



The Scope

Central Michigan Amateur Radio Club

Lansing Civil Defense Repeater Association

February 2016
Volume 16
Issue 2

February CMARC Meeting

Our program speaker for February is none other than Meteorologist Jim Geyer (KD8CHU), who will give us a PowerPoint presentation that is sure to please! Jim brings with him over 35 years of weather forecasting experience in Michigan, including 13 years with WJR-AM radio in Detroit, 4 years in the Flint/Saginaw TV market and more than 20 years with WLNS-TV6.

Jim is eminently qualified to speak on any weather topic since he not only graduated from Concordia University with an Associate of Arts degree and the University of Michigan in Ann Arbor with a Bachelor of Science in Atmospheric and Oceanic Science degree, but is also a member of the American Meteorological Society and a charter member of the National Weather Association. Jim also holds the American Meteorological Society's Seal of Approval for both television and radio weathercasts. Whew!

Therefore, we are honored to have such a great guest, so come on out and join us for a very interesting and informative meeting! And as always, we look forward to having good food, good fun and good fellowship. So, see you ALL there!

73,
Don McLain/KB8RAD

Guest: Meteorologist Jim Geyer

**When: CMARC Monthly Meeting,
7:00 pm, Friday, February 12, 2016**

**Where: Salvation Army South Corp
701 W. Jolly Rd, Lansing MI 48910**

For more information, you can check out our website at www.centralmiarc.com or get a hold of Club contact Don McLain/KB8RAD at (517) 694-0812 or KB8RAD@arrl.net.



Inside This Issue

Birthdays, Meetings, VE	The DX Corner	9-12
Exams, Treasurer's Report 2	Meeting Minutes	13-15
Skywarn Spotter Training 3	CMARC Classifieds	16
Ladies Page 4	Exam Questions	17
Mo Power 5	Net Info & Officers	18
Gregg Mulder/WB8LZG 6		
What's My Sign 7-8		

February Birthdays

2/1 Brian Wellwood / KD8ONC
 2/4 Cheryl Davage / KD8QFE
 2/5 Mike Holcomb / WA8KZY
 2/12 Tom Rocheleau / WA8WPI
 2/13 Jon Seaver / N8SUA
 2/14 Don McLain / KB8RAD
 2/14 Marlene Harger / KC8GXO
 2/20 Miss Abby Beuchert
 2/26 Julie McLain / KB8ZXR

Upcoming Meetings

ARPSC



The ARPSC meeting for the month of February is at 7:00pm on Monday, **February 15th**. We will be meeting in Mason at the Ingham County Sheriff's Department off Curtis Rd and Cedar St.

For information about the ARPSC please check out our website at www.lansingarpsc.com

VE Exam Session

Lansing, MI

Date: **2/4/16**
 Time: 7:00 PM (Walk-ins allowed)
 Sponsor: Ingham County VE Group
 Contact: Don McLain / KB8RAD
 (517) 694-0812
 Email: KB8RADon@aol.com
 Location: Lansing Fire Station #44
 Community Room
 1435 E Miller Rd
 Lansing MI 48911-5322

Owosso, MI

Date: **2/25/16**
 Time: 7:00 PM (Walk-ins allowed)
 Sponsor: Corunna VE Team
 Contact: Thomas E. Carpenter
 (989) 277-2262
 Email: ki8as@charter.net
 Location: Baker College Welcome Center
 1020 Shiawassee St
 Bldg 16
 Owosso, MI 48867-9999

Treasurer's Report 2016

John Doornhaag / KD8NNQ - CMARC Treasurer

Bank Balances for January	
Beginning Balance	\$4,544.29
Total Income for January	\$171.00
Total Expenditures thru Jan 20	(\$80.00)
Total Business Checking	\$4,635.29
Petty Cash	\$41.00
Primary Share Accounts	
Humphrey's Fund	\$1,092.38
Building Fund (Club Station)	\$9.09
Field Day	\$472.63
Total Net Worth	\$6,209.39
Youth Fund Balance*	\$253.70
* Separate from CMARC Funds	

REMEMBER

Your nominations for the Ziegenbein Award are due March 15th. This year's Senior Chairman of the Ziegenbein Committee is John Hosford / KC8QZB.

Send your e-mail nominations with a subject line of **"Ziegenbein Nomination"**, to jon.jan44@hotmail.com.

If you prefer to use snail mail:

John Hosford
 7057 Kieppes Court
 Lansing, MI 48911

Write **"Ziegenbein Nomination"** on the envelope.

See Page 15 for the official guidelines.

2016 NWS Grand Rapids Weather Spotter Training Schedule

Date	Time	Location	Sponsor
Friday, February 26, 2016	6:30pm - 9:30pm *Registration Required* https://skywarn2016.eventbrite.com	Jenison Center for the Arts 8375 20th Avenue Jenison, MI Contact: Chris Saddler Ottawa Emergency Mgmt: 616-738-4052	Kent County and Ottawa County
Saturday, February 27, 2016	10:00am - 12:00pm	Ferris State University West Campus Community Center 1414 Family Drive Big Rapids, MI	Mecosta County and Ferris State University
Saturday, March 5, 2016	10:00am - 12:00pm	Lakeview Middle School 300 South 28th Street Battle Creek, MI	Calhoun County and the City of Battle Creek
Saturday, March 5, 2016	2:00pm - 4:00pm	Jackson County Jail 1995 Chanter Road Jackson, MI	Jackson County
Saturday, March 12, 2016	10:00am - 12:00pm	Luella Collins Community Center 419 126th Street Shelbyville, MI 49344	Barry County and Allegan County
Saturday, March 12, 2016	2:00pm - 4:00pm	TBD	Van Buren County
Saturday, March 19, 2016	10:00am-12:00pm	Oceana County Medical Care Facility Upstairs Conference Room 701 East Main Street Hart, MI 49420	Oceana County and Mason County
Saturday, March 19, 2016	2:00pm - 4:00pm	Muskegon Community College Stevenson Center 221 South Quarterline Road Muskegon, MI 49442	Muskegon County
Wednesday, March 23, 2016	6:00pm - 8:00pm	Regional Center for Agri- Science and Career Advancement - Room 118 5479 West 72nd Street Fremont, MI	Newaygo County
Saturday, April 16, 2016	2:00pm - 4:00pm	Lansing Community College 5708 Cornerstone Drive Lansing, MI 48917	Ingham County
Saturday, April 23, 2016	10:00am - 12:00pm	Clare County Transportation Cabinet 1473 Transportation Drive Harrison, MI 48625	Clare County
Saturday, April 23, 2016	2:00pm - 4:00pm	TBD	Isabella County and Central Michigan University
Saturday, April 30, 2016	10:00am - 12:00pm	Alma College Swanson Academic Center 614 Superior Street Alma, MI	Gratiot County

<http://www.weather.gov/grr/spottertraining>



Tea Time Ladies Days

Feb. 4th – Cheryl Davage KD8QFE's Birthday!
Feb. 14th – Marlene Harger KC8GXO's Birthday!
Feb. 20th – Miss Abby Beuchert's 6th Birthday!
Feb. 26th – Julie McLain KB8ZXR's Birthday!

