



FEEDBACK



VOLUME 51 ISSUE 12

DECEMBER 2006

MASSILLON AMATEUR RADIO CLUB OFFICERS

PRESIDENT

Igor Nikishin
K8INN

VICE PRESIDENT

Ralph Bugg
K8HSQ

SECRETARY

Linda Finley
K8MOO

TREASURER

Anne Ballinger
N8GAF



Contents

Secretary's Report -----2

N8ATZ Column -----3

Massillon Christmas Parade 4

Propagation Report-----5

ARRL NEWS/ Weaver's -----7
Words

Calendar by K8INN -----9

-- SHORT SKIP --

May Santa deliver your most cherished amateur radio gifts this Christmas. May we never forget the reason for the season, the greatest gift to all mankind.

Stay tuned Bunkey, next month we will look deep into our Knight - Kit crystal calibrator for predictions for 2007 !

73 de WB80WM

DECEMBER MEETING

The next meeting for the Massillon Amateur Radio Club will be held on December 1st at the Massillon Senior Center at 8:00 PM.

Can you believe it? December already! Where did the year go? This means of course that we must elect new Officers for MARC this month. According to our Code of Regulations, a person is eligible to hold office if being a full member, at least 21 years of age, a tech plus or above and that has been a member in good standing for three (3) years. It will be the duty of the Trustees to conduct the election and to establish the eligibility of candidates. The new Officers will take office in January after being sworn in at the banquet. Want to run for office or know anyone deserving to be a MARC officer? Then be sure to attend the December meeting and vote for your favorite candidate !

**PRESIDENT IGOR
NIKSHIN K8INN**

We would like to take this opportunity to thank Igor for his leadership

during this past year. I haven't really been keeping "score" on him but I truly cannot remember a President that has attended every function of the club like Igor has. I don't believe he has missed one! For this he deserves our gratitude and admiration and of course a great big THANK YOU IGOR for taking the time out of your very busy schedule to lead us and Thanks for a job well done !

DUES ARE DUE !

With the December meeting it means that the Dues for MARC membership are now due! The dues are still only \$ 10.00 for an entire year. Dues for the XYL is \$ 5.00 and dues for a student of a full time member are only \$ 2.50. This is quite a bargain these days; but don't worry, you will have until the first meeting in March to pay for them. The best method is to pay for them at the banquet in January or attend any meeting until then or if you wish, send our Treasurer Anne N8GAF a check to;

Anne Ballinger N8GAF
2468 Bellevue SW
Massillon, Ohio 44647-7212

MARC MINUTES November 3,2006

The Massillon Amateur Radio Club meeting was held at the Massillon Senior Center with 36 members and guests present.

MARC President Igor, K8INN opened the meeting at 8:00 P.M. The Pledge of Allegiance was given and a round of introductions was made.

The October minutes were accepted by Dan, N8DZM and second by Rich, KA8ZQH as stated in the FEEDBACK.

MARC Treasurer Anne, N8GAF gave the financial reports. The regular report and the MARC Hamfest results.

MARC Vice President Ralph, K8HSQ gave the correspondence report. He had the usual newsletters from other Amateur Radio Clubs.

OLD BUSINESS and COMMITTEE REPORTS

Dan, N8DZM gave the results of the MARC Hamfest tickets sales. Don, W8DEF suggested raising the ticket fee to \$6.00 in the future. Perhaps a vote will be taken next month. We will need to know by January to notify the ARRL to obtain an ARRL sanctioned Hamfest.

Carl, AB8CC suggested a joint Hamfest with other area clubs. In the past joint ventures did not work out, for instants the Stark County Amateur Radio "directories."

Congratulations to the MARC Hamfest prize winners. First prize Gregory Hahn; KC8TMU of Genoa Ohio; Second Prize; Dan Anastis N8DZM (MARC member) ; Third Prize; Kenneth Burkhard N8PYR of Woodsfield, Ohio Fourth Prize; Dale Lamm NX8J of Canton, Ohio; Fifth Prize; Ted Mirgliotta KB8NW of Strongsville, Ohio; sixth Michele Gill KC8ZEJ (MARC member).

