

# The Monitor



December 2005

## Upcoming Events

- TSRC Meeting            December 10, 2005, 9:00 am  
                                 DHMC Cafeteria, Hanover, NH
- TSRC Meeting            January 14, 2006, 9:00 am  
                                 DHMC Cafeteria, Hanover, NH

## Message from the President:

This month's meeting will be held at 9:00 a.m. on Saturday, December 10th in the Dartmouth-Hitchcock Memorial Hospital cafeteria in the lower level of the facility. There will also be an ARES meeting prior to the Twin State Radio Club meeting this month. Southern Grafton ARES will meet one hour before the TSRC meeting at the same location. Be there at 8:00 a.m. if you wish to attend or a few minutes earlier if you would like to avail yourself of the cafeteria's breakfast fare.

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\* Special Event Note \*

Green Mountain Wireless Society Celebrates 25th Anniversary

Green Mountain Wireless Society (GMWS) members will be operating a Special Event Station on Saturday, December 10th from 7 A.M. to 7 P.M. to commemorate the 25th Anniversary of the club's founding.

The operation will take place at the Red Cross building on Strongs Ave. in Rutland and W1GMW can be found on 3840, 7050, 7240 and 14240. QSL via Green Mountain Wireless Society, PO Box 84, Rutland, VT 05701. <www.gmws.net>

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Cause For Concern!

"I think they're important, but I don't think they belong in residential areas." (Quoted on November 19, 2005 by Mayor Larry Gullede of Maryville, Illinois referring to amateur radio operators.)

The above news item was brought to my attention by one of our members, WB1BRE (Bill Burden). The more I thought about it the more alarmed I became. It occurred to me that on the heels of the worst hurricane season on record and a time during which the value of amateur radio was often demonstrated in amazing fashion, there is

still widespread ignorance among the general public about ham radio. I believe the mayor's remark demonstrates that sad fact in a stark and ominous way. We are mistaken if we think our hobby, our privileges and our frequencies are safe. They are not! It is our responsibility to be proactive in safeguarding them and we must do so by letting the general public and elected and appointed officials know who we are and what we do. If we fail in that effort, we may not have the hobby that is so dear to many of us to pass on to future generations. Please do your part to ensure that amateur radio remains the exciting hobby and essential resource that has captured the imagination of generations of ham radio operators.

I hope to see you all on Saturday, December 10th, for our regular monthly meeting! Please join me at the DHMC cafeteria on the lower level at 9:00 a.m. Arrive a few minutes early if you wish to go through the cafeteria line and grab some breakfast. If you wish to attend the SGARES meeting as well, please plan to arrive by 8:00 a.m. Finally, everyone present for the meeting will receive a free ticket good for one chance on this month's "door prize".

On behalf of Twin State Radio Club I would like to wish all our members a happy and safe holiday season. On behalf of myself, I wish you all a Merry Christmas and a Happy New Year.

As always, my thanks go out to our dedicated club officers, William (N8RPD), Nancy (N1QW), Dave (KE1IW) and our newsletter editor, Mike (K1IH) for their efforts on behalf of our club. I am grateful to them.

73,  
Charlie Wilber, N1AOK  
President, Twin State Radio Club

## New Ham!!

Bradley Corrow, son of Micky Corrow, K1XH, passed his Technician exam on Saturday, Dec 3.

Congratulations Bradley, and welcome to the fray!

## 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.

## **SIMPLEX COVERAGE- CAN YOU HEAR ME NOW?**

Anyone who has worked 2M simplex knows that, in our hilly terrain, results are sometimes very unpredictable. The recent NH/VT SET showed that, while we were able to effect many good simplex links and relay points, there are many other areas very difficult to reach.

Since disasters don't always happen in ideal communication locations, it would be very helpful to be able to map out 2M simplex coverage from possible net control sites or other vantage points ahead of time. One technique is to setup repeater input frequencies at a desired site and monitor repeater activity to see who you can receive on the input. This is hit-or-miss and may take a long time and still leave many holes.

New Amateur Radio rigs have many interesting capabilities built in and I found one that provides a means of testing simplex coverage from our QTH using the new Yaesu FT-8800 dual band rig. This rig was reviewed in QST and they noted the ARTS (TM) Auto Range Transponder System in the FT-8800 menu.

This is a feature that uses Digital Code Squelch (DCS) to inform two parties, equipped with ARTS, when they are in communications range. The system would be very useful in search-and-rescue operations in unfamiliar terrain.

