



Squelch Tales

Newsletter from the Merrymeeting Amateur Radio Assoc. for May 2000

WB1CIW SK



The Amateur Radio community has lost a true friend. On April 24th Doug McGraives, WB1CIW became a silent key. He was an enthusiastic supporter of the hobby and a true gentleman. Doug was one of the mid coast hams that helped the MARA get started back in the early 80s. Dougie, as many of us called him, was an Elmer and mentor to many wanna-be hams and computer enthusiasts in the Bath-Brunswick Merrymeeting Bay community.

A funeral service was held on Friday April 28th in Brunswick. Along with hundreds of folks the community the amateur radio community turned out a very large contingent to say goodbye to its good friend and pay respects to his wife Phyllis. Burial was in the West Bowdoin Cemetery on May the 3rd

73 Good Friend.

FOX DOG TASTES GOOD

By Paul, N1ZYB

Sunday morning, April 16, was raining but it stopped just before the fox hunt started. Four hunters showed up for the hunt and two mobile teams started the hunt with a good signal from the fox. The following people made up the hunt teams.

Paul N1ZYB and Dave WA1IKN using a four element quad, variable 95 dB attenuator and a Yaesu VX-5R.

George N1RVW and Beriah from Groton using an RS HTX202.

The fox consisted of Art N1WSM and Ann KB1EVQ from Vernon, using a 4 element quad coupled with a Yaesu 530 initially, then a VX-5R and hand held yagi as the hunters got closer.

The hunters got a good bearing from the starting location and proceeded north. Dave and I stopped at the Norwich DMV parking lot off of I395, and got another good bearing with the quad using no attenuation. I had just added a new mounting fixture to my truck that allowed us to turn the antenna from inside the truck but I still had to get outside

and boresight down the antenna axis to get the magnetic bearing from the compass. Dave then plotted the bearing line and I headed north on I395.

Since this second bearing was also indicating north we decided to miss the next fox transmission and drive up I395 far enough to get past the fox and try for an east or west bearing. We stopped at the RT 164/I395 exit, Jewett City, and sure enough, did obtain a nice westerly bearing that we felt was accurate. I was pleased that the quad and the new mount were working well. We headed south on I395 and exited at the Occum exit for the next fox transmission. It was here in the town of Versailles that we encountered our first problem. I found a nice wide place to stop but a small brown dog, with lots of teeth, came out of nowhere and dared me to get out of the truck. Dave reached through the window and turned the quad. He then asked me to get out of the truck and get the magnetic bearing. As luck would have it, someone called the dog and I quickly exited and got a bearing. You will note in the following chart that this was the least accurate bearing of the day! Blame it on the dog. Next we drove through Occum and out some road that we neglected to get the name of. Up on a hill we got another good bearing but couldn't plot it because we were lost ! At this point, I called the fox and told him of our problem and asked him to be patient. Art and Ann told us that the hot dogs smelled awfully good and they didn't think they could wait for us to find them. We asked a homeowner where we were and with his help headed south on RT 169 towards the area where the bearings indicated the fox was. After two more fox transmissions we thought we were getting close and headed up Plain Hill Road towards the RASON repeater site. I even thought the fox might be at the repeater sight. Then we encountered our second problem and a free lesson on RF intermod. At the top of Plain Hill there are a lot of big antennas and a rich mix of strong RF signals. At this time we were about one mile from the fox and he was down to 300 milliwatts of power. We tried both the quad and the TDOA direction finder but the intermod was so strong that we couldn't get any bearing that we trusted. We left that area and drove over to Dodd Stadium to try again. After some time, we obtained a couple of bearings that indicated we should go back to the Plain Hill area again. This time I went past the RASON repeater to the intersection of White Plains Road and we obtained a bearing of west and indications that we were very close to the fox. The fox told us that some hot dogs were still left and Dave thought he could smell them! It was now about 4:30 but Dave was on Baltic Road, an area he knew well. One more bearing from Audette Road where we had to use 40 dB to knock down the fox's 300 MW signal and we found the fox at the end of Dr. Nott Road.

I am a big believer in conducting a Post Hunt Analysis. The following table is a result of the PHA and documents

some of the bearings we plotted. I concluded that the quad works great with weak signal conditions and the TDOA works great with relatively strong signals! It also helps to have a dedicated plotted and a talented fox(s) who cooks great tasting hot dogs.

