

THE VHF JOURNAL



October 2002 – Volume 53 Number 10

DEDICATED TO THE RADIO EXPERIMENTERS, CONTESTERS AND OPERATORS ABOVE 50 MHZ, ALONG AMERICA'S NORTH COAST

New Meeting Location Rajiv Dewan, N2RD

The county, in its infinite wisdom and finite finances, has decided to lock down the county building at 111 Westfall Road every evening. This is the building where we have been meeting for many years. It is not available anymore for any radio club meeting.

The new meeting location is the Board Room in Monroe Community Hospital, 435 East Henrietta Road. It is at the SW corner of Westfall and E. Henrietta Road. This is in the beautiful ornate 1930's brick building that is in the same campus as the county building. The parking lots are connected.

Important: Park on the south side of the building. This is the side closest to the canal and I390. Enter through the south side entrance. Mention "radio club meeting" to the guard. The building security have been informed.

As usual, the meeting will start at 7:30pm.

We found out about this change just before the September meeting. A number of people helped secure this new location. These include Ed Holdsworth N2EH, Irv Goodman AF2K, Sandy Gulack N2DZS, George LLOYD N2UIO, and others.

Please pass on this information to other members and interested parties.



Meeting Notice:

Friday, October 11th, 2002, 7:30 PM
435 East Henrietta Road, Rochester, NY

Pioneer Andy Flowers, K0SM, Presents: WSJT – The New Weak Signal Mode Rajiv Dewan, N2RD

We are very fortunate to have Andy Flowers, K0SM, who, along with Joe Taylor, K1JT, is one of the pioneers of the new weak signal mode called WSJT that is all the rage in the VHF weak signal community. WSJT, which stands for Weak Signal mode by K1JT, is software developed by K1JT and documented by K1JT and K0SM. It offers the weak signal enthusiast two new modes: FSK441 for meteor scatter contacts and JT44 for ultra-weak signal terrestrial and EME contacts. This new software was first revealed to the general public in an article in the December 2001 issue of the QST magazine (page 36 ff).

WSJT software makes meteor scatter communication easier and far more available. Many hams think that meteor scatter communication can only occur during the few peaks that occur sporadically during the year. This is true if you want to make SSB contacts using meteor scatter. Not so if you are willing to use high speed signaling and special modes such as FSK441. The earth is constantly bombarded by small meteorites and space dust that cause ionization of the atmosphere. This ionization is weak and does not last long. WSJT software makes it possible to use these weak trails to make meteor scatter qsos. The 2m band seems to work very well. Distances of 500 miles are easy. Occasionally, qsos over 1,000 miles are made. All you need to get going is to have a 2m set up for SSB and a Wintel PC. Come to our next meeting on Friday, October 11th at the Monroe Community Hospital, South Entrance, Board Room to hear a stellar presentation on this new mode.

See: Flowers, A.T. 2002. The WSJT software package: Something for everyone. In *Proceedings of the 36th Conference of the Central States VHF Society*, pp. 81-85. The American Radio Relay League, Inc.

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The VHF Journal is published by the Rochester VHF Group monthly except June through August. The subscription price is included in the membership dues. If you elect to receive the PDF version of the Journal by downloading it from our web site, the dues are \$10.00 per year. In this case, you will be notified by e-mail on the day it is available for download. If you choose to receive the hardcopy Journal by Postal delivery, the dues are \$15.00 per year.

Articles and comments should be submitted to one or both of the co-editors at N2KXS@arrl.net and WO2P@aol.com.

10,368,100,000 Hertz Barry Rickett, N2EZZ

Two and a half years ago I bought into the VHF group project and built a DEMI 10 gig transverter. I must confess that the only reason I even considered this project was that K2DH had agreed to mentor us and make himself and the MDS tune up equipment and facilities available. It was like betting on the horses with the bookie guaranteeing a win. So a few bucks later, I had a bunch of parts with the claim that I could make RF on the 10 gig band 'if' I could put them together properly. Time to get the soldering iron fired up!

