



# FEEDBACK

**VOLUME 61 ISSUE 3**

**MARCH 2016**

## MASSILLON AMATEUR RADIO CLUB OFFICERS

### PRESIDENT

Ralph Bugg  
K8HSQ  
[buggr@sssnet.com](mailto:buggr@sssnet.com)

### VICE PRESIDENT

Terry Russ  
N8ATZ  
[truss@sssnet.com](mailto:truss@sssnet.com)

### SECRETARY

Fred Reed  
KD8SMO  
[reedfl@sssnet.com](mailto:reedfl@sssnet.com)

### TREASURER

Gary Kline  
WC8W  
[wc8w@sssnet.com](mailto:wc8w@sssnet.com)

**MRN NET Sundays 8:00 PM  
3599.5 KHz**

**WEST STARK INFO NET  
Fridays 8:00 PM  
147.18 MHz (except 1st Fri of  
month)**

## Contents

Secretary Report	2,3
N8ATZ Column	4
ARRL News	5
More ARRL News	6
Soldering Article	7, 8
Calendar by K8INN	9
Marc Back page	10

## MARCH MEETING

The meeting for the month of March will be held on **March 4th 2016** at the Massillon Senior Center in downtown Massillon at **8:00 PM**. Doors should open at 7:00 PM for that “eyeball” QSO.

Last month was a very difficult one for me. I had to miss a meeting I was looking forward to. It just proves how vulnerable we all are. It’s not over yet for me But hopefully I can return to “normal” very soon. It all depends on what the doctor says at my next appointment. Thank all of you for your best wishes and prayers.

Since I missed the last meeting I will try to “wing” it. Seems we had a good turnout and Thanks to John KD8MQ, our Affiliated Club Coordinator, an informal presentation on The National Parks on the air was presented. Next month will be our own Don W8DEA giving a talk on his latest F.E.M.A outing. Don has given these presentations before and they were really informational as well as entertaining!

## MARC FUNDRAISER PLANNED

Shirley Treacle again this year will have her “famous” Candy Easter Eggs for sale as a fundraiser for the club. They are a 4 ounce peanut butter filled and with a double dipped, really yummy chocolate outer shell ! They are ready to go now, just contact Shirley via phone **330/833-7966** or via e mail (best method) [streacle@yahoo.com](mailto:streacle@yahoo.com). Orders will be taken until March 13. Orders can also be picked up at the March meeting. They will sell for \$ 5.00 each. This is a really “sweet” fundraiser (yes pun intended!) !!

## MARCH PROGRAM

The program for the month of March will be a presentation by our own Don Wade W8DEA who is an official FEMA representative (tentatively planned Don is currently on deployment in Florida) .See N8ATZ page 4.

## MARC HAM OF THE YEAR



In the above picture, President Ralph, K8HSQ (L) presents Steve Hall KD8ACF (R) his well deserved Ham of the Year award. Congratulations Steve ! (Thanks to KD8MQ for pix!)

## LAST MONTH FOR DUES !

The month of March marks the last month to pay for dues without loosing any MARC membership privileges. The cost is just \$ 15.00/year payable to MARC. The cost for the XYL and children under 18 yrs still living at home is just \$ 7.50. Best way to pay for the dues is to attend the March meeting with check in hand OR send check to Secretary Gary Kline WC8W, 6500 Highton ST SW , Navarre, Ohio 44662-9786. If not paid you will be placed on an inactive list. Please let me know of your intentions so this will not occur Thanks de Gary WC8W

## MARC Minutes Feb 5, 2016

President Ralph K8HSQ opened the meeting at 8:00 PM, and after the Pledge of Allegiance, there was a role call, with 34 persons present.

### **Motion to accept last month's minutes:**

Ralph asked if there were any corrections or additions to the December Secretary's report that was sent to all members in "Feedback". No corrections being needed, Ralph then asked for a motion to accept the report. First: Patty KD8UXL, Second Jim WA8GXM. Then Ralph asked for a motion to accept the January's secretary report that related mostly to the banquet. First: Dan N8DZM, Second Ken K8WAY. Motion passed.