LADIES TEA TIME LUNCHEON

Please be sure to join us on Saturday, February 23rd at 12:30 pm for our February Ladies Tea Time Luncheon. We will be meeting at Applebee's Restaurant, located at 6270 South Cedar Street in Lansing. Remember Ladies, you don't need a Ham license to take part in our get-togethers. You only need to enjoy food, fun and fellowship! To make sure we can all sit together, please let me know by Friday, February 22nd if you're planning to attend. You can contact me at: (517) 694-0812 or KB8ZXR@aol.com. I sure hope you'll join us, because we always have a great time getting together and I'm sure you will, too!
~Julie McLain, KB8ZXR, Ladies Tea Time Luncheon Coordinator

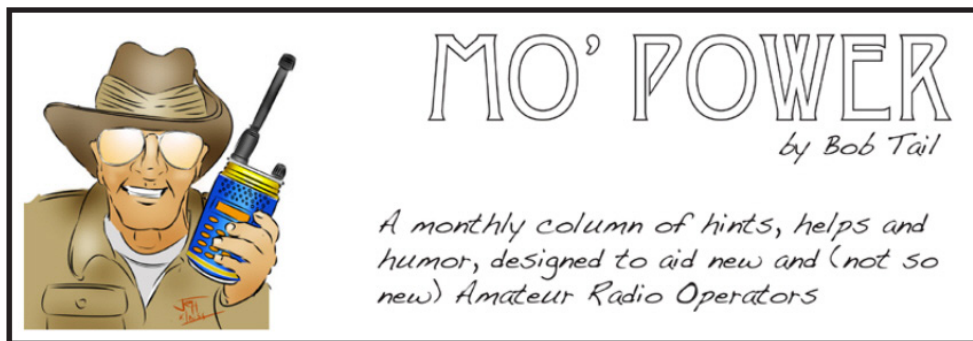


LADIES TEA TIME NET



Please join me every Tuesday evening at 7pm on the 145.39 Lansing-area repeater (100 Hz PL) for the "Ladies Tea Time Net". This Net can also be accessed via the EchoLink *DODROPIN* Conference Server (Node ID# 355800). We love to have our Lady Hams out on the air each week, making friendships around the world as we visit together. For those Ladies that don't have a Ham license yet ... as long as you have a licensed husband or friend, who's willing to check you in, you, can talk "Third Party" on their Callsign. We just ask them to check in first and then they can introduce you. For all the Gentlemen that like to check in, we always have two chances for you to that—one at the beginning (Short Time or In & Out) in case you can't stick around. There's also a second chance for the guys to check in after the "Ladies Only" spot, if you want to visit longer. So, pour yourself a nice cup of tea, key up the mic and join me for the "Ladies Tea Time Net" ...I'll be listening for you!! 73, Julie McLain, KB8ZXR – Net Control





G'Day Mates! Hope you and family had a fine 2015. I know I was certainly blessed to have the support of a fine family.

I also now know 1st hand what them blokes were a talking about when they say, "time flies when you're having fun". Why is that? Why is there never enough time for fun? Hmm, just as the sunspot cycles turn, we may never know!

Well I had a chat with our boy Ned this week at lunch. We talked about Ned's new DXing aerial, a 4 square vertical array. He had some grand tales about many new DX conquests. He wondered why more hams have not tried multiple vertical antennas. "Real Estate and money" I replied. "Many hams live on tiny or restricted lots and don't have room for a Four Square array or a Sterba curtain". Yet many haven't considered the 2 element version of the vertical array. Fed in or out of phase it's radiation pattern changes from "broadside" to "endfire". And what of the "Bobtail curtain"? "We don't hear many users of these fine skyhooks on the air. "Ok" Ned agreed, "But what about the ham who only has a single vertical radiator?"

"Ah lad, glad you asked". Truth is that many hams buy a commercial multiband vertical and install it on the ground with few or no radial wires. Many also have not considered the "vertical dipole", like Nil Current's 40-metre job in the tree. "Yeah but some hams have no trees" "sure n'ough" "again the secret is experimentation". Many new hams buy a trap vertical, stick it up out in the back yard 3 metres away from the house on a pole stuck in the ground, measure a 1 to 1 vswr on their meters and then accept that the antenna is "good" because it's "tuned". Some don't even use any radials. Well the 1st step may be some more radials, but oft' overlooked is the actual placement of the aerial itself. I have seen some that are mounted very close to a house or building. Many hams have "poor performance" due to a bad placement of the vertical. Good rule of thumb is keep them as far from buildings as possible to avoid interaction with the aerial. Step #2 Try moving it! In many installations, merely moving the antenna 3 or 4 meters out from the current spot will change the efficiency and radiation pattern dramatically. Step # 3 Try elevating the feed point. Is it possible to mount it in the air on a 2 or 3 metre metal

pole? Do you have a metal chain link fence to mount it on? I know several Hams who do very well with their fence mounted verticals. Or perhaps up on a tripod mount on a rooftop. Do you have a metal rooftop? Metal rooftops are as near perfect ground plane as you can get without being seaside. Don't be satisfied. Experiment! Many times, simply raising the feed point off the ground will raise the feed impedance a bit and many times achieving a better match. Better match = more power transferred into the air where it can do the most good. Don't let the fact that you only have 1 radiator be the big excuse for your not having been able to work that latest DX-pedition. Just accepting so so performance is not acceptable. Ned looked puzzled. "Why don't Hams do more to better their stations then? "Most folks have not the slightest inkling that the aerial that they paid good money for, just isn't performing as it should. Many simply don't have the know-how, some just don't care." "How can they not care?" said Ned. "Well many of the ol' coots of us out in the ham world are very happy to just be able to contact their buddy in "Alice" once a day, and their happy. They have a station that works for them most of the time, so why should they change it?" "Well why wouldn't they?" "Lackadaisical" "Most are happy with the status quo."

"Well not me!" Ned exclaimed. "I'm gonna keep playing with my antenna farm until I'm sure it's the best it can be." "I smiled and snickered to myself, And just when will we see that Lad? Ned looked serious for a second, and with a big smile professed, "When I work em all of course!" We both had a good jolly with that one.

Till next time just remember this, We all need help now n again, Be sure you help those of your town seeking help and comfort, they may in turn help you someday. You reap what you sow ya know. •

73, Bob Tail

Our World

By Gregg Mulder / WB8LZG



For the past decade I've been fortunate to work at Michigan State University in the electrical engineering department. One of the perks of the job is that I start every morning before dawn in the W8SH radio shack surfing the airwaves for some rare signal from around the globe. It's a great way to

ease into the day, and I often hear many other hams in the early hours doing exactly the same thing. One morning after a pleasant QSO with AG4T, Emillio in Miami, it occurred to me that this may indeed be a good measure of what's going on in the world.

