course is slightly longer than 26 miles. Spaced along the route are 26 first aid stations and about as many water stations. On average the first aid stations are one mile apart, but in reality they are spaced farther apart near the beginning of the course and about 1/2 mile apart near the end of the course. Ham operators are location at all of these stations and in addition hams provide communications at the starting line registration areas, at the finish area, accompanying race officials, aboard official buses and other transportation vehicles, and probably in other ways that I'm not aware of. I was assigned to first aid station 20 which was located about four miles from the finish and one mile beyond Heartbreak Hill. I met the other two hams and 16 medical personnel assigned to station Foxtrot 20 (our tactical callsign) an early morning breakfast meeting held for all communications and medical volunteers. Marathon communications makes extensive use of the repeaters in East-central Massachusetts. Six repeaters are used for regional communications. Each of these repeaters has its own net control station who stays in contact with about five first aid stations and five water stations. Three other repeaters spaced along the route are linked together so that one net control station can handle course-wide communications to vehicles and race officials. Five or six other repeaters are other needs and as backup.

Even with this many repeaters involved solid communication is not possible along the entire route. From our station we were not able to reach net control reliably using just HTs and whip antennas (we were cautioned in advance by race coordinators that this might be so). Unfortunately, this problem isn't solved merely by using large antennas. For example, at each first aid station 'go' teams are formed consisting of a ham and 2-3 medics. The 'go' teams constantly move along the route between first aid stations to assist runners needing help (you didn't think that runners collapse only at the first aid stations did you?) It is not practical for the 'go' team hams to carry large antennas so we could not reliably reach net control when we were on-the-go. How would you cope with this problem?

This year temperatures on race day topped 80 degrees by mid-day and took a toll on the 31,000 runners. We had eight ambulance pickups at our station, nearly three times the average in past years. Many other runners needed other forms of help. Overall nearly a thousand runners received some form of medical treatment. Radio traffic was heavy throughout the afternoon consisting of ambulance requests, reports on the hospital destinations of stricken runners, requests for transporters, and requests for supplies and personnel. The repeater serving our area wasn't quiet for a minute during the peak hours.

Was the communications operation perfect? No, there is room for improvement but the organizers and the participating hams can be proud of a job well done. Most impressive to me was the courtesy shown by the hams in sharing the repeater airtime and in following the directions of net control. If you want to experience the pressure of handling urgent life-and-death traffic, or if you just want to see the marathon up close, volunteers will be needed again for the 109th Boston marathon next April.

Ken Tentarelli AC1H

FIELD DAY UPDATE

Plans are moving ahead for TSRC FD2004! We have confirmed the availability of the KUA athletic field site. We will be able to use the brick building, but water may not be available. We are making arrangements to provide water if needed.

Dave KU1R has been working on recruiting team leaders for the various parts of the FD operation and we appreciate the support of all who have signed up to help. Some tasks are still in need of support and Dave will be continuing to seek additional members who can help. If you are interested in helping in some aspect of FD, please contact Dave at 603 542 3335. We hope to make this a fun operating event and a great social gathering for area Hams!

Our next club meeting is this Saturday, May 8 at 9 AM at EBA's in Hanover. Normally, Rex has an ARES meeting prior to the club meeting, but will not hold that meeting this month. Dave and I would like to convene an informal Field Day meeting at 8 AM to go over the progress and status at that time. Everyone is welcome to join for the "early meeting"-- all ideas and suggestions are welcome!

Bill WB1BRE

Disclaimer

Opinions expressed in The Monitor are those of the individual authors and do not reflect the opinions or policies of The Twin State Radio Club, Inc.

SO. GRAFTON ARES PERSONNEL AT TABLE TOP EXERCISE

On Saturday, April 17th, four TSRC members attended a NH statewide ARES tabletop exercise in Concord, NH. We met in an auditorium adjacent to NHOEM with about 40 other ARES members from around the state. ARRL leadership was represented by Al Shuman N1FIK, and Tom Matisko N1SKZ along with Dan Miller K3UFG, from ARRL HQ. The NH Red Team organized and ran the exercise to represent a statewide emergency and call-up of ARES communications support. We were initially located at small tables with the Hams from each district at the same table. The drill was to send and receive NTS traffic in the form of paper messages given to various net members. Communications within each "district" was verbal across the table using NTS format and communications protocols of net operation. If someone had to go "off frequency" to exchange a message, the two people moved to a side table to send the traffic, all the while following net protocols for leaving and returning to the net.

This was a 4 hour exercise intended to simulate a 3-4 day emergency period. Consequently, the message traffic was fast and confusing. Adding to the confusion was the need to allow breaks for lunch with no loss of performance. Many of us kept our logs of messages handled, and other events. During the drill, we also found that some of us had been "reassigned" to a different district and I found myself as net control in the Portsmouth/Dover area.

Handoff was confusing and getting oriented to another net with new operators in the midst of traffic being passed on the net and off frequency was daunting. In addition, the NCS had to keep the message priorities straight so that critical traffic didn't have to wait.

