



XARC

Monthly Newsletter

The Voice of the Xerox Amateur Radio Club

Dave Sweet
Open
Pete Fournia
Rick LaDonna
John Wright

N2BHL

WA2BPQ

N2IJI

KE2MK

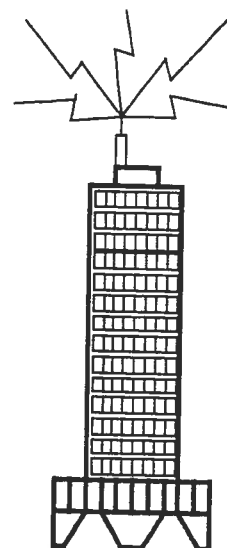
President
Vice President
Secretary
Treasurer
Trustee

**1993 National VHF
Contest
First Place**

Mid Size Clubs

Xerox
Amateur
Radio Club

KE2MK/R
224.26/444.825
145.29



November 10, 1993

Next Club Meeting

November 18, 1730 hrs

Working Satellites on HF

Bob Rossi, W2HG

Did you know that you probably already own all the gear you need for satellite communications? The Russian satellite RS/12 has a 15 meter uplink and a 10 meter downlink, and if you have a dual VFO transceiver and a modest antenna, you can participate in the space age. Bob Rossi, W2HG, will be telling us how its done (he also has an article on the subject in this issue).

Join us to see how you can work the satellites.

Note that Bob's talk will begin at 5:30 PM BEFORE the business meeting.

Elections

At last month's meeting, Dave Sweet, N2BHL, was nominated for President, Rick LaDonna, N2IJI, was nominated for Treasurer, Pete Fournia, WA2BPQ, was nominated for Secretary, and John Wright, KE2MK, was nominated for

repeater trustee. Nominations for Vice President are open. If you have a candidate in mind for Vice President or if you would like to make any other nominations, please contact any club officer. Elections will be held November 18 as part of the business meeting.

Upgrades

No information on upgrades was received this month.

Please let me know if you or anyone you know upgrades so it can be acknowledged in the newsletter.

Bob, K2OID

Dues are Due

Dues for the '93-'94 year are due by the end of November. You can find a form on the last page of the newsletter. Dues are \$10/year and can be paid at the November meeting or mailed to the treasurer, Rick LaDonna, N2IJI.

Field Day Results

The Field Day '93 results are in, and as usual, XARC did quite well. We finished 74 out of 369 in the 3A category with emergency power. That's the top 20 percent of our class. We finished with 1021 QSOs and 3916 points. Thirty people helped with the Field day effort, most of them licensed.

Nice job everyone! Get ready for the next one. It's only a little over 6 months away.

73

Bob, K2OID
FD Chairman

Articles Welcome

If you have an article, letters, or news you think may be of interest to club members please submit it to me for publication (electronically if possible). Your input can help us make our newsletter better.

Thanks to Bob Rossi, W2HG, for submitting an article this month. Why not have your article in the December issue.

Bob, K2OID

VE Testing News

The next exam session will be held next Wednesday, November 17. All are welcome.

All exam sessions begin promptly at 7:00 PM and are held in Bldg. 337. If you wish to take an exam please bring the following with you:

Exam fee, \$5.60, either cash or a check made out to W5YI-VEC

Two forms of identification, preferably one with a picture

The original plus a copy of any current license held and/or the original and a copy of any valid, current certificate for element credit issued by any VE team

Pen(s), pencil(s), and non-programmable calculator (if desired)

Let's make 1993 the year of upgrading for XARC! The VE team is here to serve you so come out and make use of the opportunities. You won't find a friendlier or more relaxed test session anywhere else. We're ready to help you so if you have questions, give us a call. Hope to see you at a VE session soon.

The final session of the year is planned Wednesday, December 8.

73,
Lou K2ANC
422-3899
K2ANC:Wbst128:Xerox

1994 Rochester Cup Rules

Hi Gang,

Here's the scoop on the rules for the 1994 Rochester Cup competition. Feel free to ask questions and I will try to answer them or get them answered. I have a copy of the official 1994 Rochester Cup rules if anyone would like to see them or make a copy.