With all of the terrible things happening out there, ham radio and hams themselves continue to endure and enhance the art of radio communication between all the people of the world. As hams, we don't care what race, religion, gender, or background of the person on the other end of the conversation. We only want to have friendly discussion with them and foster good will amongst the ham community. (If more of our ham operators were politicians we'd surely have a better world)

The path to these friendly QSO's isn't without it's built in pitfalls and hurdles. We have to deal with the "Kilowatt QRMers", the weekend "Contest Clatter", and the "Wicked QSB of the grayline". (Almost sounds like an evil caricature in "The Wizard of OZ" doesn't it!) Then there are times when Ol' Sol won't play nice at all! Yet through it all, we communicate and convey to each other our 73's (best regards) and make lasting friendships around the globe.

As I sit in my easy chair, I know I'm lucky to be able to come into the shack in the "wee hours", cruse up n down 40 meters and just listen. There's K1ESE, K5BIZ, W1PID, K6OLE, and AG4T.

When I hear all of my radio friends and regulars "on the air" every morning, I relax, sit back, spin the dial, take another sip of coffee, and think to myself, "All is right with the world." •

73, Gregg WB8LZG

The Gift of Friendship

By David E. Greer / N4KZ

I entered the ranks of ham operators in the late 1960s while a high school student. While there were many hams in the former Soviet Union in those days, most contacts with Soviet operators consisted of signal report, QTH, name and rig type - almost always homebrew or converted military surplus - and little else. The political situation there prevent them from engaging in old-fashioned ragchewing. We worked many Soviet hams but never really got to talk with any of them.

But all that changed as the Soviet Union entered a period of glasnost - openness - in the mid-1980s. By the 1990s, many aspects of Soviet life had changed, including the lifting of travel restrictions for many of its citizens. That led me to have a most remarkable QSO with a Russian ham in the

mid 1990s. I've told this story on the air several times but decided it was time to share it for a wider audience. When this story was first shared with me by a Russian ham several hundred kilometers east of Moscow, it put a lump in my throat. It was a great illustration of the generous nature of hams worldwide.

And, no, I don't remember his call sign. I still have my stack of 32 paper logs before I switched to computer logging in 2000. But I was too lazy to search for it. Perhaps a reader or two in Boston has direct knowledge of this and can verify the facts.

It was the mid 1990s and I was on 15 meter SSB one day. I began conversing with a Russian ham who spoke terrific

Continued on Page 7

The Gift of Friendship *Cont'd*

English. We were having a wonderful ragchew and I kept thinking how much times had changed since this would have been impossible years earlier because of the political situation there.

The Russian operator told me that for the past several years, he had regularly worked some American hams in the Boston, Mass. area on 20 meter SSB. He got to be good on-air friends with the group. In the meantime, the Russian had been saving his money and travel restrictions had been eased, he explained.

He made the decision to fly to the USA and meet his ham radio friends in the Boston area. It was a wonderful visit, he said. He and his friends dined out and shared great times over food and beverage. He stayed in the homes of several of his American friends and was treated warmly and shown great hospitality.

But the best was yet to come, he said.

He was invited to attend a ham radio club meeting in the Boston area on a Saturday afternoon. He didn't know it but club members had passed the hat beforehand and used the money to buy him a good used HF rig.

So the meeting was progressing nicely when the club president paused and asked the Russian visitor to come forward. It was at that point the president explained that their visitor would soon be returning home after a wonderful stay in the Boston area and that his ham friends wanted him to have something to remember them by.

At that point, they produced a used but like-new Kenwood TS-440S transceiver and presented it to the Russian ham. At first, he told me, he didn't quite realize they were GIVING this rig to him. He thought perhaps they were merely showing it off.

But slowly the news began to sink in, he said. The club members were giving him this Kenwood as a gift. Something he could take home and keep forever and forever.

"I cried like a baby," he said to me. "I could not believe how generous they were."

So, the Russian took the Kenwood TS-440S home and put it on the air. He told me that hams in his country knew of such equipment - they regularly saw the advertisements in ham radio magazines - but few, very few of them had ever actually seen much less owned this type of ham equipment. Today, many or even most Russian hams have very nice commercially manufactured rigs. But that wasn't always the case.

"Having this rig in my shack made me very popular," he said. "Many Russian hams rode trains for very long distances to come to my home to see this rig."

"And they just kept coming. Every weekend for months and months."

This story made a huge impression on me even though it's nearly been 20 years since I first heard it. It put a lump in my throat then and still does. •

What's My Sign?

By Julie McLain/KB8ZXR



I was born in Lansing, Michigan on December 11, 1961 and have one older sister. Lansing is where I grew up, went to school, and where my parents worked—my father as an Architect, and my mother as an Advertising Manager. In 1980, I graduated from Lansing Sexton High School and in 1985,

from MSU with a BA in Telecommunications.

My interest in Amateur Radio began with the CB craze of the 70's and even though I was having a lot of fun, I was frustrated by the lack of long distance contacts you could make on CB. That is when a friend took me to visit a local Ham, who introduced me to all the things you could do in Ham Radio and—I was hooked! In December of 1977, I got my Novice License and became WD8PMA. From

Continued on Page 8

What's My Sign? *Cont'd*

then on I was working CW and DXing ALL the time, but I wanted MORE, so I soon began studying for my General upgrade. Back then; all exams were given either at the FCC office in the Federal Building in Detroit, or at a field location, which was usually the Howard Johnson's in Grand Rapids. I always aced the code tests, but it was quite a different story with the written portion! It took me three attempts to pass the General written, but I succeeded in April of 1979 and became N8BCE. When I tackled the next two upgrades, I was in college and had developed much better study skills. As a result, in 1982, I passed the Advanced at the Federal building in Detroit and then just three weeks later, I passed the Extra at the HOJO in Grand Rapids!

I can still remember my 20 WPM code test for the Extra License! The test consisted of ten "fill in the blank" questions that had to be answered exactly right!! You see, you had to be precise in your answers, because the five-minute text they sent you could and did, intentionally contain misspelled words. So, if the answer to the question you had was misspelled in the text, it HAD to be misspelled in your answer, too! Although I had been perfect on all my other code tests, I choked up a bit on this very important one. I had answered six questions which I knew were correct, and then there were three more that I had no idea what the answers were. That left only one question on which hinged either a passing or failing grade. The question asked what kind of antenna the station was using and the only letter I had was "m". So, I decided to write down the only thing I could think of that began with "m" and chose "mono-band". I guessed right, and became an Extra in March of 1982!! Whew!! A few years later, I became WA8W, and then after they started the Vanity Callsign program I found the never-before-issued Call sign, which I now have.

Currently, my small but functional shack consists of my HF rig, which is a Kenwood HX480 (200 watts), my base radio, which is a Kenwood V71A, and I use an Icom 2820 in the car. Because I live in a semi-restricted subdivision, my Hustler 6BTV antenna is close to my house with some buried radials. For VHF and UHF, I have a vertical antenna in my attic. My favorite bands are 40, 20 and 15 meters and my main interest is chasing DX, which is about 50% CW and 50% SSB. I also like to work 2 meters and 440 where I enjoy checking into various nets, especially the SKYWARN Nets. Besides SKYWARN, I really enjoy contesting and Field Day. I'm also excited about the many new modes

Amateur Radio has, such as Satellite, IRLP and all the different internet link modes, and I'm really looking forward to learning more about them in the future. I would love to try them out, but without an Elmer to work with, I haven't experimented much yet.

