



SIGNAL



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Want To Learn More?

Every Monday night at 7:00 PM New Hams, Old Hams, and people trying to become Hams get together at Tom Sefranek's house. His call is WA1RHP. You will hear Tom on the 145.41 Harvard repeater, where he is one of the control operators.

After becoming a Ham, I still needed and wanted to learn more about radios, baluns, antennas, feedlines, tuners, etc. I heard about people getting together for Ham Radio Nite every Monday at 7:00 PM at Tom's house, like they had been doing for 27 years. Man this was just what I needed. Tom has the teaching skills to bring the conversation down to any level of understanding and he will make sure you know what he is talking about. Last night, 12/30/96, Tom had a 10 kilowatt balun (wow), this led to talk about what is a balun, why we use baluns, about the different types of baluns, and about different types of feedlines to use or not use with baluns. Great stuff, and most importantly I understood it. He showed a bunch of chokes he made to test for RF problems.

Recently, he added 15 minutes a night of Morse Code practice. Tom's method of teaching the code is characters are sent at about 25 WPM speed with lots of space between them. The reason for this is to learn to hear and identify the character by sound, not by counting Dits and Dahs. This way you only have to learn the code once, not once for 5 WPM, then again for 13 WPM, and again for 20 WPM. Last night there was a nine year old there for his



first visit with his dad. He was very surprised at how successful he was after just 15 minutes. Tom has a list of sayings that go with each letter of the alphabet. The saying for Y is "your a yo-yo" -.- You can really relate to the sound and rhythm. There were also a 48 year old, a 50 year old, and a 69 year old learning the code. Great Stuff.

Since I started going there I have been building a power supply from scratch. Tom had all the components I needed to complete it, a great learning process. Tom has a great inventory of electronic components, both new and recycled. He has a list on URL. He is constantly in touch with Hams on the Internet answering technical questions and helping to solve their problems.

Tom has also showed me how to properly install an HF rig and VHF rig in my car with circuit breaker to protect the rigs.

Tom also has an interesting antenna farm with homebrew dipoles and other wire antennas. He also has homebrew aluminum Yagi's. Tom's shack is solar powered in case of the need for emergency communications with no power on both HF and VHF.

Tom has recently helped bring the Harvard repeater (145.41 distant PL 74.4) up to top notch performance with great coverage from central NH to the south shore.

So as you can see, he is quite knowledgeable about most aspects of Amateur Radio. He enjoys very much sharing this knowledge with others.

The NVARC has decided to support Tom's effort and give any help to him we can. If anyone has any Ham or related gear for which they have no use Tom would gladly take it. He would then repair it if necessary and loan it to a new Ham. So if you have anything that might interest him please contact him. Tom welcomes all to come Monday nights at 7:00 PM. Hope to see you there. I will be the 50 year old guy with the confused look on his face.

Tom lives at 112 Great Road (Rt. 2A) in Shirley
Ma He can be reached at; PO Box 578 Shirley,
Ma. 01464. Phone-425-6672

Web pages at;

www.cmcorp.com

<http://hamradio.cmcorp.com>

<http://hamradio.cmcorp/inventory/inventory.html>

Bob McArthur KD1ED

This Months Meeting

This months presentation is on Radio Direction Finding or Fox Hunting. Ralph KD1SM and Stan KD1LE will talk about how they use all of that equipment that they displayed at last months meeting.

They have been on a number of hunts sponsored by the Minute Man Repeater Association (that means they provided the fox). MMRA asked Ralph and Stan if they would run one up in this area for a change of venue. Since this would be a local event it would be nice to have some more of our own hunters out there. This is a chance to learn what you need to know to go out there and find that fox. We have set a date of February 1 for the event, that's Saturday morning from ten to twelve o'clock. The fox will be transmitting on the input frequency of the Fitchburg repeater (144.850). That way you will know he is transmitting even if you can't hear him directly. There's no formalities but if you could let us know your hunting by calling on the repeater. That way we can keep track of who is left out in the field as the hunt goes on.

At The Last Meeting

The last meeting was "Homebrew Nite". We had quite an assortment of projects on display and got an explanation of each from the "owner".

Earl WR1Y showed a loop antenna made out of CATV hard-line. He also brought a wooden tool he built to bend the hard-line so it would not be crimped.

Rod WA1TAC brought a linear amplifier he was working on made from a "find" at a yard sale.

Craig N1ABY demonstrated a voice IDer he built to ease the strain on the voice in contests. It would do the CQing and the proper exchange text.

Ralph KD1SM and Stan KD1LE showed the equipment they use in fox hunting. They

had Doppler DF gear, Yagi antenna, maps, GPS equipment and computer mapping equipment.

