



AARC News and Updates

Bob, K8RLS delivered the plaque, which was on display at the May AARC meeting, to Dave, W8UKQ, the morning after the meeting (see below). Dave sent the following e-mail to the Zero Beat a short time later:

Dear Editor,

Thank you to the Alliance ARC for the beautiful plaque regarding my service to the Club. I appreciate getting it very much.

Thank you.
73 Dave

Bob, K8RLS has two tickets to the BreezeShooters Hamfest to raffle off at the meeting. BreezeShooters Hamfest is June 5th at the Butler Farm Show grounds. It's always a good hamfest with a large flea market. The Ham formerly known as KC3CL may show up there, if he can talk Kitty into it. They will be passing through the area around that time.

Don, K8OMO still needs more volunteers to help out with the Homeland Security station at the Hospital on Tuesday evenings. If you can spare a few minutes on an occasional Tuesday, contact Don

and he will fill you in on the details.

The June meeting will be the last chance for Field Day planning. Written permission to use the grounds at Marlinton Middle School came a day or two after the May meeting. Some information about what has been discussed can be found in the minutes on page 3. If you have any suggestions or questions, bring them to the meeting. As always, we will need operators on Field Day, June 25th and 26th. The club has two very fine HF rigs which are great fun to operate.

Patty, KE8KH, spent some time on

(Continued on page 2)



Dave, W8UKQ holds the plaque presented to him by the AARC for nine and a half years of faithful service. Bob, K8RLS made the presentation on May 5th.

De Olde Meeting Announcement

The next meeting of the Alliance ARC will be on Wednesday, June 1st, in the cafeteria of the Alliance Community Hospital. Our meetings begin at 7:30 PM, and are an excellent opportunity for eyeball QSO's. Directions can be found on the K8LTG Repeater (145.370) See you there!

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News

(Continued from page 1)

Larry's sailboat early in May and reports that the boat is ready for Blue Water. Larry is planning to head to Bermuda about the 21st of June with a crew of four.

BPL Update. (From Ohio Section News and SM Joe Philips, K8QOE) The ARRL has endorsed a BPL delivery system. This Motorola Powerline LV system is an improvement over the Home plug system utilized by Current Technologies in Cincinnati by Cinergy Corporation.

Motorola avoids using the medium-voltage (MV) power lines and introduces broadband signals only on the low-voltage (LV) side of the power transformer. This greatly reduces the potential for interference to and from radio users, especially radio amateurs. By confining their Access BPL system to LV lines and by adding hardware notch filters for additional protection to amateur radio frequency allocations, Motorola has addressed the ARRL's interference concerns.

Read the full story and exact details of this endorsement on the ARRL Web Site <www.arrl.org>.

The Ohio Section invites you to visit the Ohio Section web page at www.iarc.ws which is hosted by the InterCity Amateur Radio Club (Mansfield). The web page is updated regularly. If you would like to have the Ohio Section Journal delivered to your e-mail, you can sign up for that at the same site. (I already get enough spam, ha. Hey, just kiddin' Joe. Keep up the good work. Ed.)

Meetings

The Alliance Amateur Radio Club meets on the First Wednesday of every month, in the cafeteria of the Alliance Community Hospital. Talk-in is on 145.37 @. Meetings begin at 7:30 PM. Visitors are always welcome.

Nets

Thursday is our "net night," with the following nets on tap:

Ten meters

CW @ 8PM on 28.400 MHz
SSB @ 8:30PM on 28.400 MHz

2 meters

9 PM on 145.37 MHz

Internet

If you'd like to check us out on the web, our E-mail address is:

w8lky@qsl.net

Our club home page is:

<http://www.w8lky.org>

Newsletter Information

The Zero Beat is a publication of the Alliance Amateur Radio Club, P.O. Box 3344, Alliance, OH 44601

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You can submit material to the Zero Beat either electronically, to ke8ve@alliancelink.com, in person, or via snail mail. I can read most word processor formats, but prefer your files to be in straight text, E-mail, or Microsoft Word format.

May Minutes

ALLIANCE AMATEUR RADIO CLUB

May 4, 2005

The regular meeting of the Alliance Amateur Radio Club was held at the Alliance Community Hospital on May 4, 2005 at 7:30 PM with club president Robert Steele, K8RLS, presiding. There were 18 members present. The Pledge of Allegiance was recited, followed by introductions.

