



MARS NEWS

Mecklenburg Amateur Radio Society



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You won't want to miss this month's program. Vince DiCarlo of the National Weather Service in Greer, SC will facilitate the advanced Storm Watcher training course. You will learn how to spot and report dangerous weather of many types. The weather service needs many spotters who have had the provided training.

Meeting Date: March 30th.

See page 6 for time and place of meeting.



President's Letter

The Charlotte Hamfest 2004 is over as I write this -- we had a very good hamfest as far as I could tell. The Hamfest Committee suspects that our income will be down this year (not as many dealer booths, downturn in the economy, etc) so we will be in for some belt tightening this year and next. The Hamfest Committee is already talking about some changes for next year, and we will be revising some of our marketing techniques in order to attract more dealers and flea market vendors.



**President
Shawn Goodin
K4RSG**

The MS Walk is coming up at Freedom Park on April 17th. We'll need some help for that event -- a signup sheet will be circulated at the March Club meeting. Come and join us for a good time and a chance to play with our radios in the spring outdoors. The repeater for this event will be our 145.29 (-600) repeater.

Finally, a few of us in the Club are getting together to form a 900 MHz special interest group (SIG). A 900 MHz repeater is planned for the area, and many surplus radios are available which can be modified for 900 MHz use. We have a mailing list set up with messages available in digest form or mailed to SIG members as messages are received. If you'd like to be part of this, go to:

http://mail.w4bfb.org/mailman/listinfo/900mhz_w4bfb.org and sign up. We'd love to have you.

At our March Club meeting on March 30th, we will give away the hamfest worker prizes -- two dual-band HT's. We will also have Vince DiCarlo from the National Weather Service in Greer to present the Advanced Weather Spotter class to any interested folks in the area. Hams and non-hams are invited to attend.

As John Covington, W4CC mentioned recently, BPL has hit the Federal Register, so the clock is now ticking. Now is the time to send your comments to the FCC concerning BPL. Comments on the FCC Broadband over Power Line (BPL) Notice of Proposed Rule Making (NPRM) in ET Dockets 03-104 and 04-37 are due by Monday, May 3. The deadline for reply comments (comments on comments filed by others) is Tuesday, June 1. You may file comments via the Internet, using the FCC's Electronic Comment Filing System (ECFS). Go to <http://www.fcc.gov/cgb/ecfs/> for more info on filing comments.

See you at the next Club meeting on March 30th!

73,
Shawn, K4RSG



**Volunteer Net Controllers
needed for the Metrolina
Emergency 2-mtr net.
Contact Jim Payne,
1 n4jbp@arrl.net, Net Mgr.**



An Easy To Construct 6 Meter Dipole

by Paul D. Ponak, AD4IE

VHF contesting has been an interest of mine since 1962 when my RACES group combined a survival mission with the June VHF contest. A few years after my return to amateur radio in 1991 the major manufacturers began to offer 6 meters in their HF radios and I purchased a Kenwood TS-570S. The next thing that I needed to operate on 6 meters was a portable antenna so that I could go up to the mountains to contest. I decided to start with a basic dipole. I was working at a local home center at the time and here is what I developed from the inventory.

After trying several combinations of tubing and fittings I found that 7/8" aluminum tubing (hardware department) matched with 3/4" CPVC fittings (plumbing department). I could have used 3/4" copper tubing but aluminum was cheaper. Using the formula $492/50.150$ (most SSB contesting is between 50.100 to 50.200 Mhz) and then dividing by 2, I arrived at the starting length for each element which was 4 feet 9 inches. I put each measured element into a 3/4 inch CPVC "T" fitting and inserted a 3/4 inch dowel stick through the fitting and a few inches into each element. The dowel stick kept the elements from drooping. Next I drilled a hole through each side of the "T" that went through the fitting, the element, and the dowel stick and used screws, nuts, and washers to hold everything together. My dipole elements were now assembled.

In making the mast I had to remember that this was a portable antenna; therefore, the mast had to be removable from the elements. I got a small piece of CPVC (about four to six inches) and glued one end of it into the "T" and the other end into a CPVC "F-adapter". A scrap piece of tubing would be my mast. I fastened an "M-adapter" onto it and I now had an antenna with a detachable mast. The next step was the wiring.

