

FEEDBACK

VOLUME 52 ISSUE 11

NOVEMBER 2007

MASSILLON AMATEUR RADIO CLUB OFFICERS

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Ralph Bugg
K8HSQ

VICE PRESIDENT

Scott McCamish
N3JJT

SECRETARY

Dan Anastis
N8DZM

TREASURER

Anne Ballinger
N8GAF



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-- SHORT SKIP --

Politicians are back on their stumps again, promising an end to the Iraq situation and affordable health care for all. But not one mention of our sun spot crisis. Perhaps sun spots and the ionosphere are subjects way over their heads.....

73 de WB80WM

NOVEMBER MEETING

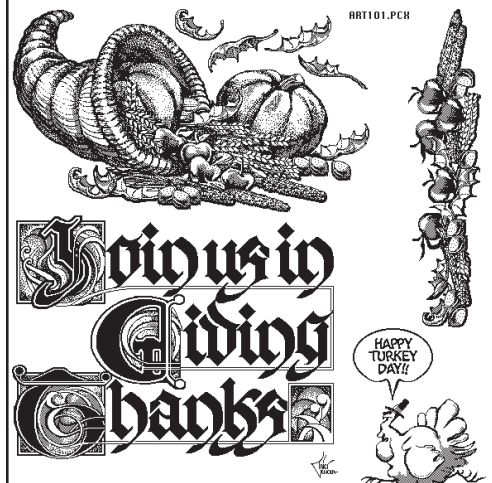
The meeting for the month of November will be held at the Massillon Senior Center on November 2, 2007 at 8:00 PM.

At this meeting we will be reviewing the Massillon Amateur Radio Club Hamfest 2007. Reports by the various committees on how everything went at the hamfest. What do we need to work on for next year? Any major improvements needed? This will be the time to bring up your recommendations. Hopefully Anne, N8GAF, our treasurer will have a full financial report for us .

Hard to believe but it's November already. That means we must begin to think about electing new Officer's for the club. Final votes will be taken for new officers at the December meeting. According to Code Of Regulations we can begin to take nominations from the floor in November. We need to elect a new Vice President, Secretary, Treasurer (if the current incumbents decide not to retain their seat), and one new Trustee. The Trustee who's term expires is Don Finley, W8DEF. This means that Don will be eligible for any new office

beginning with the 2008 year. Other officers who are not seeking re-election must sit out an entire year before they can be elected to any office.

Thinking about running for office? Know anyone you would like to see in office? The qualifications are: All full members at least 21 years of age, technician plus class license?? (Needs to be updated) and above that have been in good standing for three years are eligible to hold office. Looks like it might be a very busy evening ! See you there !



MARC MINUTES October 5th, 2007

The Massillon Amateur Radio Club meeting was held at the Massillon Senior Center with 33 members and guests present. MARC President Ralph K8SHQ opened the meeting at 8:00 P.M. The Pledge of Allegiance was given and a round of introductions was made.

Gene W8KXR made a motion and seconded by Steve KD8ACF to accept the July Minutes as printed in the Feedback and passed.

Anne N8GAF gave the treasurer report.

Committees

Antenna - The beam antenna on the Senior Center still needs repaired. The wire antenna was tested and works fine.

Winlink – W8XM donated to the club a DR1200 data radio for use with the WinLink station.

CW Proficiency – The CW Code Proficiency program may die. There is very little interest across the country at the pilot test sites.

Hamshack – The patch panel for the radios and antennas has been made.

Old Business

Hamfest tables were ordered. Tickets are printed, and fliers are on their way in the mail.

New Business

We were number 12 in the Amsat Field Day competition with five contacts and 13 stations participating.

Sunday October 21st starting at 9:00 am, the club will sponsor Jamboree On The Air in the hamshack. There maybe 80 Boy Scouts throughout the day visiting the shack to make contacts on the air.

Perry brought misc. free stuff for the club members consisting of various cables, electronic and computer parts, and accessories.

50/50 was won by Russ N8PII for \$18.50.

