



THE SCOPE



The Central Michigan Amateur Radio Club and Lansing Civil Defense Repeater Association

VOLUME 21, ISSUE 7

JULY 2021

CENTRALMIARC.COM

SSB and Digital Field Day Wrap-Up



By Daniel Beuchert , WX8MOJ

PHOTO BY: DANIEL BEUCHERT / WX8MOJ

Field Day is an annual exercise in emergency preparedness co-hosted and operated by CMARC and the Lansing/Ingham ARPSC. This past Field Day, three stations were getting on the air and making their first contacts after many hours of planning, prepping, coordinating, and setting the equipment up in less-than-ideal weather conditions. COVID put a major fork in our plans last year, but we were determined to do Field Day this year as a club, activating W8MAA as the 3A station in Michigan

I want to share my thanks to the small army of volunteers that banded together to make sure that we could operate outside in a field this year! We wanted to make sure to make both safety and getting on the air our main priorities.

We didn't have all the trimmings of a club picnic, a fox hunt, or a GOTA station. Still, we did have CW, Sideband, and Digital stations running, new and prospective hams getting on the air, a healthy variety of antennas, food and drinks for operators, and generators for emergency power. There was also lots of help and sharing resources and knowledge, helping get everyone set up and operating. Participants even helped a Skywarn weather net for the three Tornado and two Severe Thunderstorm warnings that went through our area – during Field Day! I cannot overstate the amount of work put in by many hands to make sure this was possible with many unknowns in a new location. Any time something needed to be done, there were people around eager to help out – showing the genuine service of Amateur Radio and Public Service.

See Field Day, Page 8

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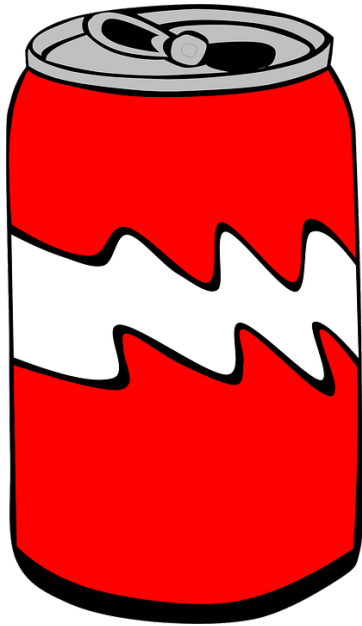
REPEATER TRUSTEE: Dennis Boone / KB8ZQZ

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

Please send any articles, classified ads, or other items to the Editor, Chris Ranes, NS8Q at scope@centralmiarc.com. Pictures should be mailed in .jpeg format, and articles in Microsoft Word or TXT format.

The views and opinions expressed by our contributing authors do not necessarily reflect the views of the Central Michigan Amateur Radio Club or the Lansing Civil Defense Repeater Association.

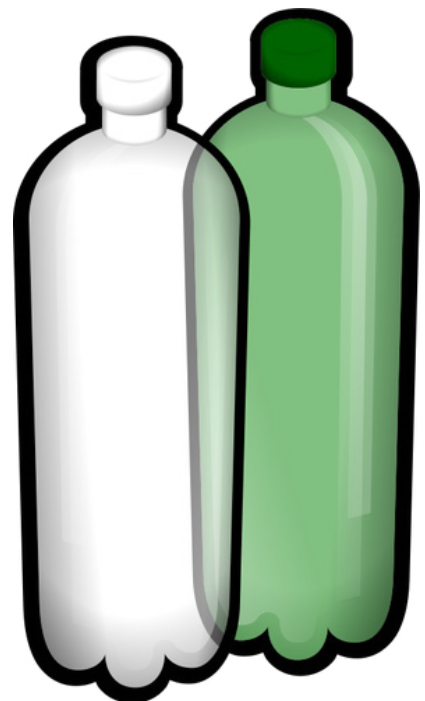
Central Michigan Amateur Radio Club's



CAN & BOTTLE DRIVE

An effort is underway to raise money for CMARC's Building Fund. The Building Fund has been designated by the Board to be used for the purpose of moving our club house / club station.

If you would like to participate, please return the bottles and cans you have been accumulating at home. Then consider mailing a check or money order to our Treasurer, made out to CMARC.



Shannon Ranes, WA2NVK
1728 Cooper Ave
Lansing, MI 48910

Treasurer's Report – June 2021

Shannon Ranes / WA2NVK – CMARC Treasurer

| | |
|---|-------------------|
| <u>Beginning Business Checking Account Balance</u> | \$4,531.11 |
| Total Monthly Income | \$50.00 |
| Total Monthly Business Expenditures | (\$161.66) |
| Total Business Checking | \$4,419.45 |
| Petty Cash | \$1.00 |
| Outstanding Checks | (\$80.00) |
| Sub Total + Petty Cash | \$4,340.45 |

Primary Shared Accounts

| | |
|------------------------|-------------------|
| Humphrey's Fund | \$384.54 |
| Club Station | \$19.09 |
| Building Fund | \$260.08 |
| Field Day | \$178.96 |
| Total Net Worth | \$5,183.12 |
| Youth Fund Balance* | \$254.90 |

*Separate from CMARC Funds

Notes

Checking – Deposited \$50.00 Donation.

Paid \$161.66 toward Field Day expenses.

(Field Day not yet reconciled, nor funds transferred.)

Building – \$0.01 interest.

Two \$40.00 memorial checks have not cleared.

Make a Tax-Deductible Donation.

Did you know you can make a tax-deductible donation to CMARC because we are a 501(c)3?

Checks can be made out and mailed to:

CMARC

PO Box 54

Mason, MI 48854-0054.

Please include your email address so our Treasurer can email a receipt to you for your records.

Upcoming Meetings Held on the Zoom Platform

CMARC General Meeting held on the second Friday of each month at 7 pm.

<https://us02web.zoom.us/j/89916190971?pwd=bWh4V2lVQXZLTlMeFBmaWVGK3haZz09>

Meeting ID: 899 1619 0971 Password: 891964

LCDRA Meetings held at 7 pm (January 21, April 15, July 15, and October 21).

<https://us02web.zoom.us/j/82349525177?pwd=TlRYTkJNUUNEbnNIWFY5ZlhzVll2QT09>

Meeting ID: 823 4952 5177 Password: LCDRA

ARPSC Meetings held on the third Monday of each month at 7 pm.

<https://us02web.zoom.us/j/84852196879?pwd=OE9TV2pVcXRHRWFXQm9rSUo1RUVkdz09>

Meeting ID: 848 5219 6879 Password: 601694

The date is set --- Friday, August 13th

CMARC Ladies Night / Ziegenbein Award Banquet.

Stay tuned to the ListServ for more details.

Ingham Co. Volunteer Examiner Team

West Lansing Church of Christ

5505 West St Joe Hwy | Lansing, MI 48917

A special Thank You to Michael Wetzel, W8QF for securing a temporary testing facility for us to use during the cold winter months of the pandemic! The pictures below are from the January 9th testing session. We had a total of 22 candidates, with 36 total tests administered. Congratulations to all the successful test takers!

If you are ready to take your exam(s), then feel free to join us on a date(s) listed below. Please contact Don McLain, KB8RAD if you have questions or if you would like to register for your exam. As always, walk-ins are welcome.

Don McLain (KB8RAD) (517)930-7707 KB8RAD@arrl.net



PHOTOS BY: GORDY SMITH / KE8JKS

Test sessions will be held on the dates listed below at 11:00 am.

You may check-in as early as 10:30 am with no check-ins allowed after 11:30 am.

June 12, 2021 July 10, 2021 August 14, 2021 September 11, 2021

October 9, 2021 November 13, 2021 December 11, 2021

Custom Woodworking Pieces by Jim Hannahs, KC8QWH

ginhannahs@gmail.com (517) 589-8346

100% of the proceeds will benefit
LCDRA (Lansing Civil Defense Repeater Association)



Bat House - \$15



Blue Bird House - \$15



Bobbing Head Bird - \$20



Butterfly House - \$20



Large Wheelborrow - \$35



Small Wheelborrow - \$30



Log Cabin Bird Feeder - \$45



Regular Bird House - \$15



Suet Feeder - \$15



Trellis - \$20

PHOTOS BY: GINNY HANNAHS / KD8HPG

■ Field Day, from the Cover Page

I want to give a huge shout-out to all who helped, and specifically highlighting our chairs Gregg Mulder WB8LZG – CW, John Hosford KC8QZB – SSB Co-Chair, Dave Vick W8ZZX – SSB Co-Chair, Randy Williams KD8MOK – Digital & Co-Field Day Chair from the ARPS side, and Shannon Ranes WA2NVK – Food. Y'all made sure this event was a success! Also, the many hands involved with set up, tear down, and everything in between; made this a Field Day event worth being a part of!

