

The Framingham Circuit

Newsletter of the Framingham Amateur Radio Association January 1997, Vol. 64, No. 1

In This Issue

Operating the 160 Meter Contest

Sumner Weisman, W1VIV

W.A.S. Oscar

Dave Reinhart, WA6ILT

AEA Going out of Business!

Charlie, NC1N

Kit Building Group

Pete Simpson, KA1AXY

!!RTTY Roundup Reminder!! Spring License-In-a-Weekend

Ed Weiss, W1NXC

and more...

This Month's Meeting

Marjie, KA1HIA

This month Sharon, KC1YR will bring FARA news of the latest happenings in Bosnia. This is a special place for Sharon. One of her primary reasons for getting her ticket was to talk with Eastern Europeans. She's made many friends there and has tracked, and been involved in, events of the Sarajevan amateur radio community!

Submitting Material to the Circuit

Material may be submitted for publication by sending it directly to the editor. This can be done by phone, by US Mail, or via the Internet (preferred). The deadline for each issue is the Saturday following the FARA board meeting.

President's Message

I hope that everyone has had an enjoyable holiday season. It is a hectic time of year for all, but a good time to enjoy the good things in our lives.

The club has been a great place for many of us to go to in order to get away from the hustle and bustle for a couple of hours a week. I hope that many more folks will be able to use the club in the coming year as a place to sit around and chat and have a good time away from our everyday stresses. The shack is there for all to use.

A special thanks to Pete, KA1AXY, for upgrading our computer to a 386 with 8Mb of RAM. We are looking to install Windows one of these days. We also have a new addition of a dip coffee maker, thanks to Rick, K1LOG. So when you drop by there will be a fresh cup of coffee and a new computer to play with. Thanks guys!! I am looking forward to hearing Sharon's, KC1YR, talk on Bosnia at the club meeting this month. I know there is some good news from there and know all will be interested to hear the latest.

Have a safe new year and a great 1997.

Operating the 160 Meter Contest

by Sumner Weisman, W1VIV

Although not politically correct in the 90s, 160 meters has always been called the "Gentleman's Band". Up to a year ago I had never operated on this band, although I was very curious to see what it was like. Were people really more polite? 1.8 Mhz is a really low frequency, just above the AM broadcast band. A half wave dipole would be about 250 feet long!

Getting on the air turned out to be pretty easy. I simply unplugged my trusty G5RV "W1DL Special" antenna that was strung between two sturdy oak trees across the front yard, shorted the center conductor of the coax to the shield, and connected it to the unbalanced wire terminal on my antenna tuner. It loaded up perfectly. Used in this manner, most of the effective radiation comes from the vertical section. You can consider it to be a vertical long wire with a capacity hat, although at this frequency, "short wire" would be more accurate. I worked somebody just to prove to myself that it was operating correctly, got a fairly good report, and then proceeded to put it out of my mind.

Each year when QST would describe the 160 meter contest, I would be intrigued. This year, I made up my mind to try it. I would operate barefoot, since my SB-220 linear doesn't cover 160. This is a CW contest only, and this year it ran from 2200 UTC Friday, December 6th through 1600 UTC Sunday December 8th. That's 5 P.M. Friday through noon Sunday local time. The object is to work as many US, Canadian and DX stations as possible.

Well, I had a great time. It was quite easy to work stations in about a 1000 mile radius. After some period of time, I had all the available multipliers within this area. I then started concentrating on working further out. With 100 watts and a poor antenna, I was able to work South Texas, Colorado, and others. Not bad! I operated until 2 A.M. Saturday and called it quits. 160 has a lot of electrical noise during the day, and therefore is not used very much except in the evening. In spite

Needing a break, the XYL and I went to a movie on Saturday afternoon. I started again at 5 P.M., and operated until about 10. I was pretty wiped out by then, and took a nap for an hour with my clothes on. I got up raring to go, happily contemplating the thought of doing an all-nighter. The XYL said, "Your antenna is down!" We had a heavy, wet snowstorm that weekend, and, after being up for three years, the G5RV came down. Five minutes later, the power went out. It stayed off until 3 P.M. the next day. By that time, I was thoroughly convinced that the Contest Gods did not intend me to operate any more in this contest. I know when I'm beaten.

Well, I had 210 contacts and 37 multipliers for a score of 15,540 points. Looking at last year's results in QST, that would put me somewhere in the lower middle of the pack. However, everybody raved about the good DX last year, and I didn't hear any. I don't think it was my antenna, because I didn't even hear anybody working DX. My feeling is that the 1996 contest just had poorer conditions, so maybe I didn't do so badly after all. Time will tell. In any case I sure will be back on next year with a better antenna.... And, the 10 meter contest is coming soon, so I better get ready for that.

W.A.S. OSCAR

David Reinhart, WA6ILT

Logbooks are wonderful things. There are hams who don't bother with them anymore, since the FCC stopped requiring that you log every contact. However, I'm an "Old Timer", first licensed

North Dakota: Last state for WAS OSCAR!

