

SPARK

An Official Publication of the Waterbury Amateur Radio Club

This Month's Message

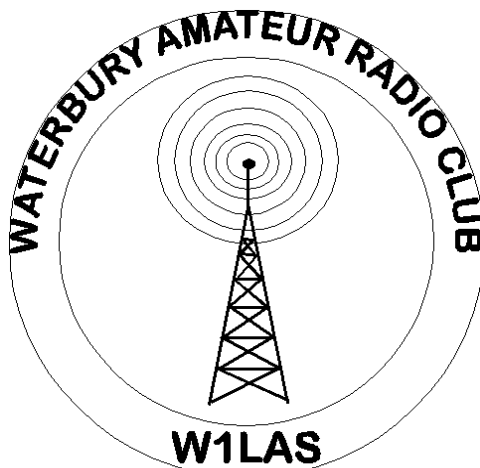
It's almost Spring and our thoughts turn toward Hamfests, Field Day, and antenna projects. It's time to round up all those treasures that I bought at last year's trips to Boxboro, Newington, and Wallingford, polish them up and take them to the first get together this spring.

While there are hamfests during the winter months, there's nothing like the first outdoor ham get together of the spring. All the better if it's nice enough for outdoor tailgaters in the parking lot.

This year, we have the Southington Amateur Radio Association Flea Market on Sunday, March 21 at 9:00 AM to 1:00 PM. This event is held at the Southington High School located South and East of Exit 32 off of Rte. 84. The event is complete with opportunities to take exams for all license classes. Pre-registration is necessary to S.A.R.A., P.O. Box 873, Southington, CT 06489. More information is available on the internet at www.connix.com/~hcbacon/sara.html.

The Radio Amateur Society of Norwich will have their 27th Radio Auction on March 27, at 10:00 AM. The event is held at the Waterford Senior Center in Waterford, CT. Take Rte. 2 South from Hartford to Rte. 11 to Rte. 85 South. See www.ims.uconn.edu/~rason on the web for further information.

Hamfests are a great gathering spot at which you can buy gear and antennas (sometimes at reasonable prices), share information and experiences with fellow hams, upgrade your license status, and generally have a great time. Make time in your schedule to attend one of the upcoming events. Later in the year we will have events at Newington, New-



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town, Goshen, Rochester, Wallingford, and Vernon just to name a few. I'll be at a few of these looking for bargains and a chance to share a few ideas and experiences with old acquaintances and a few new faces. I hope to see you there!

Field Day will be coming up on us fast. We need more planning NOW to make it more successful and more fun than last year. The event is traditionally held on the 4th full weekend in June. We need to finalize the site, decide what class we're going to run and than plan antennas, gear and operators to fill out the operating schedule. Food is also another prerequisite. The things that we said after last year's event was over were:

1. That we needed more advance practice with the computer logging program to be able to run it while operating.
2. That we needed better operating positions so that it would be easier to sit and operate for longer periods.
3. That we needed better separation between stations to eliminate noise interference.

Upcoming Events

Monday, March 15 – WARC General Meeting. See Page 4 for details and directions.

March 21 – Southington Amateur radio Assn. Flea Market. (see this pg.)

March 27 – Radio Amateur Society of Norwich Radio Auction. (see this pg.)

March 28-29- CQ WW WPX Contest / Phone (see March CQ pg. 68).

Let's all think about this event and get some planning going at the next meeting. Last year we had a good time at the Prospect site.

As to antennas, it is time to get out and clean up the old ones and try out something new. Time to put up the new tower, put up a dipole for the band we haven't yet tried, disassemble and put up new coax on the 2 meter beam that has been out in the weather for the last 15 years.

Antennas weather and deteriorate in the outdoors. Aluminum beam elements oxidize, and aluminum oxide is an insulator! Poor solder joints and weathered coax causes losses and need help over the years. Support ropes and guy wires need inspection for signs of fatigue and wear and warrant replacement if necessary.

A little maintenance will prevent Murphy from striking in the middle of the big contest. Maintenance will also improve your on the air signals and reception to work those weak ones.

Good DX, 73, see you at the meeting!

de Steve N1AOB

The Secretary's Report

Minutes from the last general meeting of the WARC on 2/15/99:

Members in attendance:

Paul, KF2XK
Susan, KA1DWY
Ed, N1YLN
Steve, N1AOB
Bill, W7YY
Joe, KA2BDZ

Also present was our guest speaker, Mr. Richard Stubbs, Executive Director, American Red Cross.

The meeting was called to order at 7:45 pm by Paul, KF2XK.

The first item to be discussed was the possibility of moving the location for the general meeting. Paul suggested that Bill continue to look into the Prospect site.

The discussion moved on to the plans for field day. The site at Prospect worked out very well for our club last year and it was also suggested that Bill look into the use of the same site for this year's field day event.

Another site that was suggested was the park in Southbury that was used for the Boy Scout Jamboree last fall. There are advantages to both sites.