Bruce K1BG showed the connector arrangement he has developed for connecting CATV hard-line using some electronic parts and some plumbing parts.

Stu K1YET showed an wooden model car he built while engaged in one of his other hobbies—woodworking.

QRZ For Sale

The December 1996 QRZ CDROM is now in production.



Any member interested in purchasing a copy at the club discounted price should contact Ralph KD1SM.

E-mail Addresses

From time to time it would have been nice to be able to get in touch with as many members as possible at the last minute. For example, to let everyone know who/what the topic for the club meeting was, when we didn't know at the time of publishing the newsletter. For this reason I am adding E-mail addresses to the roster. If you have a regular E-mail address please give it to Ralph or me and we will add it.

Stan

HF Spectrum Report

SB QST ARL ARLB097

ARLB097 NTIA Report Bullish on Additional HF Allocations for Amateur Radio

High Frequency (3-30 MHz) Spectrum Planning Options, a planning document released December 13 by the National Telecommunications and Information Administration, says the HF spectrum is flexible enough "to accommodate most, if not all," demands for additional HF spectrum, including new and bigger HF ham bands. The NTIA is an Executive Branch agency in the Department of Commerce that's responsible for developing telecommunications policy and advising the President on telecommunications matters. The NTIA's latest report is a follow-on to an NTIA study released in March 1995 (see QST, June 1995, page 75).

The Options report addresses spectrum availability and long-range planning options for services that were identified in the earlier report as needing additional HF spectrum--including Amateur Radio. The report cites a potential 900 kHz or so of expanded or upgraded allocations for Amateur Radio in the HF spectrum, including:

- + an exclusive, worldwide allocation at 3500 to 3800 kHz
- + a new band at 4945 to 4995 kHz (additional technical studies would be required)
- + an "aligned worldwide" allocation at 6900 to 7200 kHz
- + expanded worldwide, primary allocations at 10100 to 10350 and 14000 to 14400 kHz
- + expanded allocations at 18068 to 18318, 24740-24890, and 28000 to 30000 kHz.

Some of the potential expansions proposed for amateurs and broadcasting are mutually exclusive or could involve sharing by the two services. These include the potential expansions at 30, 20 and 17 meters. According to the report, ham radio allocations account for 13.1 percent of the HF spectrum (3 to 30 MHz). "There are no current plans to auction any HF spectrum," the NTIA report states, but notes that additional allocations for ham radio would come at the expense of other services--primarily fixed, fixed-mobile and broadcasting. "The expansion and upgrading of amateur allocations in the 10 MHz, 14 MHz, 18 MHz, and 24 MHz (bands) appear acceptable; however, this will depend on future decrease of requirements for the aeronautical mobile (R) or the fixed services internationally," the report said. Changes in the 80 and 40-meter bands "will require the inclusion of these proposals in US preparations for future WRCs," the report added. A requested allocation at 6900-7200 would serve "to reduce inter-regional sharing and interference from HF broadcasting in the 7100-7300 kHz band," the report said. The report called the requested upgraded allocation at 3500 to 3800 kHz "a good candidate for a common worldwide exclusive amateur allocation at the 3.5 MHz band."

To help satisfy demand for additional HF spectrum access, the report suggests more efficient use of current allocations, moving current HF spectrum users to other portions of the HF spectrum, use of other non-spectrum technologies and use of higher frequencies. The report also said sharing--and removal of some "exclusive" allocations--might be another option.

Calling ham radio "the oldest radio service" and one that "pre-dates regulation," the NTIA report casts the hobby in a favorable light. "Radio amateurs have made significant contributions to the field of radio propagation, HF single-sideband radio, HF data communications systems, packet radio protocols and communications satellite design." The report goes on to say that ham radio "continues to play an important role in disaster-relief communications, where amateurs provide radio communications independent of the telephone network or other radio services."

To view the complete report, set your Web browser to <http://www.ntia.doc.gov/osmhome/reports/hfspo/contents.html>.

From ARRL DX Bulletins (056,057)

ARLD056 DX news

This week's bulletin was made possible with info provided by Tedd, KB8NW, the OPDX Bulletin, The 599Rpt, Jim, VK9NS, 425 DX News, and Jean, F6AJA. Thanks to all.

BURUNDI, 9U. Erik, SM0AGD, is now in Bujumbura for a one month work assignment with the UN/DHA. He packed his keyer with him and has been reported QRV from the QTH of 9U5CW.

ANGOLA, D2.
D2EB was heard on
14210 at 2130z.
QSL via Box 2344,
Luanda, Angola.