In this system, both rigs must be equipped with ARTS. After programming a common DCS and an optional CW identifier, ARTS is activated with the PTT button. Every 25 seconds, your rig will a DCS signal for about 1 second. If the other radio receives your signal, it will respond with a similar tone. If your radio receives that "transponded" signal, your display will show "IN.RNG", indicating you are within communications range. If the other rig doesn't respond for four pollings, your rig will display "OUT.RNG", indicating you are out of communications range. As you move in and out of range, the system will keep current on the link status.

I recently installed a second Yaesu FT-8800 in my shop communications console. I have had an FT-8800 in the car for most of a year now and I have done some quick experiments on 2M and 440 using the ARTS system to confirm communications links to the town EOC and other sites. With the initiation of the simplex testing on the recent SET, I decided to extend the use of ARTS to see what my QTH-to-mobile in-range "map" looked like.

In order to keep "legal", I activate the ARTS system with the CW identifier with my call sign every 10 minutes. When I leave the QTH for a "data-gathering run", I keep track of areas where I go out of range. Usually there are opportunities to stop and make notes as I go. One nice feature of ARTS is a tone indicator that goes along with the "IN.RNG" and "OUT.RNG" transitions. "IN.RNG" is an ascending series of beeps and "OUT.RNG" is a descending series of beeps. This avoids taking your eyes off the road while trying to keep track of the data!!

At this point, I am keeping a log of all the communications runs with plans to convert this data onto an area map to graphically display in-range and out-of-range areas. As most of you know, my QTH is at about 2000 ft with good coverage in most directions using a variety

of antennas. Currently, I am testing with a 2M yagi pointed in the general direction of each trip. Ultimately, I plan to do a similar test with a 2M vertical to provide maximum communication flexibility from my location.

One of the best features of ARTS is that you can do these tests with one operator, the other station being operated as an auxiliary station. I chose a 2M frequency in the "Miscellaneous and Experimental Modes" portion of the 2M band for the data gathering. Discussion with ARRL indicates that this is the appropriate segment of the band in which to run these tests.

Once I have a clear picture of simplex coverage on 2M, I plan to do some mapping on 440 Mhz.

With the recent return to "worst case scenario" planning in emergency preparedness, being ready with simplex capability on VHF and UHF can be an important asset in Amateur Radio emergency communications.

73, Bill WB1BRE

## **THE 2005 NHARES/SGARES SIMULATED EMERGENCY TEST WAS A SUCCESS!**

The 2005 NHARES Simulated Emergency Test was held on November 12, 2005. During that same period of time the VTARES SET was also held. There was also a station at the Strafford, VT EOC. It is great to note that the NH/VT Chapter of the American Red Cross was able to participate in order to practice sending messages between Rutland, VT and Concord, NH. The main purpose of our SET was to test simplex communications throughout the state and the ability to communicate with Concord without using digipeaters or repeaters. We knew that this would require making use of high places such as mountains, hills, and buildings.

Bill, WB1BRE and his station were pivotal as he was NCS and Dot, KA1LDS was our liaison to the NH/VT American Red Cross and VTARES. Bill's station was also Coos County's relay into Concord via SGARES. We learned that small changes in station position can make all the difference in simplex communications. Previously, Bill was able to get into a "mock NHBEM" without a problem, but not so this time. Charlie, N1AOK went up onto Methodist Hill to try and check in with K1NCS, but to no avail. Ken, AC1H went up onto Bly Hill and met with success in communicating directly with K1NCS as W1GRF and was subsequently replaced by Charlie as he joined Ken on Bly Hill. (Bly Hill is near the southern tip of Lake Sunapee.)

Until we were able to communicate directly with "NHBEM" ourselves, we relied upon Sullivan County ARES to be our relay. Our area had several routes to them and they did assign a liaison (Bob, AA1XE) station to us.

The SET was a great learning experience for simplex net operations which involves the complex use of relays and communications paths. I was pleased to note that 43 hams participated in our portion of the SET. Participants from our club or SGARES included, AA1KL, N1HAC, W1KUA, KB1MOV, N1YMQ, N1AOK, AC1H,

N8RPD, N0JSR, KU1R, N1GMC, WB1BRE, KA1LDS, AC4E, and KB1ELY.

I thank all of you for participating. Several of you, esp. WB1BRE and N1AOK put in a lot of preparation time. It was clearly a success and the biggest thing we learned is that in order for our area to have direct reliable communications with “the new NHBEM”, Bly Hill is the best relay position. I think that Bill and others learned that each radio position/station requires it’s own radio operator for effective monitoring, communications, and the passing of traffic.