The minutes of the April meeting were published in the newsletter. The minutes were approved on a motion by Smitty, KC8TJQ and seconded by Jim, K8LTG.

Mary Ann, KB8IVS, gave the treasurer's report. Among other items, she reported that the club insurance had been paid. This prompted a question from Don, K8OMO, as to whether club members were covered personally when working on behalf of the club. After a brief examination of the policy, the answer was no. The treasurer's report was then accepted on a motion from Howard, K8DXR and seconded by Smitty, KC8TJQ.

Old business:

Bob, K8RLS, reported that he will present a plaque to Dave, W8UKQ, thanking him for his years of faithful service to the club.

Discussion and decisions con-

cerning Field Day dominated much of the old business. It was decided that AARC will hold Field Day at the Marlinton Middle School, as in past years. Joe, KC8TAC, noted the need for preparation of press releases to be distributed to various parties. He had a copy of a suggested FD news release as well as information on successful press release techniques. These were turned over to Don, AB8KV, to prepare a sample release for review at the next meeting.

It was decided that the club's FD class would be 3A with the possible addition of an extra VHF station, probably on 6m. Don, K8OMO, raised the question of where it was desired to locate the main club station, in his van or under the portico. No final decision was made, although there seemed to be some support for the portico.

Availability of portable generators was discussed, with the conclusion being that enough were available for FD use.

In other old business, further discussion about a possible future hamfest in Alliance was tabled until the next meeting. It was noted that the 20/9 hamfest near Canfield would not be held this year.

Bob, K8RLS, requested that the secretary send a note of thanks to Darla Scoville for the donation of the amateur radio stamps.

Don, K8OMO, stated that more

operators were still needed for the hospital-based Homeland Security station. The regular sessions are Tuesday evenings at 7 PM. He also noted that the Homeland Security Emergency Communications Net conducts an operation the last Tuesday of the month at 7:30 PM local time on 147.510 simplex.

New business:

Bob, K8RLS, noted that a reactivation of an ENIGMA code machine in Britain was taking place on May 7 & 8. Transmissions from the machine would be in CW at 15 wpm, and anyone could copy the coded message and submit it for authentication. Don, K8OMO, noted that the FCC forbids the passing of encrypted messages, meaning that hams could enter the contest, but not repeat any copy they had.

The meeting was then closed at 8:20 PM on a motion by Smitty, KC8TJQ, and seconded by Frank, WA8WHP.

Respectfully submitted by Don Kingan, AB8KV, Secretary.

THE WAYBACK MACHINE

ISSUE #18

by **Bill Continelli, W2XOY**

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In our last installment, we traced the development of FM and repeaters from 1932 up to 1970. Since the FCC rules at that time had no provision for repeater operation, stations in repeater service were operated under the Part 97 provisions covering remote control. The FCC, in February, 1970, came out with Docket #18803, which set forth the Commission's proposed repeater rules. These included small subbands set aside for repeater operation, a ban on linked, cross-band and multi-band repeaters, a requirement for "whistle on" or other tone control, and a requirement that the licensee of a repeater station be in attendance at the transmitter or at an authorized fixed control point to monitor all transmissions of the station. In regards to the 2 meter band, the FCC set up the repeater subband in such a way that two thirds of it would not be accessible to Technicians.

Reaction was quick and negative. The ARRL and others felt that the proposed rules were so restrictive that they might be the end of amateur repeater operation as it existed at that time. Counter proposals, far less restrictive than the FCC's, were submitted to the Commission. While amateurs waited for the revised FCC rules, another problem had to be solved. When two meter FM operation started in the 60's, 146.94 had been chosen as the national simplex frequency. This was the highest wide band FM frequency available to Technicians. After repeaters came along, amateurs discovered that the surplus commercial equipment in use had a maximum bandwidth of 600 khz.

Thus, 146.34 was chosen for the first repeater input. However, in areas where .94 was in heavy use by simplex stations, 146.76 was chosen as the output. This led to the problem of non-standard splits, and in some areas of the country, repeaters such as .34/76, .28/94, and .34/82 could be found. The frequency 146.94 was a battleground between the simplex vs. repeater groups.