Gary, WC8W gave the VE session results.

Dan, N8DZM gave his report on the grants he is applying for.

Michele, KC8ZEJ was absent but still needs help with the Friday night West Stark Information Net.

Byron, KF8UN gave the DX report. There are 2 new countries now, check with him for more details. Also you can hear your own signal at www.dxtuner.com .

NEW BUSINESS

Jack, N8LCS thanked absent Terry N8ATZ for the wonderful presentation on ham radio at the Health Board Conference. Jack also needs pictures of radio equipment and other memorabilia to present to his bicycle club to perhaps draw their interest in amateur radio. Contact him at wadejack@sssnet.com

The annual MARC Banquet will be Saturday January 13 at the Otterbein United Methodist Church.

Perry, W8AU will be in charge of the lining up and marshaling the Christmas Parade again this year November 18th. Thank you goes to Rodger, KA8FTS, he will be transporting the MARC ECOM Trailer.

We welcome 2 new members Frank Jones, N8EEL and Rex Simmons, KD8ELX.

Don't forget next month will be election night for new officers. If you have someone you want to nominate contact the trustees,

Congratulations goes to Rodger, KA8FTS for winning the 50-50 for \$18.50.

**Minutes by Linda K8MOO
Secretary MARC**

... Massillon Holiday Parade ...

The club has just finished assisting with the 52nd Annual Massillon Holiday Parade which brings to a close the MARC public service season. It looked like we had another great parade with terrific club participation. This continues to remain the oldest public service event that is handled by the club and our responsibilities have grown over recent years to include many aspects of parade operation. The parade was rebroadcast over Massillon Cable TV and I hope some of you had a chance to view it. The club trailer looked great on the route and special thanks to Rodger – KA8FTS for loaning us his pickup to pull the trailer in the parade.

In the early years of the parade, we provided only communications support to the Massillon JC's organization who handled the staging of all the parade units. When they disbanded, the city struggled to find volunteers willing to take on this task. Since the MARC handled communications support, somehow we got nominated to take on this responsibility as well. A few years later, Massillon Cable began filming the parade in conjunction with the Massillon High School Communications Department and again the club was called upon to assist with part of the parade also. Last minute omissions or changes to the parade line up are passed on to the production crew so that the announcers can follow along with the parade units. We had experience with this as well as amateurs handle some staging activities including TV production control relay duties at the Hall of Fame Festival Kick-off Parade. The Holiday Parade has depended on this ever since.

Over the past several years the parade has been sponsored by the Downtown Merchants Association with President Donald Harwig serving as Parade Chairman. During this time and before the club has always been there to make sure the parade is properly staged and starts on time down the parade route. We have become an integral part of the parade and I wonder if they could pull it off without us.

I'm glad to report another successful public service event with very few problems thanks to our communications and parade skills. Over 40 years and counting Santa has arrived in the city in no small part thanks to the MARC.

Special thanks to the following club members for volunteering this year. They are; Wade – WD8MIU, Carl – AB8CC, Sarah – KC8ZCS, Scott – KC8ZCT, Rex – KD8ELX, Gary – WC8W, Anne – N8GAF, Jim – WA8GXM, Rodger – KA8FTS, Terry – N8ATZ, Dan – N8DZM, Joe – WD8BGW, Ralph – K8HSQ, Jerry – KF8EB, Igor – K8INN, Don – W8DEF, Linda – K8MOO and Communications Coordinator Perry – W8AU.

Now if we could only get them to move the parade up or back a week so we could go to the Ft Wayne Hamfest !

.. MARC 2006 Field Day Results ..

The ARRL has posted the official results from this years Field Day and the club's score of 4,872 points ended as our final score for the event. I am pleased to say we placed 9th in Category 2A for the Great Lakes Division this year, a solid effort. Ohio was a very active state during Field Day this year, there were 117 submissions for Field Day, more than any other state in the U.S.

The official results are currently posted in the December issue of QST Magazine and if you look at page 83 you will see that we made it in their annual Field Day review with a picture of our might Field Day Blimp. This marks the first time the club has been included with both a mention and a picture from our Field Day event. The story is also covered on the ARRL website. Well Done MARC !