Mike, NR1C, mentioned that we should decide as early as possible on the site choice, as many other factors hinge on this decision. His opinion was that the Prospect site had many advantages and would recommend it again.

It was mentioned that the club should consider purchasing some equipment for field day operations. Some items to consider are tents, generators or other related items. The contrasting opinion is that by soliciting the proper organizations we can borrow equipment and save our treasury funds for other purposes.

Rich Stubb suggested that we consider the Boy Scout summer campground. This is Camp Matatuck up by the Waterbury Airport in Plymouth, CT. A good high location with many of the things we normally

require for field day operations.

Following the discussion of the field day sites Ed read the treasurer's report. It was motioned to accept by Bill, W7YY, and seconded by Joe, KA2BDZ. The report was voted on and accepted.

The remainder of the meeting was dedicated to the presentation by Rich Stubbs. Rich started his presentation by showing a video about how the Red Cross helps during emergencies. Rich suggested that while we watch the video we should consider how emergency communications could help the Red Cross effort.

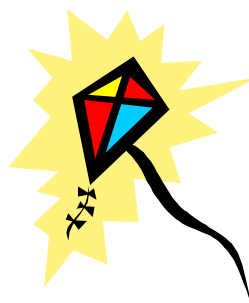
Part of Rich's pitch is a call for volunteers at almost all levels. The commitment ranges from just being available during emergencies (by submittal of your name and phone number as a potential resource) to a very serious formal commitment and service on a regular basis. This would also entail training by the Red Cross for the interested volunteers. The Red Cross would also be happy to work with the WARC to offer emergency medical training.

As a final note, Rich mentioned that a fun way for folks to easily get involved with the Red Cross is to listen to HF at 8:00 PM on 3.915 MHz or at 9:00 PM on 14.325 MHz. It is a net of interested Amateurs that are practicing for Red Cross emergency service.

Minutes submitted by Mike, NR1C.

Congratulations!

Congratulations to Ed O'Lena, N1YLN, WARC Secretary who upgraded to Advanced Class! Nice going Ed; at this rate you should have the Extra by Field Day!



Red Cross Communications

During our February meeting, our guest speaker Mr. Richard Stubbs, Executive Director of the Waterbury Chapter of the American Red Cross addressed us on area communications needs. In the event of an emergency, we as amateur radio operators could be the major communicators locally and to the outside world. Having emergency communications equipment is only part of the picture. Without prior planning, it can take a long time to become effective in assisting the community in any meaningful way. The following is a reprint of a document that Mr. Stubbs left with us:

Chapter Communications Needs "Wish List" December 2, 1998

1. Call-down roster to alert/activate any currently available "spontaneous" communications support.
2. Chapter "communications officer" ("pre-registered" volunteer; ARC trained; DSHR?; plans and exercises tasks; ARC 3058; interact with other ARC people/units).
3. Memorandums of Agreement/Standard Operating Procedures with local affiliates of national organizations and with other local groups.
4. "Communications self-sufficient" teams for:
 - Chapter base station (primary and alternate; continuous throughout disaster).
 - Damage assessment teams (first 72 hours mobile).
 - Shelter communications teams (first 72-96 hours; fixed locations; confidentiality issues).
 - Local EOC liaison (at least one for WAC).
5. Develop, train, exercise, etc. chapter, chapter-to-chapter, and chapter-to-State nets.

6. Participate in ARCEX2000.

To be a part of the Red Cross's emergency preparedness planning it is essential that we offer our services as either a group or individually. It would be a good first gesture to present the Red Cross a list of area hams that would be able to help in some way if an emergency arose. The list should include names, addresses, calls, phone numbers, e-mail addresses, and band coverage capability.

Beyond that, we could offer a communications officer and some level of support for planning and testing of emergency plans. The communications officer position is scary to volunteer for. If someone is interested, they could pledge to do it for a year. After that, someone else could take it over or the individual could offer to do it for another year if it turned out to be a satisfying task.

This is something that we should keep bringing up to try and stimulate activity, interest and support for. It's one of the things that we as amateur radio operators are supposed to be able to offer to our communities.

Technically Speaking

The COPPER CACTUS Antenna

Here are the numbers for the Copper Cactus J-Pole antenna! I hope you are already familiar with the construction of the standard J-Pole antenna, so I won't go into any unnecessary detail.

The antenna may be built as a MonoBander, DuoBander, TriBander, QuadBander or whatever with great success.

You can either feed it with separate coax's for each band or a single coax, however, separate coax's make it much easier to tune.

Theres no trick to building them, just remember the overall length is for the lowest frequency of operation. In other words, a MonoBander, DualBander and TriBander are all exactly the same length overall 58.09" on 2mtrs.

Feed the coax up the center of

the pipes. Use T-Fittings at the proper distance below the top of the antenna for the desired frequency. The only problem is that the more bands you try to incorporate into the antenna, the harder it is to get the SWR flat on all bands.