A local club's ranking in the Rochester Cup competition is determined by the number of RVHFGroup members worked times the percent of club members turning in logs. Example for a club which has 40 members:

Member #1 worked 7 members of RVHFG

Member #2 worked 2 members of RVHFG

Member #3 worked 13 members of RVHFG

Member #4 worked 37 members of RVHFG

Member #5 worked 4 members of RVHFG

There were 63 RVHFG members worked times $5/40 = 63/8 = 7.875$ for a score.

It does not count twice if you work a given RVHFG member on two bands. Once he's worked by you, he's worked.

RVHFG also has a nice list of other awards available to people outside of the RVHFG. These are;

YL Single-Operator YL must use her own call, Plaque awarded for 1st and 2nd and a certificate for 3rd place.

Young Ham Single-Operator: all submitters will receive a 1/2 pound candy bar.

1st place will receive a 1 pound candy bar and the

first three places will also receive certificates.

FM Only Fixed: Plaques awarded to the first 3 places, certificates awarded to 4th through 6th place.

FM Only H/T: Single Operator, using an HT. No outdoor antennas (except on vehicles), or pre-amps or power amps may be used. A certificate will be issued for 1st place.

FM Only Rover: FM only 1 or 2 operator rover. A plaque will be given for 1st and certificates for 2nd and 3rd.

Worked Most RVHFG Members. The on RVHFG member, single operator, who works the most RVHFG members via his Rochester Cup score will be issued a certificate.

73

Barry Rickett, N2EZX

RS/12 - THE KEY TO EASY ARRL FIELD DAY BONUS POINTS

Bob Rossi, W2HG

I had the pleasure of visiting and operating at the Webster Xerox ARC's Field Day

site this year. Although at the time I didn't realize it, you had everything in place

to make a satellite QSO for the 100 bonus points. Just lacked the know-how.

BACKGROUND

Operating satellites has always brought to my mind, the sights of VHF/UHF multimode rigs, fancy VHF/UHF antennas with cross-polarization, polarity switching, mast mounted pre-amps, elevation rotors, and other fancy VHF/UHF features.

Well, with the Russian satellite RS/12 now in orbit, all that fancy, expensive VHF/UHF stuff isn't needed. It is possible to make satellite QSO's with only normal HF equipment using RS/12's Mode K. In this mode, you transmit up (uplink) on 15 meters (SSB or CW) and receive (downlink) in the 10 meter band.

RS/12 FREQUENCIES AND THINGS TO WATCH OUT FOR The frequencies the RS/12 satellite uses are:

In the 15 meter band, 21.210 to 21.250 Mhz - transmitting to RS/12 - UPLINK

In the 10 meter band, 29.410 to 29.450 Mhz - receive from RS/12 - DOWNLINK

The telemetry beacon is on 29.408 Mhz. Normally what I do is run a satellite prediction program (there are many available), to find out what times the

satellite will be above the horizon. Then I sit and listen for the beacon on 29.408 Mhz. About the time the satellite rises above the horizon, you will begin to hear the beacon weakly. After about 2 or 3 minutes, it will be nice and strong. At this point, I start to listen around for stations calling CQ or start calling CQ myself.

If you've ever operated 15 meters, you recognize that the band segment used by RS/12 from 21.210 to 21.250 Mhz is the bottom of the Extra class SSB band and prime DX frequencies. Keep this in mind when using the satellite, try not to cause QRM to other stations using the normal 15 meter HF band. Also, realize that stations operating in this portion of the 15 meter band could be picked up by the RS/12 satellite and repeated on the downlink on 10 meters, but completely unaware that they are being heard on 10 meters. Make sure you're both trying to make a RS/12 satellite contact. You can use this to your advantage if you can hear the guy on 15 meters. You can get on his frequency on 15 meters and you'll be on his 10 meter downlink frequency. This is especially useful if you are using only one rig and can not hear the downlink when you are transmitting.

RS/12 BANDPLAN

All QSO's I've heard on RS/12 are either SSB or CW. Typically, CW is used from 21.210 to about 21.220 Mhz. SSB is found between 21.230 and 21.250 Mhz. A mixture of SSB and CW exists between 21.220 and 21.230 Mhz. But these are loose guidelines. Remember, to transmit in the segment from 21.200 to 21.225 Mhz, you must have a Extra class license. Advanced class operators are allowed from 21.225 Mhz and up on 15 meters.