.. As we bring the year to a close ..

As we put the finishing touches on my final column for the year I would like to take this opportunity to wish you all a very Merry Christmas and Best Wishes for a New Year. Very soon I will again activate the Holiday Page on the club's website. I have again found some new items to post there including some new holiday music, light display's and some neat Christmas gifts that any ham would love to find under the Christmas Tree. Let me know if you have anything you would like to see posted there, I'm always looking for new ideas. It's our gift to you, the members of the Massillon Amateur Radio Club and the many friends and visitors who regularly visit the site which now stands at over 17,000 hits.

Happy Hanukkah, Feliz Navidas, and a Very Merry Christmas !

Till Next Year De Terry – N8ATZ





Christmas "Spirit" In the photo above only about half of MARC members who participated in this years parade are shown here. They are (L-R back row) Rodger KA8FTS, Jim WA8GXM, Don W8DEF, Scott KC8ZCT, Steve KD8ACF, (front row) Terry N8ATZ, Dan N8DZM, & Linda K8MOO. The rest of the members were already in position to help in the parade. Those members are listed below in the text.

CHRISTMAS PARADE

The 2006 Massillon Christmas Parade was again staged and run by our great MARC team. We give credit to Don Harwig, the manager of Downtown Massillon Merchants, for handling all the applications and assigning their locations. But the actual parade operations were accomplished by 19 MARC members. They are:

Wade WD8MIU
 Carl AB8CC
 Sarah KC8ZCS
 Scott KC8ZCT
 Steve KD8ACF
 Rex KD8ELX
 Gary WC8W
 Anne N8GAF
 Jim WA8GXM
 RodgerKA8FTS
 Terry N8ATZ
 Dan N8DZM
 Joe WD8BGW (double dipper: ham and police) :-)
 Ralph K8HSQ
 Jerry KF8EB
 Igor K8INN
 Don W8DEF
 Linda K8MOO
 Perry W8AU

Additionally, we were interviewed by a PBS TV news team that was there to tape the SARTA trolley group, but was also interested in interviewing a person responsible for organizing the parade. I mentioned that MARC has been doing this annually for 35+ years. They said it would be

aired regionally in Ohio and surrounding states but did not say when. They also said they would send a tape to us..probably the Downtown Merchants Association...

Although we always do a very good job, this year's operation proved to be the most efficiently run to date.

1. Better and more timely paperwork for each operator in the staging area.
2. Complete dual coverage of each parade section.
3. Most Parade Marshalls to date. (7)

All this despite having one no-show. Can you imagine what it will be like when we finally do it totally right? Will it take another 36 years? :-) Stay tuned!

Maybe Santa will be extra good to us this year...

**73,
 Perry w8au**



One of the units in the parade, called "Derf Toys" are actually real toy wagons --- with gasoline engines! (WC8W behind the camera for the photos)

Happy New Year



HF PROPAGATION STUDY FOR THEATER-WIDE OPERATION

Dr K K Jha Defence Electronics Application Laboratory
Dehradun

(Thanks to Rick K8RIC, for submitting this article)

Abstract

The growing demand of users warrant management of RF spectrum in a geographic location such that spectrum can be reused by friendly users. HF propagation through Sky wave mode offers long distance point-to-point communication for both military and commercial applications. But by shaping antenna beam it is possible to provide gap free tactical HF communication for theater wide operation. This paper presents the propagation study using HF waves for various antenna configuration such as buried antenna, reliable maximum range 5 Km radius, inverted V antenna for 200 Km radius and loop antenna for 400 Km radius. These configuration ascertain frequency re use and jam resistant tactical application of HF wave.

Introduction

The tactical high frequency (2 – 30 MHz) sky wave mode offers long distance point to point communication and being used for both military and commercial applications. However due to limited band width the satellite communication gained more popularity in recent times and the importance of HF communication got abated. Of late it has been realized (combined operation over Iraq) that satellite and terrestrial communication modes, VHF / UHF /SHF, are vulnerable to electronics countermeasures and physical destruction but HF communication can recover more rapidly from the effects of nuclear detonations. Even though COTS HF equipment cater for low data rates the continued demand for communication by tactical commanders in sparsely populated inaccessible terrain and also for theater wide military operations, HF has been recognized as the best alternative of satellite communication.