TNX and 73,  
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Emergency Coordinator,  
Southern Grafton Amateur Radio Emergency Service.  
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## **ARRL, FCC CONTINUE BPL INTERFERENCE RESOLUTION DATABASE DEBATE**

The acting chief of the FCC Office of Engineering and Technology (OET) is standing foursquare behind the recently opened Broadband over Power Line (BPL) Interference Resolution Web site <<http://www.bpldatabase.org/>>. The deadline for BPL operators to populate the database, provided by the United Power Line Council (UPLC) and the United Telecom Council (UTC), was November 19. In October, the ARRL took strong exception to limitations UTC, the site’s administrator, has imposed on the number of allowable licensee searches and to the use of ZIP codes as the only search key. Acting OET Chief Bruce Franca defended the BPL database November 22.

“Your concern, limiting access to the database, does not constitute a violation of the rules,” said Franca, citing verse and chapter of Part 15 to back up his assertion. Franca said §15.615(d) “clearly states” that the database is intended to identify possible sources of harmful interference thought to emanate from a BPL system. “Permitting individuals who are using a licensed service that operates on the same frequencies as are used by a BPL system to query for pertinent information in the geographic area of that interference fully fulfills this function,” he concluded.

A note on the BPL database site cautions that users are “allowed to search a limited number of times each month.” It further advises users not to conduct random database searches, lest their access to the database be further restricted. In his initial complaint, ARRL CEO David Sumner, K1ZZ, characterized the notice as an attempt to “ration access” to the site.

Franca also defended the use of ZIP codes as the only means to query the database, saying they are easily understood and identifiable and will provide the information the rules require on BPL systems deployed within a ZIP code. Sumner had argued earlier that requiring users to enter a ZIP code before gaining access to the database was “clearly contrary” to the requirement that the database be available to the public.

Responding November 30, Sumner gamely took another stab at getting the League’s point across. Part 15 is unambiguous that the information in the database must be publicly accessible approximately 30 days before a BPL system begins operation, he said. Using a ZIP code to gain entry, Sumner continued, “renders the advance notification requirement meaningless to the public” unless someone were to regularly visit the Web site and repeatedly enter a particular ZIP code. But since that practice “is specifically discouraged by the UTC’s notice,” Sumner pointed out, it’s impossible for the public to know about a BPL startup in advance, something the BPL Report and Order seems to require.

As a result, Sumner said, the benefit of a prior notification requirement, while limited as an interference-prevention measure, is lost to BPL operators as well as to licensed radio services that may suffer harmful interference that could have been avoided.

Sumner said the UTC-administered database “provides less than was promised” in the FCC’s October 2004 Report and Order. “For advance notification to be meaningful, the public must know when additions and changes to the database occur,” he contended. “That is functionally impossible if the ‘publicly accessible’ database is actually maintained behind an opaque curtain and is only revealed one ZIP code at a time.”

One workaround, Sumner suggested, would be to require UTC to make publicly available a list of ZIP codes and the date of the most recent data entry for each. “This also would make it clear when a specific BPL system serves more than one ZIP code area, information that is required by §15.615(a)(3) but that is not available to the public at present except by individual query of each ZIP code.”

Sumner said Franca failed to respond to his point regarding the error message that appears when a database user enters a ZIP code where no BPL system apparently has been deployed. At that point, users are asked to provide “written details” about the nature of the interference and the user’s licensed operations as well as location--“complete address and coordinates”--operating frequencies, whether mobile or fixed and a brief description of the interference.

“Frankly, UTC has no authority to require the submission of such information from an FCC licensee prior to sharing information that the public is entitled to as a matter of right,” Sumner concluded--reiterating a point made in his initial correspondence. “If the database were appropriately accessible the question would never arise.”

On November 23, the League told the FCC that the Manassas, Virginia, BPL system was not in compliance with FCC Part 15 rules because its operator failed to provide full information to the public BPL database by the November 19 deadline and the system should be shut down. The letter came barely six weeks after the ARRL called on the FCC to turn off the Manassas BPL system because of unresolved interference complaints to Amateur Radio.

Since the League’s letter, a search under ZIP code 20110 indicates the Manassas system has provided a contact name, address, telephone number and e-mail address. Its entry still lacks details about the equipment in use, however.

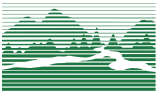
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Don't forget to check the TSRC Home Page!  
Make it your default start page!  
<http://www.w1fn.org>



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