A number of evenings at home and a few Saturday morning sessions at MDS, and Dave declared that I had a working 10 gig transverter with preamp. KB2VGH had a supply of surplus Primestar dishes that could be put on 10 gig by building a transition for 10 gig. A number of those dishes have been put on the air. I built the feed for the Primestar and it works fine but I was fortunate enough to acquire a MaComm commercial dish for 10 gig and chose to use it. I also purchased a 1 watt power amp from Bruce Wood that had been retuned for 10.368. Finally this spring, I put it all together and got it fired up (Again with help from K2DH).

OK, so it's been over two years since I started down the path to 10 gigs. Give me a break. You think the world was made in a minute? Speaking of minutes, it was at the last minute that I decided to try the stuff out on the 10 gig plus contest this year. The Wednesday prior to the August weekend of the test, I decided to give it a try. I spent the next three days gathering my stuff, assembling it, putting it in/on my truck, and on Saturday morning I drove up to Woodcliff and found N2OPW set up and playing. This is exciting, I thought. So I got set up and ready to go.

A number of stations were there on liaison. I discovered that there really are people crazy enough to do this 10 gig thing, and here they are. Well, my excitement soon turned to disappointment. I couldn't work anyone on 10 gig. Paul and I thought that maybe it was a bad piece of transmission line between the T/R relay and the dish feed and he lent me a short piece of coax. That seemed to make a difference, but alas, no success. So after a few hours of frustration, I packed it in and went home to try and troubleshoot my problem.

It didn't take me long to find that I had a dead power amp (later to discover a broken PTT wire). I put the station back together with just the transverter output power level on transmit and headed back up to Woodcliff.

Unfortunately, by now, about 4 PM local, everyone had packed it in so there was no one to work. I guess the rain storm that came through had chased them away.

Weekend two. Everything's working! Weather looks pretty questionable. Pack all the gear in my truck. Head to Transit road. Plans are for a couple of local stations to be in VE3 land. Get there and find this guy with a little white convertible on the side of the road. His license plate is W2EV. Good, I've got company. Shortly Russ, W2DYY shows up. I get set up. There are stations on liaison. I work N2JMH! Only 29 clicks, but my first real 10 gig QSO. Wow, it can be done! A half hour later, VE3OIK in FN14ba. Amazing, 126 Km across the lake. DX and another grid as well! This is way more fun than last month. A few minutes later, N2OPW in FN12cs. Another grid! That's three. Five equals VUCC. Is there a chance, my first time out? In rapid fire, WO2P, N2KXS, and VE3SMA all in FN14ba. No new grid, but unique calls for 100 points each and 126 distance points each. My score is rapidly accelerating now. Then Ev and Russ and I work each other. YES! Four grids! A while later, we were able to work N2PA in FN12hn.

Throughout the day, we'd been talking with N2JMH and he'd been keeping track of our progress. He realized that a few of us needed but one more grid to capture VUCC. He'd been parked in FN13 but now decided to move to FN03. YES! If I can work him there, VUCC is in the bag. He got set up. We talk on liaison. His missus is running the stats in the computer. We swing our dishes at each other. Is he there? I think so. Yes, I hear his dashes, it's him. On liaison, I tell him we got it. He sends call and grid, FN03xc. I respond on 10 gig with my info. Bingo, complete. VUCC, it's all over except the paperwork. The fat lady is singing loud and clear!

I feel it's important to note that if not for the Elmering of a number of hams, it's clear that this weekend would not have happened for me. First and foremost K2DH for his advice, his technical skills and access to the MDS test equipment. KB2VGH for the supply of Primestar dishes. W2DYY for his advice and his time in checking out equipment. N2OPW for his help in troubleshooting my station and the loan of coax. WO2P, N2KXS and the VE's for QSO's from across the lake. And N2JMH for being my first real 10 gig QSO as well as providing me with grid number five for VUCC.

Being a typical ham, I have to say, "this was great but wait until next time."