I am also thankful for the atmosphere we had. Field Day, by nature, is a time when people come together for the common good of the Emergency Preparedness exercise and look out for each other during setup, operations, and teardown. With 2021 being much different than years past, it was refreshing to see people in person again. Everyone helped make the event run smoothly and to help visitors feel welcome. I hope that everyone who visited or participated felt a taste of that ham radio spirit that I did.

To the nuts and bolts, we did make quite a few contacts! We did have some trouble with some additional contacts showing up in our logging software for CW (damn technology), but it successfully logged 433 CW contacts, 233 Phone contacts, and 171 Digital contacts. This is an awesome job, especially when you consider that there were weather disruptions during some of the prime hours of the operation! Digital had a major gain with Randy being quite tickled – going from a previous maximum count of 69 contacts to over 100 more this year! FT-8 can be a bit tricky when there are pileups, but something definitely clicked this year! CW and Phone both had strong showings on the airwaves!

Again, I am grateful for all who pitched in, from the chairs to the visitors, to make Field Day what I would call a success and a bounce back from 2020. Thanks to all who made this a Field Day to remember! ■



Dan, Randy, Dawn, and John taking shelter in the bath house during the Tornado Warning.



Abby Beuchert operating Digital while Randy and others look on.



Dave (L) is logging for John (R) at the SSB station.

PHOTOS BY: DANIEL BEUCHERT / WX8MOJ

CMARC Field Day Through The Years

By Gregg Mulder , WB8LZG

Field Day is one of the best weekends of the year for me. Ever since my 1st Field Day in 1972, I was hooked. Many of the guys and gals who made those Field Days of my youth are now gone, SK, yet every year when I'm pounding the brass, the memories of those early days and hot operators come flooding back. I still get a "snicker" to myself every time I think of all the latest and greatest computer-driven stations that we use now. SDR radios with features unheard of in the '50s, '60s, and '70s. Plus, computer logging and dupe checking in an instant make it all seem easy. Yet, we still have a hard time matching the QSO rates of those early operators. Many of these ops were military, railroad, shipboard telegraphers, and very keen on their trade. So Ham radio contesting was just practice to many of them. I remember "serious competitions" among those guys, each vying for "Top Fist." The one a minute club was the low-end threshold for these guys. If you couldn't log 60 per hour or faster, you weren't even in the running. CMARC would even have plaques for the top CW and SSB scorers for FD and Sweepstakes every year.

I learned nearly everything I know about contesting from these guys. Mostly from watching and imitating their skills. Tried n true methods and procedures developed over many years of training.

One of the best things about Field Day... the knowledge passed along in the wee hours of the night. There were many a precious "secret" passed down on the "dog watch" (the hours between 12 AM and 6 AM) that were only privy to the few. The kind of info you don't get in a book. The type of stuff you can't look up on your "smart" phone. The kind of stuff only passed from one generation to the next by sacred right of passage. Even Google, Facebook, and Amazon have no clue of the radio secrets revealed while operating or logging on the "late shift." I used to sit fascinated by listening to Don Devendorf W8EGI tell of early escapades in "their own" FD follies. I was mesmerized hearing the tales of the "high seas" and wars years from guys like Phil Perrault W8EKR. Professional

standards were also learned. Several of the gang were in the commercial radio biz and masters of their trades. Sure gave me a special appreciation for the ranks of the all-night trenchermen.

Every Field Day has presented us with a unique set of challenges. All the hurdles help us prepare for the time when we may need to assist the local authorities. I like changing it up every year and moving to a new operating location. This helps to keep the creative juices flowing by not doing the same old thing every year. New ideas. New challenges. New fun, and maybe, if you're not careful, some new lessons learned.

Many of us fondly remember several years of FD's from Camp Kiwanis Boy Scout camp in Mason. Plenty of room for nearly any type of antenna imaginable. Full-wave loops on 40 and 80. I'll never forget KC8EHR's "sailboat mast" 40-meter vertical with all the radials. "Glorious!!" Then there was the year at the Capital Conservation Club in NW Lansing. Who could forget the great times at Garner Middle School in Lansing? Or the year we went to Lake Lansing Park. That's where we erected the 40-meter Bruce Array for the first time. Rainer Park in Mason was a popular spot with all. I'll never forget my 1st FD in a farm field NW of the Lansing airport. The guys had erected towers with tribanders for both SSB and CW stations. With a bit of help from fellow "Novice" op, Howard Hawkins WB8IGU, I made my 1st FD contacts. Ham rapture for sure! I've made Field Day part of my yearly itinerary every since.

I could not take pictures of all of my early Field Days, and many old paper pictures have been lost with time. I do have some digital FD photos from 2005 to the present day. So I'll share a few with you all.

See Field Day History, Page 10



Ken/W8HNI logging for Don/W8EGI at the scout camp 2005.



Clint/KC8EHR and Ron/WD8BCS at the SSB station in 2006.



Phil W8EKR logging for me at Gardner Middle School 2006



In 2007 we learned a lot more than just radio.... Scary!!



Erv/W8ERV, enjoying the shade on a hot FD 2008.

PHOTOS BY: GREGG MULDER / WB8LZG



Clint's son, Brent, trying out FD for the 1st time in 2009.

See Field Day History, Page 11



I'm raising the 40m Bruce Array at Lake Lansing Park 2011



Jerry/KD8GLN looks in as John/KC8QZB makes a call in 2014.



Jim/KC8QWH and Dan/KD8YDE setting up chow tent 2019.



Ed Ozer/W8EO and Dale Cole/K8TS at the CW Station 2021



Thanks to all the gals who help make Field Day possible.

PHOTO BY: GREGG MULDER / WB8LZG

I want to give special mention to the XYL's out there. Very little credit is ever given to our XYL's on Field Day. They remain mostly out of sight, in the shadows. Cooking and cleaning up after us hogs, I mean Hams, with few complaints. Taking care of us, so we can go right out and do it again. The XYL is the backbone of many Field Days. In fact, ours wouldn't be successful without them. So here is a Gil cartoon pix of 1952 QST cover honoring the XYL's. Depicting the men doing all of the chores and culinary duties while the women work the rigs!

Hope you enjoyed the picture trip down FD lane. It sure was fun being there from all of the different places we operated over the years. Can't wait until next year! ■

FIELD DAY

A Mirror of Amateur Radio History

Steeped in tradition and mystery, today's Field Day evolved from humble beginnings in the Golden Age of Radio. Anything but stable, Field Day rules and practices have changed radically since the 1930s.

Be careful when you start to search *QST* archives for the answer to a simple question—it can become an obsession! That's the lesson I learned when, following my participation in Field Day this year with the Potomac Valley Radio Club (W3AO—7A MDC), I was asked whether I thought we had set a new Field Day record. Because I volunteer at the Historical Electronics Museum in Linthicum, Maryland, which happens to have a nearly complete set of *QST*s in its library, I figured I would spend a lunch hour at the museum and dig up the 7A and overall Field Day records. In pursuing this goal I quickly learned that: (1) this is *not* a simple question; (2) the history of Field Day reflects the history of communications technology in general and ham radio in particular; and (3) old *QST*s are fascinating!

Here is a chronology of Field Day starting from the first outing in 1933. In the process of piecing this together, I learned (or relearned) much about what has happened to ham radio in the past 66 years.