After about four hours, most of us had seen and handled more NTS messages than we ever wanted to!

It was clear from the exercise that the things that ARES training emphasizes are important- net discipline, knowledge of NTS formats, understanding the role of NCS, and ---- practice, practice, practice.

Also interesting to note that this was an exercise involving only ARES personnel. Presence of served agency personnel was not part of this drill, but may be included in the future, so that we can get the experience of handing messages off to an agency person, who will likely provide a response in a non-NTS format!

NHARES will be analyzing all the data from this exercise in the next couple of months to see lessons learned that can be used in the next exercise.

I would encourage all ARES members to plan to attend an upcoming tabletop exercise to get the learning experience and to test your own skills in a high intensity situation. As the Incident Command System becomes the standard for emergency response, we will need to participate in more training to understand how to participate effectively and provide professional grade communication support.

TSRC members at this tabletop exercise included Rex AA1KL, Ken AC1H, Bill WB1BRE and Dave WA1ZCN, who is a member of the NH Red Team.

Bill WB1BRE

OPERATOR TRAINING FOR EMERGENCIES

by Mitch W1SJ, VT Technical Coordinator

There has been a lot of talk lately about ARES Training and/or Emergency Operator Training. A new net has started up here in North-western Vermont which addresses this very topic. There are two key things about this net. First, this is a great idea since it is getting the discussion of Operator Training right out in the forefront. Second, this is not such a great idea since training nets train operators to check into a pre-programmed repeater, usually from home, following a pre-programmed format. In a real disaster, it is unlikely any of these conditions will occur. True, there is some useful data shared amongst the participants, but this data is readily available on the Internet.

If you read between the lines of the last paragraph, the message is that we have finally started down the road towards solid training but the Net is just one tool (*a very small one at that*) in this mission, and we would be foolish to stop there. In light of this, I have decided to use my knowledge as an operator and trainer to author a series of articles on Operator Training. However, don't fall into the trap of thinking that by reading these articles you will become a good operator. You will get some information, some controversial discussion, and a laugh now and then, but that's it. You must also take the initiative to seek out real activities and put the theories into practice. As part of this series, I will always point out some activities you can get involved in. It is up to you to get out of the easy chair and do them. And who has time for an easy chair these days?

So, here is the pop quiz. In the last 24 hours, how many hours were you in a place where you had NO access to an amateur radio transceiver? Many would answer that they are near a radio at home, but not for the 6-12 hours that they were at work or on the road or whatever they go out and do during the day or evening. The first lesson of being an effective operator is that if you don't have a radio, you don't get to play. All the training in the world is useless. All you can do at this point is to find two tin cans and string and hope for the best.

The Boy Scouts have a motto which is very appropriate here, "Be Prepared". A disaster doesn't ask for our permission. A disaster simply happens. You are either ready for it or not. That means, that at ALL times you should have a radio within reach. All of my cars have working radios and I always have access to one when I leave the shack. I often take an HT with me too, for when I leave the car. Frankly, when I leave the HT home, I feel naked. Not only does the HT provide me with 2-way communications, it allows me to listen to other services, including broadcast radio and TV. I can't tell you how many times that was essential.

What do you do when you are working? If you have the radio in your car, and you are within a minute or two of getting to your car, then you are covered. If you have an HT with you at all times, you are in a better situation. Not every work situation will allow the carrying of an HT, so you will have to think through what works for you (*and your boss*).

Oh, and one more minor point. Your radio has to work! The battery has to be able to power the HT for several hours, the antenna has

to be able to put a good signal into the local repeater, the microphone has to work, and you have know how to change frequency, offset and tone. More on these sticky points in another episode.

So, let me summarize this point again. Unless you are a minute or two from a transceiver, you are not in a position to be a real emergency communicator. True, you can be a weekend warrior during public service events and your help is always needed and appreciated for these. But, as the communications EXPERTS of our community, we need to be playing at a higher level. Otherwise, all this talk we spread about how we will save the day during a disaster is nothing but a lot of talk.

Homework: You don't get off lightly in this series. All readers are expected to do their homework. Use the RANV Reflector (ranv@wpi.edu) to share your experiences. The homework is this. If you use a single vehicle, do you have a working radio mounted in that vehicle? If you use multiple vehicles, do you have working radios mounted in all of those vehicles? Using the spouse's car while she (*probably unlicensed*) has your radio in your car certainly doesn't work! If the answers to these two questions are "yes", then you are in great shape. If not, then make sure a radio is mounted in a vehicle or a radio is mounted in such a way that it can be easily slid out and transferred to another vehicle you use. You will have to sit down and think about how you want to work out the logistics. Next, if you own an HT, go back and make sure you can provide power from the vehicle and an external antenna for this HT. A stand-alone HT works a little, but has very limited range. If you already have a mobile radio, the HT, with suitable wiring, provides a great backup.

Next: What ARE we training for?

