### **YOUME 57 ISSUE 2**

## **FEBRUARY 2012**

MASSILLON AMATEUR RADIO CLUB OFFICERS

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WC8W
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MRN NETTue. Thur, & Sun 8:30 PM 3:60 MHz WEST STARK INFO NET FRIDAYS 8:00 PM 147.18 MHz (except 1st Fri of month)

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#### --- SHORT SKIP ----

February, ah, nice cool breezes and antenna projects await. SAFETY FIRST Bunkey. No climbing belt = NO CLIMBING . NO EXCEPTIONS . NONE. PERIOD .

By the way, don't hold your breath on December 21st. I'm predicting we'll all wake up on December 22nd to face yet another day of Christmas shopping . (HI)

73 de WB80WM

### MARC MEETING NOTICE AND BANQUET "RE-VIEW"

The next meeting for the Massillon Amateur Radio Club will be at the Massillon Senior Center on February 3rd, 2012 at 8:00 PM.

This will be the first meeting for the newly elected officers for 2012. However we will be without our new President Byron, KF8UN as he has a prior commitment. Our "temp" VP, Mike KD8ENV, will conduct the meeting.



Turnout was on the "light" side as we had about 28 members and guests present, but I'm sure all had a good time! The food was plentiful and really good. Remember in last month's article I asked all who attended to "rate" the restaurant to determine weather we will return there? Well forget it because the company that owns it announced a week later they were closing it down!

Looks like we will have to find another place for next year anyway!

In the picture above , it shows members enjoying the meal. The atmosphere as you can see was pleasant and ideal for privacy as we had the entire "back room" to ourselves. In the Secretary's Report (next page) Robert announced just some of the award winners. Those that could not attend the banquet will receive their awards at the February meeting.

**PS** Don't forget dues are now due & I will be sending out reminders to those who haven't paid via email soon!

MARC February 2012 Page 2

## MARC MINUTES January 14, 2012

The Massillon Amateur Radio Club awards banquet was held at the Hometown Buffet of Belden Village with 28 members and guests present.

Wade WD8MIU gave the invocation.

Dinner was your pick from the smorgasbord provided by the restaurant.

All club business was postponed to the next meeting.

#### Awards:

Byron Berger KF8UN - For volunteering for VP position

Carl Cunert AB8CC (2) - "Joe Turkal K8EKG DX Award" and "Blowing up his Elecraft K3"

Wade Huthmacher WD8MIU - Glass Gavel for year of service as club president

Robert Keller AC8GE – "CW Huckster Award – 2011 Safety Fest"

Gary Kline WC8W – Years of service as Editor of Feedback

Igor Nikishin K8INN – "Public Relations"

Maddie Nikishin (no call) – "Field Day Award – 2011 GOTA"

Mike Palmer KD8ENV - "Club Trustee Appreciation"

Don Wade W8DEA (2) - "Outstanding Service Award" and "Club Trustee Appreciation"

(**note**: some award recipients were not present, and therefore are not listed here. They will be announced at the next meeting.)

After the Awards were given out the newly elected officers were sworn in by Wade WD8MIU.

President - Byron Berger KF8UN

Secretary - Robert Keller AC8GE

Treasurer - Gary Kline WC8W

Trustee – Don Wade

The Icom 2m HT raffle was won by Stephanie Nikishin KD8RDN

Respectfully submitted by Robert AC8GE

#### ... GREAT ARTICLE ...

great article recently appeared in the November 3, 2011 web edition of EDN, Electronics Design News. EDN is a comprehensive information source for the original equipment manufacturers (OEM's) segment, providing in-depth technical information for electronics design engineers and business executives.

The recent article called "Ham Radio in the 21st Century" was authored by staff writer Doug Grant, K1DG and gives a very comprehensive timeline of the early days of ham radio before official licensing, to the formalization of the hobby by the FCC all the way to current trends and the possible future of radio and our hobby.

A client of mine in the electronics industry knows I enjoy amateur radio and sent me the link to the article and I can tell you that I enjoyed the article very much and consider it to be a must read for all radio operators. It's far too long to reproduce here in the newsletter but if you point your web browser to <a href="http://www.edn.com">http://www.edn.com</a> and enter ham radio into the search box you will easily find it.

I also plan on putting a direct link to the story on the club's website on the home page. A great job by Doug Grant on this article, make sure you have a look!