RIG REQUIREMENTS

Probably the best HF setup is to have a separate receiver (for 29.4 Mhz) and a separate transmitter (for 21.2 Mhz).

This will allow you to hear your signal on the satellite's downlink and will give you an indication of how well you are making it into the satellite.

You could operate the way I currently do, and use a transceiver that is capable of operating "crossband split". This is where the HF rig has 2 VFO's but the VFO's can be set on 2 separate bands (in this case, 15 and 10 meters). However, you can't hear yourself on 10 meters, of course, when your transmitting up to the satellite.

HF ANTENNA REQUIREMENTS

As far as antennas go, the simpler the better. Any HF antenna capable of 15 and 10 meter operation is suitable. If a triband beam is used, then you will need to run a satellite orbit prediction to calculate the antenna pointing directions during the satellite pass. Of course, just the azimuth angles would be used.

Personally, I think a simple vertical or dipole, capable of 15 and 10 meters, would do just fine. With this antenna, no satellite tracking is necessary because it is an omni-directional antenna and would provide good coverage.

MY NEAT EXPERIENCES ON THE RS-12 SATELLITE

1. My personal favorite is listening to Japanese stations talking to each other on 15 meters, totally unaware that they are being translated by the RS/12 satellite into the 10 Meter band. This happens when the RS/12 satellite is just rising over the North Pole and heading South.

2. Working G0NTT in England right at the end of a pass and having him tell me to keep transmitting after I had lost my 10 meter receive signal. Apparently, I was still making it into the satellite on 15 meters and fully copiable on the 10 meter downlink in Europe. This

continued for 3 to 4 minutes. I was listening to G0NTT direct on 15 meters at this point.

3. Working 3 new states on RS/12 in 2 days, after 12 years on the normal OSCAR satellites.

RS/12 satellite operation is attractive for ARRL Field Day because no special equipment is needed beyond what is already being used. Typically, an overhead RS/12 satellite pass lasts about 15 minutes. This allows for 2 or maybe 3 contacts. Only 1 contact is needed for the satellite bonus points. Some of the club members should play with RS/12 over the next 6 months, and by the time Field Day rolls around, the 100 satellite bonus points will be easy.

KARZ's Corner Pile-up Anyone?

One of the disadvantages of being from this area is that you're not exactly rare. Practically no one needs New York. There are just too many of us. Even those county hunters are usually disappointed, because with nearly 2000 hams, Monroe county is one of the best represented in the state; most county hunters I've QSO'd have Monroe County several times over.

Nevertheless, there are a few rare occasions when we locally can experience the thrill (if that's what its called) of a rip roaring no holds barred rude crude pile-up. One is by declaring yourself a special events station as we did for the 50th anniversary of xerography. For those of you who were around then, it was a blast. It was a cold and very wet weekend, and a number of us gathered at the station to chat and operate. I particularly recall operating with my daughter for over an hour of non-stop mayhem. Now I know why the "big guns" get all the attention (especially the more aggressive ones).

You either work them quickly or listen to them QRMing everyone else. The only problem is that trying to get rid of the "big ones" is a little like raking leaves. As soon as you get rid of some, more magically more appear, and it goes on seemingly forever.

If you're into pile-ups, another sure one is the January VHF contest. Try making your very first appearance on 146.55 MHz any time Sunday afternoon. Stations will be attracted to your frequency like Piranhas to a raw meat. Better yet, lower your power, muffle your audio, and tell a little fib by claiming to be in grid square FN14 (note however that to be credible as an FN14, it helps to be operating out in the lake - its hard to claim you're in Canada when your signal is peaking strongly to the southeast). That will really start a feeding frenzy. (really kids, - as they say in the advertising disclaimers - don't try this yourself..... some hams might not see the humor!) Still another time honored pile-up generating technique is to pretend to be a 10 year old YL, particularly an unexperienced one.