### **Treasurers Report:**

Gary WC8W was unable to attend the meeting, so the treasurer's report was read by Fred KD8SMO. January was an expensive month for the club due to bills for repeater electric and phone, insurance and rental of the Senior Center. The club also purchased a new antenna for the hospital repeater. A motion to accept the report was made by Lee KD8UEA and seconded by Jim WA8GXM. Motion passed.

### **VP Report by Terry, N8ATZ**

Terry reminded everyone that the Mansfield hamfest is Sunday, Feb. 21. There is VE testing at the Emergency Management Center scheduled for Jan. 20. Testing will also most likely be available at the Mansfield Hamfest as well. There are numerous birthdays this time. For January: Jim KA8JIM, Sarah KC8ZCS, Bill, KD8TKS, Rex NX8G, Steve WA8GLE, Bud WA8KWD and Patty KD8UXL. For February: Pat KA8DAL, John N8GD, Dan N8DZM, Jules W8EJ, Joe WD8BGW and Wade WD8MIU

Terry mentioned that the club meeting program schedule is on the MARC website. The hamfest date is tentatively set for Sunday, October 30, pending confirmation with the Boy's Club.

Skywarn training for March will most likely be in the form of webinars held at the EOC office. None are on the schedule yet. Terry has this on his agenda.

Terry also mentioned that Larry McGrath KE8LF is selling his station equipment, and if anyone is interested, there is information at the table.

Shirley Treacle then explained that again this year, the "Lady's Auxiliary" would be making chocolate covered peanut butter eggs for sale. Last year, this was a good money maker for the club, and we need volunteers to help get orders for them. The club genuinely appreciates all the effort that these ladies do to help the club, so let's all get on board to help procure as many orders as we can. The money will come in handy to help pay for field day, equipment repairs and other expenses. The last day that Shirley can take orders is March 13. Contact Shirley for details or to place your orders.

### **Committee Report:**

Jim WA8GXM explained that we were able to purchase a Motorola DB404 commercial-grade replacement antenna for the 442.85 machine at Affinity Hospital at a very attractive price. In fact, 3 of the antennas were purchased, the remaining 2 taken by club members. The new antennas look great as to quality and construction, and should be a big improvement.

The mentoring program for this year is a bit on hold due to uncertainties about renting the Senior Center, but Wade WD8MIU mentioned that John N8CD may be able to have a program in March about satellite communications, which could be held outside.

### **Old Business:**

Chris KD8TNF reported no changes to the QRZ website, but as soon as the hamfest date is firmed up, he will add that material as well as field day information.

Ralph then presented the Outstanding Service Award to Steve Hall, KD8ACF who has provided the soft drinks for club meetings seemingly forever, and who is always supportive of the club when volunteers are needed for parades, field day and many other activities. Thank you Steve for you great support over the years, and congratulations!

**New Business:**

Discussion followed on whether we will hold a tech class (and possibly CW classes) again this year. Ordinarily, classes are held each week for about 6 weeks. On meeting nights, the classes could be held inside of the normal 7:00-9:00 period that we rent the building, but these are too infrequent. A lot of discussion followed regarding alternate sites, using the ham shack during regular Senior Center hours and other alternatives, but nothing solid was decided. More work needs to be done to come up with a viable plan.

All business being concluded, Ralph explained that John Myers KD8MQ, ARRL Affiliated Club Coordinator - Ohio Section will give a presentation about ARRL National Parks on the Air (NPOTA) contest. Ralph then asked for a motion to adjourn. First: Jim WA8GXM, second Fred KD8SMO. Motion passed.

