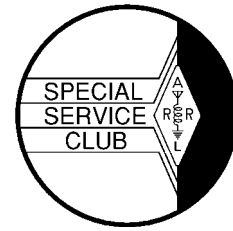




SIGNAL



de NINC

April 2007 Volume 16 Number 4

This Month's Meeting

This month's presentation will be Ray Lajoie KB1LRL on How Comcast Works.

Road Cleanup Sunday 22 April.

Please note that as usual the May meeting will be held at the Pepperell Library due to the annual Library Book Sale which takes place at the Community Center.

We have updated the member information, club activity, and article index sections in the club yearbook. The update will be available at club meetings. Please see Stan or Ralph at the meeting to get your update.

Last Month's Meeting

Last month's meeting program was the Art of QSLing by Les N1SV. Les has extensive knowledge of the QSL process having over 325 countries confirmed.



Les covered QSLing including card design considerations, where to QSL, postage issues, IRC's, and many other aspects.



Stan brought the classy junk including hard drives for desktop and laptop PC's, video cards, PC memory, Zip drives and various cables.

Attendees at the January meeting: Dale AB1GA, K1MBR Richard, Skip K1NKR, Tom K1NNJ, Gary K1YTS, Larry KB1ESR, Gary K1YTS, Phil KB1JKL, Peter KB1LZH, Stan KD1LE, Ralph KD1SM, Den

KD2S, John KK1X, Les N1SV, Peter N1ZRG, Joel W1JMM, Richard W1LTN, Jim W1TRC, Guest Robert WA1SMI.

Board Meeting

This month's board meeting topics.

Meeting presentations and future meeting presentations. Some short presentations to add to otherwise short meeting.

For our support of the QSL Bureau NVARC will get free incoming Bureau service for the club callsign.

Received the Mass Highway Adopt A Highway agreement for the upcoming year. We have signed up with MassHighways for another year's road cleanup. We are also signed up with the Town of Groton for an annual cleanup. Groton Selectmen meeting certificate.

We need coordinator for Field Day June 23rd-24th.

Looking at providing a larger projector screen for Community Center.

Central Mass 2 Meter Net website up and running on our Web hosting service.

Considering of letting MARA host their Website on our hosting service which would cut our cost. The two Websites would be separate entities. Ralph looking into issue.

Treasurer's report.

Larry reported on activities of the North Middlesex Regional Emergency Planning Committee.

In attendance Bob W1XP, Ralph KD1SM, John KK1X, Larry KB1ESR, and Stan KD1LE.

Support the Local Repeaters

Last year March 09, 2006 I asked for help defraying the expenses of running the repeaters. A few users helped. Thanks to all who donated to help with the N1MNX Repeaters last year. It is time to ask for your support again. Financial donations help to pay the electric bill which ranges from \$28-\$32 dollars a month or about \$336-\$384 a year. All donations are appreciated.

Thank You
David Peabody

HR 102

An Introduction to HF Radio Part II

Introduction

In last months article I discussed briefly the amateur High Frequency (HF) assignments and how we might divide them into low and high bands. This month I plan to discuss another division and how it comes about. And then how we my use this knowledge to our advantage.

Diurnal Division

Another way to divide the bands is by the time of day when they are the most useful. So we can divide the bands in to Daytime and Nighttime bands. This division follows the previous partition fairly well. The higher frequency bands (20 through 10 meters, see part I) as Daytime bands and the lower frequency bands (160 through 30 meters, see part I) as Night-time bands. Now let's look at why.