FCC proposes wide-ranging changes to Amateur Service rules

The FCC has released an "omnibus" Notice of Proposed Rule Making (NPRM) that seeks comments on a wide range of proposed Amateur Service (Part 97) rule changes. The FCC also denied several petitions for rule making aimed at altering portions of the Amateur Radio regulatory landscape and ordered minor changes in Part 97. The NPRM is a result of a dozen petitions for rule making, all filed more than a year ago and some as long ago as 2001.

Comments on the proposals put forth in WT Docket 04-140 are due by Tuesday, June 15, with reply comments by Wednesday, June 30. Among other changes, the FCC has recommended adopting the ARRL's "Novice reformatting" plan, which can be seen on the web at <http://www.arrl.org/announce/regulatory/refarm/>.

"Because the ARRL petition addresses the operating privileges of all classes of licensees on these Amateur Service bands, we believe that the ARRL petition provides a basis for a comprehensive restructuring of operating privileges," the FCC said.

The ARRL referenced its Novice reformatting proposal in its recent Petition for Rule Making, RM-10867, which, along with three other petitions remains open for comment until April 23.

The FCC also has proposed essentially eliminating its rules prohibiting manufacture or marketing of Amateur Radio Service power amplifiers capable of operating between 24 and 35 MHz. The current rules "impose unnecessary restrictions on manufacturers of Amateur Radio equipment and are inconsistent with the experimental nature of the Amateur Service," the FCC said.

The FCC proposed amending Section 97.201(b) of the rules to permit auxiliary operation on 2 meters above 144.5 MHz, with the exception of the satellite subband 145.8 to 146.0 MHz, in addition to frequency segments already authorized.

The FCC proposed extending the bands available for spread spectrum experimentation and use to include 222-225 MHz as well as 6 and 2 meters. Current rules limit SS emissions to frequencies above 420 MHz.

Among other things, the FCC also proposed to prohibit acceptance of more than one application per applicant per vanity call sign; permit retransmission of communications between a manned spacecraft and its associated Earth stations, including the International Space Station; allow current amateurs to designate a specific Amateur Radio club to acquire their call sign in memoriam; eliminate Section 97.509(a) of the rules, which requires a public announcement of volunteer examiner test locations and times; and add to Section 97.505(a) to provide Element 1 (5 WPM Morse) credit to any applicant holding a Technician license granted after February 14, 1991, and who can document having passed a telegraphy examination element.

The Commission ordered some changes in Part 97 without requesting comment. It ordered, among others, the revision of the definition of an "amateur operator" in Section 97.3(a)(1) to reflect that entry in the FCC Universal Licensing System (ULS), not a license document, determines whether a person is an Amateur Radio operator.

The FCC adopted a technical change to specify that the mean power of any spurious emission from a new amateur station transmitter or amplifier operating below 30 MHz be at least 43 dB below the mean power of the fundamental emission.

Among other petitions, the FCC turned down a proposal to establish distinct CW and phone segments in the 160-meter band. Also denied were petitions that would have imposed restrictions on the time, length or transmission frequencies of bulletins or informational transmissions directed at the amateur community and a request to add to the special event call sign system certain call sign blocks designating territories and possessions that lack mailing addresses.

The FCC Notice of Proposed Rule Making, on the web at, http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-04-79A1.doc, in WT Docket 04-140, is available on the FCC Web site.

As soon as the document has been posted, comments on the NPRM may be filed via the FCC Electronic Comment Filing System at, <http://www.fcc.gov/cgb/ecfs/>. Click on "Submit a filing." To view filed comments, click on "Search for filed comments." In either case enter the NPRM number in the "Proceeding" field as "04-140" (without the quotation marks).

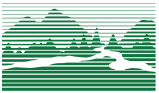
CLUB OFFICERS

President: Verne Burden N5IEP (802) 295-7533
vburden57@adelphia.net
VP: Dave Colter WA1ZCN (603) 526-7120
dbcolter@rcn.com
Secretary: Nancy Maynard N1QW (802) 295-6080
Lensmaam@mindpictures.com
Treasurer: David Haseman KE1IW (603) 675-2678
David.B.Haseman@dartmouth.edu
Trustee: Dave Landry KA1CRP (603) 448-5788
JDLandry@innevi.com
Editor: Mike Maynard, K1IH (802) 295-2650
Lensman@mindpictures.com

ELECTRONIC ADDRESSES

*ARRL Website <http://www.arrl.org/>
*NH ARRL Home Page: <http://www.nhradio.org/>
*Tom Frenaye K1KI-NE Div. Dir. k1ki@arrl.org
*Al Shuman, N1FIK, NH SM n1fik@arrl.org
*Dale Drake, AA1QD, NH ACC aa1qd@arrl.net
*Paul N. Gayet, AA1SU, VT SM aa1su@arrl.org
Part 97 <http://www.arrl.org/field/regulations/news/part97/>

Don't forget to check the TSRC Home Page!
Make it your default start page!
<http://www.w1fn.org>



Twin State Radio Club, Inc.
PO Box 5078
Hanover, NH 03755