When I'm not playing radio, I work as an Insurance Agent specializing in Personal Lines Insurance for a local independent agency. In my spare time I enjoy coaching "12 and under" baseball for my son, golfing, and playing trumpet for the Michigan State Alumni Band. I'm currently a member of CMARC, LCDRA, and the Dayton Amateur Radio Association, where I have been a long time VE for the Hamvention. I'm also a VE with the Ingham Country VE Group.

When asked if I had any comments that I'd like to share with the Club regarding this great Hobby, I replied, "Ham Radio has to be one of the best hobbies, because it can be so diverse, and I think we must all do what we can to get more of our young people interested in this great Hobby. In the Greater Lansing area CMARC and Ham Radio are really on the upswing and because I've been a Ham around here for so many years, I speak from experience when I say, I think these are the best of times!"

There, now that we have become a little better acquainted, "What's My Sign?" My Callsign is N8FZ and my name is Russ Fitzgerald. My dad was Ken Fitzgerald N8FPR and unlike most families, my Dad didn't get me into Ham Radio—I got him into it!! He is now a Silent Key, but if his call sounds familiar, that is because my son, Sam, is now N8FPR. He was first licensed as KD8OQT, but got my dad's old Callsign through the Vanity program. •

[Editor's notes: Please keep in mind that some things might have changed in this Ham's life since the article was published in January 2012. Russ was elected at the December 2015 meeting to serving on the 2016 CMARC Board.]

By Col McGowan, MM0NDX

VP8STI & VP8SGI South Sandwich and South Georgia



January brought to us the third most wanted (South Sandwich) DXCC entity. It was truly an exciting time for many dxe's around the world. At last check, they made a total of 51,613 contacts with 16,842 unique call signs. The final log upload will be made to ClubLog once the team arrives on South Georgia Island. Below is a recap of some of the highlights. The team is expecting to begin operating from South Georgia on or about February 1st.

January 17th - 14:00Z

All the VP8STI team landed on Thule Island, South Sandwich. They had some difficulty with landing but are now setting up their tents and antennas, and the rest of the camp. One report stated the team lost a man a generator overboard. The man was rescued, but unfortunately they could not retrieve the 6,000W generator. The team had to make due until the RV Braveheart could bring a replacement. They hope to have 2 or 3 stations QRV later today. High winds and snow is falling on the island.



January 17th - 11:58Z

VP8STI started operations from Thule Island, South Sandwich on 20m CW.

January 19th

The team's now working on the 80m antenna setup. A new storm is arriving so they hope to be able to finish the work on time and QRV on that band tonight. The 40m four square is working, with big signals being reported last night. They expect to raise the 160m phased verticals tomorrow.

January 25th - 07:20Z

Last night two tents and most of the yagis were destroyed by high winds. Both of their main tents collapsed partially and the team worked very hard through the night to save them. The Braveheart recorded winds of 70 mph. They are running only on 40 meters due antenna damage. Once they can assess damage they can determine whether they can proceed to South Georgia or not. Right now they are doing last QSO as VP8STI – they have asked the Braveheart to extract them when it's possible. They regret that they have fallen short of their plans, however the team and crew safety is most important.

January 25th - 12:00Z

At 11:00z today, VP8LP spoke with an operator at VP8STI who reported that the intention is still to continue onto South Georgia to operate as planned. They plan to remain QRV on Thule island for as long as possible whilst packing up, and are as well as can be expected under the circumstances.

January 25th - 15:15Z

Everybody is OK after the worst part of the storm passed. They made antenna repairs and will be on the air with up to four stations until tomorrow morning. Plans include 160m CW and 40m SSB tonight. Some of the Braveheart crew are ashore helping with station tear-down.

Continued on Page 10

VP8STI & VP8SGI

South Sandwich and South Georgia



January 25th - 21:20Z

Nigel Jolly, Braveheart owner, **declared an emergency** and ordered the VP8STI team to cease all operations and return to the ship. A large ice floe that had broken away due to last night's storm starts to block the entrance to the Bay where they were camped. There was strong potential for the ice floe to prevent Braveheart reaching them.

The Team is now safely aboard the Braveheart and they are moving away from Southern Thule Is. All equipment and personal gear is still on the island. They hope to return to camp site during next good weather window. Once they retrieve their equipment they will make a determination as to whether they can proceed to South Georgia to do VP8SGI as planned – VP8STI QRT !



January 27th - 10:00Z

Antonio EA5RM – VP8STI/VP8SGI Chief Pilot – informs that finally, yesterday the team was able to collect all gear from Thule Is. All team members are OK and they are on the way to South Georgia where they will arrive after three days sailing. They will try to be on the air for eight days as **VP8SGI**.



January 27th - 22:00Z

After nearly 24 hours with almost no information from team VP8STI, today messages from Paul, N6PSE started to flow. They are in good shape but tired and excited while they soon approach South Georgia Is. The Final VP8STI log will be uploaded from South Georgia.

January 28th

David K3LP, co-leader of the VP8STI/VP8SGI DXpedition, called yesterday via satphone to Bill Hein, AA7XT. Bill tells me that "David sounded tired but in good spirits". David reported that they received two to three feet of snow to go along with the 70 mph winds. VP8STI final log will be uploaded from South Georgia. QSL manager N200, will turn on OQRS once we get those last log files and we make sure that the full log is complete. QSL updates will be posted on the VP8STI QRZ page.

VP8STI & VP8SGI

South Sandwich and South Georgia



January 28th - 11:45Z

Antonio EA5RM – VP8STI/VP8SGI Chief Pilot – informs that team VP8SGI arrived a few hours ago to South Georgia Is. They have very good weather and they started to work on antennas and shack set up. They expect to be on the air in two or three hours time.

January 30th

Chief Pilot EA5RM informs that VP8SGI is running with five stations at the same time. Good reports are coming from EU and NA after first operation day. They are going to keep the five stations on the air as much as possible. Biggest problem for them today are the out of turn calls coming especially from EU and NA, so please, let's help them to run the pile-up. Tonight they will be QRV on 160 meters outside CQWW Contest.

January 31st

Today, Chief Pilot EA5RM informs that VP8SGI team were running 6 stations at the same time. Paul, N6PSE describes South Georgia Is. as an amazing, very beautiful, windy and cold place. They are surrounded by Penguins and young Seal pups. Check their website for additional photos. First Top Band QSO were not easy due CQWW Contest past night. Tonight they will be once again on 160 meters. Their phased verticals seem to work very well. Special effort will be done on Low Bands. 20SSB laptop was running out of time yesterday. Problem was located and they were working on this issue today. N2OO, VP8STI manager, informs that any log inquiries should be sent to vp8sti_logresearch@yahoo.com. Non-log issues can continue to go to his regular email address. Today is day 3 as VP8SGI and they will depart from South Georgia on February 8th. The Intrepid DX Group VP8 team send you their best wishes from Husvik Bay, South Georgia Islands.