You may recall that for a radio signal to be propagated beyond the horizon it must be refracted by the ionized layers in the ionosphere. You may also recall that the amount of refraction depend on the levels of ionization in the layers for the ionosphere. So for the higher frequency band signals to be propagated to other parts of the world we need high concentrations of ions in the ionosphere. For signals in the higher frequency bands this is the highest layer of the ionosphere. This is the F2 layer. (We will go into the structure of the ionosphere in a future article). This level of ionization depends on high energy (shorter than visible light in wavelength) radiation from the sun. When the sun is in the active part of the 11 year solar cycle there are lots of sun spots and these result in high levels of UV and X-ray radiation received by the sunny side of the atmosphere. This radiation strips off an electron from the gas molecules providing the free electrons necessary to refract radio signals. It is the interaction of the radio wave and the free electrons that causes the refraction of the radio wave. The radio wave sets the free electron in motion, which causes reradiation and the return of energy to the radio wave. But this process causes the path of the radio wave to bend from the initial path. Enough free electrons and the radio wave path is bent enough to return to the surface of the earth. This allows the propagation of signals on the higher frequency bands to great distances. The higher the free electron density the higher the frequency refracted. (Now there is something that makes sense). The radio signals are propagated around the earth via the sunlit path. Like wise at

night the lack of radiation from the sun allows the levels of ionization to drop below that required for propagation. This drop is due to the free electrons recombining with the ionized molecules and dispersion. This drop in ionization means that the highest frequency bands close (or lose propagation) first and the band closures progress from the higher to the lower as the level of F layer ionization levels fall. The reverse is true as the bands open after sunrise. So 20 meters will open before 15 meters, which will open before 10 meters. (17 and 12 meters are in their respective places). The progression of the band openings after sunrise can be quite fast when the sun spot numbers are high. And the bands can remain open for hours after sunset but the expression that the DX follows the sun is not far from the truth. I've over simplified a very complex subject but it is a good place to start your understanding. There are many books written on what I have covered in a few paragraphs.

That Dastardly D Layer

Now how can you transfer the same explanation to the lower frequency bands (those below 20 meters, the ones we will refer to as the Nighttime bands)? Using the same thinking we can assume that the same mechanism of the sun ionizing the F layer will transfer to the low bands and that they are left with the level of ionization that remains after sunset. One can also come to the conclusion that if the higher frequency bands are open then the lower bands must be open also. Well it doesn't work that way. And why is a bit complicated. The highest energy radiation that is received from the sun by the atmosphere that is in sunlight penetrates deep into the lower levels of the ionosphere. These particles ionize the E layer at about 100 KM altitude and the very highest energy radiation manages to reach even lower altitude and ionize the D layer at between 60 and 90 KM. The D layer is really the bad guy! It is this D layer that acts as a sponge soaking up the lower frequency radio waves as they pass through the layer. Signals in the low frequency (LF) and medium frequency (MF) bands are greatly attenuated. And HF signals up to several MHz are attenuated severely also. (Note, LF is 30 kHz to 300 kHz and MF is 300 kHz to 3 MHz). It is this D layer absorption (or loss) that wipes out sky wave signals on the AM broadcast band, 160 meters, and 80 meters during daylight. The attenuation is caused by the free electrons, which are excited into motion by the passing radio wave (just like the higher frequency case in the F2 layer), losing energy by colliding with gas molecules in the much denser atmosphere. Just as a bouncing ball loses energy as it collides with the ground and eventually comes to rest. Normally the energy transferred to the electrons is returned to the passing radio wave. (As we discussed in the higher

frequency bands above) But energy lost in the collisions is not returned to the radio wave. So the radio waves lose so much energy that they are not detectable. Why is this so? The more collisions there are the more loss there is. If there are no free electrons to interact with the passing radio wave then there are no electrons to collide so no loss. No D layer, no loss. But the lower the frequency of the radio wave the farther the electron moves (because of the longer wavelength) and the more collisions it encounters. So the higher the frequency the fewer collisions and the lower the loss. This is why the D layer has little effect on the signals in the higher frequency bands. Another reason the D layer absorption is high at lower frequencies is the radio wave passes through the D layer twice per hop. Once on the way up and again on the way down. This is a double whammy so to speak. The levels of ionization are not high enough to refract the radio wave. But the number of collisions is so high that the absorption or losses make communications impractical. We will look at this further in a later article on Near Vertical Incident Sky wave (NVIS) or short-range communication using the lower frequency bands. The good news is the D layer collapses as soon as the source of ionizing radiation passes over the horizon. It forms very quickly at sunrise and dissipates quickly after sunset. It has a major effect on Top band, less on 80 meters, and even less on 40 meters. Forty meters operates fairly well during the daylight hours. The wavelength is short enough that the attenuation in the D layer is low. But the E layer shields 40-meter propagation from the F2 layer where the levels of ionization are high enough to refract the signal. Since the E layer is between the D and F layers the 40-meter signal has to pass through the E layer to get to the F2 layer. But the daytime E layer ionization is high enough to refract the 40-meter signal before it gets to the F2 layer. As a result during the day 40 meters is open to shorter distances than the higher frequency bands. Forty meter daytime signals are much better than the 160 and 80 meters which are experiencing high D layer absorption.