Amateurs were also fighting a minor battle over 146.64 Mhz, which, in some parts of the country, was a DX simplex frequency. To make matters worse, all transceivers back then were crystal controlled. With crystals

at \$10 per pair, it cost \$120 (about \$350 today) to fill all 12 channels in a 2 meter radio. It was possible to equip your radio with the repeaters and simplex frequencies used in one area, then find all of your channels were useless 200 miles away. A National Plan was needed.

The Texas VHF-FM Society proposed such a plan, which was described in the May, 1972 issue of QST. In it, the repeater offset was standardized at 600 khz, 146.94 and 146.64 became repeater outputs, 146.40 through 146.58 became simplex, and 146.52 was chosen as the national simplex frequency. In the 146-147 range, accessible to Technicians and above, there were 13 repeater and 7 simplex channels. The 147-148 range, available only to Generals and above, had 14 repeater and 6 simplex channels. Note that in the Texas plan, all repeater inputs were 600 khz below the output--even in the 147-148 range. Except for changing the inputs to the high side above 147 mhz, the Texas Plan was adopted. The gradual acceptance of a 2 meter band plan still did not resolve the FCC issue. The Texas Plan, as good as it was, violated the FCC's 1970 proposal. The Commission still had not issued any repeater rules, nor had they acted on the ARRL's 1969 request to give Technicians the full 2 meter band. Finally, in September 1972, the FCC issued new rules covering repeaters, logging and portable/mobile operations. Liberal repeater subbands were authorized at 52-54, 146-148, 222-225, and 442-450 Mhz. Logging requirements, especially for repeater and mobile stations, was simplified: repeater operators no longer needed a tape recorder hooked up to their stations. The requirement for a portable or mobile station to notify the FCC of operation in a particular Radio District was also reduced--no longer would amateurs contemplating a cross country trip with their radios have to write to each District on their journey in order to inform the Engineer of the trip. Repeaters would have to be licensed: call signs beginning with the prefix "WR" would be issued. The repeater license application was complex--each applicant for a repeater license had to submit certain data to the FCC regarding the technical, operational, and effective radiated power of the proposed station. "Whistle on" or tone control was no longer required, two repeaters could be linked, but multi-linked or crossband repeaters were prohibited. Repeater monitoring and control requirements were made more flexible. And finally, the

(Continued on last page)

June 2005

Birthday Greetings to: W8TUW, KC8SFS, Mrs. KE8VE, KG8RN, N8XTJ, NW8C.

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Experience is a wonderful thing. It enables you to recognize a mistake when you make it again.



Alliance Amateur Radio Club
P.O. Box 3344
Alliance, OH 44601

Wayback Machine, cont.

(Continued from page 4)

FCC acted in part on the ARRL's 1969 proposal. Although they did not give Technicians full 2 meter privileges, they did grant them the 147-148 segment. Technicians could now operate all 2 meter repeaters without violating FCC rules. The new FCC repeater rules, coupled with the Texas Plan, caused a surge in 2 meter FM activity. It also was the shot in the arm the hobby needed to fully recover from the decrease in growth caused by Incentive Licensing. Manufacturers such as Drake, Standard, Regency, Tempo, Genave, Clegg and Midland poured rigs onto the amateur market. Heathkit had the very successful HW-202 followed by the even more popular HW-2036. The increase in the number of Technicians on 2 meter FM finally killed the "Technicians are experimenters, not communicators" theory. And finally, thanks to 2 meter FM, amateur radio grew by over 33% in the 1970's. In 1975, due to increased demand, the FCC authorized the use of 144.5-145.5 Mhz for repeater operation. Technicians were given access to this subband. In 1978, the FCC relaxed the rules, eliminated the separate repeater licenses and

the "WR" prefix, and gave Technicians the full 2 meter band. From 1978--1981, the synthesized revolution took place, as affordable PLL and microprocessor rigs drove the last of the crystal controlled radios off the market. Today, a name brand, 2 meter HT costs about \$175. With it, you can access over 4000 repeaters, or scan the VHF Hi band. Compare that to 1972, when a crystal controlled radio, equipped with 12 channels, cost \$300--or about \$800 in today's dollars. We truly have come a long way.

In our next installment, we will look at a couple of license proposals in the mid 70's and the controversy they caused. I hope you will join me.

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