Here are the numbers you are looking for:

Freq:	Pipe Dia:	Stub: "	L: "	Separation	Connect
52	1"	54.7	163.92	5"	6"
146	3/4"	19.36	58.09	2"	2 1/4"
223.5	1/2"	12.65	37.94	1 1/4"	1 1/2"
435	1/2"	6.46	19.39	3/4"	1"
912	3/8"	3.02	9.07	1/2"	3/4"
1265	3/8"	2.16	6.49	1/4"	1/2"

For best results, build the highest band first, for eg. the 435MHz antenna, If you really want it to look neat, use 3/8" copper for the vertical and 1/4" copper for the transformer section (stub). Naturally the finished product will be in the shape of a "J".

Now build the next band, for eg. the 223.5MHz antenna, by adding pipe to the T-connector that is the base (mast mount) of the 435MHz antenna, I use 1/2" for the vertical and 3/8" for the stub of this section.

Now build the 146MHz antenna, don't forget the overall length of the antenna is the lowest frequency you will be using. I use 3/4" for the vertical and 1/2 for the stub.

The stub must be parallel to the vertical, however you can point the base of each stub in any direction you like. I prefer 3 equal distant points, but you can make them all on the same side if you wish. I feel the three points make it look like a cactus.

My measurements on overall length, and stub length are from the centerline of the separation pipe (horizontal) to the top of the antenna. The Separation distance is technically from centerline to centerline, but inside measurements are fine

and visually look better.

Some of the measurements are less than physically possible, in this case just push the T-Fitting and elbow as close together as you can get them, no need to trim the fittings.

The Connect at measurement is from the top of the horizontal member to the point of connection.

Final Note: If you use 1/2" pipe for all the construction, on the 2-meter stub, add 1/4" to its length, or use pipe-caps and adjust them up or down to get the 1/4" additional length.

The antenna should be in perfect tune, SWR less than 1.2 - 1 on all bands, using separate coax for each band.

Solder all the joints before installing the coax, any pipe you have left over can be used as the mast.

To install the coax, drill a 1/4" hole in the top of the horizontal part of each T-fitting closest to the vertical, then tilt the drill at an angle, so that the drill bit is sorta heading down the vertical.

Enjoy Building: If you have any questions just ask, or further instructions, just send me a message and I will promptly respond.

PS Until you are familiar with the construction techniques of the J-Pole, I wouldn't attempt any more than three bands the first time out. In fact, A dual-bander, using the above dimensions will be perfect every time.

73s de Gary - KGØZP

Notes:

1. There is a picture showing the overall antenna and insets on construction details on the next page.

2. The construction article is from Gary V. Deutschmann Sr.'s web page at: <http://archimedes.galilei.com/raiar/amateur.html#antennas>.

WARC OFFICERS

The present WARC club officers are as follows:

President:

Paul Iltchenko KF2XK
E-Mail – radioham@4u.net

Vice President:

Bill McCasland W7YY

Trustee:

Mark DiCorpo WA1CRS

Secretary:

Mike Tignor NR1C

Treasurer:

Ed O'Lena N1YLN
E-Mail – edolena@wtco.net

Public Relations Officer:

Susan Troupe KA1YED
E-Mail – manyhats@earthling.net

Master at Arms:

Dave Hodgman, Jr. N1ZFB

Club Historian:

Conrad Sheldon N1QDA
E-Mail – chs@usa.net

Social Activities Officer:

Dave Lasiter N1XNP
E-Mail – swampgas2@juno.com

Newsletter Editor:

Steve Stone N1AOB
E-Mail – stonzes@worldnet.att.net

Membership Information

All interested hams and aspiring amateur operators are eligible for membership. Try attending one of our meetings and ask anyone about joining! Amateurs are friendly, interested in promoting their hobby and will be happy to answer your questions. We meet on the third Monday evening of every month. See the following information section for meeting time and location. The attached membership application can be filled out and mailed in or brought to a meeting.

WARC Meeting Location

Meetings are held at 7:30 p.m. in Room 300 at the Founder's Hall at Naugatuck Valley Community College (NVCC) in Waterbury, CT. Meeting dates are the third Monday of each month. The college is located on West Main Street in Waterbury and is close to Route 84. The college can be reached **From the West** by taking exit 18 from Route 84, and turn right off the exit. Take a right at the next light. At the second light, turn left onto West Main Street. At the first traffic light, turn right into the NVCC Campus. At the top of the hill you will go past the front of Founder's Hall. Park on the far side of this building and go to the third floor to room 300. **From the East**, take exit 18 from Route 84. This exit splits. Stay to the left. At the traffic light, turn left. At the second traffic light, turn right into the NVCC Campus. At the top of the hill you will go past the front of Founder's Hall. Park on the far side of this building and go to the third floor to room 300. Talk – In on PVRA's Naugatuck Repeater on 147.18. Anyone with an interest in amateur radio is welcome.