February 1st

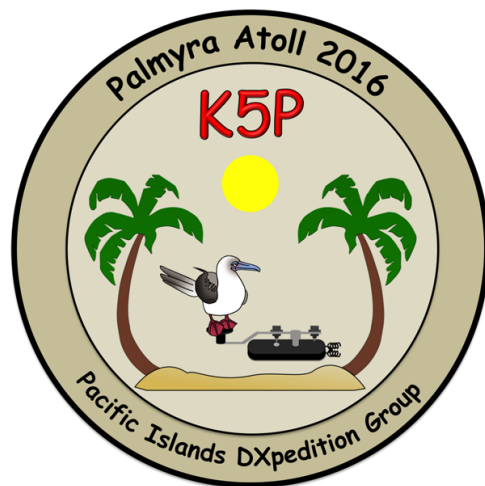
Today, they had a windy day, 60 knots, and some antennas have fallen down but they were able to fix afterwards. VP8SGI manager, KU9C, will not be able to change logs at this time. If your QSO is not in the VP8SGI log, work them again. In case you have not been able to repeat missing QSO, feel free to contact KU9C at vp8sgi_logresearch@yahoo.com for log inquiries after VP8SGI goes QRT.

February 3rd

EA5RM – VP8STI/VP8SGI Chief Pilot informs that today is day six on South Georgia Is. VP8SGI will do QRT at sunrise on February 8th. They are experiencing a G1 geomagnetic storm. This is greatly impacting the higher bands. However, VP8SGI team will continue to push forward. The weather continues to be cold and windy. It is snowing and their noise level is higher than usual. Tonight they will continue their major effort on the low bands including 160 meters. They are planning to be QRV on 17 meters SSB during Sunday for those that need an ATNO contact with VP8SGI. Due to the difficulties VK and ZL stations have to work South Georgia on RTTY tomorrow from 09:30 to 12:30z they will be on 14.080 RTTY listening up only for VK/ZL and Oceania stations. Today they will try again on six meters. Yesterday, EA3GP was able to listen VP8SGI signal on 50.110 SSB. Probably today they will try on 50.110 CW around 16:00 to 18:00z and once again around 20:00 to 22:00z. Since they have not a beacon system, I will try to post on the DX Cluster each time they will be calling CQ. They are working very hard to work everyone and they hope to see you in the log. Best wishes from the Intrepid DX Group VP8SGI team. •



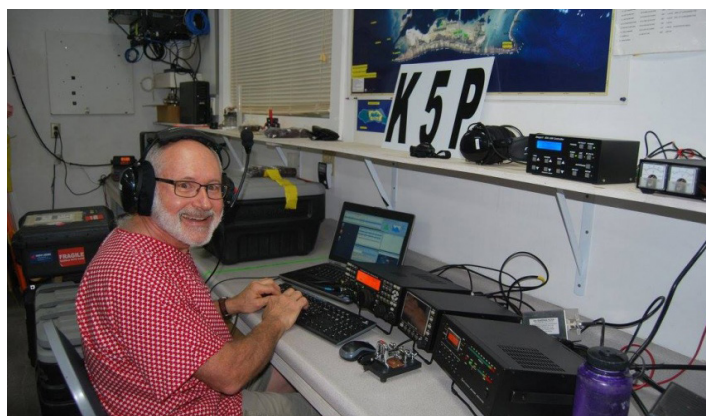
K5P - Palmyra DXpedition 2016



January also brought the Palmyra DXpedition to us. According to ClubLog.org, Palmyra is the ninth most wanted DXCC entity. Bringing on a second DXpedition like this, added a lot of activity to the bands. Palmyra is 1,000 miles south of Hawaii, much closer to us than South Sandwich, and was easier to make contact with. For this reason, they put up some pretty impressive totals.

Jan 26, 2016 19:00Z

The DXpedition to Palmyra Atoll is now QRT. A total of 75,210 QSOs were logged from 157 different countries. We sincerely hope that you are in our log as one of those QSOs. We are extremely grateful for the opportunity to have conducted this DXpedition with the guidance and support of The Nature Conservancy and US Fish & Wildlife. The group will return to Honolulu tomorrow (27-January) and then travel home Thursday, 28-January. •



CMARC Board Meeting

January 8, 2016

❖ CALL TO ORDER:

- President Julie McLain/KB8ZXR called the meeting to order at 6:35 pm with the following board members in attendance: Secretary Jane Hosford/KC8FSK, Treasurer John Doornhag/KD8NNQ, Director Russ Fitzgerald/NS8Q, Director Chris Ranes/NS8Q and Under 22 Director Sam Fitzgerald/N8FPR. Vice President Tom Rocheleau/WA8WPI had an excused absence.

❖ SILENT KEYS:

- Arlene Pedersen - Vicki Weaver's mother and Dan/KD8YDE's mother-in-law.

❖ CARDS & FLOWERS REPORT:

- Sympathy cards were sent to the family of Arlene Pedersen and a \$40.00 donation was made to the McLaren Volunteer Services in memory of Arlene Pedersend.

❖ TONIGHT'S MEETING:

- Going over the 2015 questionnaire.

❖ CLUB DIRECTORY:

- Dan/KD8YDE has forms for the Club directory. If you've already filled one out, you don't need to do another one. Hopefully the directory will go to the printers in March.

❖ POSSIBLE PROGRAMS AND/OR SPEAKERS:

- Dan Romanchik/KB6NU (No Nonsense Licensing Guides)
- Ralph Taggert/WB8DQT (Slow and Fast Scan ATV, Gyrocopter, etc.)
- Jim Jurmo/AC8NI (Western Michigan/ Northern Indiana Headquarters SATERN Leader with Emergency Disaster Services of the Salvation Army)
- Bill Blick/W8EB and Ron St. Laurent/ND5S (Talk about and show pictures of their St. Thomas DXpeditions)
- Chris Ranes/NS8Q (Field Day video from W3AO)
- Sam Fitzgerald/N8FPR (Suggested a movie night with ham related movies, i.e. "Frequency")

❖ MISCELLANEOUS ITEMS

- Regarding our membership in "SATERN" Salvation Army Team Emergency Radio Network - we still need a unit leader for our CMARC SATERN group.
- Salvation Army Liaison and Advisory Council: Jerry/KD8GLN will continue in these two positions, reporting to the Board.
- Upcoming contests: None
- John Ingraham/NG8L has asked to become a life member. Russ/N8FZ made a motion to make John a life member. It was seconded by Sam/N8FPR and approved.
- Ziegenbein nominations are due March 15th.

❖ MEETING ADJOURNMENT:

- Motion to adjourn made by John/KD8NNQ, seconded by Sam/N8FPR, and approved.
- Meeting adjourned at 7:03 pm.

Respectfully submitted,
Jane Hosford/KC8FSK-Secretary

General CMARC Meeting

January 8, 2016

❖ **CALL TO ORDER:**

- President Julie/KB8ZXR brought the meeting to order at 7:10 pm.
- We do have nametags for everyone if you don't have your own, so please use, so we know who everyone is. Please sign in on the sign in sheets that are going around, there is one for members and one for visitors.
- The meeting began with the Pledge of Allegiance. The flag was held by Sam/N8FPR.
- A moment of silence for our silent keys.