I purchased a small project box, an SO-239, and some ring terminals at Radio Shack. I drilled holes in one end of the box for the wires that would connect to the elements and a 5/8 inch hole and four small holes (for #4 screws) in the other end to install the SO-239. Then I drilled 2 holes through the short piece of CPVC and screwed the box on to it. To complete the wiring I attached the open end of the wires to the SO-239,

which I had mounted on the box; next I drilled holes through the elements close to the "T" and attached the ring terminal ends to the elements.

It was time to hook up my antenna analyzer and trim the elements to resonance with a hacksaw. I found the actual resonant lengths became 48 _ inches, which yielded a 1.2:1 SWR from 49.150 to 51.150 Mhz and a 2:1 SWR in the FM portion of the band. The wide range is due to the thickness of the elements. In order to avoid possible injury and to provide a finishing touch I put 7/8 inch chair leg tips on the exposed ends of the elements. The antenna has worked quite well since I made it about eight years ago. It's retired from active service now, but I often lend it to hams who have a radio with 6 meters and want to give the Magic Band a try.

Here is a way to make a rigid, portable 6 meter dipole antenna with a wide bandwidth. The major parts are made of 7/8 inch aluminum tubing (hardware departments) and 3/4 inch cpvc plumbing fittings. The screw hardware should be suitable for outdoor use.

To make the elements, cut two pieces of tubing to about 4 feet 9 inches ($492/50.15$ Mhz). Get about a foot long piece of 3/4 inch dowel stick and slide it about half way into one tube, slide on a 3/4 inch cpvc "T" fitting, then slide the second tube over the dowel stick and into the "T" fitting. The dowel stick is used to keep the elements from drooping. Now on each side of the "T" drill a hole all the way through the fitting, tube, and dowel stick and secure with a screw, washer, and locknut. A number six or eight screw will work fine to keep things together. You now have an unwired dipole antenna.

Now put about a four to eight inch piece of 3/4 inch cpvc tubing (or a scrap piece of aluminum tubing) into the open end of the "T" and put a 3/4 inch cpvc "F-adapter" on the other end of the tube. Fasten the parts together using glue or screws, depending if you used plastic or aluminum for the short tube. A scrap piece of tubing will now become the mast. Attach a 3/4 inch cpvc "M-adapter" on to one end by drilling a hole through it and using another screw, washer, and nut.

This completes the mast assembly.

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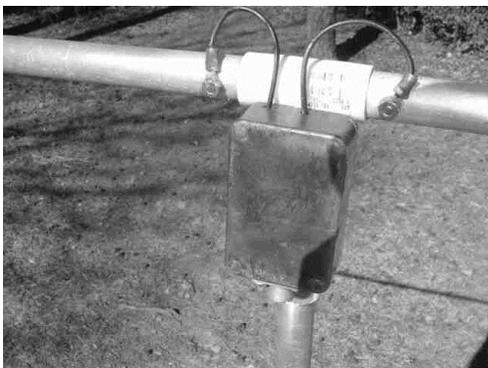
To wire the antenna I went to Radio Shack and bought a small project box, an SO-239, and some ring terminals. Drill holes through the removable panel from the box and through the small tube between the "T" and "F" fittings so you can screw the box to the tube. Drill two holes on one end of the box so you can run wires to the elements. On the other end drill holes for the SO-239. I used a 5/8 inch bit for the center hole and found that #4 screws worked to attach the socket to the box. Now run wires from the socket, through the holes, and make them long enough to get to the elements. Seal the box and attach it to the tube. Drill another set of holes through the elements close to the "T" fitting and attach the wires and ring terminals. If you use stainless steel hardware, make sure that the ring terminals touch the element instead of a washer as stainless steel does not conduct well. Now you are ready to tune the antenna.

Using my analyzer I found that the correct element lengths were 48 1/2 inches. This gave me a 1.2:1 SWR from 49.150 to 51.150 Mhz. The SWR was an acceptable 2:1 in the FM portion of the band. The wide bandwidth is due to the diameter of the elements. After using a hacksaw to get the proper lengths, cap the ends with 7/8 inch furniture leg tips. It gives a nice finished appearance plus it makes the portable antenna less dangerous. For a final touch you might spray the metal with a clear finish.