Minutes by Dan N8DZM

MARC NETS

Just a reminder: the West Stark Info Net is on 147.18 MHz, every Friday at 8 PM (except for the first Friday of the month which is MARC meeting night) The MRN net is on the 80 meter band at 7:30 PM (new time) on 3599.8 MHz (+ or - QRN) CW. on Tuesday, Thursday and Sunday evenings. A great way to help you learn & increase your code speed !

... Massillon Holiday Parade ...

Our final public service event of the year is of course the annual Massillon Holiday Parade. This years parade should be on Saturday, November 17th and we will need about 20 volunteers to assist with parade staging, TV and general communications support for the 80 or so units that are expected again this year. This is one of the longest support handled by the club and I believe this will be the 53rd Annual Parade and we have been a part of most of them.

I'm sure we will once again have the clubs Emergency Communications Trailer as one of the parade units to remind area residents of our continuing support to the community. Club member Perry Ballinger, W8AU usually heads up this event and I expect we will have a sign-up sheet at the club meeting. Please volunteer your time and assist us with this years parade.

.. Ft Wayne Hamfest ..

If you're in the mood for a great indoor hamfest consider attending the Fort Wayne Hamfest and Computer Expo which is the weekend of November 17 – 18 at the Allen County Coliseum in Ft Wayne, Indiana. The hamfest comes almost six months to the day after the mighty Dayton Hamvention and is a great way to end out the 2007 hamfest season. At over 900 tables and 150,000 square feet of exhibitor space, this is one very nice hamfest. It should include several fine forums, exhibits and features vendors including Alinco, Ameritron, MFJ, Mirage, Yeasu among others.

Hours are 9 AM to 4 PM on Saturday Nov 17th and from 9 AM to 3 PM on Sunday, Nov 18th. Admission is \$ 6.00 per person (good for both days) or \$ 4.00 for just Sunday. There is a \$ 4.00 parking fee. A full 2 page flyer is available on their website at <http://www.acarts.com/hfmain.html>.

.. ARRL November Contests ..

Are you in the mood to do a little contesting ? Then consider giving November Sweepstakes a try. Sweeps, as it is commonly know, is a great opportunity to get on the air and work US and Canadian stations. Sweepstakes can be a lot of fun for both new and not-so-new hams.

The contest exchange is fairly substantial and involves more than the standard five-nine signal report and your location. To qualify as a complete contact operators must exchange a serial number, callsigns, operating precedence, the last two digits of the year that they were first licensed and their ARRL or RAC section. This makes for

some good fun and great practice for emergency communications or message handling.

The dates for this event are CW: November 3 – 5 and Phone: November 17 – 19. The club station may even be activated if there is sufficient interest. Complete details and rules are available on the ARRL website at <http://www.arrl.org/contests/rules/2007/novss.html>.

**73's for now, see you at the meeting..
De Terry – N8ATZ**

DIGITAL TV

D-DAY

You may have not noticed, but on 17 February 2009 the television you are probably watching will go dark. That is the last day of analog television in the U.S.A. This is the result of Congress saying we will go to digital the next day.

If you are on cable or satellite you will be able to go on watching for a time. These will not be affected at that time.

If you have a television purchased after the first of this year it will have the digital tuner included. However, If you have an older set it may or may not have the digital tuner. If the latter is the case you will need a set-top box for each set. There is nothing magical about DTV, it is just another modulation mode which is not the same as the digital mode used for cable or satellite.

Your antennas and cable will work the same as RF is RF. The government is issuing, after Jan 1st, two vouchers worth \$40.00 each to each household requesting them.

Reception will be all or nothing. You will get a perfect picture/sound or nothing. The signal may lock up even on a strong signal. This is caused by multipath which confuses the decoder in the tuner. If it sees more than one signal of approximately the same strength but slightly different in time of arrival the demodulator will not know which to process so it will do nothing. The better the beam pattern of your antenna the less this will be a problem.

I have been using an omni-directional antenna at 20 feet above ground and cars going by will cause a problem. However, I get good results overall. An antenna with better height and pattern will give much better results.