❖ **2016 BOARD INTRODUCTIONS:**

- Julie/KB8ZXR introduced the new 2016 Board:
 - President - Julie McLain / KB8ZXR
 - Vice President - Tom Rocheleau / WA8WPI
 - Treasurer - John Doornhaag / KD8NNQ
 - Secretary - Jane Hosford / KC8FSK
 - Director - Chris Ranes / NS8Q
 - Director - Russ Fitzgerald / N8FZ
 - Under 22 - Sam Fitzgerald / N8FPR
- If you need to contact any of the Board members, you can do that on the Club website: centralmiarc.com, left hand side of the page, near the bottom is leadership, and that brings up all the appointments for 2016.

❖ **ATTENDANCE:**

- There 32 people in attendance.
- Our visitors included: Geraldine Jenks, John Winn, Michael Pedersen, and Vicki Weaver.

❖ **NEW LICENSES, UPGRADES AND VANITY**

CALLS: Matt McCormick / KE8CRV

❖ **SILENT KEY REPORT:**

- Arlene Pedersen - Vicki Weaver's mother and Dan/KD8YDE's mother-in-law

❖ **CARDS AND FLOWERS REPORT:**

- Sympathy cards were sent to the family of Arlene Pedersen and a \$40.00 donation was made to the McLaren Volunteer Services in memory of Arlene Pedersen.

❖ **INTERESTING DX CONTACTS:** Mike/KC8ZLQ Beijing.

❖ **UPCOMING CONTESTS:** None

❖ **PLEASE PAY YOUR DUES:** NEW HAMS GET ONE YEAR FREE MEMBERSHIP

- CMARC dues to John/KD8NNQ and LCDRA dues to Julie/KB8ZXR.

❖ **QCWA DINNER:** The QCWA "Quarter Century Wireless Association" dinner is January 30th at Delhi Cafe. Please let Don Tillitson/WB8NUS know if you are plan on attending. You don't need to belong to QCWA to come. The QCWA Net is Tuesday night @ 8:00 PM on the 146.70 repeater.

❖ **WEDNESDAY NIGHT TRADER'S NET:**

- Julie/KB8ZXR is no longer doing the net. If anyone is willing to take it over, that would be great.

❖ **NEW BUSINESS:**

- A motion to accept the December secretary's report as printed in the January Scope was made by Ted/WA8MFQ, seconded by Ben/WD8OVL, and approved.
- A motion to accept the December treasurer's report as printed in the January Scope was made by Bob/K8ZAP, seconded by Don/KB8RAD, and approved.
- Bob/KB8DQQ sells candy bars for a dollar each and donates the money to LCDRA.
- John Ingraham/NG8L became a life member tonight.

❖ **UNDER 22 REPORT:** None

❖ **50/50:** John Ingraham/NG8L won \$13.00 and donated it to the Club.

❖ **MOTION FOR BREAK:** John/KD6KCX, seconded by Michael/W8MKB, and approved.

❖ **UPCOMING EVENTS:**

- May 13th is Ladies' Night which is in lieu of our monthly meeting. It will be held at Delhi Cafe, and at that time the Ziegenbein Award will be presented. Nominations for the Ziegenbein Award must be in before March 15.

General CMARC Meeting

January 8, 2016

❖ UPCOMING EVENTS cont'd:

- Field Day is June 25th and 26th.
- Hamfest is July 30th.
- Bob Berger/K8RDN is looking for volunteers who can work during the week at the State Emergency Operations Center.

❖ PROGRAM:

- Do some brainstorming about what we can do for the 2016 programs/meetings.
- If anyone is willing and able to teach/help with a class, that would be very much appreciated - possibly building kits. We are open to your suggestions and ideas.
- Need someone to organize foxhunts.
- Sam/N8FPR suggested having a movie night with ham related movies, such as "Frequency".
- John/KD8KCX suggested we have a mini field day here.
- Russ/N8FZ is chair for spiffing up the Clubroom. He would like to know if anyone is interested in helping with the Clubroom. If you would like to donate equipment, we can put a plaque on it saying, "Donated By" and your name. This is your Clubroom.
- Russ/N8FZ is collecting ham license plates to put up on the walls of the Clubroom.
- Mark/KD8YUY and Dan/KD8YDE are building boxes to hold canopies, etc.

❖ MEETING ADJOURNMENT:

- Motion to adjourn made by Joel/N0KEX, seconded by Leota/KD8SQD, and approved.
- With all business concluded, the meeting was adjourned at 8:38 pm.

Respectfully submitted,
Jane Hosford/KC8FSK-Secretary

Ziegenbein Nominations

It's time to begin thinking about who you would like to nominate for the 2015 Ziegenbein Award.

For those of you who are not familiar with the award - it is presented each May to the Full CMARC member who has contributed the most to Amateur Radio, in general and CMARC, in particular **for the previous calendar year.**

Nomination Guidelines

1. The recipient must be a **full, current** member of CMARC
2. Nominations to be made in writing, in your own words, **no** chain letters to be accepted, stating nominees contributions to CMARC and Amateur Radio.
3. All nominations are to be kept secret until the award is presented.
4. All nominations are to be mailed (regular postal mail **OR** email).
5. The same person can receive the award more than once.
6. The Committee shall consist of the last three recipients; the senior member shall be the chairman.
7. All nominations are to be closely checked and discussed by the Committee.
8. If the Committee feels the nominees are not deserving, the award does not have to be given.
9. Nominations are to be submitted before **March 15th** of each year, so the Committee can make the selection and have the plaque engraved.
10. The recipient will be announced at the annual Ladies' Night.

CMARC Classifieds

Please call Gregg Mulder/WB8LZG **AFTER 5PM** at 517-646-6257. Offers are accepted!

Please contact Matt Beha/N8BPI by email mattbeha@hotmail.com or call 517-646-6925 and leave a message

- Hamarlund SX117 Receiver (w/ clock) Unknown Condition **\$75**
- Kenwood TM231 2-meter Mobile Works Great **\$50**
- Kenwood 12-amp Power Supply Works Great **\$50**
- Kenwood 2-meter Hand Held Works Great **\$40**
- Icom 2m/440 Hand Held *Works great but needs new battery* **\$60**

- Yaesu FT-747GX transceiver, original MH-1 B8 mike, matching FP-757 HD Power Supply, power cord. Working condition; recently tested. Original owner, non-smoker. **\$395**
- Hustler HF Mobile antenna mast and resonators for 10, 15, 17, 20, 40 & 80 meters. Includes mount and spring. Excellent condition. **\$79**
- Nikon D3100 14.2 Megapixel SLR camera, 18-55mm Nikkor lens & 55-200mm Nikkor lens. Like new. 8GB SDHC card included. **\$199**

Remaining Items from the Estate of Louis Larche/KD8BWL

The following items of equipment from the station of Louis Larche / KD8BWL, SK, are still available. Listed is the suggested price for each. Please make an offer if you are interested. All the proceeds will go to Barb, Louie's XYL. Contact me at 517-896-3570 or kfaiver@sbcglobal.net. -- Ken / W8HNI