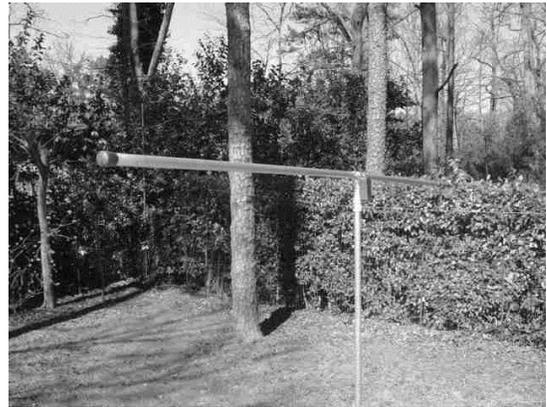
I built this antenna about 8 years ago and it served me well. It's now retired but I often lend it out to hams who are just getting started on the "magic band". Good luck. Please ask if you would like to see the antenna or have any questions.



Paul, AD4IE - ad4ie@w4bfb.org



Antenna Wiring



Assembled Dipole & Mast

NEWS - EVENTS

The 2004 Hamfest is now history. See President's letter for more details.

Duke Power's BPL testing started on Friday, March 5 and is scheduled to continue for six months. The test is being carried out in the vicinity of Carmel Rd. and H'way 51, an area of homes, apartments, and small businesses. Some of our members have been invited to participate. If you have an hf rig (fixed or mobile) and live in or are mobile in the test area, please listen in (2-30MHz) and document when and where you hear any unusual interference. Include a description of the interference, time, frequency, signal levels and your exact location. Please send email reports to me, Tom Nicholls, <w4ncu@w4bfb.org>. More next month.

Please note: Changes to any or all of your data (address, email, callsign, telephone) should be sent to Bill Turner <w4wnt@w4bfb.org>. Change in how you want to receive MARS NEWS (either email or postal mail) should be sent to Shawn Goodin <k4rsg@w4bfb.org> with a copy to John White <wb2nhq@w4bfb.org>.

Events:

March 27-28 CQ WW SSB WPX Contest
March 30 Monthly Club Meeting @ East Baptist
April 6 W4BFB Board Meeting @ Red Cross
April 17 MS Walk @ Freedom Park
May 1 VE Testing - E. Baptist Church

Minutes of the Last Board Meeting

The Board of Directors met at the Red Cross Building, on March 2nd

Absent: Bill Turner, W4WNT; Irv Hoechner, KF4KHN

President's Report: Board meetings are now the first Tuesday of the month.

Gaston Co. ARES is using the 145.23 repeater a lot. They would like to upgrade the repeater's Emergency power. There was a repeater incident (145.23) during the snowstorm on Feb 26. Someone was keying up and broadcasting radio station music. Shawn shut the repeater down and brought it back up few minutes later. Gaston Co Ares now has codes to control the repeater to prevent further incidents.

Vice President's Report: This month's program will be an Advanced Skywarn class. There is nothing firm yet for the April meeting.

Secretary's Report: Absent.

Treasurer's Report: John White discussed the balance sheet for February. Insurance for the Hamfest has been paid. Restructure of the club dues was discussed and more information will follow.

Equipment: The surplus antennas have been sold. Club trailer was cleaned out and equipment repaired as necessary.

To be sold at Hamfest: old repeaters (2). To be bought at Hamfest: parachute cord for antenna hanging (400 ft); dual-band mag-mount antennas for emergency boxes (2); antenna analyzer.

Public Service: Link repeater system may be an issue for the MS-150 due to the passing of the repeater curator. Other options are going to be researched for a contingency. Public service event calendar has been updated with the correct dates.

Newsletter: Anyone interested in submitting an article for MARS NEWS that pertains to amateur radio operations is welcome to do so. Please limit the length to 2 pages. Please send to: <w4ncu@arrl.net>.

Old business: The committee to look into the possible purchase of a new mobile antenna trailer has been dissolved. The finding of the group was that it would cost \$9000.00 for a mobile tower trailer that would meet the needs of MARS and ARES. It was felt that the club would not see fit to approve the purchase of another item that had to be stored and maintained and not be towable using a standard vehicle (ie.car, small truck).

New Business: Christmas Party: Two choices were brought up for discussion: Pine Lake Country Club and the Knights of Columbus hall. Motion was made, seconded, and approved to pursue Pine Lake as the site for this years Christmas party due to the size room needed. Dave Stewart, AF4ZK, has been asked to secure the dates of December 10 or 11 for the event. The arrangements/costs are similar to the Idlewilde Country Club. We have asked for a sample of the buffet menu (subject to change).