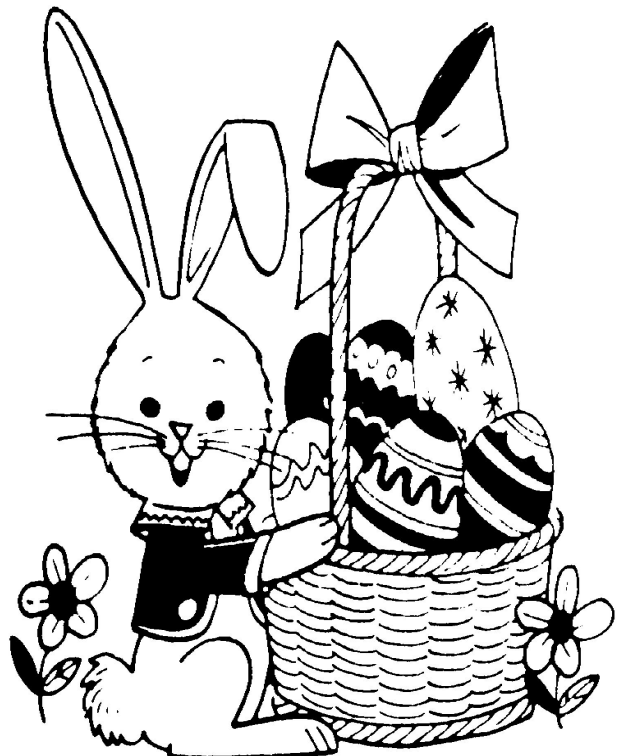
**50:50 Raffle:** The 50-50 was won by Dakota Bevins who graciously donated the proceeds back to the club. Thank you Dakota.

The club was then treated to some delicious cupcakes provided by Shirley. They were VERY good. In fact, I had to have two of them, just to make sure. Thank you Shirley!

After the break, John KD8MQ made a very nice and comprehensive program about the NPOTA contest sponsored by ARRL. This is a year-long contest where just about anybody can participate as either an "activator" i.e. someone who sets up a station in one of the designated national Park Service areas, or as a contester, or both. The full details are available on the ARRL website. Thank you John, for the interesting program.

**As always, many thanks to all who provided or helped with the refreshments.**

**Submitted by Fred KD8SMO**



## . MARCH PROGRAM .

Our scheduled March program was to have been presented by club member Don Wade, W8DEA on his recent FEMA assignment. Due to scheduling difficulties, this program will have to be post-poned until later this year.

Fear not however, we have a very nice backup program that we will have for you at the March meeting. Several months back an interesting article appeared in either QST or CQ Magazine that covered how well the new series of handhelds performed up against the current big three manufacturer's (Icom, Yaesu and Kenwood). The results were a bit of a surprise as many of the current crop of very low priced HT's did not fair well during compliance testing. How about yours ?

Club President Ralph Bugg, K8HSQ will bring along his portable spectrum analyzer to the meeting and will be happy to run a simple test on your HT to see how clean your output signal is. It is simple and quick to test. Just make sure you bring your HT and it's antenna. I know we all have at least one handheld, I have one for every day of the week !

So make sure you bring it along to the meeting and let us put it to the test !

## . SKYWARN SPOTTER TRAINING .

Stark County EMA Director Tim Warstler has asked me to try to organize a weather spotter training session during the month of March or April that could be open to the public making attendance much easier than last year.

I am currently looking for a suitable venue that would be able to host the training for this year. A webinar format will be used again this year. If we are able to schedule the training, we will try to get the word out to everyone including the public. I hope to

have additional details in a few weeks.. Stay tuned !

## . 2014 LICENSE STAT'S .

The following 2014 year-end report of the FCC licenses issued is courtesy of Maria Somma, AB1FM, ARRL VEC Manager.

At the end of December, the total number of US Radio Amateurs licensed in the FCC database was 726,275, the highest number ever ! New amateur licenses issued were up by an incredible 15% compared to 2013, (33,241 versus 28,886), setting a record in recent years. Upgraded amateur licenses were also up in 2014 by an unrepresented 13% (10,556 versus 9,325).

Who said amateur radio is a dying hobby, sure doesn't seem that way to us !.

That's it for this month.

