

# The Monitor



November 2006



## Upcoming Events

TSRC Meeting November 11, 2006, 9:00 am  
EBA's, Hanover, NH

TSRC Meeting December 9, 2006, 9:00 am  
EBA's, Hanover, NH

## Message from the President

What you missed: last month's club meeting included a presentation by WB1BRE, Bill Burden, on a "catalogue radio" that was extremely interesting. The thought of a housewife living during the early part of the last century ordering one of those kits and building herself a radio seems incredible today. Thanks to Bill for bringing the project to us.

Another piece of news to report is that WA1ZCN, Dave Colter, is resigning his positions as Repeater Manager and Vehicle Committee Chair. Our thanks go out to Dave for the years of service he has performed on behalf of TSRC and we wish him all the best in his future endeavors.

At this month's meeting KA1CRP, Dave Landry, will be giving a presentation on his shack and also giving us some insights into the art of DX'ing.

See you at the club meeting!

73 de N8RPD  
William Daugherty, TSRC President

## APRS at the Crop Walk 2006

This year's Crop Walk in Post Mills, VT received communications support from TSRC as it has for a number of years. Walk participants and event organizers have been very grateful. This year we added APRS to the mix with good results. KA1LDS, Dot Burden, acted as net control and operated from the Start/Stop location in Post Mills. WB1BRE, Bill Burden was mobile in his truck with APRS and I was bicycle mobile also with APRS and 2m FM for voice communications. Bill used a Radio Shack HTX-252 2m mobile rig for APRS. This radio was connected to a Byonics TinyTrak3 special-purpose TNC that was in turn receiving its location data from a Deluo GPS that was located on the vehicle's roof. This system works well and can be put together easily. It is powered entirely by 12 volts via the ubiquitous Andersen PowerPoles. The space this takes inside a vehicle is negligible. For a bicycle however space is at a premium so another system had to be utilized.

Given the need for a compact solution I opted for the Kenwood TH-D7A handie-talkie as the core component. This unique radio has been around for several years but is still the only production HT that includes a limited-function TNC with software specifically for APRS. The D7A doesn't however have many of the recent bells and whistles included in the top dual-band HTs from the large manufacturers. The most critically lacking element for me was the lack of a lithium-ion battery. I would not trade my Yaesu VX-7R (or even my VX-5R) for this rig for normal HT use but it is simply perfect for the task of bike-mobile APRS.

I placed the D7A in the handlebar bag (see photo 1) and routed cables down the frame's main tube, along the rear cargo rack and up into the trunk bag. One cable provided external power to the rig from an AGM battery, another brought data from the Garmin eTrex GPS (see photo 2) to the rig and the third connected the radio's antenna connector to one of my "J-Duck" bike antennas mounted at the rear



of the rack. The D7A can operate APRS on 2m on one VFO while still allowing normal 2m voice operation on the other VFO. I connected an external earbud speaker/mic which was held in place by my bike helmet.

During the event Dot was able to track our locations by watching on a laptop that was running UIView32 and Precision Maps 7. We hooked up an external projector display so that observers at the church could watch also. There was a great deal of interest. Dot could see how fresh the APRS data was and could then determine where we were. Consequently she also knew where the lead walkers, last walkers and in one case where a walker was who needed emergency medical attention. Given the short distances covered during the event we could do everything simplex. Even so it was still valuable and interesting. Without question, APRS has a big "wow" factor for non-HAMs.

A final note about APRS in our area: there is an effort underway to bring an APRS digipeater to a high-altitude mountaintop in the upper valley. This would be a big boost to the APRS capabilities for our area which has historically been a shadow region on the national APRS map. I look forward to it and hope that TSRC and its members will be ready to make use of this resource.

For anyone interested, here's a link to a new Yahoo group devoted to APRS use for Search and Rescue work. [http://health.groups.yahoo.com/group/SAR\\_APRS/](http://health.groups.yahoo.com/group/SAR_APRS/)

See you on the air and maybe on the screen!

73 de N8RPD  
William Daugherty

## Become a DXpert

Do you work DX? Have your attempts at working DX been less than smashing successes? If so, and if you want to learn secrets for improving your results, be sure to attend the next TSRC meeting. On the program for that meeting will be a presentation by a DXer who has worked more than 340 countries. You should be impressed by that number because some of the countries in his QSL card file don't even exist any more.

How does this DX master do it -- does he sit in his shack hour after hour tuning the bands hoping for a band opening to an exotic foreign land? Not on your life. This DXer does have persistence, but there is more to working DX than merely hoping that the ionosphere will smile on you. He has promised to share a few of his secrets (but probably not all of them) at the meeting so come and pick up some ideas that might help propel you to 5 band DXCC.