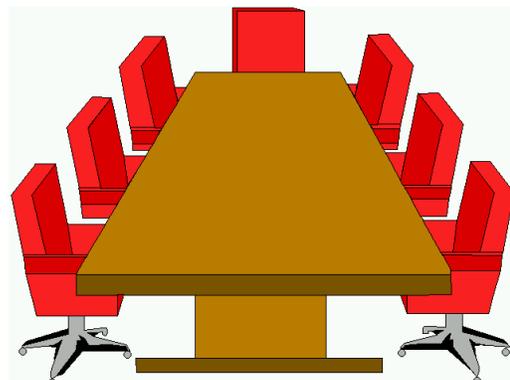
Field Day (June 26 & 27): Jeff Blythe, KA4WYC, has been appointed chairman for this year's field day. He will be soliciting help as the event draws near.

Remodel Club Room at Red Cross: A motion was made, seconded, and approved to upgrade lighting and ceiling tile in the clubroom. \$300.00 was budgeted for this task.

John White, WB2NHQ, read a card from Bob Lull, WB2UUC's widow thanking us for the donation and thoughtfulness of the club.

Meeting was adjourned at 2124 local.

**Submitted by
Greg Onachila, KG4IOE, Temporary Scribe.**



MY BIONIC EYE

Blind man is first in UK to see again after brain implants op

by NICK HENEGAN

A PENSIONER blinded six years ago has become the first person in Britain to see again using a revolutionary bionic eye.

Kenneth Wightman, 71, was so distraught that he came close to suicide after a freak chemical spill destroyed his eyes.

EXCLUSIVE

The retired engineer says the artificial system has changed his life. "Now I can see the outline of the telephone the table and pick it up. Before, I wouldn't have even known it was there."

But it was seeing his wife Jean that made the £80,000 surgery worthwhile.

He said: "If she stands in front of me and speaks I see a shape and know it's her. It is very reassuring and although I can't recognize her face, at least I know she is there."

The system involves implanting 144 electrodes into the brain. A miniature TV camera or sunglasses beam light into 2 computers on the patient's belt.

They send signals via a series of wires through Ken's skull and straight into the visual cortex in his brain which creates an "image".

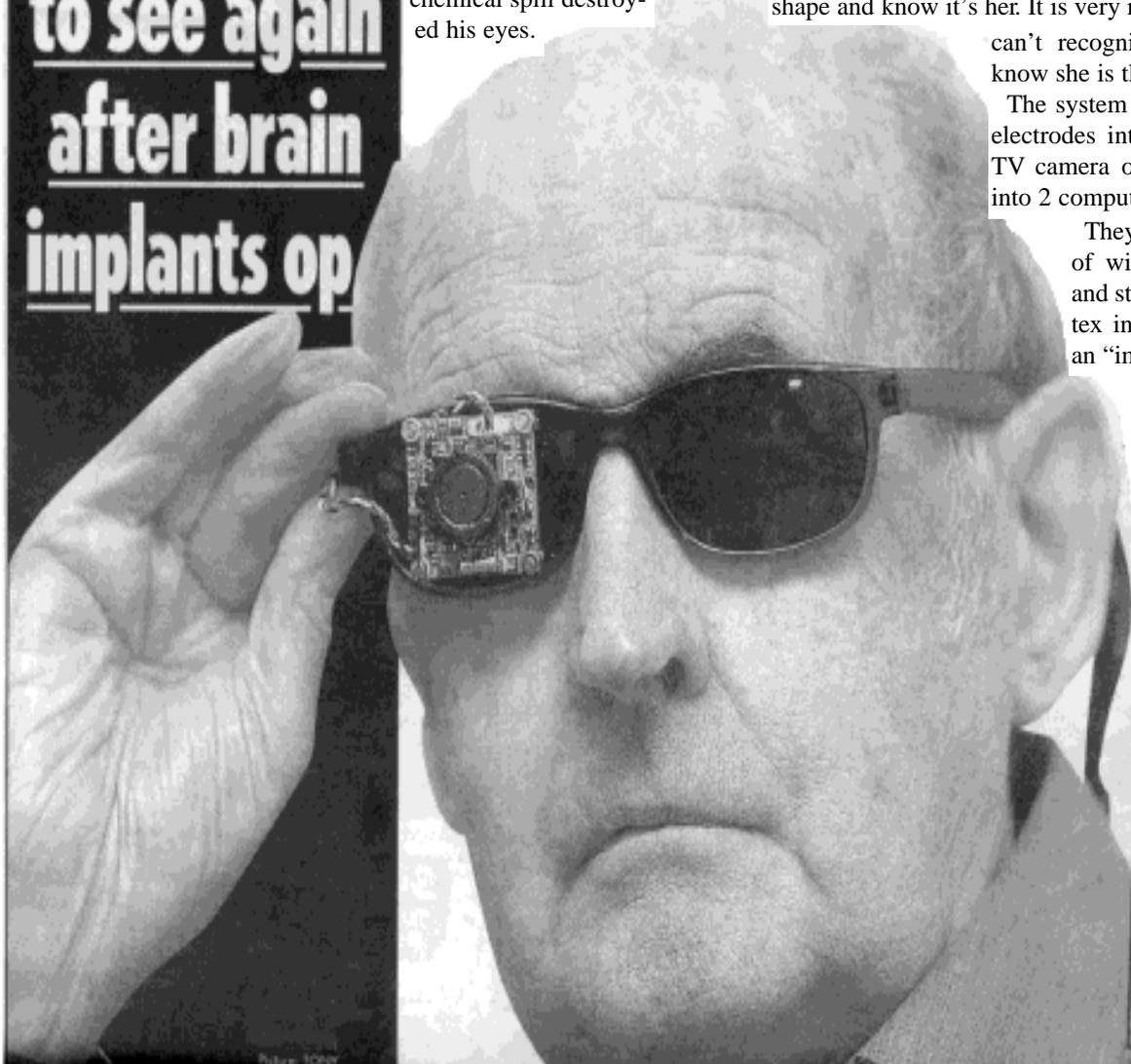
In April, 2002 Ken went to Portugal where neurosurgeons fitted the electrodes.

