



SIGNAL



August 1996 Volume 5 Number 8

Public Service Activities

Although summer may be slow for some things, public service opportunities are not one of them. This month club members worked three events, a road race in Pepperell, the 4th of July Parade in Pepperell, and the Harvard Bike Race.

The Harvard Bike Race was July 28th. There are in fact 6 different races during the event although several go on at once. The first races, four of them, were various age groups of general riders. These were one lap races, about 4.5 miles. The "real" races followed. 60 Km women's and 100 Km men's races. These people are serious bicyclists. In the men's race, which took over two hours, the racers cruised at speeds between 15 MPH uphill and on one lap were clocked at 48 MPH downhill!

We set up to run the net from the center of town. A past problem was hearing everyone since the course is in and around some high and low spots. To solve this problem we set up a mobile rig in cross band repeat to support the net control station. This station had a vertical antenna on a ten foot mast just on the edge of the town common. This allowed the net control to run with a handheld and be able to move around while still having the advantage of a good antenna and suitable power.

For the hour plus in the women's and the two hours of the men's we monitored for accidents, reported situations from the pace cars, and reported lead riders from various intersection locations and the height of land which was the finish line of a contest within the race for every lap. This in addition to monitoring various traffic situations.

The WX was beautiful and a great time was had by all. Thanks to all the participants. KA1JVU Karen, W1XP Bob, N1VAW Pat, N1VAV Greg, KB1AWE Jeremy, KE1EC Herm, N1LLG Dan, KD1LE Stan. We also had backup support from N1PBL Lynda, and a guest ap-

pearance at net control by KA1ULT Justin Disguised as (KD1LE).

Public service is one of the major justifications for Amateur Radio, and this type of activity is typical of the opportunities available. Besides being fun, it is good practice at operating in a net. We also learn how to cope with certain problems, like propagation, dead batteries, and loud ambient noise. It is also good practice at dealing with communications when the traffic gets heavy and intense.

There is an article in the August issue of QST on the subject. It is by the ARRL president Rod Stafford. He is emphasizing the public service aspect of amateur radio. Public service is the best way of insuring our spectrum. While Dxing, ragchewing, and contesting are great fun, they don't garner much public support for the hobby and its required spectrum allocations.



Every time you learn something it's a plus. I guess that means that when you learn two things it must be bonus time. The first thing I found out was that a mobile rig that is running in cross band repeat gets very hot when running in high power. After thinking about this it made perfect sense. In this mode the rig is transmitting during

"normal" transmit time and also when it would normally be "listening" to the other person or persons talking. In a net situation this may mean the rig is almost continuously transmitting. The second learning was related. In addition to using more power we were using a good vertical antenna to improve communications to and from

net control. No matter how many people used the antenna it didn't get hot. The antenna helped everyone's signal without consuming power and generating heat. Well I did learn some other things, but that's the two allowed for this article. Look elsewhere in the newsletter if you want to learn what I found out about Nicad batteries.
Stan KD1LE

National Night Out

As a part of National Night Out on August 6, Groton had a display of various public service functions near the center of town. There were fire engines, ambulance, emergency management, and Crime Watch. We were invited to participate as part of the Emergency Management display. We had the "Wall" with various disaster clippings and ARES/RACES supporting stories. We set up an HF receiver to tune around on HF and set up 2 meters and 70 cm for repeater communications. We handed out pamphlets and answered questions about how Amateur Radio functions in emergencies. The following members participated: Karen KA1JVU, Dan N1LLG, Earl WR1Y, and Stan KD1LE. Thanks to all for waving the club banner.

Wife of Warren Rothberg Hospitalized

For those who don't know, Warren Rothberg, was the ARRL New England Vice Director until a new job recently took him to Florida. His wife was in an automobile accident down there and suffered serious injuries. She has been in TICU for several weeks and has recently undergone a day long surgery. You can send cards or letters to;

Warren & Donna Rothberg
9A Waterford Way
Delray Beach, Fl. 33446

Other ARRL Cabinet Meeting Notes

Some other issues came up at Bill Burdens Cabinet meeting this month. Bill asked for input from members regarding these issues.

The League has a policy in place relating to the requirement of CW testing for HF licensing. Should this be a policy? Should it be a goal, or something else? Should the League just seek to protect spectrum for each mode?

What should the Leagues position be on the CW issue when it comes up at the WRC?

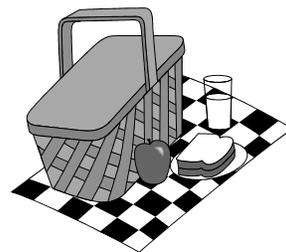
With respect to the previous item. Understanding that the removal of the CW requirement at a WRC does not change the requirements for any country unless they so choose. If the international requirements were changed, should we (the US) change our requirements?