#### ... WATERPROOF HT'S?...

Amateur Handhelds or better known as HT's have certainly come a long way since the early crystal controlled six channel type some of us first began using a number of years ago. Today's models are smaller than ever and packed full of so many features that even the instruction manuals are bigger than the radio's themselves.

One interesting feature that has made it's way into the amateur market for the last several years isn't really new at all but it's now being touted as a selling feature. Welcome to water-proof HT's. This feature has actually been standard on commercial radio's for many years and the same construction technology is currently being used by most of the major amateur manufacturers.

So what is a waterproof radio? How many of us have actually bought a radio HT based solely on it's rating as waterproof? Generally speaking, it means that the equipment (it's enclosure specifically) has been designed to protect it from water ingress by submersion for up to 30 minutes at a depth of 3 feet. In industry terms it is covered by the IPX7 Specification. It is also covered by a Military Standard defined as MIL-STD 810 and IP-54. Different phrasing for a common waterproof rating.

If you would like a complex definition, have a look at Wikipedia.

The GPS industry has done a lot of research and testing in this area since most of their portable handheld units are routinely used outdoors and subject to harsh environmental conditions.

Yaesu was one of the first to claim a waterproof rating with the introduction of the famous VX-7R HT. Currently their entire lineup of handhelds both the FT and VX Series now claim a submersible rating.

Icom's commercial land mobile, marine and most of their new amateur HT's also now claim this rating. Kenwood chose to the MIL-STD 810 and IP54 waterproof rating on their new products.

Alinco only lists their new DJ Series radio's as having this rating but I noticed they do have a very detailed explaination of it posted on their website, something none of the other manufacturers have done.

The current Chinese invasion includes the new Wouxun and TYT Series HT's but no waterproof ratings are listed in either their manuals or website.

Granted, handhelds are most often used as portable radio's and many times during outdoor events so having a water-proof rating sure sounds like a real advantage. I have noted that the transmit audio is a little muffled due to the fact that the microphones are covered by a thin watertite membrane but using an external speaker/mic usually will help this out but keep in mind the accessories most often do not carry the waterproof rating.

I don't know just how much actual testing any of the amateur manufacturers have done to back up these waterproof claims and I don't really have any concrete facts to substantiate these claims either. Truth is, I try very hard not to drop any of my radio's in water no mater how deep it is but if anyone wants to put their radio to the test I'm sure this would make for a great club program! Any takers?

#### ... CLUB PROGRAM ...

After talking to new club President Byron, KF8UN at the club dinner, the club program for the March meeting will be a video called "The Last Big Field Day", a documentary of the W3AO 50A Field Day Operation in 2004.

It runs about 30 minutes and I when I watched it, I couldn't help but think about our own trials and tribulations putting together a simple Class 2A operation. It was very well done and I'm sure you will enjoy it.

See you at the next meeting.

73's Terry – N8ATZ MARC February 2012 Page 4

#### **KB6NU's Column for January 2012**

#### Amateur Radio Finally Jumps on the Maker Bandwagon by Dan Romanchik, KB6NU

Over three years ago, I wrote that amateur radio should do more to associate itself with the Maker, or "do it yourself" (DIY) movement (www.kb6nu.com/lets-get-on-the-maker-bandwagon/). Well, it finally looks like it is going to do just that.

Just before the first of the year, the ARRL unveiled its DIY campaign (www.arrl.org/news/arrl-launches-new-diy-campaign). The most visible part of the campaign is a video (www.youtube.com/ARRLHQ), but there are also some other bits, including:

- a flier to be handed out to interested persons,
- buttons that say "Ask Why I DIY with Ham Radio," and
- a PowerPoint presentation and speaker's notes that you can use to give a presentation to an amateur radio club or other non-ham group.

These items are available from the ARRL website, www.arrl.org/DIY.

CQ also on board

CQ magazine is also jumping on the bandwagon. They recently annnounced that they will run a quarterly "Maker" column, written by Matt Stultz, KB3TAN. Stultz is the founder of HackPittsburgh, a "hackerspace" or community workshop for makers in Pittsburgh, Pennsylvania. He has been a ham since 2009 and has integrated amateur radio into many of HackPittsburgh's activities.

Stultz's first column, titled "We Are Makers," will appear in the March issue of CQ. It provides a general introduction to the maker/hacker community for hams, as well as a description of a high-altitude balloon project that brought the two groups together in Pittsburgh.