The weekend before last, quite by accident, I discovered yet another way to generate a pile-up. I was supposed to be raking leaves on Sunday afternoon, but first I decided to check out 20 CW. Some guy from Spain was calling CQ, so I gave him a shout. We chatted for a few minutes before I signed to get to the leaves. I was immediately called by 2 or 3 other Europeans eager for a QSO. I picked out an Austrian station for another contact. Again I signed, and perhaps four or five stations were calling me. This time I picked out a French ham and had another QSO. The next QSO was with an Italian. By now a half hour had passed, and I really had to get to the "chores", but there were still several people waiting for a QSO. What really surprised me was the willingness of at least some of them to actually wait

through QSO after QSO for a shot at me. Finally, I had to pull the big switch and QRT. I guess they'll just have to work New York some other time.

Outside with a rake, I had time to reflect on my minor "pile-up". It occurred to me that I was one of a very few US stations on CW that afternoon and that it was early evening in Europe, sure to be a popular operating hour. It also occurred to me that CW may be becoming more popular in Europe than it is over here. So for all you frustrated SSB DXers, if you want to be truly popular on the bands these days, forget the linears and the 10 element Yagis on 100 foot towers. Just spin the dial down to the bottom of the band and give the good old Continuous Wave a try.

CW forever.

73 es gud DX.

Ob, K2OID

Finding Information About the Club

Xerox Amateur Radio Club documents are available in a public file drawer administered by XHFES. Our radio club folder contains the membership list; our Bylaws; a sample newsletter including a list of officer, membership application, and repeater frequencies; and a general description of the club. You may access this information by selecting the HENR801A:XEROX domain / PASFS-THREE drawer / XHFES drawer / Club Folders / Radio Club. This is the same drawer referenced on the last page of the Chatterbox.

Peter Fournia, WA2BPQ

Equipment loans

As many of you know the XARC has recently increased its equipment inventory by leaps and bounds over what we had just a short time ago. I have been asked, as the chairman of the station committee, to publish a list of equipment which is available for short term loan to members of the club. When borrowing a piece of equipment, a note should be left in the club station with the item borrowed, the date borrowed, the anticipated return date, and the borrowers name and call.

The following is a list of equipment located at the station in building 337 which is available for lending per the above guidelines. All other items are not to be removed from the station for personal use.

Heathkit HW101 transceiver with speaker and power supply
KDK 2 Meter FM transceiver
12 volt power supply (blue box type)
Bird wattmeter, 3 - 30 Mhz, up to 100W
Kenwood VHF/UHF watt/SWR meter, 140 - 500 Mhz
Headphones
ARRL Handbook
ARRL Antenna book
US and Foreign area call books (1988 issue)
Software library disks, Amateur related, (5 1/4 and 3 1/2 DSDD disks)

All of the equipment located at the station is, of course, there for the use of all our members at any time. I would strongly encourage you to use the station. The performance of the station is better than most would imagine.

Thanx Barry, N2EVS

Do you have QSL cards to send?

Thanks in advance
Mike KE2LU

As a club we are entitled to combine ARRL members cards in one mailing. Just order your outgoing cards as always, include a current mailing label from QST and give them to Peter Fournia in bldg 311-02J.

Submitt want ads to Bob Karz, K2OID

Hamfests in '93

NOV 13 Central PA Repeater Assn -
Hershey, PA

Is your ARRL membership up for renewal?

If so remember to renew through the club. See Rick LaDonna for details.

Want Ads

FOR SALE: Cushcraft Model 2M10T 2 meter beam for both SSB and FM - 5 elements on each band (such a deal!) Advertised gain = 10 dB. Antenna is 1 year old. I worked the satellite AO-13 on this beam when it was at apogee: 25,000 miles up!

Sells new for \$90, not including shipping. Asking \$75. Proceeds to be used to upgrade to bigger beam.....John Facci (x26696 or 671-6641)

FOR SALE: Brand new, never used Ameritron remote controlled 5 way coax switch. Can be tower mounted. Includes about 125 feet of 8 wire control cable and bench top control head. \$100. John Facci (x26696 or 671-6641)

FREE: 1 Balun on plexiglas mount, 6 insulators and 24 (4") Plexiglas spreaders, heavy duty. These were used on a set of parallel dipoles for 2 years. John Facci (x26696 or 671-6641)

Does anyone have or know of a local source for the 13 pin DIN connector used in the ACC 2 connector of the Kenwood TS440 radios?