<u>Bearing Plotted From</u>	<u>Bearing Quality Factor</u>	<u>Approximate Distance to the Fox</u>
Norwich Hospital RT 12 + 2A	+10 degree error	10 miles
RT 82 + I395 Norwich DMV	+10 degree error	8 miles
RT 164 + I395 Jewett City	+2 degree error	5 miles
RT 660 Versailles (and dog)	-24 degree error	3 miles
RT 169 near north End of Mohegan Park	-4 degree error	2 ¼ miles
RASON repeater site On Plain Hill Road	intermod problems	¾ mile
Dodd Stadium Near Hill Top Road	+1 degree error	1 ½ miles
Plain Hill and- White Plains RD	3 degree error with 30 dB attenuation	1 mile
Baltic Road and Audette Road	+10 degree error 40 dB attenuation	½ mile

Paul N1ZYB is also a member of the MARA. From April to October he and wife Linda live in West Bath. I want thank both of them for their help in providing interesting and informative articles for this newsletter. W1ZE

SPRING HAS SPRUNG

Those April showers did bring May flowers. With the improved weather and the greening up of the State of Maine, visions of fleamarkets, hamfests, antenna repairs, contests and other events are floating through the heads of the average ham. In an attempt to help all of you turn those dreams into reality, hopefully the following list of events will help you organize your busy schedules:

<u>DATE/TIME</u>	<u>EVENT/LOCATION</u>
MAY (Fri & Sat) 12-13:	Hosstraders Fleamarket & Hamfest , Rochester, NH Fairgrounds (W5YI Exams given)
MAY (Wed) 17th, 6 PM:	ARRL VE Exam , Togus VA Center: POC Don Smith AE1Q 293-2935
MAY (Sat.) 20th, 10 AM:	ARRL VE Exam , Bath Health Care Facility (old hospital). POC Robin Walls, N1NFK 725-5135
JUNE (Sat.) 3rd, 8 AM:	Bangor Hamfest , Herman High School, Herman, ME (ARRL Exams given: POC Bill Sullivan, K1AG 947-4051)
JUNE (Thur) 8th, 6 PM:	ARRL VE Exam , Winslow Elementary School, POC Don Smith AE1Q 293-2935
JUNE (Sat-Sun.) 10-11:	ARRL VHF Contest
JUNE (Sat-Sun.) 24-25:	Field Day

JULY (Sat.) 8th, 8AM: **Union Hamfest**, Union Fairgrounds (ARRL Exams given: POC Dick Baldwin W1RU 529-5781)

JULY (Wed.) 19th, 6 PM: **ARRL Exam**, Togus VA Center, POC Don Smith, AE1Q 293-2935

AUGUST (Sat.) 12th, 8 AM: **St. Albans Hamfest**, Snow Devil Field, St. Albans (ARRL Exams & St. Albans Elementary School, POC Bill Sullivan, K1AG 947-4051)

AUGUST (Sat.) 12th, 9 AM: **W5YI Exam**, Auburn Red Cross Building, POC R. V. Damon AD1RV 782-4721

SEPTEMBER (Sat.) 9th, 8 AM: **Windsor Hamfest**, Fairgrounds (ARRL Exam given, POC Bill Crowley, K1NI T 623-9075)

SEPTEMBER (Tue.) 19th, 6:30 PM: **ARRL Exam**, NMTC Augusta Charity Bldg., Presque Isle, POC Wilburn Scott, WA1YNZ 455-8333

SEPTEMBER (Sat.) 22nd, 8 AM: **Lincoln Hamfest**: Ella Burr School, Lincoln, ME (Exams given)

SEPTEMBER (Sat.) 23rd, 10 AM: **ARRL Exam**, Bath Health Care Facility, POC Robin Walls, N1NFK 725-5135

OCTOBER (Thur.) 5th, 6 PM: **ARRL Exam**, Winslow Elementary School, POC Don Smith, AE1Q 293-2935

OCTOBER (Fri-Sat.) 6-7th: **Hosstraders Hamfest**, Rochester, NH Fairgrounds

OCTOBER (Sat.) 14th, 9 AM: **ARRL Exams**, Knox Co. Court House, Rockland: POC Dick Baldwin, W1RU, 521-5781

OCTOBER (Sat.) 14th, 9 AM: **ARRL Exams**, Bangor Community Center, POC Bill Sullivan, K1AG 947-4051

NOVEMBER (Wed.) 15th, 6 PM: **ARRL Exam**, Togus V.A. Center. POC: Don Smith, AE1Q 293-2935

DECEMBER (Sat.) 2nd, 10 AM: **ARRL Exam**, Bath Health Care Facility. POC: Robin Walls, N1NFK 725-5135

DECEMBER (Sat.) 9th, 9 AM: **ARRL Exam**, Bangor Community Center. POC: Bill Sullivan, K1AG 947-4051

DECEMBER (Sat.) 16th, 9 AM: **W5YI Exam**, Auburn Red Cross building. POC: R. V. Damon, AD1RV 782-4721

Radios On-line

Many of you may be familiar with the e-Bay's Ham Radio swap site and there are others. The ARRL has just come up with an on-line service that allows you to place an ad for ham radio gear and a place to go shopping for used gear. As this column header says it is called Radios On-Line and it can be accessed at <http://www.arrl.org/RadiosOnline/>.