The FCC has allowed stations to keep their analog channel designation for their digital channels. For instance, although we transmit our digital on 39 your decoder will see it as 17.

Any questions? Give me a call or e-mail.

73 de Frank WA8HWP

(Thanks to Frank Sanor WA8HWP (Alliance Club member) for submitting this article. You can reach Frank at wa8hwp@verizon.net.)

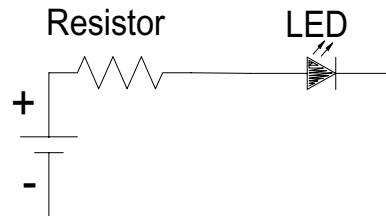
Has Your Panel Light left you de-lighted? OR Whose Bright Idea Was This?



An alternative choice for the incandescent bulb (lamp) is the Light Emitting Diode (LED). It is energy efficient, offers color choices, variety of package sizes, and can operate over a wide voltage range. The LED can be used for a variety of projects and craft items.

The LED operates as a diode by passing current in one direction only. The voltage drop across an LED varies according to color. Approximate voltages are: Red = 1.8 V, Yellow, Amber, Orange, or Green = 2.1 V, Blue or White 3.5 to 4 V. The voltage drop is listed in vendor catalogs under the heading Vf (voltage, forward).

Battery
Or
Power Supply



NOTE: All basic LED's require a series resistor to limit current to 0.02 Amperes (20 mA) or less.

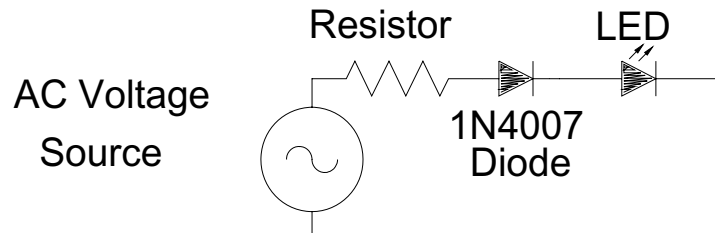
Resistor Selection Chart for 0.02 Ampere (20 mA) Current flow. Listed are the minimum resistor values.

| VOLTAGE | RED | ORANGE, AMBER YELLOW, GREEN | BLUE, WHITE |
|---------|-----------|--------------------------------|----------------|
| 5 | 160, ¼ W | 150, ¼ W | 75, ¼ W |
| 6 | 220, ¼ W | 220, ¼ W | 130, ¼ W |
| 7 | 270, ¼ W | 270, ¼ W | 180, ¼ W |
| 8 | 330, ¼ W | 330, ¼ W | 240, ¼ W |
| 9 | 360, ¼ W | 360, ¼ W | 300, ¼ W |
| 10 | 430, ¼ W | 430, ¼ W | 330, ¼ W |
| 11 | 470, ½ W | 470, ½ W | 390, ¼ W |
| 12 | 510, ½ W | 510, ½ W | 430, ½ W |
| 15 | 680, ½ W | 680, ½ W | 620, ½ W |
| 18 | 820, ½ W | 820, ½ W | 750, ½ W |
| 20 | 910, ½ W | 910, ½ W | 910, ½ W |
| 24 | 1200, 1 W | 1100, 1 W | 1100, 1 W |

How About a Circuit for Alternating Current ?



The LED can be used with Alternating Current by using the following circuit:



NOTE: AC circuits require an additional series Diode. Basic LED's used with AC circuits should be reduced to 0.015 Ampere (15 mA) to compensate for peak voltage.