The trouble with facts is that there are so many of them.
-- Samuel McChord Crothers

Steve Woodard KD2KQ SK

On September 4th, the RVHFG lost a long-time member and good friend — Steve Woodard, KD2KQ. Steve was living in Apex, NC, where he and his wife Judy have lived for several years since leaving the Rochester area. Steve was killed instantly when a tree he was working in (helping a neighbor take it down) fell, catapulting him to the ground. Steve will be remembered as a guy whom members could always count on for any kind of tower work or other work that they needed help with — that was the way he was. He was the RVHFG's first serious rover in the VHF contests, building his station in a homebrew camper that sat on the back of his pickup. Steve was always ready to jump in and make contacts with Group members from anyplace he was asked to go, even in the cold of January. Steve was a past recipient of the W2UTH Memorial Award, and will be remembered always by the contesters of the Rochester VHF Group. A memorial to Steve is in the planning stages and will be held in Rochester, most likely in the Spring — details will follow as they become finalized.

Dave Hallidy K2DH

RARA's New Domain Name

Please bookmark our new internet address:

www.rochesterham.org

Are you a Rochester ham? Bug our website monthly to check out on the most current events. The old URL still works, but no guarantee in the future. Note rochesterham is one word. Capitalization may work with most web browsers.

Antennas for sale

CUSHCRAFT AMF-4DA, 2 METER 4 POLE	\$ 25.00
CUSHCRAFT 5 EL. 6 METER BEAM	\$ 25.00
CUSHCRAFT 11 EL. 220 BEAM	\$ 25.00
CUSHCRAFT 11 X 11 STACK 440 W/ HARNESS	\$ 40.00
RVHFG 440, TRANSVERTER	\$100.00

LEN, WA2ZNC, 585-229-5470, ZNCGESSIN@CS.COM

SIX METER “MAGIC” -- PLEASE SHARE WITH AN HF ONLY OP! Tom Cook, WA2BPE

It is about time I wrote something for “The Journal” and after commenting to K2AXX about his article in the September issue about an addition, he said: “...You drop a note to the editor...”. My answer - OK - what else can one say!

All I wanted to do was to add Corsica, TK, to the list of the “no 6m authorization” in Europe! But then, perhaps I should share some of the resources I use to follow, attempt to understand, and (hopefully) work DX on “The Magic Band”. In many ways the line from “Forrest Gump”,: “Life is like a box of chocolates. You never know what you’re going to get.” is very appropriate and applicable to six.

Do I think six will open this Fall? Maybe. W3EP doesn’t think so; WB2AMU thinks we have a chance. Sunspot SSN069 recently raised the SS number to over 200 and the Solar flux did a mighty climb too. Folks asked: “Where’s the DX?” Problem - too early; need those numbers from mid-October on for six to liven up - well, at least at mid-latitudes, for certain; curious things happen when one is in TEP territory. Frankly, I wouldn’t tear the

beam down and put that 40m beam back up just yet. For those not familiar, six meters. is fascinating yet frustrating and can drive your emotions from the pits of Hell to the heights of Heaven. The “50 mile phenomenon” is legendary (I have seen it actually less than 20) as you sit listening to a friend (well, usually) working DX and you wonder what’s wrong. Then, suddenly, the signals come roaring in - sometimes. Location and timing are the two biggest factors for DX on six; all others pale in comparison. Patience is number three (said to yourself as you pop another Vallium :-)) . Watch those indicators, especially the video carriers out of Europe (see the database URL below). It is no guarantee (hard to compete with 250KW) but it surely says something is out there. Watch also as the path may not be direct - Eu stations have been frequently worked by stations pointing at a hot spot in the south Atlantic. Also, it is not uncommon to hear DX and no beacons - simply a matter of ERP.