Hams at the Maker Fair

in 2006, Make: magazine hosted the first Maker Faire (www.makerfaire.com) in San Mateo, CA. Since then, Maker Faires have also been held in Austin, TX, New York, NY; and Detroit, MI. Maker Faires are showcases for all kinds of crazy projects that people are working on.

Hams usually have a presence at these events. This year, the theme for one of the amateur radio groups participating in the California Maker Faire, which is the flagship event, is Arduino (www.arduino.cc) applications in amateur radio. Michael, NE6RD, who is organizing this group has lined up several very cool projects. One of them is an Arduino-controlled satellite antenna system.

A project I proposed is an Arduino-controlled keyer. On the face of it, this is not a real exciting project, but my twist on this is that instead of directly keying a transmitter, I plan to have the Arduino actuate a solenoid that will press a straight key. That should make the project a little more visual.

Hams sometimes like to claim that we were the original makers and hackers. We certainly have a long tradition of DIYing. Let's show these upstarts exactly what ham radio is capable of. Perhaps, in the process, we'll even entice a few of them to join us.

When he's not "making" things, Dan, KB6NU, teaches ham radio classes and works a lot of CW. You can contact him about some of the things you're making by e-mailing cwgeek@kb6nu.com.

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OK.... Now that you have it figured out we can tell you what's coming up Friday, February 10.

The annual Code class, sponsored by MARC, will begin at 7:00 p.m. on the third floor of club Headquarters at the Senior Center, downtown at 39 Lincoln Way west.

This class is for those recent code-free hams, and beginners, who would like to learn and enjoy the fun of our very first "digital" radio mode..CW. This digital mode is slow enough to enable

your brain to encode and decode each letter and number instead of having to use a modem to do it for you. ©

While the code can be learned individually at home using computer programs, there are so many

aspects of the mode that are not covered by this method and it may become a challenge when it comes to the actual use of it. This is where, as in our licensing classes, a mentor or teacher is of great help when it comes to passing on tips and techniques. Such things as how to grip a hand key,

how to send with the proper 3/1 dash/dot ratio, how to avoid wrist fatigue, how to "copy ahead," how to structure a CW contact, how to use Q signals, and many more. After the letters, numbers

and punctuation are learned, you are shown various techniques to increase speed to where there is

no longer any need to write it down and it truly becomes conversational.

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The nice thing about this class is that there is no exam to worry about. Once one achieves 5 words per minute speed, (and has equipment) they are ready to get on the air. At this time one can continue

their progress by checking into the Massillon Radio Net (MRN) on 3599.8 kHz three evenings each

week.

What are the benefits, other than tremendous self-satisfaction? DX is easier to work, QRP power

works where it would not on SSB, Back-packing with battery rigs is possible, and handling emergency

traffic via CW always ensures correct spelling. (think about that one!) ©

Classes will run for 8 to 10 weeks and reservations can be made with Perry, W8AU, at 832-8612,

or via email at w8au@sssnet.com. Come, learn, and join in the fun.

#### **BATTERIES**

#### BlankThe Memory Effect Myth

Possibly the biggest myth that exists particularly for NiCd cells is the "memory effect". Almost every one quotes it as the reason that cells have to be completely flattened otherwise they develop some sort of memory, and can only hold a partial charge from there on. Like all good stories, this one has a grain of truth in it! The myth originated from the early days of satellites when they were using solar cells to charge batteries and because of the orbiting of the craft around the earth, the batteries were subjected to precise charge/discharge cycles many hundreds of times. The effect disappears when the battery cycle is suddenly varied, and it is extremely difficult to reproduce this effect even in a laboratory. So the "memory effect" is not a significant problem in home usage.

What I can tell you is while it may be OK to discharge individual cells to 0V, it is certainly not recommended to discharge an entire battery of cells. The reason is simple. When the battery is discharged below 0.8V per cell, one of the cells is inevitably weaker than the others, and goes to zero first. If the battery is further flattened this battery becomes charged in reverse, which again makes it still weaker. This creates a more common but less commonly known effect called "voltage depression". Eventually the battery's performance drops off quite suddenly which ironically is the very thing that the user is trying to prevent. Most users know where the battery's "knee" occurs; it is when the original equipment first starts to show signs that the battery performance (and hence voltage)

is suddenly dropping, and it is a good idea to place it straight on charge at this point. Usually there is less than 5% of C remaining anyway.