Resistor Selection Chart for 0.015 Ampere (15 mA) Current flow. Listed are the minimum resistor values (in ohms).

| VOLTAGE | RED | ORANGE, AMBER YELLOW, GREEN | BLUE, WHITE |
|---------|-----------|--------------------------------|----------------|
| 5 | 180, ¼ W | 150, ¼ W | 51, ¼ W |
| 6 | 240, ¼ W | 220, ¼ W | 120, ¼ W |
| 7 | 300, ¼ W | 270, ¼ W | 180, ¼ W |
| 8 | 390, ¼ W | 360, ¼ W | 270, ¼ W |
| 9 | 430, ¼ W | 430, ¼ W | 330, ¼ W |
| 10 | 510, ¼ W | 470, ¼ W | 390, ¼ W |
| 11 | 560, ¼ W | 560, ¼ W | 470, ¼ W |
| 12 | 680, ¼ W | 620, ¼ W | 560, ¼ W |
| 15 | 820, ½ W | 820, ½ W | 750, ½ W |
| 18 | 1100, ½ W | 1000, ½ W | 910, ½ W |
| 20 | 1200, ½ W | 1200, ½ W | 1100, ½ W |
| 24 | 1500, ½ W | 1500, ½ W | 1500, ½ W |

Available resistor values (in ohms) are:

| | | | | | | | | | |
|----|-----|-----|-----|-----|-----|------|------|------|------|
| 51 | 82 | 130 | 220 | 360 | 560 | 920 | 1500 | 2400 | 3900 |
| 56 | 91 | 150 | 240 | 390 | 620 | 1000 | 1600 | 2700 | 4300 |
| 62 | 100 | 160 | 270 | 430 | 680 | 1100 | 1800 | 3000 | 4700 |
| 68 | 110 | 180 | 300 | 470 | 750 | 1200 | 2000 | 3300 | 5100 |
| 75 | 120 | 200 | 330 | 510 | 820 | 1300 | 2200 | 3600 | 5600 |

Formulas:

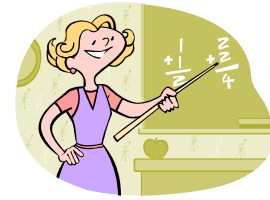
Resistor in ohms = Voltage / LED Current in amperes

(Voltage = Power Supply Voltage – voltage drop across LED)

Example: Red LED (1.8 Volts) with 10 volt power supply.

Resistance in ohms = Voltage (10 – 1.8) / 0.02 = 410 ohms. The next higher standard value is 430 ohms.

(AC circuit: Subtract an additional 0.7 volts from the power supply voltage)



Power Rating of Resistor:

Power Rating = Current in amperes (squared) X Resistor value in ohms

Resistor power rating = 0.02 X 0.02 X 430 = 0.172 Watts which is below the ¼ Watt value of 0.250 Watts. A good choice is a ¼ Watt resistor.

NOTE: If the Power Rating is between 0.4 to 0.75 use a 1 Watt resistor.

If the Power Rating is between 0.175 and 0.4 use a ½ Watt resistor.

If the Power Rating is less than 0.175 use a ¼ Watt resistor.

NOTE: In an AC Circuit, Power is calculated differently and not covered in this article. The DC Power Rating can be used although some resistors will be a larger wattage rating than normally used.



The **mcd** value listed in the vendors catalog is an LED brightness specification normally at 20 mA of current. The mcd rating can be from around 2 to 5000 or more. Around 30 mcd is used for a low brightness panel indicator but sometimes it may be necessary to need 100 mcd or more for use in a sunlight application. Brightness can be reduced by increasing the resistance, thereby reducing the current to the LED. If 10 mA is used in the formula then the brightness will be reduced to ½ of the mcd value. If 5 mA is used, then the brightness will be ¼ of the mcd value.

From an engineering standpoint, values different from the ones listed in this article may be calculated. Voltages greater than 24 Volts DC or AC are not covered in this article for safety reasons. LED's are used in circuits with higher voltages. Assemblies can be purchased for panel mount LED's up to 120 Volts.

The above information is for amateur radio experimental use only. Values are chosen to help with the understanding of the components listed in this article. The end user assumes all responsibility for: the use of the information in this article, the safe handling of voltage and current, heat generated from components, and for double checking the values before applying power to the circuit. The end user must read, understand, and follow the component manufacturer specifications, recommendations, and safety guidelines.

Hope you found that this article was (well, should I say it?) ILLUMINATING!