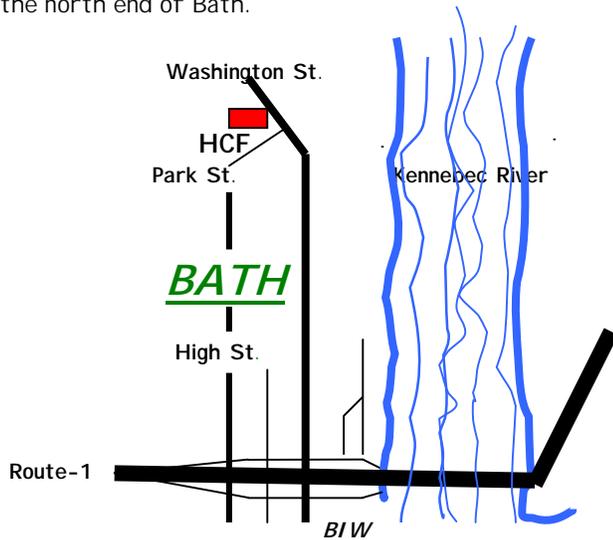
If you have some stuff you want to sell and don't want to be bothered trying to sell it at the next flea market, give the ARRL site a try. Also members and friends of the MARA can place an ad in this newsletter by just sending a note to W1ZE at brandall@gwi.net or call Bruce at 442-9630 and he will make sure it gets in the following newsletter.

NEW HAM EXAM SITE PROVIDED BY MIDCOAST

Brunswick: Robin Walls, N1NFK has obtained permission from the good folks at Midcoast Hospital to allow our VE team to administer Amateur Radio license examinations in the Winchenback conference room at their Midcoasts Health Care Facility in Bath. Exams will be administered on the following Saturday's:

May 20th at 10:00 AM
September 23rd at 10:00 AM
December 2nd at 10:00 AM

For those of you that may have not visited the Bath Midcoast Health Care facility the below listed sketch may help you navigate the streets in the north end of Bath.



From Route-1 in Bath take Washington Street north (at BIW Credit Union) about 3/4 mile and bend in the road to Park Street. Parking lot entrance for the Health Care Center (old hospital) is left turn after Park Street.

QUICK FIX FOR A SLUGGISH HAM-III (series) ANTENNA ROTATOR

I am sure I am not the only ham in the country that is plagued with a rotor that starts slow with sluggish response. While surfing through the Internet I landed on A ham antenna sites where this problem was discussed. One ham said that maybe the rotor starter capacitor was the cause. "BING" the light went on in my head. The fellow may be right.

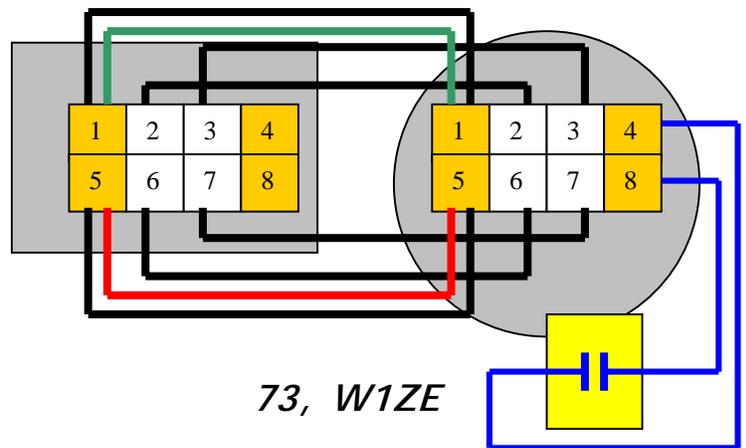
I got out the manual for my old CD-44 "HAM-III" rotator and looked to see where the capacitor was located. I found it wasn't in the rotor motor housing, but in the control head and in my case that is about 100 feet from the motor. The voltage drop from the step-down transformer in the control head to the motor, then back from the motor to the starter capacitor is

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almost 200 feet. I use good rotor cable but to keep the voltage drop to a minimum I would have to increase the wire size and that is not a low cost fix. I looked inside the bottom of the rotor motor housing but there wasn't enough room inside next to the terminal block to move the capacitor from the control head to the rotor and keep it out of the weather.

In my junk box and I found an old WWII 140uF oil filled non-polarized cap in a flat metal case (2x3x.5") with two solder lugs on the side and mounting tabs that I picked up at a flea market several years ago. Since it was semi weatherproof and about the right value I made the following mod:

I soldered 10-inch pigtails to each capacitor solder lug and soldered a spade lug on the end of each pigtail. I then covered the soldered lugs with RTV silicone compound to weather seal. I placed the capacitor in a plastic sandwich box brought the pigtails through a small hole in the side of the box (filled the hole with RTV) and used a U-bolt to mount the box close to the bottom of the rotor. Next I moved rotor control wire from terminal 4 to 1 and 8 to 5 on both the control and rotor terminal blocks (*do not get them crossed*). This effectively increases the wire size on the voltage feed and return leads. Next, connect the new box mounted capacitor to terminals 8 and 4 in the rotor housing. This moves the starter capacitor close to the motor. **That did the trick!**



GOOD STUFF 4-SALE

- ICOM IC-735, 100-watt HF Transceiver
- YEASU FT-2400, 2-Meter FM xcvr
- 12 VDC, Power Supply
- RINGO RANGER, 2-Meter antenna

If interested, contact Craig Deveau, N1LVP
for price dickering at 737-2371 or deveau@ctel.net

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