Should we continue to have incentive licensing? In relation to this, should the number of license classes be changed? Three classes is a more common number.

Well, all of these questions Bill asked and I would be glad to relay some summary of feelings that people have. Of course, as members of the ARRL, you should feel free to send your comments to Bill or the League. There are addresses, both snail mail and e-mail listed in QST.

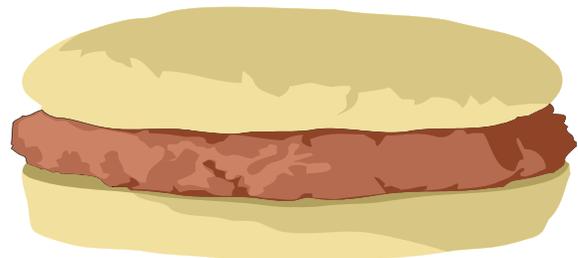
Rosalie covered some of the services provided by the ARRL Educational Activities Department. She gave some of the statistics for 1995. They are contacts with non-hams regarding licensing (13,577). Contacts with school teachers (2,002). Number of Volunteer Instructors (2,240). This department covers many facets under the educational umbrella such as; SAREX, new ham recruitment, teacher support for schools, teacher support for ham classes, ARRL on-line services, etc.
Stan KD1LE

This Month and Beyond



This month is the cookout. The cookout will be on the regular club meeting night. It is a bring your own burgers or whatever type of thing at the KD1LE estate.

We will provide the water in the pool, (bring bathing suits and swim-mies for the young children), the grill for cooking, the condiments and the drinks (soft ones).



Just bring yourself, the family, some chairs, and your food.

The location is 102 Groton St. in Pepperell. That is about a half mile south on Groton

St. from the junction of Rt. 113 at the White Hen. It is on the left side just as the road bends to the left. It is a dirt driveway, and it is loong...Hope to see you there.

2M/440 Band Info

During the cabinet meeting there was lengthy discussion on the history and current status of the proposals by the Little LEO group. The bottom line is that your letters and e-mail are still needed. The feeling was that even though the request is to "share" the subject band, that would not be possible since the satellite usage is not low power density and that the real intent is band ownership.

Below are the addresses to use depending on the media you are using. For those so inclined, the feeling is that a letter has more impact.

E-mail: wrc97@fcc.gov

U.S. Mail:
Office of the Secretary
Federal Communications Commission
Washington, DC 20554

Worked All States Opportunities

If your trying to fill in a few states for that WAS award these Special Event Stations might do it for you.

ND	Aug 4	7.250, 14.250
HI	Aug 4	7.290, 14.290, 21.290, 28.390
CO	Aug 25	14.260, 28.325
AZ	Sep 2	3.885, 7.040, 7.285, 14.305, 18.135, 21.288, 28.386

Newsletter/Membership Info

The Newsletter mailing labels show the current membership expiration date. If there are any discrepancies please let the treasurer (Ralph KD1SM) know. I noted on several that dues had been received after the labels were printed.

Technical Articles

Starting with the September newsletter there will be a series of articles on things like transmission lines and antennas. These are QST articles and are fairly detailed. They could be the topic for the monthly Tech Talk. For most

of us they will certainly bring up a question or two. Bring your questions to the next meeting for discussion.

Some Facts About Nicads

The following are a few facts I learned about nicad batteries. I was trying to understand why my "C" size battery pack went dead after only about one hour of use at the bike race. In fact two similar battery packs did the same thing. So I downloaded a couple of articles from the ARRL on batteries.

Fact number one is that nicads lose about 1% of their charge each day. While that is diminishing type of loss, it still means that after a couple of months the batteries have lost a significant amount of capacity. They may be down to 50% in 90 days. It should not have come as any surprise, that the "C" cell battery pack that I charged last summer and never used would only last one hour this summer.

Now I have two "dead" but rechargeable battery packs. What should I do? Well the answer here is not simple. The short answer is fact number two. Nicad batteries store just fine "dead. So in the interest of not using up another one of the limited number of recharges on the shelf (good nicads correctly charged can last for as many a 1,000 charge/discharge cycles) it would be best to leave them "dead" till I needed them. Then I could charge them.. The problem here of course is you never know when you will need them.. On top of that it would take me two days to charge both of the battery packs in my charger. That would certainly be a slow response. Two days may be OK to plan for a race or parade but not for an emergency. The articles were on the chemistry and manufacturing of the batteries, so operational issues like this were not discussed. But the way it looks, is that it doesn't make sense to try to keep many battery packs charged constantly. You do need to have a plan to stay on the air long enough to solve the above problem by either charging another pack or replacing the batteries. One option, that is highly recommend, is to have some sort of battery pack or auxiliary package that runs on non-rechargeable batteries. Some manufacturers of handhelds make a battery pack for regular alkaline batteries. Since they would generally be available it could serve as a back up till you could charge your nicad batteries. Although it does take away from the useful cycles, another option is to put some number of battery packs in a charge rotation. For example taking three packs and charging one a month. The "oldest"

may have 50% charge, the second oldest 75%, and the most recently charged 100%. That way you would be charging them only four times a year for the sake of preparedness. That wouldn't have much impact on the life expectancy.