73, DE Mike, WA8MKH

ARRL NEWS

ZCZC AG23
 QST de W1AW
 ARRL Bulletin 23 ARLB023
 From ARRL Headquarters
 Newington CT October 25, 2007
 To all radio amateurs

ARLB023 Riley Hollingsworth, K4ZDH, Special Counsel, Retires

Riley Hollingsworth, K4ZDH, Special Counsel in the FCC's Enforcement Bureau, announced his retirement this week, effective Thursday, January 3, 2008.

While his successor has not been named, Hollingsworth was quick to point out that the FCC's Amateur Radio enforcement program will continue.

Hollingsworth told the ARRL: "After about a year of thinking about the 'if not now, when?' question, I decided to retire January 3. I love working for the FCC and I've always had great jobs, but this one involving the Amateur Radio Service has been the most fun and I have enjoyed every day of it."

He continues, "For nine years I've worked with the best group of licensees on earth, enjoyed your support and tremendous FCC support and looked forward every day to coming to work. The Amateur Radio enforcement program will continue without missing a beat, and after retirement I look forward to being involved with Amateur Radio every way I can. I thank all of you for being so dedicated and conscientious, and for the encouragement you give us every day."

NNNN
/EX



ARES NEWS OHIO SECTION

AN EDITORIAL

As you can imagine, as your editor I receive a lot of information each month whether it be direct or via e-mail. One piece is that of the Ohio Section Amateur Radio Emergency Services monthly report by the Ohio Section Emergency Coordinator, Mr. Frank Piper, KI8GW. This report comes to me because I signed up to receive reports from the League via the members only part of their web site (www.ARRL.org).

Mr. Piper does a great job in reporting all the different ARES happenings in Ohio. For instance did you know there are 9 different sections on Ohio? I didn't, in fact I don't ever know what section we belong. Why? Because I have never seen a report from Stark County in his report. It's as if we don't even exist! In the report if some counties don't have anything to report, it simply states: nothing to report. Stark County isn't even listed, hence I don't know what section to which we belong.

I do know that we have an Section Emergency Coordinator and an Assistant Section Emergency Coordinator, that being Dave Beltz WD8AYE, as SEC and Terry Russ N8ATZ, as ASEC. We do have some ARES activity here; we have the weekly ARES Net which boasts of about 30 or more check - in's. We have the spring Sky - Warn training which consistently out numbers most counties in attendance. This is just some of the activities. Have you seen any State or National Reports from here? I haven't.

It seems that the only activity in the county is when we have storms passing and just a few will man the Hospital - Mercy only, no one is sent to Doctors or MCH. (I don't know about Alliance). We have had some tornados touch down and a few floods in the area but no activation of ARES, no shelters manned. We haven't even been invited on area simulated disasters conducted by area Safety Forces. Have we been left out of the "loop"?

I know that both the SEC and the ASEC are both still working, especially the latter. Terry is busier than a one armed paper hanger. I don't know how he does it, working a lot of hours each week and trying to keep a family going and still find time to do all his Ham activities. Perhaps they could appoint someone to do the reporting, schedule activities, etc.. Mind you I personally am NOT volunteering for the job. I have enough to do each month but perhaps some like Mike KB8MIB or Michelle KC8ZEJ, both of which are very active in the ARES weekly net. This is of course just a suggestion. But it would be nice to see a report now and then-----.

73's de Gary WC8W ed MARC Feedback

MARC PICTURE PAGE: HAMFEST 2007



The Club table was a very popular place. Thanks to Sarah KC8ZCS, & Scott KC8ZCT, for handing out some very fine prizes !



Many bargains were to be found at this year's Hamfest !



Rodger KA8FTS, escorts Les K8LP, around the hamfest and Les picks up a nice door prize while he is at it !



Mike WA8MKH, explains to MARC President Ralph K8HSQ, some of the finer points of the VE Exams taking place this day. Eleven people showed up to take exams and 6 were successful in achieving a new or upgraded license.