Most combat units in a Brigade are located within a distance of 400 miles. To give communication link to sparsely separated units if HF wave is fired upon the ionosphere at low angle , the radio signal will follow three possible routes.

Ground wave near the ground for short distances up to 100 Km over land and 300 Km over sea. Attenuation of the wave depends on antenna height, polarization, frequency , terrain or sea states.

Line – of – sight wave this wave may interact with the earth reflected wave depending on terminal separation, frequency and polarization.

Sky wave refracted by the ionosphere at all possible distances.

With low firing angle the signal will reach to extremely long distances which restricts its tactical application For theater wide application by tactical commanders an efforts have been made to shape the antenna beam in such a way that the total radiated signal is directed upward over the zenith where it gets reflected by the ionosphere . This mode of propagation is known as Near Vertical Incidence Sky wave (NVIS) mode. Even if the » / 4 size antenna is laid over the ground or buried under the ground the antenna pattern produced is “inverted tear drop”. In NVIS mode , the bulk of the energy is radiated near 90 degree and the band of frequency is limited to 2 – 4 MHz for night time communication and 4 – 8 MHz for day time communication.

In subsequent section , the paper presents the propagation study results for buried antenna, inverted V antenna and Loop antenna and their corresponding range limitations an aspect useful for frequency reuse applications.

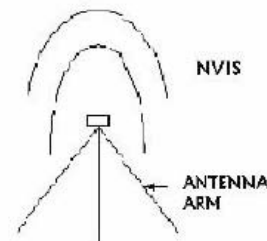
Transmission Path Within The Operational Area

For HF propagation study selection of transmission path is a key factor to achieve reliable communication between two point separated by a finite distance These paths are characterize as high angle radio path and low angle radio path. For both high angle and low angle transmission ionosphere has distinct role to play.

The ionosphere is an electrically charged region of atmospheric gases. When solar radiation bombards the molecular constituents, electron gets detached leaving the gas molecule with a positive charge ion. Since like charges repel each other ions are bunched into different layers. When high frequency wave strikes the ionosphere the signals get reflected back to earth. The reflectance vary with angle of incidence at the ionosphere, time of the day , season and solar activity.

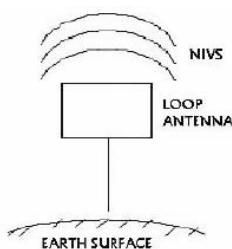
With high angle of incidence in near vertical situation , use of inverted dipole antenna, Fig – 1, the wave gets reflected back in a limited area around 200 Km radius on earth surface and makes frequency re use possible in the adjacent operational theater.

Fig 1- I



In NVIS mode zenith has maximum energy while signals at lower angle are bare minimum. To achieve multi band operation and one feed line physically small loop has been used for transmission in NVIS mode, Fig - 2. It can be used on all harmonics of fundamental frequency. It has omnidirectional coverage up

Fig 2- HF Loop



to a range of 400 Km. Part of the energy is radiated at high angle and partly at low angle. The NVIS signal after reflection has no holes and no dead spots or “skip zones”.

For ground wave path the signals follow earth surface . It consists of direct wave path and ground reflected path. Depending on the constitution of ground at the point of reflection the received energy at the receiver gets reduced considerably. Space wave signal does not predominate. Surface wave signal gets attenuated by vegetation or mountainous terrain. With good conductor such as sea water, surface wave signal can communicate more than 150 Km. Low take-off angles are produced with vertical monopole, there is much less energy at the zenith. Hence monopoles are suitable for short distance 40 – 50 Km reliable communication only but at times part of the space wave at low angle may reach to relatively longer distances and can interfere with the friendly radiators. Since the monopole or dipole or loop antenna are exposed in the atmosphere , man made , galactic and natural noise along with HF signals emanating from other stations interfere with the desired communication. Thus to reduce interference and noise and also to ignore the presence of disturbed ionosphere antennas operating at central frequency 15 MHz has been buried 50 cm below the true ground. The radiating element was protected from soil moisture by a plastic tube cover of the same length , Fig - 3.