In addition to hearing about techniques for working rare DX, we will get a virtual tour of this DXer's shack -- and it's as close to being an ideal ham shack as it could possibly be. In the tour you will see how he files thousands of QSL cards, learn the basics of being a QSL manager for rare DX stations, and find out what other hobby is a natural offshoot of DXing.

Ken Tentarelli AC1H

## POST MILLS CROP WALK-2006

Once again, Twin State Radio Club supported the annual Post Mills, Vt CROP walk with safety and communications help. Dot KA1LDS was net control at the Post Mills church with William N8RPD and Chuck N3WTO on bicycle patrol and Bill WB1BRE in a vehicle. In addition, the local nurse was following the walkers in her car. We didn't have enough Hams to put one in the nurse's car, so I maintained contact with her via FRS radios.

The 2M net was on 146.55 and all of us were in constant contact with NCS and each other the whole route. The walk is a six mile walk around Lake Fairlee, so the maximum range was less than three miles in any direction. The FRS radios worked very well in this scenario and, as it turned out, provided a critical communication link. William set up APRS with a laptop for Dot tied into a projector. This showed the route and vehicle and bicycle locations at all times on a portable movie screen and was a big hit back at the kitchen/dining area in the church! I had APRS in my car as did William on his bicycle.

The walk was uneventful until about the half way mark. Then a routine training exercise for us turned into the real thing in an instant! I received a call from the nurse on FRS to contact 9-1-1. There was a walker down, needing medical assistance and the nurse was on the scene. I relayed the info to Dot who made contact with 9-1-1. They dispatched an EMS squad and an ambulance to the scene where an elderly woman had fainted from the exertion and heat. The communications training and discipline worked and help was on site within a few minutes! The individual was treated and recovered from the incident quickly. She was transported back to the church for rest and recuperation.

The remainder of the walk continued without further event and all returned to the church for a late lunch by late afternoon. The weather was perfect with comfortable temps and lots of sunlight.

The use of APRS and FM voice, both on 2M was very successful with no interference. We located the antennas on opposite sides of the church with about 200 ft spacing. For next year, we do need a couple more Hams with vehicles. Also one Ham to be in the nurse's car with 2M capability.

This use of APRS simulated the conditions of an area search and rescue operation, although searchers would have been on foot. It was clear that an APRS tracker on a walker on the route would have also worked well. Anyone interested in APRS should talk with William- I borrowed one of his tracker units and plan to get one of my own soon.

Thanks to all who helped with this public service activity.

Bill WB1BRE

One other note- the church is across the street from the Post Mills airport. That afternoon we saw two balloons lift off and fly right over the church. I included one picture of one balloon just lifting off.

## ANOTHER FIRST PLACE WIN FOR TSRC!

TSRC continues a long run of first place finishes in Vermont in the ARRL January VHF Sweepstakes. Each year we work to improve the station and antenna setup and continue to win first place in the multioperator category. There is not a lot of participation in this contest in Vermont, but our efforts each year have been very rewarding and a lot of fun.

We will be on again for the 2007 ARRL VHF Sweeps in January and we invite you to join us for a weekend of fun operating, good eating and good conversation! Details will be published in the January newsletter.

73, Bill WB1BRE

**ARRL** *The national association for*  
**AMATEUR RADIO**



**VHF/UHF**  
**CONTEST AWARD**

**W1FN**

(AC1H, KA1UAG, WB1BRE, K1XH, N8RPD, N3WTO, ops)

**FIRST PLACE MULTIOPERATOR**  
**VERMONT SECTION**  
**2006 ARRL JANUARY VHF SWEEPSTAKES**

*Joe Harrison* **W5ZN**  
\_\_\_\_\_  
PRESIDENT, ARRL

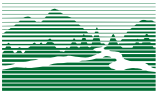
## CLUB OFFICERS

President: William Daugherty, N8RPD (603) 359-3745  
william@will-do.com  
VP: Ken Tentarelli, AC1H (603) 763-9296  
Secretary: Nancy Maynard N1QW (802) 295-6080  
Lensmaam@mindpictures.com  
Treasurer: Chuck Sherman N3WTO (802) 765-9630  
chuck.sherman@dartmouth.org  
Trustee: Dave Landry KA1CRP (603) 448-5788  
daveka1crp@verizon.net  
Editor: Mike Maynard, K1IH (802) 295-2650  
Lensman@mindpictures.com

## ELECTRONIC ADDRESSES

\*ARRL Website <http://www.arrl.org/>  
\*NH ARRL Home Page: <http://www.arrlnh.org/>  
\*Tom Frenaye K1KI-NE Div. Dir. [k1ki@arrl.org](mailto:k1ki@arrl.org)  
\*R. Sterling Eanes, AK1K, NH SM [ak1k@arrl.org](mailto:ak1k@arrl.org)  
\*Dale Drake, AA1QD, NH ACC [aa1qd@arrl.net](mailto:aa1qd@arrl.net)  
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