73's  
Terry - N8ATZ



## ARRL NEWS

### AMSAT Seeks Volunteers to Support Phase 4 “Five and Dime” Ground Terminal Effort

02/19/2016

Established less than 1 year ago, AMSAT’s all-volunteer [Phase 4 Ground Terminal](#) team has made significant strides in developing an ensemble of solutions to support the so-called “Five and Dime” (5 GHz and 10 GHz) strategy AMSAT has embraced for microwave satellite projects. Prompting the effort is the planned launch of a geosynchronous military satellite in the 2018 time-frame, which could play host to an Amateur Radio payload operating on the two microwave band. The overarching project, which also includes a complementary Phase 4 Space team, is exploring new territory and innovative solutions, and it’s seeking [volunteers](#) from among the technically savvy within the Amateur Radio community.

“We’re going to make it as awesome as possible,” Ground Station team lead Michelle Thompson, W5NYV, told ARRL. The project not only would support the Phase 4B geosynchronous launch but provide solutions for the Phase 3E high-Earth orbit satellite, and receiver support for AMSAT’s entry into the NASA Cube Quest Challenge, which would go to the moon.

Thompson said the compelling technical reason for using 5 GHz and 10 GHz is the ability to use high-bandwidth modes on those bands. In addition, “the 5 and 10 GHz bands are popular elsewhere, and other projects are embracing this band complement,” she noted. Another advantage would be to raise Amateur Radio’s profile on the two bands and perhaps “shake things up” there for terrestrial use. “The 5 and 10 GHz bands are a compromise that’s working really, really well,” Thompson said.

The US Air Force will control the geosynchronous satellite. Virginia Tech, Millennium Space Systems ([MSS](#)), FEMA, various clubs as well as AMSAT and ARRL are partners in or are supporting the project. A formal memorandum of understanding is pending.

#### Cognitive Radios

“We’re currently exploring the Amateur Radio implementation of a very advanced and exciting open standard called DVB-S2X for the downlink,” Thompson explained, noting it offers a variety of modulation and coding. Earth stations will use their individual radios, transmitting a digital signal — probably something called Offset QPSK (O-PSK) — directly to the satellite, with each getting its own channel in a frequency division, multiple access (FDMA) scheme. “This is an elegant way to design an efficient and advanced communication system and allows technical volunteers to experiment with the basics of cognitive radio — radio that can sense the environment and adapt to take full advantage of the capabilities the hardware offers,” she said.

#### Groundsats and a “Big Honking SDR”

Phase 4 radios will be designed to work not just with the impending geosynchronous satellite but through terrestrial microwave “Groundsats,” which, Thompson said, “are essentially satellite simulators that let you test and use the radio terrestrially.” Phase 4 radio designs also could be configured to use modulation schemes that are better able to deal with terrestrial multipath.

Amateur Radio Access Points (ARAPs) — essentially signal aggregators — would allow legacy radios, FM hand-held transceivers, or emergency traffic providers to use the satellite from any point where an ARAP can be deployed, packaging the input for uplink to the satellite. Hams within ARAP range would be able to use the Five and Dime terrestrial network just as if they were operating through a satellite.

“The Groundsat, which is doing the same job as the satellite payload, has a big honking SDR on it,” Thompson said. Groundsat equipment has arrived and is in use in San Diego, North Texas, and at Virginia Tech, and Groundsat development is under way at those sites. A fourth site would be at Morgan State University in Maryland.

#### Doing It on the Cheap

“Five and Dime” also reflects the project’s economics. AMSAT Board Member and Virginia Tech Research Professor Bob McGwier, N4HY, recently explained on the AMSAT-BB that the Ground Team’s work is “an effort to design an inexpensive ground terminal for amateurs that would cost tens of thousands of dollars commercially, for as much under \$1000 as we can get it.” In contrast to the Space Team’s work, which, he said, is taking place “under the cloak of ITAR (International Traffic in Arms Regulations),” the Ground Team’s SDR is “completely open source, open specification” and “easily re-programmed to do many different kinds of missions just by changing the software.”