- Kenwood AT-230 antenna tuner, for use with TS-830, TS-530, etc. 200 Watts, 1.8 to 30 MHz, 20 & 200 watt scales -- **\$120**
- Kenwood VFO-230 digital synthesized VFO, for split frequency. 20 Hz steps. 5 memories. Designed to connect to TS-830s or TS-530 -- **\$135**
- Radioshack HTX-420 Handheld FM transceiver -- 3 to 4 watts -- 2M & 70cm -- with AC adapter. Includes electronic compass. (needs new battery). -- **\$65**
- Radioshack Pro-97 Scanner Receiver -- triple trunking -- 1000 channel. With AC adapter. (battery not included). Good condition -- **\$75**
- RCA VWV-120A voltmeter -- AC power line monitor -- **\$12**
- Leader LPM-885 SWR/power meter -- 3 ranges: 20, 200, 1000 watts
- Pyramid CB-1000 speaker -- mobile speaker
- RL Drake 1525 EM microphone -- mike with touch tone ham keypad -- **\$5**
- Low-pass filter -- no specifications -- **\$3**
- Large study steel desk (5x3 with drawers on each side) -- **\$75 or make offer**



"PRACTICE AMATEUR RADIO EXAMS"
Sponsored by the "Ingham County VE Group"
VE Julie McLain KB8ZXR

Technician Class 2014 Pool

1.) Question T8C10 - How do you select a specific IRLP node when using a portable transceiver?

- A. Choose the correct DSC tone
- B. Access the repeater Autopatch
- C. Use the keypad to transmit the IRLP node ID
- D. Choose a specific CTCSS tone

2.) Question T8B09 - What causes spin fading when referring to satellite signals?

- A. Interfering signals within the satellite uplink band
- B. Circular polarized noise interference radiated from the sun
- C. Doppler shift of the received signal
- D. Rotation of the satellite and its antennas

3.) Question T6B09 - What are the names of the two electrodes of a diode?

- A. Gate and base
- B. Plus and minus
- C. Anode and cathode
- D. Source and drain

General Class 2015 Pool

1.) Question G7B11 - For which of the following modes is a Class C power stage appropriate for amplifying a modulated signal?

- A. SSB
- B. CW
- C. AM
- D. All of these choices are correct

2.) Question G1A01 - On which of the following bands is a General Class license holder granted all amateur frequency privileges?

- A. 60, 20, 17, and 12 meters
- B. 160, 80, 40, and 10 meters
- C. 160, 30, 17, 15, 12, and 10 meters
- D. 160, 60, 30, 17, 12, and 10 meters

3.) Question G1E03 - What is required to conduct communications with a digital station operating under automatic control outside the automatic control band segments?

- A. The interrogating transmission must be made by another automatically controlled station
- B. The control operator of the interrogating station must hold an Extra Class license
- C. The station initiating the contact must be under local or remote control
- D. No third party traffic may be transmitted

Extra Class 2012 Pool

1.) Question E6E10 - What is the equivalent circuit of a quartz crystal?

- A. Motional capacitance, motional inductance, loss resistance, and a capacitor represent electrode and stray capacitance all in series
- B. Motional inductance and loss resistance in series, paralleled with motional capacitance and a capacitor representing electrode and stray capacitance
- C. Motional capacitance, motional inductance and loss resistance in series, with a shunt capacitance representing electrode and stray capacitance
- D. Motional capacitance, motional inductance, loss resistance, and a capacitor representing electrode and stray capacitance all in parallel

2.) Question E2B15 - What signals SSTV receiving equipment to begin a new picture line?

- A. Specific tone amplitudes
- B. A two-tone signal
- C. Elapsed time
- D. Specific tone frequencies

3.) Question E4C11 - Which of the following is a desirable amount of selectivity for an amateur SSB phone receiver?

- A. 2.4 kHz
- B. 1 kHz
- C. 4.8 kHz
- D. 4.2 kHz

Questions and Answers Copied from ARRL's "Practice Amateur Radio Exams"
found at: <http://www.qrz.com/hamtest/>

****ANSWERS**** Technician: 1-C; 2-D; 3-C General: 1-B; 2-D; 3-C Extra: 1-C; 2-D; 3-A

Greater Lansing Nets

The “**Central Michigan Slow Scan TV Net**” meets every Sunday evening from 7:00- 8:30pm on the 145.39 repeater (PL 100 Hz), with Net Coordinator Carl Canfield/K8YHH. EVERYONE is welcome to join in and have fun learning and using this interesting and useful mode of communication. Other digital modes will be explored from time to time. For more information, call Carl at: (517) 755 6627.

The “**Ladies Tea Time Net**” meets every Tuesday evening at 7pm on the 145.39 repeater (PL 100 Hz), with Net Coordinator Julie McLain/KB8ZXR, and can now also be found on the *DODROPIN* EchoLink Conference Server (ID# 355800)! Everyone is welcome to check in—even all you guys!! This Net has been around now for over SEVEN YEARS (since July 3, 2007), so let’s keep it going and growing!!

The “**Quarter Century Wireless Association Net**” also meets every Tuesday night but at 8pm and on the 146.70 repeater (PL 107.2 Hz), with Net Coordinator Don Tillitson/WB8NUS. Be sure to stop by after Julie’s Net and say “Hello!”

The “**Mid-Michigan Information & Trader’s Net**” meets every Wednesday evening at 7:00pm on the 145.39 repeater (PL 100 Hz), with Net Coordinator Julie McLain/KB8ZXR. This Net has been around now for over FIVE YEARS (since November 11, 2009) and is still growing!! Be sure to join Don for a time of FUN, FELLOWSHIP, and INFORMATION!! There will be helpful Ham-related information to share from both Net Control and our check-ins, time for questions and answers, and “Trader’s Net” style on-the-air swapping of Ham-related equipment throughout the Net. Sounds like a good time to me!!

ALL are welcome on these nets, so be sure to check in to show your support. And as with all Nets, 3rd party check-ins are welcome, but must have Control Operator present at check-in time.

CMARC Officers and Appointees

President

Julie McLain, KB8ZXR
(517) 694-0812

Vice President / Webmaster
Tom Rocheleau, WA8WPI

Secretary / Cards & Flowers
Jane Hosford, KC8FSK

Treasurer
John Doornhaag, KD8NNQ
(517) 882-5406

Director / Scope Editor
Chris Ranes, NS8Q
(517) 487-8376

Director / Youth Liaison
Russ Fitzgerald, N8FZ

Under 22 Director
Sam Fitzgerald, N8FRP

Club Contact
Don McLain, KB8RAD
(517) 694-0812

Club Historian
William Cote, WD8NYW

Antenna Projects Chairman
Gregg Mulder, WB8LZG

Lansing ARPSC Liaison
Jim Hannahs, KC8QWH

QSL/Awards Manager
Don DeFeyer, KC8CY
(517) 641-4533

Photographers
Kenneth Hazlett, N8BVV
(517) 348-5513
Phillip Woodward, KD8ZZK
(517) 803-7081

Salvation Army Liaison
Jerry Waite, KD8GLN
(517) 882-5406

Meetings
Held Monthly on the second Friday of the month at:
Salvation Army-Capital Area,
701 W. Jolly Rd, Lansing
at 7:00 PM. Board Meeting
begins at 6:00 pm.