Below, I have listed a considerable number of Internet sources (some containing their own links; some are to get right to the info) that I use to follow the action on six. Also, though its use is reduced, do not forget that coordination and spotting still happens on 28.885 MHz. I will try to provide a brief comment about each.

http://timhavens.com/na1cw/6m/Central_States_00.doc This is the K6MIO/KH6 benchmark paper on F2 prop on six meters - required reading.

<http://www.spaceweather.com/> The URL says it. Good site for info + great links to breathtaking Au pics. See also the plots of what’s happening on the backside of the Sun and extrapolate out 14 days what might rotate into view.

<http://www.sec.noaa.gov/alerts/index.html> NOAA Space Environment Center - main page; lots here.

http://www.sel.noaa.gov/rt_plots/mag_3d.html Direct URL to 3-day magnetic indices.

http://sec.noaa.gov/ace/MAG_SWEPAM_24h.html ACE plots of the solar wind - watch speed for CME impact; watch Bz - if it goes strongly negative, probable Aurora.

<http://www.sec.noaa.gov/today.html> Space weather - plots of solar flux & K index.

<http://www.sel.noaa.gov/pmap/> Polar activity; auroral ovals.

http://www.sec.noaa.gov/rt_plots/pro_3d.html Three-day plot of proton flux - bad news.

<gopher://sec.noaa.gov/00/weekly/27DO.txt> 27-day solar activity forecast - text - an indicator, don’t count on these numbers to be “Gospel”.

<http://dxlc.com/solar/> Solar Terrestrial Activity Report - plots/discussion - very good.

<http://digisonde.haystack.edu/scripts/latest.exe> Harvard U. ionogram

<http://home.planet.nl/~pa1six/pa1six.htm> PA1SIX page of explanations of & links to many ionograms, etc.

<http://www.qsl.net/wa5iyx/ionogram/sampidx.htm> Tutorial on ionograms by WA5IYX - Pat knows his stuff.

<http://iono.jpl.nasa.gov/latest.html> Well, this one is included because it used to be great to watch the TEC follow the Sun as the Earth rotated (including the dip following the geomagnetic equator).

<http://science.msfc.nasa.gov/ssl/pad/solar/sunspots.htm> NASA Solar physics page - tutorial.

<http://umtof.umd.edu/pm> U. of Maryland solar wind data.

<http://6m.dxers.info/dx/> Chat page run by NA1CW (nw K1MIA??) - a rebirth & enhancement of what was started some time ago by KB3CWS (now W3MRG). Check-ins show up here from around the world. Registration is required (prevents spamming) but I know of only one URL that was ever blocked. This site's activity can range from playful to serious; flaming & foul language are not encouraged though "bozos" will sometimes be noted. Mutual respect is key. There are many links available.

<http://oh2aq.kolumbus.com/dxs/50.html> Direct URL to the OH2AQ site - saves time for viewing though available (and can post to it from the site above)

<http://dxworld.com/50prop.html> Chat page where non-prop conversation is discouraged. Some who choose not to post to the NA1CW site show up here. Can yield info not seen elsewhere.

<http://www.qsl.net/oz6om/> OZ 50 MHz DX Bulletin - what/who is operating where; news.

<http://www.smirk.org/> SMIRK - info, etc.

<http://www.algonet.se/~sm7aed/> SM7AED - six meter info

<http://www.iw9cer.com/> Sixily Six M News - info, links

<http://www.keele.ac.uk/depts/por/psc.htm> RSGB radio prop. page - info/tutorials, etc.

<http://www.scit.wlv.ac.uk/vhfc/g3usf/g3usf.beacons.50mhz.html> Six meter beacons worldwide; updated frequently.

http://www.geocities.com/toddemslic/50MHz_Early_Warning_Database.htm This is the "mother" of 27-67 MHz indicators for spotting propagation paths. I do not know how often it is updated. I have other lists - can't find them (it's 3AM).

<http://www.mycom.co.nz/zl3tic/zl3tic.htm> Six meters from a ZL perspective. Contains many useful links.

<http://dmoz.org/Recreation/Radio/Amateur/VHF/> Page of links - not even sure where I spotted this one! :-)

<http://www.50mhz.com/> Link to the UKSMG.