“We welcome any interested technical volunteers to apply to the technical volunteer program at AMSAT and become part of the team,” Thompson said. To volunteer for the Phase 4 Ground Team, provide your contact information on AMSAT’s Engineering Team [contact form](#). Thompson’s weekly “Phase4” engineering updates are available via YouTube. Additional [development documentation](#) is posted on GitHub.





## ARRL to Offer ARES Forms Training Webinar

02/23/2016

On Tuesday March 1, ARRL Headquarters staff will offer a free training webinar on three critical Amateur Radio Emergency Service (ARES) report forms. This webinar is intended for Emergency Coordinators, District Emergency Coordinators, Section Emergency Coordinators, Assistant ECs at all three levels, and Section Managers. The training will cover these forms:



- FSD-157 — Public Service Activity Report
- FSD-212 — EC/DEC Monthly Report
- FSD-96 — SEC Monthly Report

The seminar will include how to fill out these forms, who should complete them, where the information goes, how the information is used, and why good reporting is critical. The future of ARES reporting will be discussed. The webinar will begin at 8 PM ET (0100 UTC) and last about 1 hour.

Conducting the webinar will be ARRL Emergency Preparedness Manager Mike Corey, KI1U; ARRL Field Services Supervisor Steve Ewald, WV1X, and ARRL Emergency Preparedness Assistant Ken Bailey, K1FUG.

Attendees can [register](#) online. For more information, contact [Mike Corey](#), KI1U.

## Fox-1E (RadFxSat-2) Selected for Participation in NASA's CubeSat Launch Initiative

02/22/2016

RadFxSat-2, the Space Radiation Effects CubeSat — also known as Fox-1E — has been selected to participate in NASA's CubeSat Launch Initiative ([CSLI](#)). RadFxSat-2 (Fox-1E) is a partnership opportunity between Vanderbilt University's Institute for Space and Defense Electronics ([ISDE](#)) and AMSAT, similar to RadFxSat (Fox-1B), scheduled to launch next January. The Fox-1E spacecraft bus will be built as part of the Fox-1 series but will feature a linear V/U (Mode J) transponder "upgrade" instead of the standard FM repeater that Fox-1A through D have carried.

Vanderbilt University, with cooperation from AMSAT, submitted the RadFxSat-2 CSLI proposal in November 2015. Out of 21 proposals, NASA has recommended 20 for participation in the CSLI opportunity. RadFxSat-2 is prioritized as number 1 out of the 20 selected and has been offered an opportunity for a launch date. AMSAT and Vanderbilt University are evaluating the opportunity to see if it meets their mission and orbital parameters.

RadFxSat-2 (Fox-1E) will carry a radiation effects experiment similar to the one aboard RadFxSat (Fox-1B), but will also study new FinFET technology.

The downlink will feature a 1200 bps BPSK telemetry channel to carry the Vanderbilt science data in addition to a 30 kHz-wide transponder for Amateur Radio use. Additional mission and timeline details will be forthcoming. — *Thanks to AMSAT News Service*



*Thanks to ARRL News 2/22/2016*

\*\*\*\*\*  
\*\*\*\*\*

**A De-Soldering Primer**  
**By Wayne Burdick, N6KR**  
**(republished with the author's**  
**permission)**

Removing resistors and other parts from double-sided boards is easy and fun. After years of careful analysis of my own technique I have documented the process. I start with technique #1, below; if that doesn't work, I try #2, etc. Good luck!

1. Turn the board over. With one hand behind your back, a wry smile, and the confidence of a pet surgeon, simply heat the lead in question and listen for the pleasant sound of the component hitting the work bench.

2. Well, that *\*would\** be too easy, wouldn't it. Staying with the solder side for now, locate a large solder sucker (the larger the better; it should frighten smaller pets when brandished). Heat each joint and deftly suck out the solder with a single satisfying Thwop! Listen for the part hitting the bench.