Prof. A. Bird, of Moorefield Eye Hosp., London, said: "It is very experimental. Any sight will be very crude and it would take a long time for the brain to get used to."

Nonetheless, I'll be watching any developments with interest"

Ken said: "I know it is not real sight but at least it is something."

This has given me a future to look forward to, I never had before."



Ken Wightman , GOKEN has visited here in Charlotte several times. He's a well known DX'er with a great story. Ken sent this article to me and I wanted to show it to you (with his permission) to see the great courage this man has and to tell you of the wonderful

vision technology that is available today. His doctors are constantly improving the program his system uses.

Ken often can be found on the Bill Bennett Family Hour DX Net - 14.245 mHz - around 18:00 zulu. Ken likes to call himself, "The First Bionic Ham!"

Mecklenburg Amateur Radio Society, Inc. - Officers and Board of Directors -2004:

President - Shawn Goodin, K4RSG, Email Address: k4rsg@w4bfb.org

Vice President - Jeff Blythe, KA4WYC, Email address: ka4wyc@w4bfb.org

Secretary - Bill Turner, W4WNT, Email Address: w4wnt@w4bfb.org

Treasurer - John White, WB2NHQ Email Address: wb2nhq@w4bfb.org

Directors - Irvin Hoechner, KF4KFN; Greg Onachila, KG4IOE; Dave Stewart, AF4ZK;

Scott Ellis, KG4UDX; Tom Nicholls, W4NCU

Meetings @ East Baptist Church, 6850 Monroe Road (next to East Mecklenburg High School, near Conference Drive) - Last Tuesday of each month at 7:30 P.M.

Clubroom - Red Cross Building, 2425 Park Road, RM 023, Charlotte, NC Telephone 704-334-3900

Club Repeaters

W4BFB Web Site

146.34/146.94 w/Autopatch. 144.69/145.29 w/Autopatch.

144.63/145.23, no Autopatch

449.60/444.60 w/Autopatch and P/T 100.0

Autopatches Access *(don't unkey)+phone number. Disconnect #

222.80/224.40 w/Autopatch 145.01 Packet Digipeater, W4BFB-1

<http://www.w4bfb.org>

Webmaster: Wayne Setzer - WB4BXW

<wlsetzer@att.net>

METROLINA 2m EMERGENCY NET:

9:00 PM local time, daily on 146.34/146.94 featuring the ARRL Audio News feed on Sunday night.

Alternate frequencies announced. Net Manager: Jim Payne, N4JBP, <n4jbp@arrl.net>.

Next Meeting - March 30, 2004

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