CMARC Calls:
W8MAA & W8PLP

LCDRA Officers and Appointees

President

John Imeson, N8JI
(517) 449-1517

Vice President
Don Tillitson, WB8NUS
(517) 321-2004

Secretary
Ron Harger, WD8BCS
wd8bcs@arrl.net

Treasurer
Jeff Oberg, KB8SXX

Director
Jan Bradfield, KC8BFF
(517) 202-1779

Director
Don McLain
(517) 694-0812

Director
Jim Harvey, KA8DDQ
(517) 882-5796

Membership Chair
Julie McLain, KB8ZXR
(517) 694-0812

Repeater Trustee
Dennis Boone, KB8ZQZ

Meetings
Held Quarterly on the third Thursday of the month at:
Fire Station #48,
Marshall St, Lansing
at 7:00 PM.

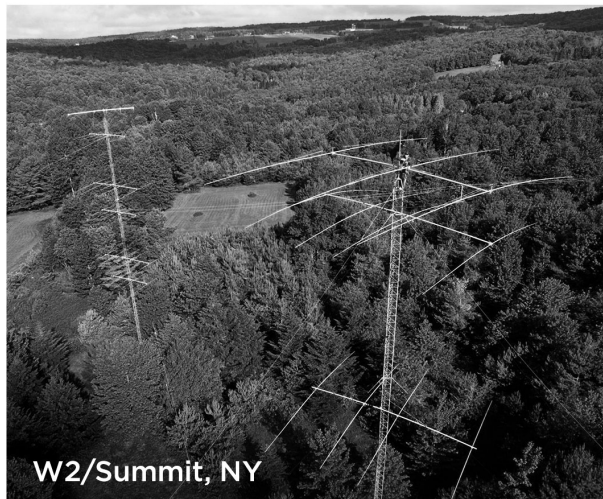
LCDRA Call:
W8BCI

The Scope is a monthly joint publication of The Central Michigan Amateur Radio Club and the Lansing Civil Defense Repeater Association.

Please send all articles, classified ads, or other Information to the editor, Chris Ranes, NS8Q, at cmarcscope@gmail.com.

The deadline for each issue is midnight on the 20th of the preceding month.

Add these stations to your DX toolbox



Use code **QST-HNY-2016** for **20% off**
1-year RemoteDX subscription – just \$79

Sign up at: my.remotehamradio.com/redeem

Regular price \$99 — New members only — Expires March 31, 2016

RemoteHamRadio.com
888-675-8035



43rd Annual Amateur Radio Swap-N-Shop

SATURDAY

February 13th, 2016

Traverse City, Michigan

8 a.m. until Noon

**VE Exams
10 am**

Admission \$5.00
Table \$8.00

**VE
Exams
10 am**

Friday Night Pre-Swap Eyeball QSO Gathering

6-7 p.m. at the Traverse City Elks Club #323
625 Bay Street, near the US-31/M-72 junction.

Cash bar and food available

Early set-up available for vendors following the gathering.

Talk-In
146.86
PL 114.8



**An ARRL-Sanctioned
Swap**

Immaculate Conception Elementary School
218 Vine Street
Traverse City, MI 49684

www.CherrylandARC.com



For information or table reservations, call:
Joe Novak W8TVT at (231) 947-8555



Livonia Amateur Radio Club

Talk-in
145.35 with 100 PL
or 146.52 Simplex

45th

GREAT
VENDOR
ACCESS

ANNUAL

SWAP-N-SHOP

Buy and Sell Amateur Radio
Gear, Computers, or
Electronic Test Equipment

Civic Park Senior Center
15218 Farmington Rd.
Livonia, MI

(SE corner of Farmington
Rd. and 5 Mile Rd.)



Livonia ARC

P.O. Box 51532

Livonia, MI 48151-0532

Now take care of EVERYTHING

via the LARC Online Store!! (pay pal)

<http://www.livoniaarc.com/larcstore>

Call (734) 941-5043

or e-mail us at k8uns@arrl.net

*Lots of Tables
(8' tables for \$16 each
or \$17 pay pal
if paid in advance or
\$20.00 if available and
paid at the door)

*Door Prizes

*Food Concession

*Tickets \$5.00 or \$6.
pal pal

Sunday, February 21, 2016 8:00am - 12:00pm



Show Your Support for Amateur Radio and Join CMARC & LCDRA Today!



JOIN TODAY!

Central Michigan Amateur Radio Club, Inc.

As a licensed Amateur, you can **sign up today** as a Full Member. As a Full Member of CMARC, you will receive voting rights and an annual subscription to 'The SCOPE'. This newsletter is filled with Club News, special interests and events.

Sign up today as an Associate Member and it includes an annual subscription to 'The SCOPE'. (no voting rights as an Associate Member)

New licensees are now eligible for a *one FREE year membership* at CMARC and **Under 18** licensees are *eligible for FREE membership*!

JOIN TODAY!

Lansing Civil Defense Repeater Association

As a licensed Amateur, you can **sign up today** for only \$15. As a member of LCDRA, you will receive an annual subscription to 'The SCOPE', as well as voting rights in the Association.

LCDRA oversees the operation and maintenance of all Lansing Area repeaters. Use of the repeaters does NOT require LCDRA or CMARC membership, but your support is welcome and appreciated.



LANSING CIVIL DEFENSE REPEATER ASSOCIATION

Name		Callsign
Address		City State
ZIP	Phone	Lic. Class
ARRL Member?	Birthday	Wedding Anniversary
Year 1st Licensed		Please supply email address for SCOPE mailing
<input type="checkbox"/> Full <input type="checkbox"/> Associate <input type="checkbox"/> New Licensee (1 yr. free) <input type="checkbox"/> Under 18 (free)		
Full Membership \$15 per calendar year (must be a licensed amateur to obtain Full Membership) Associate Membership \$5 per calendar year		
Mail Your Check or Money Order to: John Doornhaag 1165 S Ainger Rd Charlotte, MI 48813-9540 (Checks made payable to CMARC)		

Name		Callsign
Address		City State
ZIP	Phone	Lic. Class
ARRL Member?	Birthday	Wedding Anniversary
Year 1st Licensed		Please supply email address for SCOPE mailing
LCDRA Membership is \$15 per calendar year (add a Family member for only \$7.50 per person, per year). LCDRA maintains our local repeaters and your support is appreciated. (Membership not required to use repeaters)		
Mail Your Check or Money Order to: Julie McLain KB8ZXR 4444 Sycamore St. #1 Holt, MI 48842 (Checks made payable to LCDRA)		

Central Michigan Amateur Radio Club
P.O. BOX 27321
Lansing, MI 48909-7321



Central Michigan Amateur Radio Club

THE SCOPE



Lansing Civil Defense Repeater Association

centralmiarc.com

Serving Our Community Since 1921

lcdra.net

CMARC



WWW.CENTRALMIARC.COM/

ARPSC



WWW.LANSINGARPSC.COM/

LCDRA



WWW.LCDRA.NET