In fact it doesn't seem that charge/discharge cycles is the biggest concern with nicads. Improper charging seems to be the biggest killer. Charging at too high a rate causes heat that has several detrimental effects. Heat is not only generated during the charging, but also is the outlet for energy once the battery is charged and current is still flowing through it. These factors indicate the importance of proper charging with respect to rate as well as to length of charge cycle.

Watching TV the other night I saw an add from the battery industry for recycling nicad batteries. There is some process in place for returning spent nicads through retail stores. Information is available by calling a toll free number. 1-800-8-BATTERY. This return program is based on the manufacturer of the battery you have and is not a one stop system.

Stan

Field Day Wrap Up

Since Field Day was so much fun and we did so well we thought it only appropriate to make sure our results got properly delivered to the ARRL. On Tuesday July 23rd, Jeremy KB1AWE and Stan KD1LE delivered the results to the Contest Desk at the ARRL Headquarters in Newington, CT. See Jeremy's article for the rest of the story.

Upcoming Public Service Events

Groton Septemberfest	Sept
Eastern States Exposition	Oct
Pepperell Soccer Tournament	Oct

Notes from the above events.

Our space has been confirmed for the Septemberfest in Groton. If anyone has any thoughts about how or if we should change our presentation we would like to know.

The Soccer Tournament in the Fall takes a lot of support. We have to cover several sites for the three days of the event. Consider helping out if your around for Columbus Day weekend.

We received a card from the Pepperell 4th of July Committee thanking us for our help in

the Parade and Race. In a related matter, several members have discussed the possibility of the club putting a float in the parade next year. There is no cost other than the float itself and it would give us publicity with the several thousand people who view the parade. Any thoughts on the subject?

Lite Contesting

Have you ever wanted to try out contesting, but were scared off by the intensity? The upcoming Hiram Percy Maxim Birthday Celebration may be for you. This is the 127th anniversary of his birthday. Hence, the "/127" at the end of designated station calls.

This event is designed as low key "contest" in every way. First it runs for a week, from 0000Z August 31st to 2400Z September 8th. The goal is to work as many stations signing "/127" after their call as possible. But all you have to work is 25 to get a certificate from the ARRL. People signing "/127" are League Volunteers, that is those holding an ARRL appointment such as Section Managers (SM, ASM), Volunteer Examiners (VE), Official Observers (OO), Emergency Coordinators (EC, AEC), League Officials (PRES, VP, VC, DIR, VICE DIR), QSL Bureau Workers, Section Traffic Manager (STM, ASTM), Net Manager (NM), and more. There are lots of people to work so getting 25 should not be a problem. And you can work them anywhere, HF, to microwaves. Or as the saying goes, "DC to light". You can even use repeater QSO's, so there are plenty of opportunities to make the necessary contacts.

The complete rules are on page 81 of August QST. The brief rules are you can work a station once per band and mode. The exchange is a signal report and name, or for appointees and officials, signal report, appointment, and name.

See you there, "CQ CQ CQ DE KD1LE/127 , UR 599 VE STAN...GOOD LUCK IN THE CONTEST CQ CQ

Radio Direction Finding AKA Fox Hunt



We were thinking about planning a fox hunt to take place in the fall. We would like to offer this opportunity for beginners to try out this challenging aspect of Ham

Radio. For this reason it would be an "on foot" event. These don't take any more equipment than a two meter handheld or even a portable scanner. Of course you can use small directional antennas also. If there is interest we could have some kind of a training session prior to the hunt. This could even be at the site. The other option is to pair up those desiring it with a partner for the hunts. If your interested and think you might want some type of help let me know so we can plan for it. Stan KD1LE

Meeting notes from July

There was no July Meeting.

NVARC Slow Speed Net

The net meets Tuesday and Thursday at 8:00 P.M. on 28.123 MHz. Except the third Thursday of the month. that being the club meeting night.

Board Meeting Notes



Since there is no formal meeting this month and the plans had been made for the cookout we had no board meeting this month.