So what does this mean for low frequency band propagation? Well simply put, the lower frequency bands are Nighttime DX bands. It is only after sunset that the bands come alive for DX signals. This is because the D layer has returned to a neutral state and the attenuation has dropped. Signals are now able to pass through the region with little attenuation and be refracted by the F layer to great distances. The E layer has also lost most of the daytime ionization and has little effect on nighttime signals. So the nighttime bands open after sunset and close down at sunrise. The signals traveling in the dark ionosphere to stations as far as half way around the world.

So the operating choices are rather straightforward. The high frequency bands provide worldwide contacts during daylight hours. The signals traveling via the sun lit path. Path losses and noise levels are low so low power and modest antennas easily work the world on these frequencies. The down side is most of us have other things we are doing during the daylight hours. At least on the 5 days a week we are at work. Another disadvantage is that the conditions on the bands follow the level of sun spot numbers. We need high sun spot level for the high levels of ionization required. During the peak years of the sun spot cycle the high frequency or daylight bands are open worldwide for many hours a day with the opening extending well past local sunset. Even in the low levels of sun spots we are currently experiencing the lower of the high frequency bands are open for plenty of exciting contacts. (We are probably at the minimum sun spot levels between cycle 23 and cycle 24 at this time.)

Now the case for the Nighttime bands is a bit more complicated. These low frequency bands are open when many of us can get on the bands but we need our sleep so we can do our daytime things. Twenty meters being on the boundary between high and low frequencies can provide a lot of good contacts after the sun has set. 30 and 40 meters are really good in the early evening hours. The lower bands are subject to higher levels of both manmade and natural noise so contacts can be more difficult and marginal. This is especially the case with low power and low or small antennas. The antennas get bigger as the wavelength gets longer also. So people with restricted space can have problems putting up an effective antenna.

A couple more points before we bring this to a close. With a little reflection it should be obvious that the chance to work the farthest distance on either the high frequency bands or the low frequency bands is at dusk or dawn. This is because we are located on the edge of either the sunlit or dark hemisphere. We can work half way around the world in either direction. The high frequency bands working into the sunrise or the sun set. The low frequency bands are just the opposite. You work into the dark path or the opposite direction from the high frequency paths. Dawn or dusk patrol can be very rewarding. There are reasons of extra signal level enhancement at dusk or dawn but we will cover that later. But Dusk and Dawn are times of the day that many of us can get on the air. Dawn can be very rewarding in terms of contacts if you can get up early and get on the air while the rest of the stations you may have to compete with for a good DX contact are asleep. Something about the early bird, etc., etc.

And lastly, if you are starting out on HF operating for the first time I suggest the middle road. Especially if you don't have a good idea what you really want to do on HF yet. Shoot for 40,30,20 and 17 meters. (30 meters is CW and digital only). The WARC bands are especially good to start out on. 40 meters is a good all round band. Good 500 to 1000 mile signals during the day and worldwide DX at night. Especially in winter when the QRN (natural static) is lower. A 40-meter dipole is not a big antenna (66 feet long) and it is usable on 15 meters also. Seventeen meters is a good daytime band but the low number of sunspots is a disadvantage to that band at present. But cycle 24 is coming and some estimates are for a very good cycle. So it's a good time to be a ham. (Not sure there are bad times) You have just enough time to get your feet wet and learn the ropes before the really great conditions arrive in a couple of years.