One other thing, batteries don't like getting too hot or cold; they do not take a full charge and they actually discharge (even under no load) much faster when over 40 degrees or below 0 degrees. They can build up internal heat when working and this can cause temperatures inside to increase also. Particularly avoid leaving cordless tools inside a hot car for this reason. They also should be left to cool down for a while after discharge before placing them on charge. NiCd/NiMH batteries do self-discharge too, as a rule of thumb a battery will hold a full charge (with no load) for about a month or two, although when they get old or hot, they might only last a day.

So what can you learn from this?

- a.. You don't have to flatten your battery before you recharge
- b.. Don't flatten your battery below 0.8V per cell,
- c.. Don't overcharge your battery beyond 100% of C, and
- d.. NiCd/NiMH don't like to get too hot, or too cold (0 to 40 degrees C is usually best)

(Thanks to Rick K8RIC for sending us this article, 1/2/2012)

#### **FEBRUARY**

The month of February has a number of "holidays" in it including:

February 2nd: Ground Hog Day

February 12th Lincoln's Birthday

February 14th Valentine's Day

February 20th President's Day (holiday)

February 22 Washington's Birth Day

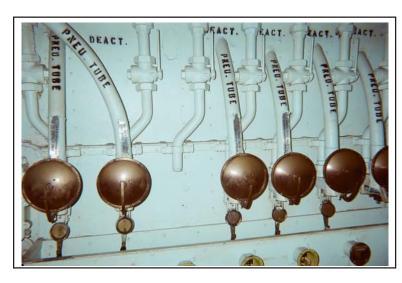
February 29 LEAP DAY!





Recently, I had an opportunity to go onboard the Museum ship, USS LEXINGTON CV-16 and operate SSB from one of the several radio rooms that were on this legendary aircraft carrier. The LEXINGTON, (The BLUE GHOST), is a now a museum ship docked in Corpus Christi, Texas. The local amateur club STARC, (South Texas Amateur Radio Club) maintains and operates a station onboard this ship. This station is active on all patriotic holidays, i.e. museum ship weekend and is also available for use by licensed ham radio operators if escorted by a STARC member. My son, Mike, KC8YSR is a member of STARC and MARC and I naturally received a fantastic tour. The radio room is not on the regular tour of the ship. It's up a few flights, down a passageway and thru a room where messages were received from various parts of the ship via pneumatic tubes.





The station is set up in what was the teletype radio room. There are still some original equipment onboard, antenna tuners, antenna switching, and a few old teletypes. They have added an air-conditioner which is greatly needed for the Texas weather.

I was pleasantly surprised to see a link to another MARC member when I checked out the QSL cards that were sitting on top of the desk. It was from no other than WW2LST, the LST that Perry Ballinger W8AU has volunteered so many hours onboard.





The photo shows the QSL card from WW2LST. I was able to contact Don Wade, W8DEA, on 40 meters during my visit and several other stations.

Whenever you make the call "This is W5LEX, the Lexington, Corpus Christi, Texas" you soon get a pile up. Propagation on 40 was not too good and I made most of the contacts on 15 meters. My son Mike, KC8YSR, informed me that they have two modern verticals but we were using the original ship's 43 foot vertical antenna, mounted high up on the superstructure. The antenna base is shown just above the right 5 inch gun by the bridge. The Museum operators are very "Fussy" about modifying or changing the ship so no big dipoles etc are allowed.







The photo, lower left shows just some of the original antenna tuners onboard.

You can tour the ship on your own or take a guided tour. I suggest the guided tour as it is quite a large ship with much to see with 'the history' explained. It's a city afloat that has a bridge, flight deck, engine room, galley, repair facilities, dentist office, sick bay, brig, male and female bunk area's, even a chapel and several very professional displays throughout the ship. You can easily spend hours just walking around, soaking up the naval history of this great ship. They even have an area where the public can watch them restore aircraft that are on display on the flight deck similar to the MAPS facility near CAK. They also have some interactive displays, simulators, something for all ages.

I enjoy my visits to the LEX, (W5LEX), every-time I have been aboard and especially operating a HAM radio from a Museum ship.