\$The Treasurer's Report \$

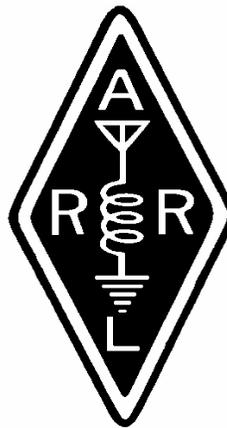


July income was \$133.00 in dues and \$0.17 in bank interest. Expenses were \$38.40 for newsletter postage (June and July). Current balances are:

General Fund
\$714.33
Education Fund
\$188.34

If you haven't yet joined the ARRL and are thinking of doing so, well there's no time like the present. If you make out the check to the Club and hand me your application, not only will you save the cost of the stamp but the League lets the Club retain part of the money. There couldn't be a less painless way for you to help the club out. -Ralph KD1SM

W1AW Visit



Well, I have to say the ARRL does have a pretty nice setup down there!! On July 27th Stan (KD1LE) and I went down to the ARRL Headquarters in Newington, CT (where else!). We got to go on the tour, and even got to operate as W1AW, but the big part for Stan was that he got to turn in his

WAS Mixed on CW cards! I got on 10m SSB and gave a few calls and got only one response, from a guy in Westerly, RI. That's all the contacts I got, but I did get to operate as W1AW and get a certificate for it too! Stan made a few more contacts than me, he got a contact in Europe and another south of Springfield, MA. He also got a certificate for working at the station. One of the cool things I thought about the station was they had Studio's, so you could choose where you wanted to operate from. Stan and I both chose Studio 1 which had 3 different radios. A FT-1000D (which both of us used), a TS-50S, and a TenTec Omni 4 (or 6 can't remember), and even had a SSTV station donated by a ham in Michigan. Overall I think it was a great trip! For those of you who haven't had a chance to make it down there, I recommend you make the trip. Jeremy KB1AWE

Worked All States, What Is It?

Well I took advantage of the trip to Newington to register my QSL cards for WAS. That is Worked All States. I've been holding these cards for over a year now and have used them

at a couple of our ham classes as props. But now it was time to use them.

There are variety of WAS awards. The simplest way to get WAS is a mixed award. That means QSO's in mixed modes (CW, RTTY, Phone, etc) and/or bands. There are also awards for WAS all QSO's on one band such as 2 meters, 220 MHz, 432 MHz, OSCAR, 160 meters, etc. In addition there are endorsements for WAS with all contacts in CW, SSB, QRP, Single Band, EME, Packet, and Novice.

I have a US outline maps on the wall for each HF band and color in each state as I receive a card for that band. It is interesting to see the difference in coverage each band has. Some of the bands like 17, 20, 30, and 40 show almost complete coverage. Others like 80 and 160 fade out mid country. Due to the sunspot cycle my 12 meter map is pretty bare. The 10 meter map was the same till the 10 meter contest this winter when I worked about 30 states in a weekend.

On the HF bands the big award is 5BWAS. That is Five Band Worked All States. This is for working all states on each of main HF bands (10, 15, 20, 40, and 80). There are certainly are enough challenges out there. But it is not limited to HF. Several people have been awarded WAS for 2 meters.

NVARC QSL BUREAU

The NVARC Buro sent out one pound of cards since the last meeting. We have several pounds of outgoing cards on hand now. I will hold these till after the newsletter goes out so those who have cards should try to get them to me. Then I can collate them together and send them out.

Bring your cards and a QST label to the meeting or to breakfast and the club will take care of the shipping and bureau fee.

Predictions From The Past

"Who the hell wants to hear actors talk?"

H.M. Warner, Warner Brothers 1927

I'm just glad it'll be Clark Gable who's falling on his face and not Gary Cooper."

Gary Cooper on his decision not to take the leading role in Gone With the Wind.

440 Machine/Autopatch

The 440 machine now has an autopatch covering Pepperell, Groton, Dunstable, and

Tyngsboro. Dave N1MNX has been working on this for some time. Dave is looking for "subscribers" to sign up to support the monthly phone charges for the autopatch. Dave estimates that it will cost about \$250.00 per year to cover the phone costs. The more people that subscribe the lower the per person cost will be. For more information please contact Dave at 508-433-2577. Or David K Peabody
P.O. Box 1309
Pepperell, Ma. 01463-1309

From the Video Library

The Video Library has eight titles to loan.

- *Disaster Preparedness/Public Service
- *Everything You Always Wanted to Know About Antennas
- *The Last Voice From Kuwait
- *The all China DF Competition
- *Your League at Work
- *Signal to Noise Story
- *Gonzaga Prep HS Radio Club Satellite Communications
- *The New World of Amateur Radio



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Treasurer: Ralph Swick, KD1SM
Editor: Stan Pozerski KD1LE
PIO: Earl Russell WR1Y

Meetings are held on the 3rd Thursday of the month - 7:30 p.m. - Pepperell Community Ctr.
Talk-in 146.490 simplex

This newsletter is published monthly. Submissions, corrections and inquiries should be directed to the newsletter editor. Articles and graphics in most IBM-PC formats are OK.

Packet address: PEPMBX (145.09 MHz)