In a future article I'll talk more about the individual bands and what you might expect to be able to do on them in the next few years. Till then 73 Bob W1XP

Treasurers Report

Income for March was \$120 from member dues, \$4 from ARRL membership renewals, \$32 from the March meeting book raffle, \$0.97 from bank interest, and \$5 from our N1NC balance with the W1 QSL bureau. Expenses were \$15.60 for newsletter postage, and \$9.95 for the CM2M.net domain registration leaving a net income of \$136.42 for the month.

Current balances:

General fund	\$4,258.58
Community fund	\$2,136.83

Welcome to new member John Grady of Harvard. John learned of the Club from our brochures left at Tiny's Restaurant in Ayer.

As of 12 April we have 51 members who are current with their dues and 13 renewals outstanding. Please check the member roster that is circulated at the monthly meeting if you do not remember your renewal date. Your membership date also appears on your newsletter mailing label.

If your ARRL membership renewal is coming due, leave your renewal with me at a Club meeting and the Club will pay the postage. As a Special Service Club, the ARRL lets us retain a small portion of the dues that we forward to them.

Ralph KD1SM

PSLIST

April

16 Hopkinton MA Boston Marathon
Steve W3EVE 508.922.9688 w3eve@arrl.net
plse register via <http://www.amateur-radio.net/marc>

21 Townsend MA Squannacook 2 Man Canoe Race
Gary K1YTS 978-815-4992 k1yts@arrl.net

29 Boston MA Multiple Sclerosis Walk Bob WA1IDA
508.650.9440 wa1ida@arrl.net

29 Groton MA Groton Road Race Ralph KD1SM
978.582.7351 kd1sm@arrl.net

29 Needham MA Run of the Charles canoe race
Bob WA1IDA 508.650.9440 wa1ida@arrl.net

29 Wellesley MA Multiple Sclerosis Journey of Hope
Bob WA1IDA 508.650.9440 wa1ida@arrl.net

May

6 Portsmouth NH Am Diabetes Tour de Cure
KB1KBD kb1kbd@arrl.net

12 Westford MA Apple Blossom Parade Terry
KA8SCP 978.692.2069 ka8scp@arrl.net

19 Portsmouth NH NH Lung Clean Air Challenge
Dave KA1VJU to 20 ka1vju@cnharc.org

19-20 Portsmouth NH NH Lung Clean Air Dave
KA1VJU ka1vju@cnharc.org

20 Parker Road Race on Devens
Stan KD1LE. 978-433-5090

20 Hadley MA Hadley Mem. Day Road Race Richard
KD1XP kd1xp@kd1xp.org

Jun

16-17 Mt Washngtn NH Mt Washington Road Race
Cliff N1RCQ n1rcq@amsat.org or Dave KA1VJU
ka1vju@cnharc.org

Jul

7 Mt Washngtn NH Newton's Revenge cycle race
Cliff N1RCQ n1rcq@amsat.org or Dave KA1VJU
ka1vju@cnharc.org

Aug

18 Mt WashngtnNH Mt. Wash. Bicycle Hill Climb
Cliff N1RCQ n1rcq@amsat.org or Dave KA1VJU
ka1vju@cnharc.org

19 Mt WashngtnNH Mt. Washington Century Ride
Cliff N1RCQ n1rcq@amsat.org or Dave KA1VJU
ka1vju@cnharc.org

Sep

29 Bristol NH NH Marathon Cliff N1RCQ
n1rcq@amsat.org or Dave KA1VJU
ka1vju@cnharc.org

NVARC Club Net

The club net meets on the 442.900 repeater. Subjects discussed recently; upcoming events Groton Road Race, Parker Road Race, road cleanup, Certificate to be awarded by Groton Selectmen for road cleanup.