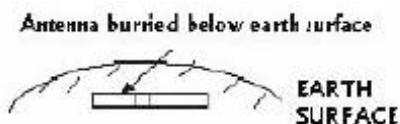


Fig 3- Burried HF Dipole Antenna for Bunker to Bunker Communication

The wide frequency balun has been used to match the unbalanced to balanced line. The current over the wire delivers total electric field in the soil medium by following fundamental principle, where the current induced in the secondary medium gives rise to a secondary field. The appreciable amount of electric field gets absorbed in the surrounding medium but part of the field follows earth current due to tunneling effect and part of the secondary radiation goes vertically up i.e. energy concentration towards zenith and hence interacts with the ionosphere. Thus the reliable signal is available up to a range of 5 Km. This buried antenna can work in broadcast as well as point – to – point communication mode

and has been found very useful for bunker – to – bunker communication.

Antenna

The single most important factor in reliable tactical HF communication is the antenna. For theater wide operation best performance of antenna is achieved by using accurate antenna length. The simplified thumb rule is $300 / f$ in Mega Hertz, since the wave length at a particular frequency is the distance traveled by light as it completes one cycle of its motion. Signal strength depends on antenna length and the amount of current flowing through it. For maximum current at a given frequency the antenna needs to be $\gg / 2$ or its multiples. Further the strength of radiated signal is a function of conductor length and the amount of flowing current thus the antenna is said to be resonant and radiates most of the energy and hence are very efficient.

When buried in true ground the conductivity of surrounding medium plays an important role and modifies the required length.

Result And Discussions

The measurements were carried out in mountainous and Jungle terrain surrounding Dehradun. The inverted V and the smaller loop have almost identical characteristics i.e. the maximum power is fired at the zenith. The round the clock measurement in urban, sub urban, mountainous and jungle terrain with 5 , 10 and 20 Watt transmitted power it has been proved that uniform signal strength up to 100 Km radius is achievable with 20 Watt only. For shorter range up to 30 Km radius 5 Watt is sufficient. In the case of buried antenna the maximum achievable range is 5 Km radius with 20 Watt transmitted power at 18 , 20 and 22 MHz. The frequency gets shifted due to varying conductivity of the surrounding earth medium. The surrounding soil medium acts as filter. In both NVIS and Buried antenna mode transmitting power above 20 Watt is wastage . Military radios equipped with automatic link establishment select the critical frequency. It is generally accepted that during day time the usable frequency is selected from 4 – 8 MHz and during night time from 2 – 4 MHz. The application of NVIS AND BURIED ANTENNA mode has been proved useful for theater based application.

Conclusions

In recent wars it has been realized that satellite and terrestrial communication modes are vulnerable to electronic countermeasures. Thus the application of adaptive HF communication has renewed the interest of users. A new class of HF radio, under microprocessor control , havin g more robust modulation / de modulation scheme , error coding , rapidly switching antenna tuners and couplers etc. has been proved more effective for tactical communication . The application of near vertical incident sky wave mode and buried antenna for theater wide HF network is the suitable alternative for the tactical commanders as well as spectrum managers.

ARRL NEWS

ZCZC AG27
 QST de W1AW
 ARRL Bulletin 27 ARLB027
 From ARRL Headquarters
 Newington CT November 22, 2006
 To all radio amateurs

ARLB027 "Omnibus" Amateur Radio Report and Order Takes Effect December 15

With publication in the Federal Register November 15, the long-awaited changes to the amateur rules are set to take effect 30 days later, at 12:01 AM EST December 15. The so-called "Omnibus" Amateur Radio proceeding, WT Docket 04-140, includes a significant expansion of the 75 meter phone band and a variety of other changes. The highlights:

- * For Amateur Extra class licensees, the 75 meter phone band will start at 3600 kHz, while Advanced class licensees start at 3700 kHz and Generals at 3800 kHz. The high end of the CW/RTTY/Digital band is now 3600 kHz (although CW is allowed on the entire band).
- * On 40 meters, Amateur Extra and Advanced licensees will be able to operate phone beginning at 7125 kHz, while Generals start at 7175kHz. The top end of the CW/RTTY/Digital band will be 7125 kHz (although CW is allowed on the entire band).
- * There are no changes to the 20 meter band.
- * On 15 meters, the General class phone band now starts at 21275 kHz.
- * On 10 meters, Novice and Technician Plus licensees can now operate CW/RTTY/Digital from 28000 kHz to 28300 kHz.
- * In addition, Novices and Tech Plus licensees can use CW only on the same frequencies as General and Advanced licensees on the 80, 40 and 15 meter bands: 3525 kHz-3600 kHz; 7025 kHz-7125 kHz and 21025 kHz-21200 kHz.

The Report&Order as published in the Federal Register clarified two items that had raised some concerns when it was first released October 10: That the 80/75 meter band split applies to all three IARU Regions, and that FCC licensees in Region 2, which includes North America, can continue to use RTTY/data emissions in the 7075-7100 kHz band.

Several controversial aspects of the proceeding are still to be resolved, although the FCC is working on an erra-

tum for the inadvertent elimination of J2D emissions of more than 500 Hz bandwidth. The Commission intends to release the erratum by the December 15 effective date.

The FCC also took several other miscellaneous actions.

NNNN
/EX

WEAVER'S WORDS

RED CROSS, AGAIN

I want to make it clear that I support the Red Cross and have supported it since I first became a volunteer through the Queen City Emergency Net in early 1964. However, in answer to questions I've received from members, I unhesitatingly say I will not give the Red Cross or its agent, Mybackgroundcheck.com, permission to run a credit check or lifestyle check on me. It isn't that I have anything to hide; it is simply that they have no business prying into these matters. Unfortunately, whenever a volunteer authorizes Red Cross to do background checks, Mybackgroundcheck.com on behalf of Red Cross is automatically authorized to do these irrelevant types of background checks. This is true even though Red Cross insists they don't typically receive credit and lifestyle checks. Why is the Red Cross acting in this schizophrenic manner?

I am writing the Cincinnati Area Chapter of the Red Cross to authorize them to do a criminal check on me. This is all they need. I simultaneously am denying permission to do the other checks. The letter is addressed to the CEO and the Chairman of the Chapter. I am copying the Chapter Disaster Chairman and the Disaster Communications Chairman, both of whom are personal friends. I have great appreciation for the people in the Disaster Office of the local Chapter.

Provided the National officers of the Red Cross do not intend to obtain credit and lifestyle checks on volunteers, they should not require us to authorize these checks. If you disagree, I have this bridge to sell

It is neither my, nor ARRL's business to tell you what you should do if the Red Cross (or anyone else) asks you to complete the form at Mybackgroundcheck.com. This is your business. My only reason for sharing my comments on this is to ensure you are aware of the

extent of information being demanded at Mybackgroundcheck.com, so that you will read the disclosure form carefully and do what is best for you.

LEGISLATIVE ACTION PROGRAM

You've seen my appeals for help with this Program. We still need help. A number of members have stepped forward to volunteer and have been appointed to very important, although not highly demanding, positions. We still need additional to join the fight to preserve Amateur Radio.

Please read www.arrl.org/govrelations/laprog.faq.html for brief questions and answers about the Program. If you are interested in learning more or volunteering to help in your own Congressional District, please contact Val Rose, N8EXV at n8exv@arrl.net or me (k8je@arrl.org). Val is the Division Legislative Action Chair (DLAC) for the Great Lakes Division. We need two members to help in each Congressional District in our three states.

FRUSTRATION

Every few weeks, I receive E-mail that asks a question, but when I attempt to reply the questioner's Spam setting or ISP blocks my reply. This happened just recently when a good member from Grand Rapids wrote twice. My two attempts to reply were rejected. I could not find a telephone number to call him, so I asked Michigan SM Dale Williams', WA8EFK, to try to forward my message. He was blocked, also. I gave up, admittedly without trying the USPS.

If you want an answer from me and don't get one, it is nearly certain that my E-mail to you is being blocked somewhere along the line. In this situation, please give me a telephone call or send me an E-mail that contains your phone number.