I hope this will give folks a few things to do in their "spare time" (what's that??). This, BTW, is only a portion of the URLs I have. Welcome to information overload! 73, Tom - WA2BPE FN12lf

RARA License Test Schedule 2002-2003

George Platteter, AA2FO

GET LICENSED, UPGRADE — THE FALL SEASON IS FAST APPROACHING, AND IT'S THE ADVENT OF THE 2002-03 TESTING SESSIONS.

These sessions are held in September through May. The sessions are held on the third Saturday of the month with the exception of September when it is held on the 4th Saturday of the month and at the Hamfest, whose date varies.

THE PLACE — September through May; Monroe County Hospital 435 E. Henrietta Rd. Rochester, NY (enter via the south entrance; ask at the information desk at the top of the stairs)

REGISTRATION — 8:30 AM, Exams 9:00 AM

HAMFEST — Hamfest location, refer to Hamfest schedule.

SCHEDULE — September 28, 2002
October 19, 2002
November 16, 2002
December 21, 2002
January 18, 2003
February 15, 2003
March 15, 2003
April 19, 2003
May 17, 2003
Hamfest, per Hamfest schedule

Applicants need to bring the following in addition to pen and pencil: Two forms of identification, one being picture ID (Drivers License), original FCC License (if you already have one) and a copy, Certificate of Completion and a copy if credit is to be claimed for elements passed at another test session.

We welcome handicapped applicants. Please phone in advance, (585) 334-4488.

10 GIG CUM AS /VE3 FROM FN14BA FRED MILLER, WO2P

Ev Tupis, Judy Stonehill, and I had conceived the "plan" at this year's RVHFG picnic (adult beverages were involved). It sounded simple enough at the time: take a leisurely trip from Rochester to Colborne, Canada (FN14ba) and work the contest from there. The objectives would be four-fold: get Ev his fifth grid for VUCC on 24 Gig wideband, get Judy her VUCC on 10 Gig, further test BEACONet system and last but not least, hook up with other VE3's and "excite the ether" across the lake to and for our brothers in the U.S.

I must admit, the low point of the trip (if there was one) was at the very start. The idea of getting up at 0130 on a Saturday morning was not high on my list of "how to have a good time". I picked up N2KXS at her QTH and we headed west. The 2 hour trip up to Lewiston and the border crossing itself were both, thankfully, uneventful. We did get strange looks, however, from the Canadian border patrol YL on duty. When she asked me if I was going to sell any of the equipment I had brought with me, I responded "Absolutely NOT!". She smiled and waved us through. Another 3 hours of driving brought us to the last of the paved road. The last 2 miles to the site were dirt roads but they were in great shape with just a few low hanging tree limbs. The site itself was most impressive. It overlooked Lake Ontario and we had a clear shot to the horizon from ESE through south to WSW.



On top of the world, looking south

We shared the hilltop with a huge cell tower and a very old municipal water storage tank. We were on schedule and QRV as WO2P/VE3 and N2KXS/VE3 by 0830.

We were joined around 0930 by VE3OIK (Bob), VE3SMA (Steve), VE3FHM (Graham) and VE3NPB (Murray). There were tripods, 10 and 24 gig transverters, dishes, batteries and cables galore, all pointing pretty much due South.



From left to right: VE3FHM, VE3OIK, N2KXS/VE3, VE3SMA

The rain that was predicted to dampen the event held off over us although we could see "rain cells" passing west to east over the lake. The "group" made dozens of contacts to the U.S. The wind was an occasional factor and we had 2 or 3 tripod / transverters / dishes actually "blow over". We hams "build em tough" because in every case, after righting them and picking the grass off the dishes, the guys went right back to work. (impressive construction!)