3. Didn't fall out, eh? No problem: rummage in that tool bin for a shiny new roll of solder wick. Crack open a beer, too, and take a generous swig. Wedge that wick in between the lead and pad, heat until you see the solder flow nicely onto the wick, and pull it out of the way just in time to see a beautiful, black annular ring around your component lead. Nudge each lead with your iron and keep your fingers crossed.

4. OK, so you've got a tough customer: small lead, hole just barely larger, and a bit of off-color solder that can't be bothered with any of the usual techniques. Have another sip of that brew. Vigorously flip the board back to the component side. Now grip the lead professionally with your most elegant long-nose pliers and hold on tight. Give it a playful yank, then pray. Should pop right out.

5. Damn. Finish the beer and get out your brutal, 8" electrician's long-nose. Grab the component with gusto this time, buster, then tip the board up at a 45. Turn up your soldering station to max and heat that baby up on the backside. Pull down hard with the pliers.

6. No go? Hmmmmm -- let's get serious. Put the board up directly on its edge and hold it in place vertically with your chin. Since your iron is suspect by this time, test it for several seconds on the nearest exposed skin. (Doing it by accident is just as effective.) Heat the joint with *\*feeling\** this time. Lunge and parry. Don't worry about the pad, traces, or other parts--this is war! With maximal chin pressure exerted to hold the offending board in place, pull the lead out, out, Out!

7. OK, so you "...couldn't get hold of it..." blah blah blah. Fool!

You must risk everything at this stage. Insert a small screwdriver under the part, and white-knuckle that soldering iron on the obverse. Pry and heat until it pops. (Note: It is important to keep in mind the concept of "kick-back" should you succeed at this. PC boards are likely to wobble, flop, slip, then fling out of your grasp once the offending little monster finally lets go, taking test leads and soldering station with it.)

8. So, what kind of inept dweeb are you, anyway? Give up! Clip the part.

Leave some lead to grab onto and repeat #6 and 7. If your face has turned red it is best to shield the work from view with your body, then steal a quick look behind you to be sure noone is suppressing a giggle as they watch this humiliating display.

9A. The lead came out but you STILL have some solder left in the hole?

Gads. Find another part that you can sacrifice. Press its helpless lead

into the depressingly small pit you made in the center of the pad.

Heat the base of the lead until you achieve Punch-Through. Yank and Heat, Yank and Heat. Eventually the solder will give up in disgust and the sacrificial component lead will slide smoothly, signaling victory.

9B. To your left is a hand drill; to your right is a #60 bit. You know what you must do.

10. Now-you-brute! now that you've overheated the pad, broken the trace, cracked the component, gouged the board, pitted the tip, blistered the skin, wasted a beer, and irrefutably proven once and for all that you should have taken up gardening instead, NOW maybe you'll learn the color code!



(Thanks to Ralph K8HSQ for this article)

## UNIVERSAL RADIO

Quality Equipment Since 1942

KENWOOD TYT LDG  
ELECTRONICS

COMET DIAMOND ANTENNA QJE

Wouxun  
Kantronics ICOM MFJ  
West Mountain Radio

Cushcraft ASTRON  
Tigertronics TIGERTRONICS ALINCO  
Manufacturers of Innovative Communication Products

YAESU TDX ONE samlex

GRUNDIG TIMEWAVE TECHNOLOGY INC.

- ✓ Visit our fully operational showroom
- ✓ Request our 128 page free catalog
- ✓ Universal buys radio equipment
- ✓ New and used equipment online at:

**www.RFfun.com**



universal  
radio inc.

Universal Radio, Inc.  
6830 Americana Pkwy.