CANARY ISLANDS, EA8. Rich, NW3N, and Chuck, KE3ND, are part of a mobile crew that is supporting the MINI SAT launch at the Grand Canary Island. If possible, during off hours, they will try to operate as EA8/NW3N using SSB on 14260 kHz and 14036 kHz or CW on 7036 kHz their local time. QSL via NW3N

ANTARCTICA. Nikolai Makarov, UA3YH, has been active as both KC4AAA and UA3YH/KC4 from the Amundsen Scott South Pole station. He will stay there until late January 1997. Look for his CW on 14020 and SSB on 14180 at 1600z to 1900z for Europe and 0000z to 0300z

for North and South America. QSL KC4AAA via NC6J. QSL UA3YH/KC4 to Box 461, Obninsk, Kaluga region, 249020, Russia.

SAO TOME, S9. Charles, S92SS, has returned to Sao Tome. He prefers 17 meter CW, but will try to be active on 160 and 80 meters as well. QSL to Charles Lewis, PO Box 522, Sao Tome, via Portugal.

MACQUARIE ISLAND, VK0. Tom Stoke, VK0TS, arrived on Macquarie Island on December 17. While his work will keep him busy, he will try to be as active as possible. Tom may be found on 14222 kHz. No QSL route as yet has been mentioned.

ARLD057 DX news

This week's bulletin was made possible with info provided by Tedd, KB8NW, the OPDX Bulletin, Jerry, K9BG, Stephen, N2MAU, 425DX News, Karl, PS7KM and Contest Corral from QST. Thanks to all.

REUNION ISLAND, FR. F6AFJ will be active as FR5GM from December 25 to February 15. He will be on SSB on 20 and 15 meters from 1100z to 1200z and again from 1600z to 1800z. QSL direct.

HONDURAS, HR. Bob, KS9W, and Jerry, K9BG, will be active from January 8 through January 15, as HR3/home calls. Jerry will operate primarily CW and Bob will also operate CW and RTTY on all bands. SSB activity will be minimal. Jerry will also try some satellite operation. QSL via home calls.

GUAM, KH2. Jim, KH2D, will be active on 160 meters for the next several months. His operations will be primarily on 1828 kHz from 0800z until 1500z. When possible, he will be on during his sunrise around 2030z looking for European stations. QSL via K8NA.

ST. PETER AND ST. PAUL ROCKS, PY0. Karl, PS7KM and Tino, PT7AA, plan to operate from here for 2 to 3 weeks as ZY0SK and ZY0SB, respectively, starting January 25. Look for CW and SSB activity on 80 through 10 meters. QSL via home calls.

MACEDONIA, Z3. Jan, OH3MIG, will be active for the next 6 to 8 months as Z38/OH3MIG. He

will be active on CW and SSB on all bands. QSL via OH3GZ.

Upcoming Public Service Events

The Groton Road Race is already in the planning stages. It will be April 27th. Erik KA1RV is the contact for this event.

A number of other public service events are listed in the KD1SM/KD1LE Public Service List.

CW Practice Nets

The NVARC Slow Speed Net meets Tuesday and Thursday at 7:30 P.M. on 28.123 MHz. Except the third Thursday of the month, that being the club meeting night.

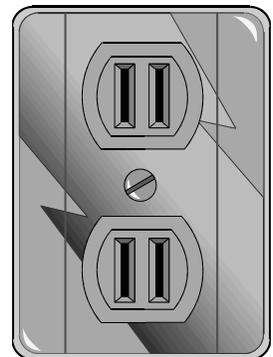
There is now a CW practice running on the Nashua Repeater (147.045) Wednesdays at 8:00 PM. It will be ARRL Style and the text will be taken from the Nashua Area Radio Club Newsletter. You don't need the newsletter to be able to take advantage of the broadcast.

There is a similar net being run on the Harvard Machine.

These are not two way communications like the NVARC net is. They are designed to listen and copy the code. If your license class or equipment limitations prevent you from being on the air then these might help. The best way to get on the air is with a net, like the NVARC Slow Speed Net, and actually send and receive code. At least that's my opinion. Stan

Power Outlets Around the Shack

Before I built my shack I had read a couple of articles about things you consider when building or remodeling a shack. The common theme in the articles and the one that I wrote for the Signal was power. You can never have enough outlets in your shack. Now I'm only talking about 120 VAC outlets.