#### Charlie KB8STV

#### MARC BANQUET PICTURE PAGE





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**Pic # 1:** Carl AB8CC is presented his DX Award by Outgoing Prez Wade WD8MIU. MARC tries to encourage aspiring DXer's to this great hobby.

**Pic # 2:** Another MARC encouragement. Here Maddie Nikishin receives a plaque from Wade for her GOTA station operation last June during Field Day. With the help of her dad, Igor, K8INN (control Op), she made a "whopping" 20 + contacts (including a DX contact with France!)

**Pic # 3**: Don W8DEA receives his Outstanding Service Award. Awarded to him for his work with FEMA, close ties with the club and his help with club activities.

**Pic # 4** Your 2012 Club Officers. Shown: Wade (left with red sweater) administers the Oath of Office to (L-R) Mike KD8ENV (temp) VP, & Trustee; Don W8DEA Trustee; Gary WC8W, Treasurer; Byron KF8UN, President; and Robert AC8GE, Secretary. There were other award winners not present and they will receive their awards at the next meeting or at a later date. CONGRATULATIONS TO ALL AWARD WINNERS AND TO ALL NEW OFFICERS FOR 2012 !!!

(all pictures thanks to Terrry N8ATZ)

# February 2012

# **W8NP Monthly Planner**

Sunday	Monday	Tuesday	Wed nes day	Thursday	Friday	Saturday
S M T W T  1 2 3 4 5 8 9 10 11 12 15 16 17 18 19 22 23 24 25 26 29 30 31	6 7 2 13 14 4 5 0 20 21 11 12 5 27 28 18 19	Mar 2012  T W T F S  1 2 3 6 7 8 9 10 13 14 15 16 17 20 21 22 23 24 27 28 29 30 31	1	2 Groundhog Day Massillon Radio Net - 3599.5, 1930	3 Massillon Amateur Radio Club Meeting. Senior Center, Massillon, 2000	4
5 Massillon Radio Net - 3599.5, 1930	6 BD KC8ZCT	7 BD KA8MMN Massillon Radio Net - 3599.5, 1930  Stark County ARES Net on 147.12 at 7:00 PM	8	9 Massillon Radio Net - 3599.5, 1930	10 West Stark Info Net - 147.180 at 2000	11
Lincoln's Birthday  Massillon Radio Net- 3599.5, 1930  Mid-Winter Hamfest, InterCity ARC and VE Session, Mansfield, Richland County Fairgrounds, Ctc: Damy, K B8STK, 419-896-3603	13	14 Massillon Radio Net - 3599.5, 1930  Stark County ARES Net on 147.12 at 7:00 PM  Valentine's Day	15	16 Massillon Radio Net - 3599.5, 1930	17 West Stark Info Net - 147.180 at 2000	18
Massillon Radio Net - 3599.5, 1930  Swap-n-Shop, Livonia Amate ur Radio Club, Livonia, MI, CTC:Mike, N8MR, 734-941-5043	20 BD N8DZM President's Day	21 Massillon Radio Net - 3599.5, 1930  Stark County ARES Net on 147.12 at 7:00 PM	22 Washington's Birthday	23 Massillon Radio Net - 3599.5, 1930	24 West Stark Info Net - 147.180 at 2000	25 VE Test Session, Canton ARC / Massillon ARC, 0900, Cte: (330) 433-0726, Emergency Mngmt Office, Stark County Sheriff Office/EOC, Canton
26 Massillon Radio Net - 3599.5, 1930  WASHfest 2009, Castle Shannon (Pittsburgh), PA, Ctc: Carol Danko, KB3GMN, 412-884-1466	27	28 BD WD8BGW Massillon Radio Net - 3599.5, 1930  Stark County ARES Net on 147.12 at 7:00 PM	29		VARC Hamfest (G rleston WV Hamf do Hamfest	

Please contact K8INN for updates, changes, or additions.

# MASSILLON AMATEUR RADIO CLUB P.O. BOX 72 MASSILLON, OMO 44548

## **FIRST CLASS MAIL**

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75 Years in existence 1927-2002







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Vice President	Mike Palmer (TEMP)	KD8ENV	
Secretary	Robert Keller	AC8GE	
Treasurer	Gary Kline	WC8W	
Editor	Gary Kline	WC8W	
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	Don Wade	W8DEA	
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W8NP Webmaster	Terry Russ	N8ATZ	

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