Getting to that last QSO was a lot of fun and a lot of aggravation. I went through a lot of evolutions in equipment, especially antennas. I started working RS-10 with a three element MFJ beam, rotating only in azimuth with no elevation tracking. I use a G5RV with my TS-440S for the 10M downlink on the RS birds. For about eight months, my two meter uplink radio was an old Kenwood multimode that Martin, AA1ON, lent to me.

I worked a lot of states on the RS birds. One of my prize contacts was Washington State on RS-10. It was a pass that was very low on my horizon, and I figure that our mutual window must have been about one minute long at most.

When RS-15 went up in December of 1994, we Mode A operators had great hopes. It has a much higher orbit than RS-10, giving it a much bigger "footprint", the area you can work on a given pass. Also, being much higher, it was easier to cope with the Doppler effect, the frequency shift that fast moving satellites display. We soon found out that the low power output of the satellite's transponder made it a tough bird to hear. As tough as RS-15 could be, when it came time tally up my QSL cards for the WAS application, I was surprised how many of them came from RS-15 contacts. Another case where learning new operating skills and improving the station payed off!

Looking toward the day that I'd have a radio to work the "high orbit" satellites, OSCARs 10 and 13, I picked up a used Cushcraft AOP-1 antenna set. This gave me 20 elements on two meters and 18 elements on 70cm, circularly polarized. To point them, I found a rebuilt AR-40 rotor and modified my old Alliance U-110 for elevation. This turned out to be a less than satisfactory combination. The U-110 doesn't really have a brake, and the torque of the antennas tended to make it rotate out of position. Back to the phone and the packet ads to find a used Yaesu G-500A elevation rotor, and one more trip up to the roof of the garden shed where the antennas sat on

good rain caused the wood to swell up, stopping the rotor cold. Polyurethane has its limits.

In the summer of 1995, I heard a fellow on packet talking about an Icom 271H/471H pair he was putting up for sale. These are multimode radios that put out enough power to work the high orbit satellites without external amps. The deal included two meter and 70cm preamps and the price was so good I almost felt guilty taking him up on it.

With the new radios, I was able to start working the high orbit birds, AO-10 and AO-13. It was now possible to use satellites that would be in view for hours at a time, not minutes, and that covered huge areas of the earth. I could also work through Fuji-OSCAR 20 and AO-27 which are Mode JA birds, two meters up and 70cm down. AO-27 is an FM satellite. The Doppler shift is wicked on these satellites, and the tuning is backwards compared to most of the other spacecraft up there. Again, along with new equipment came the need for new skills.

The ARRL WAS map was starting to fill up. States that are tough for HF WAS, like New Hampshire and Delaware, actually got filled in pretty quickly. The satellite sub-bands aren't all that big, so if there's an active station on the air from a given state it's not that hard to track him down. The things that make it hard to make satellite QSOs often have more to do with time zones and orbital mechanics. It can be really frustrating to see that RS-10 or FO-20 will be having great passes for the US during the week, but they'll be late night passes by the weekend. Or you've got great shots in the early morning, but people in the Western

states haven't woken up yet. Hawaii and Alaska got filled in via AO-10 and -13.

When you get down to a few blank spaces on the map, you start spending a lot of time with the tracking programs, working out the passes that will have "mutual visibility" for you and the states you need. It became apparent that the biggest factor against working New Mexico, Nevada and North Dakota was plain lack of population. Those states are pretty empty to begin with, have fewer hams, and even fewer of those hams are on OSCARs. Other states that proved surprisingly tough were Oklahoma and Arkansas.

Another worry surfaced in 1996. OSCAR 13, one of only two high orbit birds available to hams, was about to die. It never quite made the right orbit when it was launched, and the orbit was starting to decay due to atmospheric drag. The footprint was, at times, not very useful. By sometime in late 1996 the electronics will die due to atmospheric heating, perhaps a month or two before the final fiery plunge. With the loss of AO-13, one of ham radio's most valuable assets will be gone forever.

Through most of the summer of 1996, with AO-13's time ticking away, I was off the air. My wife, Chris, wanted the garden shed, which held my antennas, disposed of. I didn't disagree, but getting rid of the shed meant getting rid of my antennas. We went through lengthy, delicate, but very congenial negotiations concerning a tower. It took a while to reach an agreement, more time to get the building permit, even longer to get the tower delivered, and more time on top of that to get the foundation poured and get the tower up. Tick, tick, tick....

AO-10 would still be available, but while that satellite is in a much better orbit, virtually all of the

the house for half my horizon below about 22 degrees. Having the antennas at almost 40 feet made a huge difference.

New Mexico was filled in by a station brand-new to OSCAR work. He'd been on the air less than a week when I talked to him. Nevada took more than five more months to track down. The last blank on the map was North Dakota. Whenever I talked to other stations, I'd ask if they'd worked ND and if so, which station. I started listening for specific stations pass after pass. One handy thing about working OSCAR is that everything is full duplex, so you can find your downlink, set the A VFO for that, then tune around listening for other stations while calling CQ, then just bounce back to listen for replies.

Ham-erick

by W1VIV

Said I - There's a chirp on your tone
That a CW man can't condone
Only 5-7-2
Is all I'll give you!
Clean it up, or please stick to phone!