The reason I bring this up again, is I considered this when I remodeled my shack two

years ago. I put in outlets everywhere. Then today I went to plug in the Weather Station Santa brought and no outlets. Well, that's not completely true. There were a few left, just not in the right location. I have eight duplex outlets around the shack. A seemingly inexhaustible supply. But still not enough. Right now I have the following things plugged in; two computers, two monitors, a printer, a weather station, two chargers for deep cycle batteries, two table lamps, HF rig, 24 hour clock, HF receiver, frequency counter, Nicad charger for penlight batteries, two Nicad chargers for HT batteries, antenna rotator control. Now I haven't even tried very hard and there are 18 items plugged into 16 outlets. Well, I've already cheated by plugging one computer, monitor, and printer into a switched outlet strip. I have the table lamps plugged into another, and the two deep cycle chargers are now plugged into a timer for automatic charging.

With this rapidly deteriorating condition you might think I had never given this any thought. But as I said, I did, and thought I had included plenty in the redesign. I have even supplied 12 VDC to some of the equipment from my deep cycle batteries to eliminate power supplies or the plug in power adapters. That eliminated connections for the dual band mobile rig I use in the shack, the TNC I use for packet, the 12 VDC emergency lights, the TNC for APRS, and the Handheld I use for APRS. That's another half dozen items.

I don't have a formula that can predict the number of outlets you will need in your shack. But I think if you add up everything you can think of that needs an outlet doubling it probably won't be far off. Stan

Board Meeting Minutes 9 Jan

Since I am trying to get the newsletter printed earlier to save on costs I won't have the board meeting notes in time for publication. The notes can be read at the meeting.



Stan

\$The Treasurer's Report \$

December Treasurer's Report

Best wishes for 1997, everyone. Income for the month of December was \$30.00 from dues and \$2.00 from an ARRL renewal. Expenses were \$55.10 for newsletter copying and postage. Current balances are:

General Fund \$446.64
Education Fund \$448.34

Many thanks to you members who remember to renew your ARRL memberships through the club. Are you thinking of joining the League but haven't yet found that RoundTuit? Well, there couldn't be a better time!

How about that New Year's Resolution to support another group that is out there every day protecting the small part of the RF spectrum we hold in the national interest?

73, Ralph KD1SM



NVARC QSL BUREAU

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. Stan

FCC RF Exposure Update

SB QST ARL ARLB102
ARLB102 FCC Delays New RF-Exposure Rules

Just in time for Christmas, the FCC has postponed the date for hams to comply with the new RF-exposure regulations from January 1, 1997, to January 1, 1998. The ARRL was among

those requesting the delay. The League said that the additional time was needed for the FCC to draft implementation guidelines and for amateurs to use them to comply with the regulations (released on August 1, 1996 as ET Docket 93-62).



FCC Report No. DC 96-112 announced the amendment of the rules to extend the transition period for licensees to determine compliance with the new bioeffects requirements for RF transmitters. The League obtained a copy of the report just before noon on Christmas Eve.

The time extension to January 1, 1998, will allow changes to Amateur Radio operator examinations to be made along with routine revisions between now and July 1, 1998, rather than requiring hurried special revisions. Among the reasons for requesting the extension was the desire to permit licensees to make a more orderly entrance into this new area, to allow time for information to be promulgated to hams to ensure that they have the information at their disposal to comply with the new rules, and to allow time for appropriate questions to be inserted into the question pools for the various amateur license exams.

In Report No. DC 96-112, the FCC said it disagreed with those petitioners who suggested that the time extension "will have significant adverse effects on public health." The entire text of Report DC 96-112 may be found on the ARRL Web at <http://www.arrl.org/fcc/dc96-112.html> (or click on What's New or RF Safety News).

Predictions From The Past

"A cookie store is a bad idea. Besides, the market research reports say America likes crispy cookies, not soft and chewy cookies like you make." Response to Debbie Fields' idea of starting Mrs. Fields Cookies.



"We don't like their sound, and guitar music is on the way out." Decca Recording Co. rejecting the Beatles, 1962.

"Heavier-than-air flying machines are impossible." Lord Kelvin, president, Royal Society, 1895.



Skywarn Training

The following opportunities are coming up for training in support of Skywarn. These sessions are usually given by a member of the staff at the National Weather Service in Taunton, Ma.

Wed 04-09-97 NWS Taunton, Ma
Contact Glen Field 508-823-1983

Wed 04-16-97 Holy Cross, Hablin Hall Worc
Contact Ted Agos N1SBM 508-865-5613

Sat 05-17-97 Fitchburg Public Library
Contact Jeanine Swick N1QIT 508-582-7351



**Nashoba Valley
Amateur Radio Club**

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Secretary: Stewart Jackson K1YET
Treasurer: Ralph Swick, KD1SM
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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)