LOW PROFILE AMATEUR RADIO

Speaking of frustration, many of members are frustrated over being unable to operate Amateur Radio because of spousal or local homeowner regulations that ban antennas. A book published by ARRL might be the answer to these frustrations. Just as the US Military has developed large naval vessels and airplanes that are virtually invisible to RADAR, the second edition of

Low Profile Amateur Radio might have the answers to hams' need for stealth. For information, go to www.arrl.org, type Low Profile Amateur Radio into the Search Site blank near the top of the opening screen and click on GO. The cost is \$19.95.

W1AW CHANGES DIGITAL FREQUENCY

In response to the expansion of the 75-meter phone band down to 3600 kHz, W1AW will shift its 80-meter digital bulletin frequency down to 3597.5 kHz, effective Friday, December 15, 2006. The new frequency will be in use beginning with the regularly scheduled 6 PM EST (2300 UTC) digital bulletin on Friday December 15, 2006.

CHANGE THE NEW RULES

The need for many nets to change frequency has generated a lot of heat. As a supporter of NTS and other net operations, I am very sympathetic, but there isn't anything anyone can do about this . . . at least in the near term.

A few people have suggested petitioning FCC to change its new rules. These will go into effect on December 15. We could start a fight over the new rules, but we wouldn't win; at least yet. FCC is not going to consider changing the new rules until there has been a reasonable amount of experience with them. There are other avenues for achieving changes, but these are pretty drastic.

Although there would seem to be little chance for changes to be made at this time, the ARRL Board has begun to review the situation. The first thing that must be demonstrated is that parts of the new rules impose an undue hardship and damage. Although many amateurs believe it is very apparent that they do cause tremendous hardship and damage, not all amateurs agree. Many amateurs support the rules changes fully. This makes it even more difficult to demonstrate hardship and damage. At the same time, it makes it less likely that pursuing any avenues to achieve change in the new rules will be successful.