Then on October 12, I was listening to an OSCAR 13 pass when I heard a station with a zero district call sign calling CQ. I stopped to check and heard him say he was in North Dakota! I spent a frustrating couple of minutes trying to find my downlink, spinning the knobs too fast to give myself a chance to hear the signal. When I finally got on frequency, I found out that Mark had only recently moved into North Dakota from Minnesota. His station was still jury-rigged, he didn't even have a preamp for the downlink, but he was on the air and he was in my log.

In only a week or so I had all 50 cards in hand. OSCAR ops are very good about QSLing. I sent maybe one or two repeat cards for all the contacts I made. The application to the ARRL went out shortly after, and on Saturday, Nov. 30 I received certificate #249!

For those out there like myself who have AEA equipment, just tried to call them and got a pre-recorded message that stated the business is up for sale, they are going out of business. The message indicated to contact the ARRL in about a month for updates as AEA would keep the ARRL desk informed.

Dan, W4EA

Kit Building Group

Pete, KA1AXY

The kit-building group will begin meeting on Wednesday, January 8th, 1997. I hope to have most of the parts so that we can get started sorting.

I have 3 people signed up, and anyone else interested in building the Talking Morse Code Trainer should contact me immediately. I will order one or two extra PCBs, just in case we have a late entrant. I am still predicting the cost of the board, parts and connectors to be around \$35. A case can be picked up at Radio Shack for between \$5 and \$10. Rick, K1LOG, has offered to let us look at his completed unit. I'll have a firm cost by the time we meet, and I'll be taking checks and handing out PCBs and parts.

This promises to be a lot of fun, so don't be left out. It's the perfect accessory for Ed's code course, coming up later this month. It's also a great present for someone you know who's trying to get their code speed up.

!! RTTY Roundup Reminder !!

The ARRL RTTY Roundup. It goes from 1400 local on Saturday, January 4 to 2000 local on the Sunday, January 5. Dave, WA6ILT is looking to better his 1996 score considerably, and will take all the contacts he can get. He'll be operating from Martin's again, but using WA6ILT/1.

club, anyone who signs up has a more than a good chance of coming out with call!

QSL Bureau Change

The outgoing ARRL QSL Bureau is changing their rate structure as of January 1, 1997. The new rate will be \$4 per pound (or part thereof) or \$1 for 10 or few cards.

CW Training for Upgrades

Ed Weiss, WINXC

There will be a series of three CW training session during January. They are scheduled for the Wednesday evenings of January 15, 22, and 29. So if you've been hankering to learn some CW in order to upgrade your license set these evenings aside!

The Un-Official List of Q-Signals

[*This is a reprint from the County Line RoadRunner, a magazine devoted to county hunters. It was passed along to me by Charlie, NCIN - ed.*]

Some Q signals have never made it to the ARRL's official list. Yet you may agree, after reviewing those listed here, that at least a few of these would be useful.

QBA: My antenna is big.

Is your antenna big?

QBO: Don't sit next to that guy at the meeting.

Buddy, can you spare some soap?

QBS: It's getting deep here!

Did I tell you the about the one that got away?

QET: Phone home!

Has anyone called me from another planet?

QFH: This frequency is mine - go away!

Is this frequency hogged?

QFT: Move a foot back from the mike.

Have I blown out your speaker yet?

Does that statement apply to anything?

QOK: Your last transmission was OK.

Was my last transmission OK?

QOZ: Tap your heels three times.

Where am I?

QRC: Warning, rag chewer on frequency.

Are you a rag chewer?

QZZ: I fell asleep on an open mike.

Is that 60Hz hum or are you snoring?

Multimedia ARRL

Rick, K1LOG

Good news for two groups of people, those getting low on book space and those who have wanted to "just sub

scribe to QST but not be a member of ARRL". Yes, some people still feel that way - talked with one just last week!

Now you can buy 5 years of QST on a CD. There are two CDs available now and by the end of 1997 all earlier issues will be available. The CDs cost \$39.95 each. Check out page 27 of the January 1997 issue of QST for all the details.

Oops... Almost forgot. For those who don't get QST the info is:

1985-89 Order No. 5757

1990-94 Order No. 5749

ARRL

225 Main St.

Newington, CT 06111-1494

Estate Sale

These items are from the estate of former FARA member Norm Thompson, W1BHL. You can call Mrs. Thompson at (508) 881-1045 for details on availability and price.

*Kenwood 520SE HF transceiver
Yaesu G-5400B antennor rotor
Collins 75A-3 receiver
Clegg 99'R 6 meter tranceiver
Heath SM-4100 frequency counter
Alliance 75281A rotor anenna switch box
Gonset G-50 6 meter communicator
Elmac 4989 transmitter/exciter
Dumont 304A oscilloscope
Universal cable converter box
Eico AC power supply
Dayton time switch
Elco Oscilloscope
Realistic VHF receiver/monitor
Lafayette Voltmeter
Astro surveying compass
Sears VCR (3 available)
B&W TV sets, one 7", one 12" and one 18"*

FARA Horizons