Recent participants include Dave N1MNX, Bob W1XP, Bob AB1CV, Joel W1JMM, Larry KB1ESR, Skip K1NKR, Gary K1YTS, Ralph KD1SM, Stan KD1LE, Les N1SV, Richard KB1MBR, Ken K1JKR, Den KD2S and Peter KB1LZH.

The net is a good place to bring information for the club and questions or discussions. The net meets at 8:00 PM Monday evenings on the 442.900 N1MNX repeater.

Flea Markets

April

21 Greater Portland Hamfest S. Portland ME
29 Southington ARA, Southington CT

May

20 MIT
26 Hartford Hamfest, Vernon CT

June

1 Hamden County Radio Assoc, Feeding Hills MA
2 Bangor Hamfest, Hermon ME
3 Newington ARL Hamfest, Newington CT
16 Southern Berkshire ARC, Goshen CT
17 MIT

July

14 Pen-Bay ARC Union ME
15 MIT

August

19 MIT

September

15 St Croix Valley ARC Hamfest, Alexander ME
16 Western CT Hamfest Newtown CT
16 MIT

Advertisements



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Tell them you saw it in the Signal. Advertisers should contact the NVARC Treasurer for information.

Contest, DXpeditions and Special Events

The information for a DXpedition can be quite detailed and may include bands, dates, number of stations, and times of day they plan to work certain continents so I can not list it all here. But if a country or prefix is of interest you can get more information at www.425dxn.org.

Contests 2007

April
15 Holyland DX Contest CW/SSB
22-23SP DX RTTY Contest

May
CQWW WPX CW last full weekend

June
9-11 ARRL June VHF QSO Party
23-24 ARRL Field Day

July
CQWW VHF 3rd full weekend
September

CQWW RTTY DX 4th full weekend

DXpeditions

Call	Location	Until
OX3PG	Greenland	June 07
TU2/F5LDY	Ivory Coast	31 August 07

ST2R	Sudan	April 2007
J20SA	Djibouti	From 1 April
V73NS	Kwajalein	From 1 May
OX3PG	Greenland	Jun 2007
9V1CW	Singapore	2008
8Q7IM	Maldives	Nov 2007

See www.425dxn.org for more listings

NVARC Swap Shop

21 inch monitor available free for the asking. Contact Bob W1XP.

ARRL Letter

ARRL, NATIONAL PUBLIC SAFETY TELECOMMUNICATIONS COUNCIL INK PACT

ARRL and the National Public Safety Telecommunications Council (NPSTC) <<http://www.npstc.org/>> have signed a Memorandum of Agreement (MoA). The League is an NPSTC member organization, and the MoA culminates efforts begun in 2003 to formalize the relationship between the two organizations.

"This agreement promotes the concept of strength in unity," the MoA says. "Speaking with one unified voice provides a clear and strong message from the public safety community." The MoA also aims "to promote a consensus input decision-making process." The NPSTC has been among the organizations that have asked the FCC to thoroughly explore the potential of broadband over power line (BPL) technology to interfere with public safety and other licensed radio systems.

A federation of public safety organizations, NPSTC serves as a forum for the exchange of ideas and information for effective public safety telecommunications in the US and abroad.

Under the ARRL-NPSTC pact the ARRL designated Chief Technology Officer Paul Rinaldo, W4RI, to be its primary representative to the Council (ARRL Atlantic Division Vice Director Tom Abernethy, W3TOM, is the alternate representative). Rinaldo will participate in NPSTC meetings and serve on committees and working groups. The League also has agreed to provide "other expertise, advice and resources" to further the goals of the MoA and in support of the NPSTC Charter and to promote NPSTC as "the collective voice of public safety telecommunications."

NPSTC agrees to provide a National Support Office that will, among other things, coordinate its outreach activities and provide "national level technical assistance to the public safety telecommunications community."

In addition to the ARRL, the Council's 13 member organizations include the American Red Cross, the Association of Public-Safety Communications Officials -- International (APCO), the International Association of Chiefs of Police and the National Association of State Telecommunications Directors.