Reynoldsburg, Ohio 43068

800 431-3939 Prices & Orders

614 866-4267 Information

614 866-2339 FAX

dx@universal-radio.com

www.universal-radio.com



# March 2016

## W8NP Monthly Planner

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday																																																	
<b>Upcoming Events:</b> 4/9 - Saturday - Cuyahoga Falls ARC Hamfest 4/24 - Sunday - Two Rivers ARC Hamfest, McKeesport, PA 4/24 - Sunday - Athens Hamfest. Athens, OH		1	2	3	4	5																																																	
		Stark County ARES Net on 147.12 at 7:00 PM		BD KC8RPE	Massillon Amateur Radio Club Meeting, Senior Center, Massillon, 2000	Silvercreek ARA, 0945, Ctc: Barry 330-925-1706, Rittman Public Library																																																	
6	7	8	9	10	11	12																																																	
Massillon Radio Net - 3599.5 kHz, 2000  NOARS Winter HAM Fest, Ctc: Darlene, KA8VTS, 216-398-8858, Elyria		Stark County ARES Net on 147.12 at 7:00 PM		BD N8FEB	West Stark Info Net - 147.180 at 2000																																																		
13	14	15	16	17	18	19																																																	
<b style="color: red;">Daylight Savings            Time Begins</b>  Massillon Radio Net - 3599.5 kHz, 2000		BD WA8GXM  Stark County ARES Net on 147.12 at 7:00 PM		<b style="color: red;">St. Patrick's Day</b>  VE Test Session, Cuyahoga Falls ARC, 1900, Bruce, 330-929-2766, Stow-Monroe Falls Public Library	West Stark Info Net - 147.180 at 2000	BD W8DEA  Charleston, WV Hamfest & Computer Show <a href="http://www.w8gk.org">www.w8gk.org</a>																																																	
20	21	22	23	24	25	26																																																	
Massillon Radio Net - 3599.5 kHz, 2000  Toledo Mobile Radio Assoc. Hamfest, Ctc: Brian, 419-385-5624, Perrysburg		Stark County ARES Net on 147.12 at 7:00 PM	<b style="color: red;">Statewide            Tornado Drill            0950</b>	BD K8KIP	West Stark Info Net - 147.180 at 2000	BD KA8KJW  MOVARC Hamfest, Gallipolis, OH, Ctc: Lester, 740-256-1312																																																	
27	28	29	30	31	<table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th colspan="7">Apr 2016</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> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td>2</td> </tr> <tr> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> </tr> <tr> <td>10</td> <td>11</td> <td>12</td> <td>13</td> <td>14</td> <td>15</td> <td>16</td> </tr> <tr> <td>17</td> <td>18</td> <td>19</td> <td>20</td> <td>21</td> <td>22</td> <td>23</td> </tr> <tr> <td>24</td> <td>25</td> <td>26</td> <td>27</td> <td>28</td> <td>29</td> <td>30</td> </tr> </tbody> </table>		Apr 2016							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
Apr 2016																																																							
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																																																	
		Stark County ARES Net on 147.12 at 7:00 PM																																																					

Please contact K8INN for updates, changes, or additions.

**MASSILLON AMATEUR RADIO CLUB  
P.O. BOX 73  
MASSILLON, OHIO 44648**

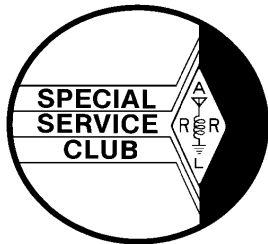
**FIRST CLASS MAIL**

**TO:**



85 Years in existence 1927-2012

VISIT US ON THE WEB AT; <http://www.w8np.org>



President	Ralph Bugg	K8HSQ
Vice President	Terry Russ	N8ATZ
Secretary	Fred Reed	KD8SMO
Treasurer	Gary Kline	WC8W
Editor	Gary Kline	WC8W
Trustees	Don Wade	W8DEA
	Jim Farriss	WA8GXM
	Bud Harvey	WA8KWD
W8NP Trustee	Perry Ballinger	W8AU
W8NP Webmaster	Terry Russ	N8ATZ

Published by the Massillon Amateur Radio Club, P.O. Box 73, Massillon Ohio 44648. The Club meetings are the first Friday of every month (except January) at 8:00 PM at the Massillon Senior Citizens Building at 39 Lincoln Way West, Massillon, Ohio