At 1630, after Judy handed out a couple of last 10 and 24gig wideband contacts to the VE's, we packed up for the trip back. Again the trip back, including the border crossing, was uneventful although traveling at 70mph plus thru Toronto kept me a awake and very alert (and I thought U.S. drivers were aggressive). The U.S. border patrolman on duty was most interested in the GPS/BEACONet system and I spent a few minutes explaining how it worked.

I arrived back home at 2300 (a 22.5 hour day driving 617 miles). How did we do against our objectives? 3 out of 4! Ev's 24 gig wideband rig on the U.S. side died early on (sigh). Judy did get VUCC (congrats to her) and the BEACONet experiment was very successful. I was able to see my home QTH in Ontario NY while in Ontario Canada. As Ev would say "very cool stuff". Finally, I had a great time. The equipment worked well, the rain held off, and the VE's were very gracious in sharing their (prime) spots with us. I thank them for their contacts and their hospitality.

What would I do differently if there were to be a next time? Get more sleep before starting the trip, bring more water, more food, and MORE POWER!

Only believe half of what you hear. Then get it in writing.

**RVHFG September 2002
Meeting Minutes
George F. Lloyd, N2UIO**

The meeting began at 7:18pm with discussion about our meeting relocation to the Monroe Community Hospital. It seems that all amateur radio club meetings can no longer use the 111 Westfall Rd. site for club meetings since the building is now "locked down" after normal business hours. The general consensus is that the conference room we are now using is not adequate for our needs. A new meeting site will have to be explored.

Old Business

Treasurer's reports were accepted. Dave Hallidy K2DH motioned and Jeff Luce KB2VGH seconded.

Jim Howard N2JMH announced that there are still pre amp devices for sale.

Judy Stonehill N2KXS reported there are currently 69 members.

There was a fair amount of discussion among the attending members on how to encourage more people to submit logs for the various contests. It was also mentioned the RVHFG has not yet received the gavel or the June plaque.

Ev Tupis W2EV suggested we consider joint membership between RVHFG and RaRa. Also our By-Laws need to be checked concerning this matter.

New Business

Dave Hallidy K2DH announced the passing of Steve Woodard KD2KQ. There may be a memorial service in the near future. There was discussion about what the RVHFG could do in his memory. It was suggested that there could be a wake similar to what was done for Fred Gern at the S&S. It was also suggested that there could be a donation made to charity in Steve's name or even help out with flowers at the memorial service.

Irv Goodman AF2K recommended an obituary notice be sent to the D&C.

Raj Dewan N2RD also suggested we post an obituary in the Journal.

RVHFG Banquet. Discussion began about where to hold the next April banquet. Dave Hallidy K2DH suggested the Dinosaur BBQ located in East Rochester. This could be a good site with plenty of space and perhaps less expensive than the previous site. After further discussion the general consensus was to again invite RDXA to join us for the banquet.

John Van Griethuysen N2BNE announced a Boy Scout "JOTA" event was taking place at Camp Cutler in Naples, NY on October 18, 19 and 20th. Van asked the group if anyone would be willing to attend and demonstrate amateur radio to the troops. Van suggested this was a good way to expose young people to amateur radio and encourage involvement in our hobby.

Raj Dewan N2RD suggested to Van to submit an article to Judy Stonehill for the RVHFG Journal. This would be a way to get more exposure for this event.

Ev Tupis W2EV handed out some CDs' for BEACONet for home based stations that may want to track rovers during the various contests. Operating frequency is 147.585 MHz.

Dave Hallidy announced that his house has now been sold and he'll be moving to Webster sometime in October.

Meeting adjourned at 9:05pm.

These are the minutes submitted by George F. Lloyd, N2UIO

**RVHFG September 2002
Treasurer's Report
Charlie Barkowski, N2IM**

Checking Account

Beginning Balance.....	\$1547.93
Income:	
Award Sponsorship.....	30.00
Membership.....	20.00
Expense:	
Checking expense.....	9.00
Reimbursement for picnic.....	123.50
Flowers for Woodard family.....	62.10
Ending Balance.....	1403.33

Savings Account.....1281.04

TOTAL.....\$2684.37