NPSTC celebrating its 10th anniversary this year. The Council will mark "10 Years of Progress" during its Committee & Governing Board Meetings June 11-13 in Denver, Colorado.

KNOW YOUR PRIVILEGES! MISCONCEPTIONS ABOUT REGARDING TECH HF PRIVILEGES

Some Technician licensees who gained new privileges February 23 remain unaware or uninformed as to what they may and may not do on the HF bands, says ARRL Regulatory Information Specialist Dan Henderson, N1ND. In addition to all Amateur Radio operating privileges above 50 MHz, Technicians who never passed a Morse code test now have CW privileges on certain segments of 80, 40 and 15 meters plus CW, RTTY, data and SSB privileges on certain segments of 10 meters. And that's it. "Know your privileges

<<http://www.arrl.org/FandES/field/regulations/bands.html>>," Henderson advises all Amateur Radio licensees. He says some Technicians apparently believe their new HF phone privileges go far beyond what they really have.

"Technicians have no phone privileges on any HF band other than 10 meters, period!" Henderson emphasizes. "That's the bottom line. If you want to operate phone on the other HF bands, you'll have to upgrade to General or Amateur Extra class."

A lot of Technician licensees appear to have done just that, according to statistics compiled by Joe Speroni, AH0A <<http://ah0a.org/FCC/Licenses.html>>. So far in March, the number of General class licensees is up by more than 2700 over the February figure to 134,173, after hitting a 5-year low of just under 131,000 in January. The number of Technicians dropped by 4655 in the same period to 318,838. Speroni notes, however, that his mid-month figures tend to underestimate actual totals.

Most Technician license holders face a learning curve to take advantage of their new CW privileges on HF, but they no longer have to pass a Morse

code examination. Technicians also may use their new HF privileges without having to apply for them first. No other license class automatically acquired additional privileges February 23. The "omnibus" rule changes effective last December 15 did not give Technician licensees without Morse code credit any additional privileges either.

Henderson further warns new Techs not to extrapolate additional phone privileges by misconstruing the FCC Part 97 rules to mean something they don't.

"Calls I've been getting lately indicate that some misinformed individuals believe Technicians may operate 'digital voice' on 80, 40 and 15, where they have only CW privileges," he says. "Not true. Digital voice is really digitized voice, and it's not permitted in non-phone band segments."

Henderson reiterates that Technicians do not have FM voice privileges on 10 meters -- or on any other HF band, for that matter.

The HF privileges all Technicians now have are equivalent to those that Novice licensees enjoy, Henderson notes. "This also means the 200 W maximum power limit still applies, regardless of where you operate in the HF bands," he says. Technicians may operate at up to the legal limit on VHF and UHF, however.

On 10 meters, Technician and Novice licensees have CW, RTTY and data privileges from 28.000 to 28.300 MHz, and CW and SSB privileges from 28.300 to 28.500 MHz. "We're sorry that the sunspots aren't favoring 10 meters at this point in the sunspot cycle, but they will in a few years," Henderson allowed.

In addition, Technicians and Novices have CW -- and only CW -- privileges on from 3.525 to 3.600 MHz on 80 meters, from 7.025 to 7.125 MHz on 40 meters and 21.025 to 21.200 MHz on 15 meters.

Henderson believes at least some of the confusion may have originated with a few brand-new or inexperienced Technician licensees who heard that the FCC deleted the Morse code requirement to obtain an Amateur Radio license, but paid little attention to the fine print.

"And we all know the devil's in the details," Henderson says. "Remember, the FCC requires you to know where you may and may not operate and with what modes. Stick to the privileges your license allows or risk hearing from the FCC."

FIELD DAY 2007 OFFERS A LEARNING OPPORTUNITY FOR HF NEWCOMERS

Although Field Day 2007 is still more than three months away, many ham radio clubs and groups already have begun making plans for this year's event, Saturday and Sunday, June 23-24. Field Day has always been an ideal time for new hams to become more proficient operators and for prospective licensees to get "bitten by the Amateur Radio bug." That may be even more the case during Field Day 2007, as many radio amateurs gain new HF operating privileges because of the rule changes that went into effect February 23.

"This is an opportunity to get new or upgraded licenses on the air for some active mentoring and active learning," says ARRL Regulatory Information Specialist Dan Henderson, N1ND. "Field Day 2007 will be a chance to learn and grow, but above all, it will be a lot of fun -- and for many there is perhaps nothing more fun in ham radio than ARRL Field Day."

The numbers support that claim. Last June, more than 32,500 operators took part in ARRL Field Day -- some as individuals but many more as part of a club or group. The League saw some 2200 Field Day log submissions for the 2006 event, during which nearly 1.24 million completed contacts went into the log -- not a record but up a little from the previous year.

While no longer a licensing requirement, Morse code (CW) remains a very popular Field Day operating mode, perhaps because CW QSOs are worth twice as much as phone contacts. Last year some 56 percent of Field Day contacts took place on SSB, while nearly 42 percent were on CW (the rest were digital contacts).

Henderson points out two small changes in the Field Day rules starting this year. First, participating stations may only complete one satellite contact for bonus points via a single-channel FM-mode spacecraft (Rule 7.3.7.1), and it must be an Earth-satellite-Earth contact. "This will allow more stations to access this very limited resource," he says.

Second, an individual Get-On-The-Air (GOTA) station operators will earn 20 points for each 20 contacts, up to a maximum of 100 per GOTA operator. Henderson notes that no partial point credit is available, and GOTA operators may not "pool" contacts toward any 20-QSO GOTA station bonus.

"Amateur Radio stands at a juncture where we can embrace both the old and new," Henderson says. He notes, too, that the variety of available operating modes -- traditional and experimental -- contributes

toward Field Day's status as the most popular annual operating event.

"Field Day is truly the time where we bring Amateur Radio to Main Street USA -- a great time for 'the Bug' to bite as many people as it can," Henderson says. "Use Field Day 2007 to open up Amateur Radio to the next generation of radio amateurs on your Main Street! It's up to us to make it happen."

Complete information on Field Day 2007 packet is available on the ARRL Web site <<http://www.arrl.org/contests/announcements/fd/>>.

KATRINA LESSONS LEARNED DRIVING UPDATED ARMY MARS MISSION

Following an 18-month analysis of its performance in the wake of Hurricane Katrina, the US Army Military Affiliate Radio System (MARS) <<http://www.netcom.army.mil/mars/>> is reshaping its mission. Army MARS Chief Stuart S. "Stu" Carter has told the MARS membership of some 2600 Amateur Radio volunteers that priorities and procedures have been reshuffled. Retraining and the building of tighter bonds with the federal and state agencies MARS supports in emergencies are getting special attention.

"The challenges we face are new and more demanding than those we've prepared for in the past," Carter told MARS members. "We need to know that all of our members are well trained, ready, capable and willing to meet those challenges."

Voicing his intent to make the organization relevant to the 21st Century, Carter assumed leadership of Army MARS last December, succeeding Kathy Harrison. In addition to his role as chief of Army MARS, Carter continues as deputy director of current operations for the US Army Network Enterprise Technology Command (NETCOM), headquartered at Ft Huachuca, Arizona. As MARS chief, he inherits the post's AAA9A call sign.

Among other initiatives, Carter has ratcheted up MARS training requirements to include National Incident Management System (NIMS) <<http://www.fema.gov/emergency/nims/index.shtm>> training courses. He's also directed a doubling of the on-air drill requirement in regional and state HF radio nets. Beyond that, he also plans an aggressive informational campaign to make MARS better known within the federal establishment as an emergency/disaster resource.

He also reiterated that Army MARS will seek a "defined relationship" with the ARRL. "We need to know

each other better," said Carter, a retired US Air Force lieutenant colonel with 30 years' service in communications and information technology. "The objective would be to enhance the amateur community's overall emergency readiness while minimizing duplication of effort." MARS sees its own regional and national HF capability as a natural fit with the Amateur Radio Emergency Service (ARES).

The updated MARS program builds on the emergency readiness mission begun during the 16-year tenure of former Army MARS Chief Bob Sutton, N7UZY. Army MARS already has been realigned so regional boundaries coincide with Federal Emergency Management Agency (FEMA) districts. Carter has appointed 10 volunteer regional directors to facilitate responses to multi-state emergencies.

Under Carter's leadership, MARS also is moving away from a paradigm where members mostly just relay emergency traffic from fixed stations. Under a more mobile MARS model, a few specially-trained volunteers also will be available to deploy to disaster areas along with the US Army and federal agencies, such as FEMA, the Department of Homeland Security and the Transportation Security Administration.

In addition, Army MARS has replaced its longstanding digital message network with a Winlink 2000 system that combines radio and Internet links to ensure swift and dependable message delivery.

Army MARS also will continue to emphasize collaboration among the Air Force and Navy-Marine Corps MARS organization.

Carter has tapped Lawrence Hays, WB6OTS, to fill the new post of chief of operations, with responsibility for planning, emergency activations liaison with external agencies and training materials development. He's named fellow NETCOM headquarters staffer James Banks as director of regional operations.

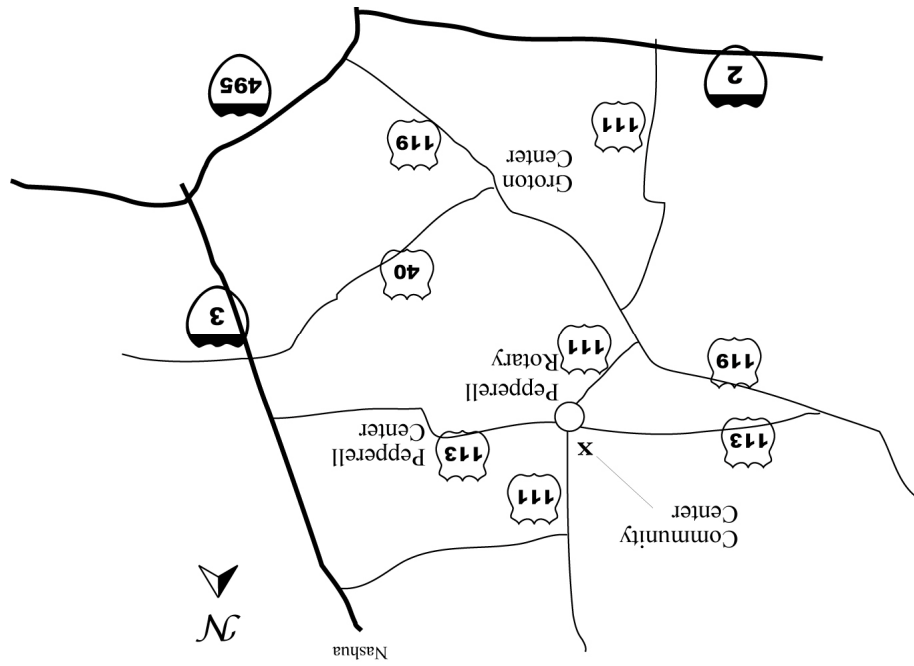


**Nashoba Valley
Amateur Radio Club**

PO Box # 900
Pepperell Mass 01463-0900

<http://www.n1nc.org/>

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PIO: Dave Peabody N1MNX
Librarian: Peter Nordberg N1ZRG
Property Master: John Griswold KK1X
N1NC Trustee: Bruce Blain K1BG
Meetings are held on the 3rd Thursday of the month
7:30 p.m. - Pepperell Community Ctr.
Talk-in 146.490 simplex
442.900 + 100Hz Repeater
147.345 + 100 Hz Repeater
53.890 - 100Hz Repeater
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