1933: Field Day #1 QSO Leader Uses 1x4 Call Sign to Save Time

Great ideas often have humble beginnings, and Field Day is no exception. A one-column announcement in the June 1933 *QST* states that, for 27 hours starting the second Saturday in June at 4 PM local time (no daylight savings yet!), there would be an opportunity for "portables" to go into the field to contact as many stations as possible. Says

F. E. Handy, W1BDI, in the announcement, "The real object of this contest is to test 'portables' wherever they may be available.... If successful, we want to make it an annual affair." To score the event, each QSO with fixed stations will count 1 point, contacts with other portables count 2 points, and DX contacts count 3 points. Multiply QSO points by the total number of ARRL sections, plus countries worked. No mention is

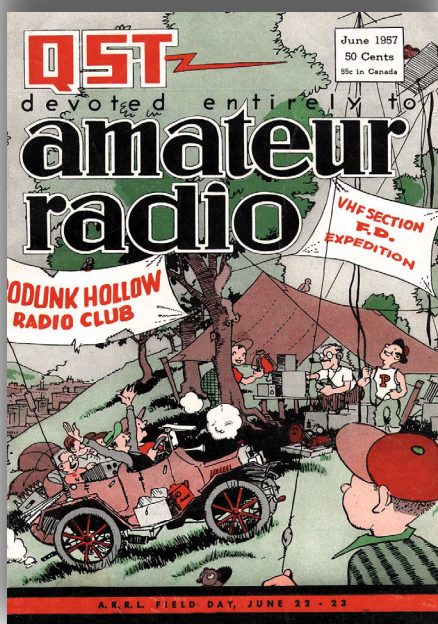
made of a required exchange, which clearly must include an ARRL section!

The September 1933 *QST* announces that the winner of the First Annual Field Day is a non-club group signing W4PAW. Club members made 62 QSOs and had a multiplier of 28 sections/countries for a grand total of 1876 points. The Central Illinois Radio Club, W9ZZAL, tops the QSO totals with 98! What's the "ZZ" all about? Until 1933 it had been necessary to get a special license to operate portable, and these licenses all had suffixes starting with ZZ. In 1933 the FCC allowed portable operation under a home call sign. Why did the CIRC use their old call sign? Well, operating portable under the new rule called for an even longer station ID—your call sign followed by the break sign (double dash) *three times*, followed by the call area (1 through 9)!

1934: 60 W is QRO!

It looks like Handy's wish is coming true—there *will* be a Field Day number 2! The Field Day period remains the same, although the chosen weekend in June will range from the first to the third for a long time to come, eventually settling on the fourth full weekend of the month.

The characteristics of today's competition are beginning to be established. Emphasis is shifted to the total number of stations contacted—the multiplier for sections and countries has been removed. At this point, multi-band contacts are not permitted. DX contacts, while still allowed, receive no special point advantage. The scoring system begins to resemble Field Day as we now know it,



By the '50s Field Day had grown into a major event worthy of its own *QST* cover.

28 December 1999 QST

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International Field Day— June 10th–11th

CLUBS, 56-mc. operators, *all* hams with licenses for portable stations, attention!! Starting Saturday at 4 p.m. local time (June 10th) and ending Sunday at 7 p.m. local time (June 11th), all U. S. A. and Canadian station owners are invited to schedule “field activities,” excursions with concentrated operation of *portable* transmitters and receivers. Only portable stations, actually in the field, away from the “home” address are eligible to submit field day scores.

The object will be for each “portable” station to work as many other amateur stations as possible—each to count one point toward a score. *Any or all amateur frequency bands may be used, voice or c.w. telegraph likewise.* The “total” of such points may be multiplied by the number of A.R.R.L. Sections worked. Contact with another *portable* station at any point except its base, or home address, will “rate” double credit, or two (instead of one) points. Two-way work with a foreign station shall entitle the operator of the “portable” to triple credit, or three (instead of one) points, in addition to which each foreign country (prefix) may be added to the number of Sections to increase the “multiplier.” The R.S.G.B., N.V.I.R. and R.B. are sponsors of similar national field days in Europe, and we hope this may assume an international complexion. All amateurs with licensed *portable* stations are invited to take part . . . each such station will please report its *power* and *frequency* band used, and its *log* of operation and *score* for the period given, within the week following the Field Day. Also, gang, don’t forget to comply with F.R.C. regulations for portable station operation. Notify your Radio Supervisor of the approximate location and time of intended operation of the “portable” by postal or letter, just in advance of the “field” radio work. We shall be interested to know how many clubs plan outings, and also suggestions for a similar activity for 1934 (if you want one) will be welcomed.

Besides offering an opportunity to get out in the open in this fine spring weather, the real object of this contest is to test “portables” wherever they may be available. If successful we want to make it an annual affair. — F. E. H.

The first Field Day was announced in the June 1933 *QST* by F. Edward Handy, W1BDI.

with 3-, 2-, or 1-point multipliers per QSO depending on power output. The technology of the ‘30s is highlighted by the fact that the breakpoints are set at 20 W and 60 W! As technology changes these breakpoints are modified many times throughout the years to come.

The desire to encourage operation independent of public mains is also expressed by a 2X multiplier if either the receiver or transmitter is independent of public mains (3X if both are independent). The 3X multiplier is destined to last 37 years until it’s removed in 1971! No special exchange is needed. The ops must simply indicate whether their sta-

tions are portable. At this early time in Field Day history, only portables are listed in the scores.

1936: The Year with Two Field Days!

The June 1936 Field Day is so popular a second one is held on August 22-23 with identical rules. Participation in both Field Days is about the same, as winning contact totals in June and August are 143 and 136, respectively.

1937: The “Field Day Message” is Born

The special Field Day of August 1936 apparently becomes Field Day number 4, as the Fifth Annual Field Day is announced for June 19-20. In a battle that continues to the present between creative rules interpretation and the “spirit of the law,” the League outlaws “manufactured contacts with stations of the same field group.” The Field Day message bonus, another venerable Field Day tradition, is born as 10 points (before multiplier) are awarded for a single properly formed and serviced message to League Headquarters stating the number of ops, location, “conditions,” and power. Multipliers and QSO points are unchanged. For the first time, the winning QSO total exceeds 200 (204), with a breathtaking average rate of 7.5 QSOs per hour.

1938: I’m Not Ready to QRT!

The contest period is extended to 26 hours—from 4 PM Saturday to 6 PM Sunday.

1939: Everyone Form a Circle

For the first time, the area within which all equipment must be located is defined as a restrictive 100-foot radius. Do they mean this to include your 160-meter dipole?

1940: Modern Field Day Rules Emerge

Significant changes are afoot. For the first time, a station can be contacted on multiple bands. Results are grouped by the number of simultaneous transmitters used. The 100-foot circle expands to 500 feet, giving those multi-transmitter teams a little breathing room. Home stations are encouraged to work Field Day stations, and their scores will be listed, but no multipliers are allowed (a rule that never changed). The Field Day message to ARRL HQ now earns 25 points, points are given for Field Day handling of other teams’ messages, and both home and portable stations get one point for each message copied and one point for a message passed on. From 1933 to 1980 message points will be changed no less than 12 times!

1941: Field Starts Simultaneously Across the Country (by Accident?)

The Field Day period now starts at 4 PM EST across the country. Strangely, this change may have come about by accident. To smooth the FCC approval every portable station needs for Field Day operation, the League

HIGH CLAIMED SCORES — 1946 FIELD DAY

As this issue goes to press, Field Day logs have been received from 104 club groups, 53 nonclub groups and individuals, and 45 home stations.

We are passing along the highest claimed-scores so far reported. These are subject to checking, and should not be considered a final tally.

CLUB GROUPS

(Listing shows club name, call used in FD, claimed-score, and number of simultaneously-operated transmitters.)

| | | |
|--|---------|--------|
| Jersey Shore Amateur Association | W2FC/2 | 9621-8 |
| Frankford Radio Club | W3BES/3 | 8568-7 |
| Tri-County Radio Association | W2KHK/2 | 6921-8 |
| Northwest Amateur Radio Club | W9IT/9 | 6363-5 |
| Monmouth County Amateur Radio Association | W3AC/2 | 6237-7 |
| Motor City Radio Club | W8ONK/8 | 4500-3 |
| St. Paul Radio Club | W9KYC/8 | 4338-6 |
| Greater Cincinnati Amateur Radio Assn. | W8JIN/8 | 4320-2 |
| Four Lakes Amateur Radio Club | W9RNX/9 | 4239-3 |
| Somerset Hills Radio Club | W3ZD/2 | 3978-5 |
| York Road Radio Club | W3IU/3 | 3879-5 |
| Steel City Amateur Radio Club | W8TUD/3 | 3870-5 |
| Palomar Radio Club | W6BKZ/6 | 3756-6 |
| Mountaineer Amateur Radio Association | W8BOK/8 | 3555-6 |
| Mon Yough Amateur Transmitters Association | W8OC/8 | 3287-2 |
| Amateur Transmitters Assn. of Western Pa. | W8BSO/3 | 3249-4 |
| Wisconsin Valley Radio Association | W9RQM/9 | 3060-2 |
| Narragansett Assn. of Amateur Radio Ops. | W1LWA/1 | 3051-1 |
| Minneapolis Radio Club | W9OBM/8 | 2961-3 |
| Northern Nassau Wireless Association | W2FIV/2 | 2907-5 |
| Tulsa Amateur Radio Club | W5IAS/5 | 2875-4 |
| Kalamazoo Amateur Radio Club | W8DM/8 | 2817-3 |
| Beacon Radio Amateurs | W3ATR/3 | 2707-2 |
| Lancaster Radio Transmitting Society | W3LN/3 | 2664-1 |
| Delaware Valley Radio Association | W3AQ/2 | 2538-3 |
| Milwaukee Radio Amateur Club | W9SYT/9 | 2538-3 |
| Cuyahoga Radio Association | W8GW/8 | 2529-2 |
| York Radio Club | W9GY/9 | 2502-3 |
| Bridgeport Amateur Radio Club | W1MWN/1 | 2457-3 |
| Cahokia Amateur Radio Club | W9TCK/9 | 2427-3 |
| So. Lyme Beer, Chowder and Propagation Soc. | W1EH/1 | 2371-1 |
| North Newark Amateur Radio Club | W2PY/2 | 2322-3 |
| Greater Cincinnati Amateur Radio Assn. | W8SLO/8 | 2313-1 |
| Racine Megacycle Club | W9PWJ/9 | 2214-3 |
| Joliet Amateur Radio Society | W9HVZ/9 | 2181-3 |
| Fort Worth Kilocycle Club | W5AA/5 | 2142-2 |
| New Haven Amateur Radio Association | W1GB/1 | 2106-4 |
| South Hills Brass Pounders and Modulators | W8BK/3 | 2061-2 |
| Toledo Radio Club | W8ARF/8 | 2061-3 |
| Iowa City Radio Club | W9IFB/8 | 2040-3 |

NONCLUB GROUPS & INDIVIDUALS

(Listing shows call used by each group, number of operators, claimed score, and number of simultaneously-operated transmitters.)

| | | | |
|-------------------|-----------|-------------------|----------|
| W9ERU/9 | 10-2574-3 | W1BDI/1 | 5-1428-1 |
| W9RCQ/1 | 1-2115-1 | W7RT/7 | 1-1424-1 |
| W6PNU/6 | 4-1978-2 | W8KYW/3 | 9-1368-2 |
| W6STA/6 | 3-1876-2 | W9VPD/9 | 4-1233-2 |
| W2FBA/2 | 2-1827-1 | W8UPS/4 | 5-1170-2 |
| W9FEK/9 | 11-1512-2 | W8VMF/3 | 4-1134-1 |
| W8FBC/8 | 3-1467-1 | W1GKJ/1 | 4-1116-1 |
| W9AVE/9 | 7-1431-3 | W1JWG/1 | 2-1057-1 |
| W1LLX/1 | 2-1428-1 | | |

High claimed scores from the first post-World War II Field Day.

informs the FCC of the Field Day period. In aptly numbered announcement 73-D, the FCC refers to a single operating period for all stations. My guess is that the League’s communication to the FCC lists the period from 4 PM EST June 7, to 6 PM EST June 8, inadvertently establishing a single starting time.

Last year’s change to allow contacts on multiple bands was apparently unclear, so this year’s rules make a point to state that phone and CW are separate “bands” for the purposes of Field Day contacts. Also, even in these early days stations must be complaining about being in “black holes” as far as contesting is concerned. In response, an overall 1.5X mul-

tiplier is established for the Northwest, Pacific, Rocky Mountain, Southwest and West Gulf areas “to assist in equalizing contact opportunity...in these less populous areas.” This West Coast handicap remains until 1950.

1942-1945: “Closed for the Duration”

As is the case with so many activities, Field Day posts a “Closed for the Duration” sign during WW II. In fact, so does all ham operating.

1946: The Post-War Era—A VHF-Only Category Debuts

Field Day returns after the war with virtually no changes. Starting time is back to local time (more evidence that the 1941 change was inadvertent). For the next three Field Days there is a VHF-only score listing designed “to lend point to the participation of VHF Emergency Corps networks that may wish to arrange special activities or simulated tests on these dates.”

1948: CQ Field Day on 11 Meters?

Eleven meters is now available to hams (for a while) and it counts as a Field Day band. There are no CW/phone subbands on 11 meters, but phone and CW count separately here, too. The period is shortened to 24 hours, starting at 4 PM local time. Each station worked is now worth one point (regardless of whether fixed or portable). The 2X multiplier for *transmitters* that are independent of commercial mains is dropped. Battery operation now is recognized with a 1.5X multiplier.

1949: Field Day Mobile Operation Comes of Age

The growing interest in mobile operation results in some significant rules changes. This year, four categories are recognized: (1) Club and group (no battery multiplier); (2) One or two operators; (3) Mobile; and (4) Home stations. Also, the Club Aggregate Mobile listings are established whereby clubs can compete with teams of mobile stations. This special listing will last until it’s quietly dropped in 1978. In other changes, a specific exchange of signal report and ARRL section is required for the first time, and the Field Day message now goes to the Section Communications Manager (today’s SM) or the SEC rather than to HQ.

1950: Modern Field Day Classes are Established

The four classes offered last year are modified and labeled with letters for the first time: A—Club or non-club portable; B—Unit or individual portables (1 or 2 ops); C—Mobile; and D—Home. The Field Day “circle” is increased to 1000 feet. The wording last year said “25 points for each such [Field Day] message.” What was meant, we learn, was 25 points for each team’s *single* Field Day message (some stations, not unexpectedly, had cranked out a pile of Field Day

messages looking for 25 points *each*).

1951: Duck, Cover and Turn on Your CONELRAD Monitor

Says June 1951 *QST*: “At a time when civil defense is organizing, the Field Day provides an unparalleled opportunity for mass testing of our emergency facilities.” To encourage emergency preparedness, home stations on emergency power will be listed separately as Class D, while home stations on commercial power will be listed as Class E.

1952: “Having a Wonderful Time, Wish You Were Here”

The 1950 rule that allowed one point for any message originated during Field Day has resulted in some groups cranking out meaningless “rubber stamped” messages during Field Day to generate points. Because the emphasis is on contact totals and not message generation, the League responds by eliminating the bonus points for message origination after a trial of only two years.

1957: Simultaneous Start Returns

Field Day starts at 4 PM EST and ends at 4 PM PST, as usual, but now everyone can operate any 24 consecutive hours of the 27-hour period. The purpose of the change is to “encourage long-distance QSOs.” For the first time, more than 10,000 hams participate, a 430% increase over the first postwar event in ‘46.

1963: Will “Manufactured” Contacts Ever be Eliminated?

Although contacts with other members of a Field Day group were outlawed way back in 1937, some creative types have determined that the rules don’t ban those who are not “Field Day operators” from using the Field Day transmitters to work the group for points. The League counters by allowing a



If you think computer logging is a modern development, check out the key-punching station at the 1966 K2INO/3 Field Day effort. The cards containing the contact data were processed by an IBM 1401 computer at Johns Hopkins University after the event. K0OVZ is shown operating the key punch while WA2BUJ hunts for contacts.

Field Day transmitter to be used only under one call sign.

1966: The Modern “Bonus Era” Begins

The simple Field Day message bonus concept, around since nearly the first Field Day, is expanded, bringing the beginnings of a wonderful aspect that one wag, who shall remain nameless (KE3Q), has characterized as “part radio contest, part scavenger hunt.” Publicity is emphasized and 100% freedom from commercial power is stressed by a 500-point post-multiplier bonus for achieving at least two of the following three: (1) Use of no commercial power anywhere; (2) Publicity; or (3) Originating a message to the SCM or SEC.

1968: The Field Day Period is the Field Day, Period

A major change is adopted that makes set-up within the 27-hour period *mandatory*, and the starting time is advanced two hours to 1900Z to accommodate the change. All home stations, emergency powered or on commercial mains, now compete in a single D category. The 1.5X multiplier for battery power now applies to categories A, B and C. Bonuses provide for 200 points each for publicity, 100% emergency power and/or message origination. Lastly, and largely ignored, the exchange is now section only—but in practice many can’t resist sending a signal report anyway!

1969: An Idea Whose Time Has Not Come

Last year’s mandatory setup within the 27-hour event period was not popular, so it is now optional (that is, ops can use the entire 27 hours if they start setup within that period). (Personal note: This was the year of my first Field Day victory—1A with WA3EPT/3, Johns Hopkins University Students and Alumni.)

1970: Increasing Novice Participation

To further encourage beginners, a “free” Novice station (set up and run by Novices) is allowed for groups running three or more transmitters. The League continues to battle with creative rules interpretation (or, depending on your viewpoint, technology advancements) by outlawing “octopus” hardware for interleaving transmissions to avoid moving to a higher transmitter category. (We had made great use of that technique in our ‘69 1A win.) On another note, I guess we are getting better at setting up, because the starting time is advanced yet another hour to 1800Z.

1971: Why Old-Timers Can’t Remember Whether Home Emergency Power is Class D or E

After three years of being combined, Classes D and E are separate once again. The designators, however, are reversed. Class D is for home stations on commercial power,

while Class E encompasses home stations on emergency power. (I guess the feeling is that E for Emergency makes more sense.)

Major changes in the scoring system reduce points across the board. The 3X multiplier for 100% emergency power is eliminated and replaced by a requirement that all A and B transmitters now *must* be on emergency power. The 1.5X multiplier for battery operation is eliminated and replaced with limiting the QRP multiplier to battery operation only. The power multiplier now applies to the maximum power used at any time during the period. The four-QSO multiplier categories are reduced to three with a maximum of 3X for QRP/battery. Bonus points are now as follows: 100 points per transmitter for 100% emergency power; 50 points for publicity; 50 points for message origination; and 5 points per message relayed. Last, in a surrender to habit, the signal report is returned to the exchange!

1972: Batteries are on Their Own

Ops using battery power no longer compete with ops using non-battery sources. Scores are listed separately.

1973: The Space Age Comes to FD

The repeater rule is waived for OSCAR 6 contacts and a 50-point satellite bonus is instituted.

1974: The Energy Crisis Strikes FD

A 100-point bonus is added for making natural power QSOs. The 15-minute rule for band changes further discourages tricky techniques for counting two transmitters as one.

1975: Is SSB Taking Over?

SSB is demonstrating its superiority to "conventional" AM, and phone QSO rates



In 1976 the Indianapolis Power & Light ARC made a natural-power contact. Gary, K9LNX, operated the radio while Ron, WB9DKL, supplied the muscle. Mike, WA9BWY, assisted by holding the bike in place.

are so high that the mode threatens to dominate Field Day. To compensate, the 2X rule for CW QSOs is instituted on a trial basis (personal note: Hooray!).

1976: The 10,000 QSO Mark is Broken

Field Day results show the many unusual prefixes permitted by US amateurs celebrating the Bicentennial. W1VV/1 celebrates with 10,010 contacts! In doing so, the group surpasses the 1933 QSO record in its first 15 minutes of operation.

1977: Bring on the Techs!

Technician amateurs are now permitted to set up and operate the Novice station. Also, we have apparently solved the energy crisis because the natural power bonus is gone! The 2X rule for CW is "permanent."

1980: 1A CT

RST is replaced with category and class in the exchange. FCC and Field Day rules no longer require portable call sign designators. Set-up time is tightened—nothing can be installed prior to 24 hours before the start of the Field Day period. Natural power was judged to be politically correct and too much fun to be eliminated—so it's back as a 100-point bonus. The satellite and Field Day message bonuses advance to 100 points. Copying the W1AW message is worth 100 points for the first time.

1981: 1001001

Computers are becoming ubiquitous and, as a result, packet radio is soaring in popularity. Field Day enters the digital era by providing a 100-point bonus for a single packet QSO, permitting one "free" packet station and waiving the repeater rule for packet to allow digipeaters and nodes to be used. The 15-minute rule is eliminated at VHF and above. The Yankee Clipper Contest Club and The Wireless Institute of the Northeast combine using call sign W2RQ to turn in a QSO total of 11,201—unbeaten 18 years later!

1984: We Finally Get it Right

Over the years we've had a heck of a time settling on the best way to score battery, low, medium and high power categories. Here's another try: The power breakpoints are adjusted so that the 5X multiplier applies to 5 W instead of 10 W (for battery or equivalent), and 2X applies to <150 W rather than <200 W. (These definitions will stick for at least the next 16 years! In particular, the 5X multiplier for QRP/battery turns out to be a good equalizer—the change will result in overall first place finishes by the entrants in this category in eight of the next 16 Field Days.)

1993: VHF Becomes a Major Field Day Factor

The growing influx of Technician licensees changes Field Day in a big way—



Another Field Day retrospective graced the December 1989 QST.

there is now a 100-point bonus for making 10 VHF/UHF contacts and one "free" VHF/UHF station is permitted for Classes A and B.

1994: I Guess They Don't Need a 1.5X "Equalizer" Anymore

K6CAB (Conejo Valley ARC) logs the modern Field Day record score of 30,150 by operating in the 15A battery category with 3460 5-W QSOs!

1998: No More "Zero A" Entries

This year digital modes go from special handling to "mainline" modes. Although the "free" packet station and packet bonuses are eliminated, digital modes (including RTTY and PSK31) are added as a third mode on every band. Perhaps motivated by the "0A" tongue-in-cheek entry made by one station working exclusively on packet via the internet (thus *no* transmitters!), nodes and digipeaters are now outlawed for Field Day contacts. Finally, VHF/UHF has become such a mainstay that the 100-point bonus for 10 contacts is no longer needed.

So, that brings us up to date. Oh, I nearly forgot why I started all of this. Scores are fairly comparable from 1975 on—the year that the 2X multiplier went into effect for CW. With that definition, the Potomac Valley Radio Club team *did* set a modern record for 7A. In fact, our 26,324 claimed score is the highest non-battery score ever recorded in any category under the modern rules—beating N1FD's record set in 1998 by the narrow margin of 50 points!

Now, I wonder how the DX Contest got started...

You can contact Rol at 6021 Lawyers Hill Rd, Elkridge, MD 21227-5207; anders@erols.com.



Thunderstorm Damage Threat Categories



The National Weather Service issues Severe Thunderstorm Warnings (SVR) when a severe storm is happening or imminent, letting the public know it's time to take action to stay safe (such as taking shelter).

These warnings are Impact-Based, focusing on the expected storm impacts, allowing for more precise communication and recommended actions.

Now, to further improve communication, NWS will be including Damage Threat Categories to all SVRs.

Considerable / Destructive Tags

| Thunderstorm Damage Threat (tag category) | Wind | Hail diameter | WEA? |
|---|--|--------------------------|------|
| Base (no tag; default) | 58 mph (60 mph will appear in the warning) | 1.00 inch (U.S. quarter) | NO |
| Considerable | 70 mph | 1.75 inch (golfball) | NO |
| Destructive | 80 mph | 2.75 inch (baseball) | YES |

- The highest of the categories will be invoked from either a qualifying wind or hail value, or both.
- Wireless Emergency Alert (WEA) messages will be activated on mobile devices whenever a Severe Thunderstorm Warning with a 'Destructive' tag is issued or updated. For more information on WEAs, please visit weather.gov/wrn/wea.



National Weather Service

weather.gov

CENTRAL MICHIGAN AMATEUR RADIO CLUB BOARD OF DIRECTORS MEETING MINUTES

Saturday, June 5, 2021

Attendance

Board Members Present: G. Smith (KE8JKS), D. Dembinski (KD8YDE), S. Ranes (WA2NVK), D. Vick (W8ZZX), D. McLain (KB8RAD), G. Mulder (WB8LZG), K. Fitzgerald (N9PC)

Board Members Absent: None

Visitors: C. Ranes (NS8Q), J. Doornhaag (KD8NNQ), Dan Beuchert (WX8MOJ), Dawn Beuchert (KD8MWA), Abby Beuchert, T. Rocheleau (WA8WPI)

Call to Order

- The meeting was called to order at 7:03pm

Club Business

- **Field Day '21:** Secretary Vick (W8ZZX) recapped our recent Site Survey at the Ingham County Fairgrounds for this year's Field Day exercises. Dan Beuchert (WX8MOJ) shared an overhead photo of the proposed station layout. He shared a communication from the Fairgrounds Manager giving us pretty much all the space and campsites we need, setting the price at \$25 per day per camper plugged into the shore power. Further discussion ensued regarding site details and the returns from our recent Field Day participation survey. Treasurer Ranes (WA2NVK) discussed food & drink details, and said she would do a pre-event shopping run. Tom Rocheleau (WA8WPI) is bringing out a camper for one of the stations, as well as a screen tent for food storage. it was noted that we would not be hauling out the club's canopies or the "coffin box" this year, so we would not be needing John Doornhaag's (KD8NNQ) big trailer. Dan Beuchert contacted Jeff Goeke-Smith (KC8PUN) to tell him we would not need to use his RV after all.
- **Meetings:** Treasurer Ranes asked if President Smith (KE8JKS) had spoken to Kevin regarding the status of the clubhouse building. He had not but would reach out this week. Discussion of returning to live meetings ensued. Secretary Vick noted that before we go any further toward public discussion of in-person meetings we need to be sure our Landlord will allow it. Discussion ensued regarding holding public meetings in a park, and also holding hybrid-format meetings. Dan Beuchert would reach out to Ed Hude regarding holding meetings in a park pavilion at Rayner Park. Vice-President Dembinski (KD8YDE) asked about holding meetings at the West Lansing Church of Christ, where the VE sessions are held. It was also noted the newly-formed Building Committee should be included.
- **Hamfest:** Discussion ensued regarding the reservation date for Hamfest in September. Treasurer Ranes noted the contract date had the wrong date, so apparently the date change that the Board decided on last August was not communicated to the Conference Center. Vice-President Dembinski (KD8YDE) said he had five vendors signed up, and asked if anyone knew of others to forward them to him. It was noted that the Ingham

County VE Team would be able to hold a VE session on the 18th. Discussion ensued regarding donated door prizes and publishing & distributing a Hamfest flier. President Smith asked if we want to go ahead and reserve the Conference Center for 2022 Hamfest; he would ask the owner what the rate & availability would be. Discussion of food service ensued; Vice-President Dembinski will reach out to the Hot Dog Guy again.

Chris Ranes (NS8Q) asked for edits for our original flyer, so we can distribute it to other Hamfests. The Board decided to change times from 10am to 9am. Secretary Vick stated that the flyer should note that each Vendor rental fee includes one paid admission. It was asked if the VE session would change times. Secretary Vick and John Doornhaag stated that testing sessions have always began at 11am, so they felt no need to change that. It was also noted we should start sending out the completed flyers and other pertinent info to the Media sooner than later, for purposes of publicity. It was also discussed to remove the details about food trucks & forums, in case we don't have those things. Chris will send the proof PDF to the Board when he's done editing it.

- **Silent Key:** President Smith asked if we had seen the obituary note for Dave Held (N8CFM). Treasurer Ranes stated she had posted the obituary notice to our Facebook Group.
- **Ziegenbein/Ladies Night:** Director Fitzgerald (N9PC) noted that with the relaxation of pandemic restrictions, do we want to have an indoor event or an outdoor picnic; what are folks most comfortable with. Secretary Vick said he thought we should stay outdoors, since we had already done the majority of the event planning assuming an outdoor event. The date was nailed down to August 14th. Tom Rocheleau (WA8WPI) asked about using the pavilion in Rayner Park. Dan Beuchert (WX8MOJ) will ask Ed Hude if that's possible, and what any food truck restrictions might be. Further discussion ensued.
- **July Board Meeting:** Treasurer Ranes noted that the July Board Meeting would be on July 3rd, and asked if we wanted to move the meeting to another date away from the holiday. The general consensus was to leave it as a Zoom meeting on the 3rd.
- **May GMM Minutes:** Secretary Vick asked about notes for Minutes from the May General Membership meeting which he was not in attendance for. Treasurer Ranes said she and Chris Ranes had notes, and they will take care of publishing them.

Adjournment

- With no further business to discuss, it was Moved by Secretary Vick (W8ZZX), seconded by Director McLain (KB8RAD) to adjourn the June Board Meeting at 8:13pm.

Respectfully submitted,

Dave Vick, W8ZZX
CMARC Secretary

CENTRAL MICHIGAN AMATEUR RADIO CLUB GENERAL MEETING MINUTES

Friday, June 11, 2021

Attendance

Board Members Present: D. Dembinski (KD8YDE), S. Ranes (WA2NVK), D. Vick (W8ZZX), G. Mulder (WB8LZG), K. Fitzgerald (N9PC)

Board Members Absent: G. Smith (KE8JKS), D. McLain (KB8RAD)

General Members: KD8NNQ, W8MKB, WD8OVL, K8TS, KC8QZB, KE8NJL, KD8VJD, N8FZ, NS8Q, KB8PSF, WX8MOJ, KD8MWA, WX8MH, N8BPI, AC8YF

Visitors: Tim Conroy WB8HRO, Abby Beuchert

Call to Order

- The meeting began at 7:02pm. In the absence of President Gordy Smith (KE8JKS), Vice-President Dan Dembinski (KD8YDE) assumed the Chair this evening.
- Vice-President Dembinski led the Club in the Pledge of Allegiance.

Sign-In Sheets

- Secretary Dave Vick (W8ZZX) took attendance from the Zoom register.

Cards & Flowers Report

- Treasurer Shannon Ranes (WA2NVK) reported that we sent a card to honor SK Dave Held (N8CFM), who passed away June 2nd.
- Vice-President Dembinski reported that Club Member Joel Zackrich (NØKE) passed away on June 2nd, and there would be a memorial for him on June 27th at the Eaton Rapids Conservation Club.

New Members & Visitors

- We were visited again by Tim Conroy (WB8HRO) of Okemos and Abby Beuchert.

Treasurer's Report

- It was moved by Secretary Vick, supported by Dale Cole (K8TS) to accept the Treasurer's Report. The motion carried.

Secretary's Report

- It was moved by Secretary Vick, supported by John Doornhaag (KD8NNQ) to accept the Secretary's Report. The motion carried.

Interesting QSOs, QSLs, DX, & Other Contacts

- Gregg Mulder (WB8LZG) shared that the 6m band was very active lately; he worked Oklahoma, Pennsylvania, Long Island, and Texas on 6m, using 5 watts and a 40m dipole antenna & tuner.

- Brian Vissers (KE8NJL) spoke about copying W7HU who is simultaneously working the airwaves and live-streaming video to his YouTube channel; Brian stated that he was copying the QSO audio in his headphones and watching it at the same time on the Internet. The YouTube channel is "W7HU - Alex."

Deferred Business

- **Clubhouse:** Vice-President Dembinski reported that there was no news regarding the Clubhouse, regarding in-person meetings. President Smith has reached out to the owner, but has not received any definite information regarding public occupancy of the building yet. Treasurer Ranes and Secretary Vick spoke about the Board's intention to go to Hybrid-format meetings, once we are able to hold in-person gatherings in the building.
- **Field Day:** Dan Beuchert (WX8MOJ) reported on the upcoming Field Day exercises at the Ingham County Fairgrounds in Mason. He reported on the recent meeting of Station Chairs at the Fairgrounds, and laid out the current plans. A survey has been sent out with a sign-up sheet for Operators, that will be shared with Station Chairs. Further discussion ensued regarding food ideas, scheduling, and keeping the site sanitized.
- **Ladies Night:** Kelly Fitzgerald (N9PC) reported that she is still trying to nail down a location for the picnic, and as soon as she can get that set she can determine the food truck status. The date will be Saturday, August 14th.
- **Hamfest:** Vice-President Dembinski asked again for any vendors anyone knew of, so he can reach out to them to populate the Hamfest market. The date for Hamfest 2021 is Saturday, September 18th. The time has been changed to 9am. Dan Beuchert (WX8MOJ) asked if Vice-President Dembinski had reached out to The RF Adaptor Guy. Vice-President Dembinski will contact him this week. Flyers will go out this week. Dale Cole (K8TS) asked if Vice-President Dembinski had the ARRL prize package yet; they will be sending it at the end of the month.

New Business

- **ARPSC:** Dan Beuchert (WX8MOJ) announced that the ARPSC will hold a Training Net on Monday, June 14 at 7pm on the 145.390 repeater. Randy Williams will do a WinLink training session. Dan also announced the ARPSC Zoom meeting will be held on Monday, June 21st at 7pm. and will be a follow-up to Randy's WinLink training session.
- **VE Testing:** John Doornhaag (KD8NNQ) announced there will be a VE session on Saturday, June 12th at 11am at the West Lansing Church of Christ on W. St. Joe Hwy.
- **VHF Repeater:** Vice-President Dembinski commented on the comms issues he has noticed lately with the LCDRA 145.390MHz repeater. Mike Boensch (W8MKB) stated that there are still issues with the repeater, but he isn't sure what's going on with it. Brian Vissers (KE8NJL) shared that he and Bob Strobel (KB8DQQ) had a half-hour QSO on the repeater on Thursday evening and it was clear as a bell and functioning perfectly.

Adjournment

- With no further business to discuss, it was Moved by Secretary Vick, seconded by Dan Beuchert (WX8MOJ) to adjourn the business meeting at 7:37pm and move to the social time of the evening.

Tonight's Presentation

- There was no Presentation

Respectfully submitted,

Dave Vick, W8ZZX
CMARC Secretary

CLASSIFIEDS

Ed Hude / WA8QJE
Cell: (517) 420-7550
ebhude@yahoo.com

\$125

Alinco DJ-V27T

222 Mhz handheld radio, unused like new in the box with battery, ac wall charger, belt clip and hand strap along with antenna in factory box. Manual is a reproduction.

Purchased new from HRO and never used.



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Dan Stockwell / KD8YVA
Cell: (517) 775-7750
dstockwe52@gmail.com

\$250 Package Deal

Icom ID51a DStar HT

Package comes with the Diamond SRG77CA antenna, wall charger, car charger, Icom microphone, and a car mag mount antenna.

The best way to reach me is via text message or at the email listed above.



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Phone: (517)646-6257 after 1 pm. Email: wb8lzg@sbcglobal.net



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\$1,200

Ameritron AL-80B HF Linear Amp

CW QSK-5 built-in for full break-in. Not many hours on this amp as I am a QRP OP. Includes 1 new spare EIMAC 3-500Z tube.

\$650

Yaesu FT-990 HF XCVR

Has built-in power supply, tuner, all the filters, mic, and comp infc. Includes the SP6 matching speaker with the Timewave DSP 59Y unit factory installed. Nice HF pair!

\$400

Elecraft K1 HF QRP XCVR Kit

Unbuilt, new in box, 4-band, noise blanker, backlite kit, finger dimple, plus spare 2-band board, extra faceplate, and a customer "Kingswood" spinner knob.

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All Vibroplex keys are "Like New" in looks and operation!

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Vibroplex "Vibrokeyer Gold" Key

Comes with a gold base and chrome parts, Made in 1994 with Serial No. 80280. BEAUTIFUL!!

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Made in 1963 with Serial No. 235471. It has been under glass for 30 years.

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Made in 1950 with Serial No. 166225. Has a red base and was refurbished to original luster.

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J-38 Straight Key

The real deal! The best starter key you can buy!

\$20 each

Little Bugger Keyer

Reed relays & keys any rig. Very tiny. Runs on 9V.

MFJ "Grand Master II" Memory Keyer

Comes with power supply. Keys any rig! Includes 8 memories.

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Self-contained with 9V battery. Has 2 memories.

Power Supplies

\$20

Tripp-Lite Power Supply

Supplies 12VDC at 7-Amps. Good for powering mobile rigs from home.

Antennas

\$100

TH3jr Tribander for 20-15-10m

Oldie but goodie! A small lightweight beam with a big signal! Comes disassembled, but all parts are there. It could use a few new trap seals (available from MFJ).

\$50

Hustler HF Mobile Package

Comes with fold over base section with spring top, and coils for 40, 20, 15, and 10 meters.

\$10

75-meter Hamstick Mobile Whip

Continued on Page 23

CLASSIFIEDS

Huge Shack Cleanout Sale!!!

Call or email Gregg Mulder / WB8LZG. *Let's haggle!!*
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Coax and Connectors

\$50

200 FT Hughes Sat. Cable on Reel

Brand new. RG8 size, 100% shield, solid center conductor, buriable, good up to 5 GHz, very low loss.

\$30

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Full shielded coax in reel out box.

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New, old stock, double shielded, solid inner conductor plenum cable.

Box of Connectors

Box is full of RF cable ends and adapters. N, BNC, PL259, TNC, more.

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\$25

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Includes 10x zoom and 2 extra SD cards, case, and tripod.

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***Palomar Engineers RX Noise Bridge**

***Realistic 30-watt PA Amp**

AC/DC Operation. Comes with PA speaker.

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***Step Attenuator w/ SO-239 Connectors**

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Enclosures nice box for projects!

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\$5 each

Beam Antenna Handbook

by Bill Orr

VHF Handbook

by Bill Orr

ARRL Antenna Anthology, 1st Edition

by The Amateur Radio Relay League

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I have a large selection of parts: speakers, coils, toroids, variable capacitors, diodes, zeners, transistors, wire, coax, stainless whips, plugs and jacks, knobs, and many other Homebrewer needs. **Building or repairing something? Call Me!!**



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Antennas

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\$20

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Comes with mag mount. Only 5" tall.

\$15

MFJ 1738 Mobile Antenna

"On the Glass" type. New in bag.

\$10

75-meter Mobile Whip

It's red! Possible MFJ??

Accessories

\$20 each

Palomar Engineers Model 827

Digital SWR/PWR Meter

(2) RF Detector Pick-Ups

Covers up to 1 GHz with "N" connectors

Power Inverter

Supplies up to 400 watts. Comes with cables.

RTL-SDR Dongle

Comes with antenna. Is used with free Airspy software.

\$10 each

Foot Switch for PTT Contesting

Comes with 8-foot cord and phono plugs

4:1 Balun (100W)

Comes inside a waterproof Cantex box.

(2) GE Mobile Speakers

Tuned for voice.

HAM IV Rotator Control Box

Books

\$5 each

Hints & Kinks

by The Amateur Radio Relay

League, 1992 and 1999 Editions

73 Dipole & Longwire Antennas

by Ed Noll

Gill Cartoon Book

Chasing DX

Across

1. Old freq. units
4. HH-land
9. Fourteen ____ (weight)
14. Enable, as a weapon
15. Over
16. Signs
17. Expected
18. John Glenn's ride
19. "that ____ for the course"
20. With 22, 55, 56, and 61 across - What you collect for 35 across
22. See 20-across
23. The 18 and 21 MHz bands?
24. "Is that really necessary?"
26. New fangled rigs (abbr.)
27. Work on GUIs and others
30. This began, the July after 24-down
31. An ARRL section official, in 1-land (abbr.)
33. All but KH6 and KL7
35. You need more than 999 for this award
38. Power units
39. One of the things Elmers do
40. School org.
41. One place where the DX might be listening?
42. Heading 180 from NC
46. 9H operator, probably
49. Early radio parts manufacturer
50. 1960's TV host, with Martin
51. Open wire (line)
54. Equipment reviewer, sometimes
55. See 20-across
56. See 20-across
57. What many towers are made of

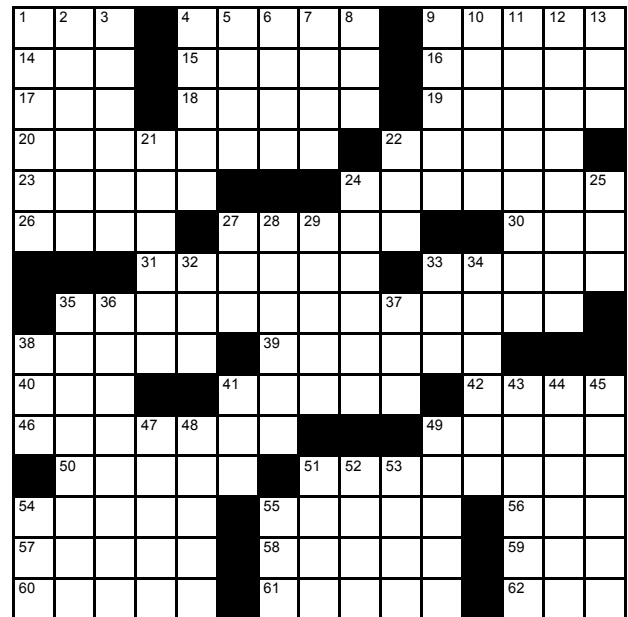
58. The word that explains a UK prefix assignment
59. Digital ckt. family
60. Hamshacks, on Field Day
61. See 20-across
62. Beam heading to work PY from W2

Down

1. "... no space ____."
2. Trimmed, as a dipole (if not a bush)
3. It moves with a signal
4. What an amp also does in the shack
5. Prefix with VOX
6. What an un-keyed transmitter is
7. Some are green, some black, some orange
8. Gives a callsign
9. Nickels and dimes
10. Org. in charge of 43-down
11. What a DXpedition station spends most of the time doing
12. Non-digital, in G-land

13. DOS background job (remember?)
21. Non-ham pesky visitor on FD
22. C in F-land
24. A peak year in cycle 19
25. Some Ukraine prefixes
27. It's between the DSP and the speaker
28. How some DF antennas look
29. Listings for selling small VHF xcvs
32. MHz predecessor
33. Those in Chile
34. House current, familiarly, if imprecise
35. Like 38-down, but for (other) digital modes
36. Keeps your rig's rock steady
37. A good signal report, in ancient Rome
38. Speed on CW
41. Biggest non-amateur user of radio in the early days
43. Awards for performances by hams in space?
44. Warm tubes and solder resin, among others

45. Pamper
47. What a birdie in your RX sounds like?
48. G-land noblemen
49. Tower-top antenna supports
51. Repeated, it's part of FO0-land
52. 7O city
53. The part of a part you solder
54. Use 3-Down to give out one of these
55. Cute 1960's mobile hamshack



2021 HAMFEST



AT THE OKEMOS CONFERENCE CENTER BALLROOM

Saturday, Sept 18th, 2021 - 9 am - 2 pm

ADMISSION: ADULTS AND KIDS: \$5 (5 years old and under: FREE)

• Talk-in: 145.390 tone 100.0 • Free Parking • Handicap Accessible • Convenient Restrooms



*The CENTRAL MICHIGAN AMATEUR RADIO CLUB
is proud to announce our annual HAMFEST at a **NEW LOCATION**.*

*Sell unneeded gear for extra cash!
Find that perfect addition for your rig or shack.*

VE TESTING

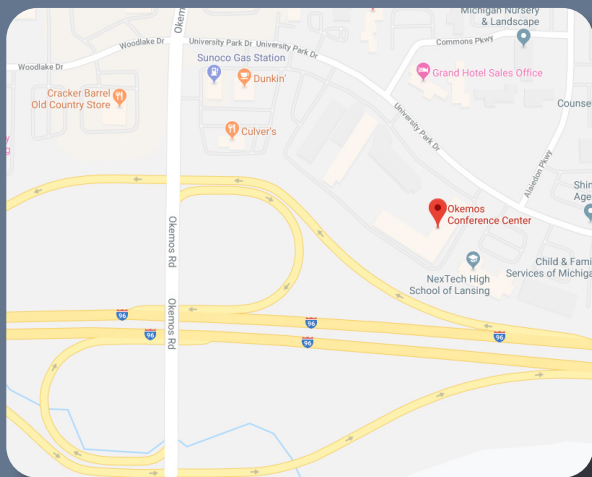
Technician, General & Extra Exams

Testing Fee: \$15

Testing Begins: 11:00 am

** No one will be admitted for testing after 11:00 am.*

** Be sure to bring your FRN number with you.*



DOOR PRIZES

Vendor Spaces (including 2'x6' table):

1st Space: \$5 (incl. 1 Paid Admission) •

Each Additional Space or Person: \$5

Vendor Setup: 7 am - 9 am

Spaces are limited! Pre-Registration is suggested.
Registrations, including payment, must be received
one week prior via Check to guarantee your spot(s).

SORRY, NO TRUNK SALES ALLOWED!



2187 University Park Dr., Okemos, MI 48864

FOR MORE INFO OR TO REGISTER:
www.centralmiarc.com/hamfest.php

CONTACT US:
hamfest@centralmiarc.com

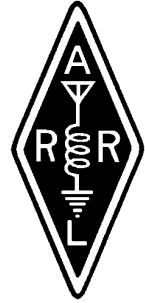


Central Michigan Amateur Radio Club

W8PLP/W8MAA

Membership Form

For Year (s) _____



Please complete **ALL** sections in their **ENTIRETY** before submitting your application.

Membership is for the current calendar year unless otherwise specified above.

Mail completed form to Membership Chairman (see address below) or take to Club meeting for processing. Please include payment if applicable. (Checks or Money Orders should be made payable to "CMARC").

John Doornhaag | 1165 South Ainger Rd | Charlotte, MI 48813-9540

| Membership Type | | <input type="checkbox"/> New | <input type="checkbox"/> Renewal |
|----------------------|---|------------------------------|----------------------------------|
| Full: | <input type="checkbox"/> Annual Dues: \$20.00 <i>Includes voting rights and an annual subscription to The Scope.</i> | | |
| Associate: | <input type="checkbox"/> Annual Dues: \$5.00 <i>Includes an annual subscription to The Scope but NO voting rights.</i> | | |
| New Licensee: | <input type="checkbox"/> Current Calendar Year Free <i>(must submit your application within first 30 days of licensure)</i> | | |
| Under 18: | <input type="checkbox"/> Annual Dues: Free | | |

| Contact Information | |
|--|--|
| First Name: _____ | Last Name: _____ |
| Call Sign: _____ | License Class: _____ Phone #: _____ |
| Address: _____ | Apt/Unit: _____ |
| City: _____ | State: _____ Zip Code: _____ |
| Birthday: _____ | Anniversary: _____ |
| Email: _____ | Sign up for the List Serv: <input type="checkbox"/> Yes <input type="checkbox"/> No |
| <i>Note: Email is used by club officers to communicate club business and may appear in the club directory for use by club members. CMARC does not share/sell contact information to other parties.</i> | |

| Club Communications | |
|---|---|
| Newsletter Preference <i>(select only one option)</i> | <input type="checkbox"/> I will download from the web site. |
| | <input type="checkbox"/> Please mail to my address <i>(Note: Direct mailing increases postage costs.)</i> |
| ARRL Affiliation | <input type="checkbox"/> I am an ARRL member |

Lansing Civil Defense Repeater Association

Membership Form



For Year (s) _____

Please complete ALL sections in their ENTIRETY before submitting your application.

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.

Mail completed form to Membership Chairman (see address below) or take to a meeting for processing. Please include payment if applicable. (Checks or Money Orders should be made payable to "LCDRA").

Michael Boensch | 1897 Sunnymede Ln | Lansing, MI 48906-1356

**If you would like a membership card mailed to you,
please include an SASE with your payment. Thank you.**

| Membership Type | | <input type="checkbox"/> New | <input type="checkbox"/> Renewal |
|-------------------------|--|-------------------------------------|--|
| Full: | <input type="checkbox"/> Annual Dues: \$15.00 <i>Includes voting rights.</i> | | |
| Family Mbrs: | <input type="checkbox"/> Annual Dues: \$7.50 ea. | No. of Family Members: _____ | |
| ARRL Affiliation | <input type="checkbox"/> I am an ARRL member | Membership Card | <input type="checkbox"/> Yes <i>(Please see above)</i> |

| Contact Information | |
|---|---|
| First Name: _____ | Last Name: _____ |
| Call Sign: _____ | License Class: _____ Phone #: _____ |
| Address: _____ | Apt/Unit: _____ |
| City: _____ | State: _____ Zip Code: _____ |
| Birthday: _____ | Anniversary: _____ |
| Email: _____ | |
| <small>Note: Email is used by club officers to communicate club business and may appear in the club directory for use by club members. <u>LCDRA does not share/sell contact information to other parties.</u></small> | |

Central Michigan Amateur Radio
P.O. Box 54
Mason, MI 48854-0054

STAMP

To:

July Solution

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| E | N | T | I | T | I | E | S | | O | N | A | L | L | |
| T | E | E | N | S | | | | | M | U | S | T | Y | O |
| S | D | R | S | | D | O | H | C | I | | | I | G | Y |
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| W | A | T | T | S | | A | D | V | I | S | E | | | |
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