73,

Jim, K8JE

December 2006

W8NP Monthly Planner

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday																																																																																																				
					<p style="color: #800080; font-size: 1.2em; margin: 0;">1</p> <p>Massillon ARC Meeting, Massillon Senior Center, 8:00pm</p>	<p style="color: #800080; font-size: 1.2em; margin: 0;">2</p> <p>VE Test Sessions, Portage County ARS, 1000, Ctc.: James 330-297-7979, Center of Hope, Ravenna</p> <p>Silvercreek ARA, 0930, Ctc: Barry 330-925-1706, Rittman Public Library</p>																																																																																																				
<table border="1" style="margin: auto; border-collapse: collapse;"> <tr><th colspan="7">Nov 2006</th></tr> <tr><th>S</th><th>M</th><th>T</th><th>W</th><th>T</th><th>F</th><th>S</th></tr> <tr><td></td><td></td><td></td><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td></tr> <tr><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td></tr> <tr><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td></tr> <tr><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td></td><td></td></tr> </table>		Nov 2006							S	M	T	W	T	F	S				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			<table border="1" style="margin: auto; border-collapse: collapse;"> <tr><th colspan="7">Jan 2007</th></tr> <tr><th>S</th><th>M</th><th>T</th><th>W</th><th>T</th><th>F</th><th>S</th></tr> <tr><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td></tr> <tr><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td></tr> <tr><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td></tr> <tr><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td></tr> <tr><td>28</td><td>29</td><td>30</td><td>31</td><td></td><td></td><td></td></tr> </table>			Jan 2007							S	M	T	W	T	F	S		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31							
Nov 2006																																																																																																										
S	M	T	W	T	F	S																																																																																																				
			1	2	3	4																																																																																																				
5	6	7	8	9	10	11																																																																																																				
12	13	14	15	16	17	18																																																																																																				
19	20	21	22	23	24	25																																																																																																				
26	27	28	29	30																																																																																																						
Jan 2007																																																																																																										
S	M	T	W	T	F	S																																																																																																				
	1	2	3	4	5	6																																																																																																				
7	8	9	10	11	12	13																																																																																																				
14	15	16	17	18	19	20																																																																																																				
21	22	23	24	25	26	27																																																																																																				
28	29	30	31																																																																																																							
<p style="color: #800080; font-size: 1.2em; margin: 0;">3</p> <p>Massillon Radio Net - 3650 @ 1930</p>	<p style="color: #800080; font-size: 1.2em; margin: 0;">4</p> <p>BD KD8BCA</p>	<p style="color: #800080; font-size: 1.2em; margin: 0;">5</p> <p>Massillon Radio Net - 3650 @ 1930</p> <p>VE Test Session, Cuyahoga Falls ARC, 1900, Ctc: Bruce Ferry, 330-929-2766, Stow-Monroe Falls Public Library, Stow</p>	<p style="color: #800080; font-size: 1.2em; margin: 0;">6</p>	<p style="color: #800080; font-size: 1.2em; margin: 0;">7</p> <p>Massillon Radio Net - 3650 @ 1930</p>	<p style="color: #800080; font-size: 1.2em; margin: 0;">8</p> <p>BD K8FUN</p>	<p style="color: #800080; font-size: 1.2em; margin: 0;">9</p> <p>BD KB8FFC</p>																																																																																																				
<p style="color: #800080; font-size: 1.2em; margin: 0;">10</p> <p>Massillon Radio Net - 3650 @ 1930</p>	<p style="color: #800080; font-size: 1.2em; margin: 0;">11</p> <p>BD W8KXR</p>	<p style="color: #800080; font-size: 1.2em; margin: 0;">12</p> <p>BD KC8ZEJ</p> <p>Massillon Radio Net - 3650 @ 1930</p>	<p style="color: #800080; font-size: 1.2em; margin: 0;">13</p>	<p style="color: #800080; font-size: 1.2em; margin: 0;">14</p> <p>Massillon Radio Net - 3650 @ 1930</p>	<p style="color: #800080; font-size: 1.2em; margin: 0;">15</p>	<p style="color: #800080; font-size: 1.2em; margin: 0;">16</p>																																																																																																				
<p style="color: #800080; font-size: 1.2em; margin: 0;">17</p> <p>BD K8HSQ</p> <p>Massillon Radio Net - 3650 @ 1930</p>	<p style="color: #800080; font-size: 1.2em; margin: 0;">18</p>	<p style="color: #800080; font-size: 1.2em; margin: 0;">19</p> <p>BD W8SEC</p> <p>Massillon Radio Net - 3650 @ 1930</p>	<p style="color: #800080; font-size: 1.2em; margin: 0;">20</p>	<p style="color: #800080; font-size: 1.2em; margin: 0;">21</p> <p>Massillon Radio Net - 3650 @ 1930</p>	<p style="color: #800080; font-size: 1.2em; margin: 0;">22</p> <p style="color: #800080;">Winter begins</p>	<p style="color: #800080; font-size: 1.2em; margin: 0;">23</p> <p>BD KC8RKU</p> <p>BD KC8RPE</p>																																																																																																				
<p style="color: #800080; font-size: 1.2em; margin: 0;">24</p> <p>BD N8DVS</p> <p>Massillon Radio Net - 3650 @ 1930</p>	<p style="color: #800080; font-size: 1.2em; margin: 0;">25</p> <p style="color: #800080;">Christmas</p>	<p style="color: #800080; font-size: 1.2em; margin: 0;">26</p> <p>Massillon Radio Net - 3650 @ 1930</p>	<p style="color: #800080; font-size: 1.2em; margin: 0;">27</p> <p>BD K8INN</p>	<p style="color: #800080; font-size: 1.2em; margin: 0;">28</p> <p>Massillon Radio Net - 3650 @ 1930</p>	<p style="color: #800080; font-size: 1.2em; margin: 0;">29</p>	<p style="color: #800080; font-size: 1.2em; margin: 0;">30</p>																																																																																																				
<p style="color: #800080; font-size: 1.2em; margin: 0;">31</p> <p>Massillon Radio Net - 3650 @ 1930</p> <p style="color: #800080;">New Year's Eve</p>	<p>Upcoming Events:</p> <p>Saturday, January 13 - MARC Annual Banquet!</p> <p>Sunday, January 28 - Tusco ARC Hamfest, Stasburg</p>																																																																																																									