(Thanks to Rick K8RIC for these fine pictures)

November 2007

W8NP Monthly Planner

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <div style="display: flex; justify-content: space-around;"> <table border="1" style="border-collapse: collapse; text-align: center; width: 150px;"> <caption>Oct 2007</caption> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></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> <table border="1" style="border-collapse: collapse; text-align: center; width: 150px;"> <caption>Dec 2007</caption> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td></tr> <tr><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td></tr> <tr><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td></tr> <tr><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td></tr> <tr><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td></tr> <tr><td>30</td><td>31</td><td></td><td></td><td></td><td></td><td></td></tr> </table> </div> | | | | 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 | | | | 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;">1</p> <p>BD KC8IHR</p> | <p style="color: #800080; font-size: 1.2em;">2</p> <p>Massillon ARC Meeting, Massillon Senior Center, 8:00pm</p> | <p style="color: #800080; font-size: 1.2em;">3</p> |
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| 23 | 24 | 25 | 26 | 27 | 28 | 29 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | 31 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p style="color: #800080; font-size: 1.2em;">4</p> <p style="color: red; font-size: 0.8em;">Daylight Savings Time Ends</p> | <p style="color: #800080; font-size: 1.2em;">5</p> | <p style="color: #800080; font-size: 1.2em;">6</p> <p>BD N8LCS</p> <p style="color: red; font-size: 0.8em;">Election Day</p> <p>Stark County ARES Net on 147.12 at 7:00 PM</p> | <p style="color: #800080; font-size: 1.2em;">7</p> | <p style="color: #800080; font-size: 1.2em;">8</p> | <p style="color: #800080; font-size: 1.2em;">9</p> <p>West Stark Info Net - 147.180 at 2000</p> | <p style="color: #800080; font-size: 1.2em;">10</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p style="color: #800080; font-size: 1.2em;">11</p> <p>VE Test Session, Cuyahoga ARS, Ctc: Gary @ 216-642-8705, Town Hall, Independence, 0900</p> <p style="color: red; font-size: 0.8em;">Veterans Day</p> | <p style="color: #800080; font-size: 1.2em;">12</p> | <p style="color: #800080; font-size: 1.2em;">13</p> <p>Stark County ARES Net on 147.12 at 7:00 PM</p> | <p style="color: #800080; font-size: 1.2em;">14</p> | <p style="color: #800080; font-size: 1.2em;">15</p> | <p style="color: #800080; font-size: 1.2em;">16</p> <p>West Stark Info Net - 147.180 at 2000</p> | <p style="color: #800080; font-size: 1.2em;">17</p> <p>BD KC8KIX BD WA8NZE</p> <p>Indiana State Convention, Ft. Wayne Hamfest, Ctc 260-489-6700</p> <p style="color: red; font-size: 0.8em;">Massillon Holiday Parade</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p style="color: #800080; font-size: 1.2em;">18</p> <p>Indiana State Convention, Ft. Wayne Hamfest, Ctc 260-489-6700</p> | <p style="color: #800080; font-size: 1.2em;">19</p> <p>BD N8GXO BD N8UDL</p> | <p style="color: #800080; font-size: 1.2em;">20</p> <p>Stark County ARES Net on 147.12 at 7:00 PM</p> | <p style="color: #800080; font-size: 1.2em;">21</p> | <p style="color: #800080; font-size: 1.2em;">22</p> <p style="color: red; font-size: 0.8em;">Thanksgiving</p> | <p style="color: #800080; font-size: 1.2em;">23</p> <p>West Stark Info Net - 147.180 at 2000</p> | <p style="color: #800080; font-size: 1.2em;">24</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p style="color: #800080; font-size: 1.2em;">25</p> | <p style="color: #800080; font-size: 1.2em;">26</p> <p>BD W8PUC</p> | <p style="color: #800080; font-size: 1.2em;">27</p> <p>Stark County ARES Net on 147.12 at 7:00 PM</p> | <p style="color: #800080; font-size: 1.2em;">28</p> | <p style="color: #800080; font-size: 1.2em;">29</p> | <p style="color: #800080; font-size: 1.2em;">30</p> <p>West Stark Info Net - 147.180 at 2000</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |