



The **Cherry Juice**

Newsletter of the Cherryland Amateur Radio Club

VOLUME ISSUE

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February 12th!



Time To Get POLITICAL! Club Elections at the January 25th Meeting

Wait -- the thought of politics doesn't thoroughly excite you down to the bone? Oh... Hold On... You've got the wrong idea! We do this every year. It's time for the Cherryland ARC club elections!

The general membership meeting on January 25th is when all members present will vote on the Cherryland ARC Officers and Board Of Directors opening(s). No Elephants or Donkeys, no Red or Blue. Just Hams leading the club as you'd like it led. So please make sure you renew your membership, come to the meeting, and make your voice heard!

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Affiliated Club #1082

Ham Of The Year

At the Dec 6th, 2021 Christmas Dinner, as is tradition, the award for the 2021 Cherryland Amateur Radio Club was presented. Following is the presentation given by Scott WX1J:

Good Evening! Based on the history of the award, I'm here to give you some background on this year's selection of Ham of the Year. The panel discussed many candidates, people who have contributed to the Club in consistent, powerful ways throughout this year. It was a tough decision. We considered each candidate, and discussed the possibility of multiple winners, because the candidates were all very close in contributions. In the end, we went back to the original spirit of selecting one outstanding candidate.

Before we announce this year's Ham of the Year, the committee wants to honor and recognize the contributions of several candidates who were considered.

One club member is working long and hard to update and make functional the W8IRA linked repeater system here in the North Country.

Pete Van Den Berge, K8WQK, and Brook Smith, N8OCX, continue to apply their technical expertise and relentless energy to bring the Cadillac, Traverse City and Vanderbilt repeaters into the modern era. Thank you both for that continuing work and thank you Pete for driving this effort and thank you Brook for your immense contributions.

Additionally, we would like to recognize another ham who always injects energy, wisdom and initiatives into club activities. This ham sets the example for leadership, and challenges us all to learn and practice the science of the hobby.

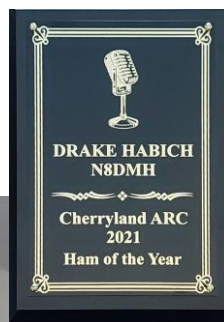
David Wilcox, K8WPE, the club recognizes your leadership and thanks you for your consistent and persistent contributions to keep us curious and seeking answers.

Finally there is a visionary among us. One who is grounded in the present, reveres the legacy of the club and hobby's past and from that high hill, sees beyond the horizon and

sparks this club to mobilize in that direction. The sage on the mountain – is our president, Ernie Abel, K8RCT. Ernie, we appreciate and recognize your unique leadership and contribution to the Club and Amateur Radio.

Congratulations to all who were considered and recognized tonight.

The 2021 William F. Martinek, W8JUY, Memorial, Ham of the Year award recipient has been consistently engaged in all club activities, has driven many of them. He has served as net control operator on two nets, Skywarn and is present whenever someone needs help to fix a problem, figure out a new technology or help new hams just get on the air. This ham has helped TBARG as well as CARC embrace new technologies, such as DMR, Fusion, APRS, and somehow to actually make them work. He brings energy and new ideas to the Board and to CARC members wherever and whenever asked. We are pleased tonight to present the Cherryland Amateur Radio Club, William F. Martinek, W8JUY Memorial Ham of the Year award to Drake Habich, N8DMH.



Due to an error by Joe N8CN, the presentation of the plaque will occur at the January 25th meeting.

I'm sorry about that, Drake! -Joe



Program Topic 1: 2022 Elections

Elections are upon us! And we're all very thankful that we don't have to worry about partisan antics, campaign funding, emails, social media, you get the idea. So, this should be the least stressful election you'll take part in – or we're doing it wrong, so let us know if that is the case!

Each year prior to elections, the CARC Board recommends a "Slate" – a list of people and positions for election "as a whole" simply to speed the process.

Before elections: the floor is open to any and all nominations – yes you can nominate yourself! – and any active and current CARC member is eligible for an open position (so make sure your dues are paid!).

If there are no nominations, there will be a single vote to accept the proposed election slate by the board. If there are nominations from the floor, those positions are put to vote first, with the remainder of the slate voted on after the election.

We absolutely encourage anyone to nominate and self-nominate for positions for several reasons. Fresh perspectives are often a great thing. Incumbents may feel that nobody else is interested in the position and may be filling it only for that reason – because they know they'll be able to do it if nobody else would want to. Friendly competition is good! If you know someone else might be interested in doing a job, but you really want to keep doing it, it might inspire someone to try new things or be more focused, knowing there's someone else eyeing the position.

The club exists for the membership, and we encourage members to step up and take leadership roles that will steer the club in the direction the members wish to go. So, if you're disappointed in something that is happening with the club, it's in your hands to take the initiative and run for a position, or vote for someone who represents you!

Your 2022 Cherryland ARC Election Slate – Positions to Elect are highlighted

President	Ernie Abel K8RCT	Up For Re-Election
Vice President	Glen Johnson K8SGZ	Up For Re-Election
Treasurer	Ward Kuhn N8WK	Up For Re-Election
Secretary	Hope Francisco AA8SN	Up For Re-Election
Editor	Joe Erlewein N8CN	Appointed Position
Board Member	Drake Habich N8DMH	Up For Re-Election
Board Member	Mark Christof KC8ZAP	1 Yr Remaining in Term
Board Member	Scott Pyles WX1J	2 Yr Remaining in Term

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Program Topic 1: 2022 Elections (cont.)

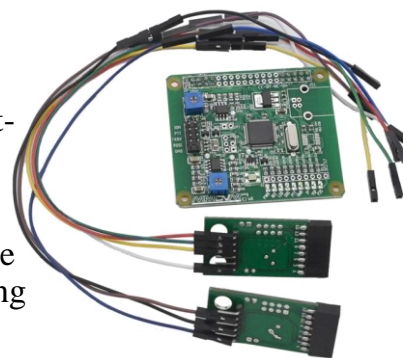
There are three Board Member positions and each position is elected to a 3-year term, all offset by a year. Due to the way things worked out over the last few years, we had a couple vacancies that threw things “out of sync” a little bit.

After elections are completed, we’ll have some additional “Club Meeting Program” content:

Program Topic 2: TC Multimode Repeater

A lot of work is being done by Drake N8DMH right now on re-building a new solution for the UHF 442.500+ repeater. The background here is that the two Cherryland ARC repeaters are a Yaesu repeater model DR-2X repeater, which are “AMS” (Automatic Mode Select” between Analog and Yaesu System Fusion digital. On the UHF repeater, the digital YSF mode is permanently linked to the WIRES-X network and connected to the WM_CONNECT group with some other repeaters in Western Michigan. That said, there are some issues with this current set-up, which uses all of the proprietary Yaesu linking hardware and software.

In order to overcome some of the technical challenges presented by the “Yaesu Way” of achieving this linking topology, Drake has been working on replacing this system with a new design that will be more resilient, locally located (at the repeater instead of using a remote link, which has many advantages), and more flexible to deliver greater connectivity in the future, including new modes (DMR) should the club wish to do that. You don’t want to miss this segment!



Program Topic 2: TBARG Communications over IP

There’s also been some new experimenting going on with some interesting devices that TBARG has acquired called the MeshTastic. Glen K8SGZ will take us through the features of the devices and talk about some of the goals being worked toward, as well as some interesting challenges along the way.



Dues Are Due!

Membership Dues

Club Member dues are annual, and each membership begins on January first.

You are also able to renew your membership early!

CARC Membership Application form



Last Name: _____ First Name: _____ Nickname: _____

Callsign (if any): _____ Class (if any): _____

Street: _____ City: _____ State: _____

Email (we promise not to spam): _____ ZIP: _____

Home Phone: _____ Work Phone: _____

Occupation: _____ Spouse (if applicable): _____

ARRL Member? (Y/N): _____

Membership Rates

- \$24 Single Membership
(+\$2 Family Membership (same residence))
- \$5 Student Discounted Membership

Send Form To:

Cherryland ARC,
PO Box 987
Traverse City, MI 49685

.... or just bring it to a meeting!



Ward N8WK, CARC Treasurer

Did You Know?

A Swap-N-Shop flyer was mailed to each active CARC Member from 2020-2021 which included a renewal form.

If you are a member and do not receive this, you may want to confirm your mailing address with our records.

When you receive this form, please review the pre-filled information to ensure it is correct.

You may bring this form with you to the CARC Meeting or to the Swap-N-Shop with your Dues and renew your membership.

WINTER FIELD DAY

January 29/30, 2022



Winter Field Day Association

Winter Field Day Association (WFDA) is a dedicated group of Amateur Radio Operators who believe that emergency communications in a winter environment is just as important as the preparations and practice that is done each summer but with some additional unique operational concerns.

We believe, as do the ARES & RACES organizations, that maintaining your operational skills should not be limited to fair weather scenarios. The addition of Winter Field Day will enhance those already important skills of those that who generously volunteer their time and equipment to these organizations. This is why WFD is open to all licensed amateur radio operators worldwide.

Disasters are unpredictable by nature and can strike when you least expect them. WFDA's goal is to help enhance your skills and ready you for all environmental conditions found in the US and Canada during the spring, summer, fall and winter Preparedness is the key to a professional and timely response during any event and this is what local and state authorities are expecting when they reach out to the emergency service groups that offer their services.

If you are serious about emergency communications as we are; we welcome you to join us for our yearly event. We are sure you will find this event a pleasant change and challenge to that of a normal summer time field day.

For more information on how to participate on-air and submit logs, and to view official rules for 2022, visit the website:

<https://www.winterfieldday.com/>

ARISS SSTV Event Images captured by WX1J

Talk about a great way to end 2021! Scott WX1J shares some images captures as the International Space Station passed over:

The ISS broadcast Slow Scan TV SSTV images from the 28th to 31st. I missed the first few days due to holiday visitors etc. But I tracked the ISS orbit to Spain and used an SDR there to download and decode the image.

I elected to not get up at 03:15am to listen to the overhead pass, but was happy to hear another near overhead pass the next morning at 8:15am. I got that one decoded and recorded live from Boyne City, MI. I used this morning my hand-held and standard antenna. I did not need to use a separate Yagi or any such. Just hold the antenna horizontal to the earth.

To decode these audio images yourself, use Android Robot36 App, Select mode, Select PD modes, Select PD120.

The screen will automatically start scanning. Put your Android device on a table, put a device you will play the recording from about 3 inches away on the same table, (bottoms facing bottoms).

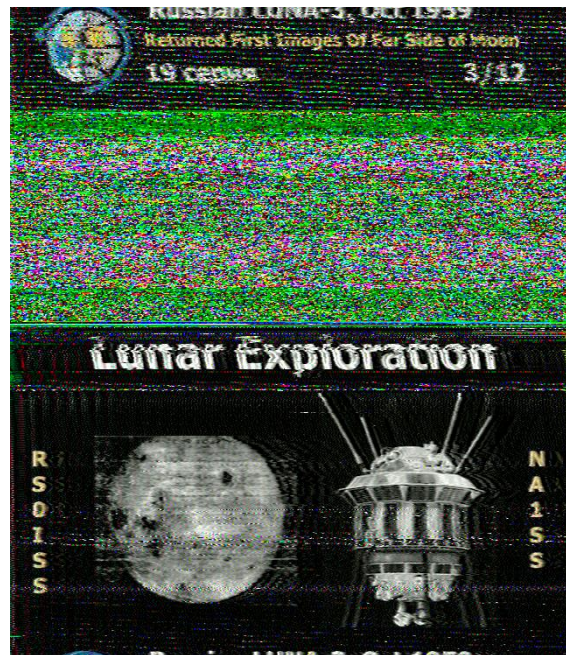
Hit the X at the top menu bar to re-set the scanning screen, then press the play button on your playback device. The image will begin to appear, It runs about 1.45 minutes. Typically they transmit images 2 minutes, then 2 minutes off, then another image.

We'll plan to have a Project Night to show and tell the how, when, where and why in 2022.

Happy New Year everyone.
Best regards,
Scott WX1J



Spain SDR Capture



Recorded Pass



Decoded-Live Pass

FCC 9cm Band Changes

QST de W1AW
ARRL Bulletin 5 ARLB005
From ARRL Headquarters, Newington CT January 19, 2022
To all radio amateurs

Amateur Operation in 3.45 - 3.5 GHz Segment Must Cease by April 14, 2022

The FCC has established April 14, 2022, as the date by which amateur radio transmissions must stop in the upper 3.45 - 3.5 GHz segment of the amateur secondary 9-centimeter band. Secondary operations are permitted to continue indefinitely in the remainder of the band, 3.3 - 3.45 GHz, pending future FCC proceedings.

On January 14 the FCC released DA 22-39, which announces the results of Auction 110 for the 3.45 - 3.55 GHz band. Release of this notice triggered FCC rules adopted last year requiring that amateur radio operations between 3.45 GHz and 3.5 GHz cease within 90 days of the public notice.

DA 22-39 can be found online at, <https://www.fcc.gov/document/fcc-announces-winning-bidders-345-ghz-service-auction/attachment-a>

In October 2021, ARRL President Rick Roderick, K5UR, urged Congress to direct the FCC to preserve Amateur Radio's secondary use of the 3 GHz band in a written statement responding to H.R. 5378, the Spectrum Innovation Act of 2021, before the US House Commerce Communications and Technology Subcommittee.

A chronology of actions responding to amateur access on the 3.5 GHz band can be found on the ARRL website at, <http://www.arrl.org/3-ghz-band>.

This Vanity Plate Could Be Yours!

Spotted in the wild by Scott WX1J is what can only be a true Michigander's vanity vehicle plate. Something to keep in mind, however: The last time your editor read the rules regarding personalized vehicle license plates, a licensed Amateur Radio operator with a valid license and callsign can request vanity plates to match their callsign, EVEN if there is already a vanity plate "in the wild" using those letters, as the State of Michigan recognizes it as a valid government-assigned unique identifier.



So – presumably – if you changed your FCC Callsign to this via Vanity Callsign request, you could theoretically then request the same personalized Vanity License plate from the Michigan SOS, and this poor soul would be out of luck! The SOS apparently has a process to recall a personalized plate so that it can be re-issued!

If you're worried about hurting someone's feelings -- it's probably OK... they're probably used to losing anyway!

Never Say Die Hard

- Joe N8CN

To set the scene, it's a few days after Christmas and the younger kids are "pretending" to sleep; my oldest is overloading on YouTube content and my wife is practicing violin pieces for upcoming concerts. Me? I'm enjoying a personal holiday tradition I developed years ago - I've got my warm cup of coffee (with some holiday spirits added) and I'm relaxing a bit to my favorite Christmas movie of all time - *Die Hard*.

I know, I get it - the debate of *whether or not "Die Hard" is really a Christmas movie* will probably continue for ages. But *from my perspective*, it certainly IS a Christmas movie - just so we're clear which side I'm on!

So I'm settled in, and it finally feels like Christmas, and we're just a bit over 20 minutes into *Die Hard*, and it starts to dawn on me (as John begins his phone call to Argyle) **how important communication is about to become for the remaining hour and forty minutes of the film**. In a time before internet and without portable cell phones (there are car phones, but they're not yet "portable"), the feeling of impending doom weighs heavy as the call between John and Argyle is abruptly terminated, unbeknownst to them by a cacophony of disc grinders and chain saws wielded by professional villains taking over Nakatomi Plaza. Previous to the destruction of the phone lines, they had just physically cut off access to, and disabled travel within the entire building. *Thing are about to get REAL*.

Oddly, by this time we've already seen our first "glimpse" at one of the elements which will become a common theme throughout the entire movie, we just didn't realize it yet.



When the criminals take over the front desk and entrance, one of them quickly speaks "We're In!" into a tiny device - we're not sure what it is at this point, *but it's another clue*.

The "Revelation" of how this will all plays out is mostly revealed a bit later - The front desk man says "We've got a Fire Alarm" to Hans Gruber, the criminal mastermind.



Hans replies, while walking toward his hostages, by speaking into what looks like a *Kenwood VHF HT with a shortened antenna*

Of course, this is where some research pays off, and as it turns out the radios used in the movie turn out to be a Kenwood TH-21BT, a VHF HT with a "modified" antenna. Of course, the information available with these details on the web was not from a "ham radio" source, but a "movie prop" source.

As it turns out, Kenwood made a "set" of these radios - the TH-21BT (VHF/2m), TH-31BT (220/23cm) and the TH-41BT (UHF/70cm). In all of the screen captures in the movie, it's easy to see the "144MHz" text on the front top of the radios, so we know they're TH-21BT radios.

But the antenna is SUPER short, and has green stripes- which is actually the antenna from the UHF counterpart, the TH-41B!

Interesting choice! I'm guessing that the shorter antennas "filmed better" than longer, flip-flopping VHF antennas, and probably looked "more modern" and were an in-production change made (It's well known that *Die Hard* was shot on a tight schedule, with the writers working only days ahead of shooting in some cases, so details like this and the reasons behind them are interesting to me).

What happens soon after the revelation of these radios is quite interesting: John defeats the first criminal (Tony) sent to "take him out" and *takes Tony's radio*. Without this discovery, the interaction between John and the others in the movie would not be possible. *John taking the radio* sets up a method of communication where the characters can interact from any point in... whatever happens next! Portable and ad-hoc communication between main players, without close physical proximity was a relatively new thing in films of this era.



If you haven't seen *Die Hard*, at this point I think you should... *then* come back to this article, or at least otherwise **BEWARE of some spoilers below**. You'd be doing yourself a solid, because after all, it's one of the best Christmas movies of all time! (says me)

Nuances aside, there are some notable points that follow. First, John uses his newly-found radio to call for help. Sure, he uses terms like "Mayday! ... Channel 9" but it's balanced by the merits of him realizing he should head to a clear, open, high point to make his call – from the roof of the building. Of course this harkens to the days of Citizens Band where this was the "channel that sometimes is monitored by police." So, I guess "there was an attempt" here that was appropriate for this era.

An interesting choice, John used the radio that *he found on the bad guys* to try to call the police for help. While you're wrapping your head around that, you're also digesting the next scene, where for some reason the LAPD *actually are* monitoring this "channel" OH BUT ALSO at the same time, they *downplay John's distress call as a prank* after correlating it to the same address as the earlier fire alarm. And all of this is after they hear "gunshots" through the radio which is always a favorite thing of mine to see on the screen-- as if somehow the AGC circuits in all the radios are meaningless, the speakers become bullhorns and somehow the audio amplifiers override the laws of physics and the resistance of the volume controls to "blast" the sound into the ear of the listener so loudly that they must physically recoil from the event. But I digress.

We're also going to ignore the fact that the movie portrays the Radio use here as full-duplex with break-in capabilities as they interrupt each-other at almost every exchange. Yep, in 2022, we ALL wish for that. OK seriously, moving on. The radio keeps its traditional role as the "lone officer" Al Powell is dispatched to do a drive-by, rolls up, checks in, and relays status. Even the bad guys for the last few minutes are using the radios in a traditional "coordination" role, disregarding they know that John could hear them.

The "flavor" that radios give to the movie changes right after this. As the officer Al reports to dispatch what is "really" going on at Nakatomi, a reporter sitting near a stack of police scanners happens to notice the call come across on yet another Kenwood VHF base station, most probably a TS-711 that looks like it's tuned to something between 146 - 149 MHz.

At this point, characters in the movie begin to interact with each other more and more on an interpersonal level. Except, none of them are face-to-face...

John grabs his Kenwood HT and .. "chats up" Hans, who seems surprised to be addressed directly. The two have a conversation that, while designed to be unrevealing on the surface, ends up serving them both well in "learning" about the other. A famous line from the movie happens here. I cannot repeat it. Go watch.

Somehow, our officer Al is able to find the "same channel" with HIS police-issue portable radio and tries to contact John, which is also heard by the "bad guy team." Now, I'm sure the entire E-Com Interop team would be extremely happy if "all radios worked this easily together" like this. But – Radios aside. Here's where that "familiar magic" of radio starts to show through. Al and John almost instantly bond and begin to form a relationship... over the radio!

A fourth contingent joins the ranks of the Radio "Net" when Argyle turns on the "CB Radio" in the limo.. And it just happens to be on the same channel everyone's using.... Buuut he ends up just "listening" and never talking.

It was about this time in the movie that I started drawing parallels to *relationships we make with people over Ham Radio*. No, I haven't personally met the leader of an organized terroristic criminal team. I'm talking about the way John and Al never meet in person but are able to begin what could be described in painfully modern terms as a "Bromance." They *only ever interact over-the-air on their HTs* until the very end when they finally meet... and their meeting **almost transcends the "moment"** John shares with his estranged wife after she's safe and they are reunited.



I've lost count, over the years, of connections I've made over the radio where either I have not yet met the other ham, or we've finally met in an Eyeball QSO at Hamvention or a local Swap-N-Shop. In fact, this is one of the many reasons I've come to enjoy the Cherryland swap. In 2020, I finally met two hams I had spoken with over repeaters and on the SMASH net for over a decade, but we had never met face-to-face. Amazing!

We're definitely in the weeds here with how this relates to Ham Radio at all, but it made me question ... *"How well do I actually know the people I form relationships with over the radio, anyway?"*

In fact, my first year at *Dayton Hamvention* I saved up and purchased my VERY FIRST VGA MONITOR for a computer system, and I had saved all winter for the money to purchase it. It was my “Big Dayton Item” that year, because I ran a “Packet BBS” and... Color was awesome.

Just like this life-lesson, John does NOT get fooled by Hans, and even though he does give him a gun, he's still got a trick up his sleeve. I'll choose not to spoil this one.

I think this is one of my favorite reasons that I enjoy being a member of an Amateur Radio Club, especially one that has so many social events – not just the Swap, but the way we do Field Day each year, the Fox Hunts, the Picnics, Project Nights, Breakfasts, even the General Meetings – they serve to bring people together in person, and one of our core common interests remains Ham Radio. And it's quite often that at these gatherings is a “culmination” or “peak” of interaction that has been built up by days, weeks, often years of conversation over the air alone. Pretty amazing!

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Without speaking, everyone immediately is aware that the dynamic of interaction has been permanently changed – **John has no radio**. And honestly, that’s where the movie changes moods into an almost entirely-action movie. The plot has been set, the characters developed, the relationships formed and gelled, and everything is set up like a fantastic house of cards. The removal of the element of radio really sets off the sequence of the “grand finale” and then a bunch of really awesome stuff happens and the movie is over.

It’s pretty easy to watch this movie as a “Non-Radio” person and still be adequately (and entirely) entertained. But the more I watch this movie, the more keenly I become aware just how important this seemingly “minor” plot vein is. It’s really an artery!

I think the movie *Die Hard* really set a standard for setting up interesting methods of communication. Movies after this, in the same period, seemed to “reach” when it came to communication, at least until cellular phones became more ubiquitous. Even then, a common theme in thrillers is removal of the element of communication, either by isolation (deep wilderness), disaster (taking out communication systems), or the breaking/theft/loss of the phone as a “lifeline” in a situation – it makes us aware of just how “alone” we can be without a way to communicate, and accelerates the stressors and builds tremendous tension.

In the sequel *Die Hard 2*, for instance, the basis of the plot is that a criminal element *takes over the entire communications of Dulles international airport and the planes circling above*, and to make things more interesting, it’s Christmas Eve and all the planes circling have limited fuel. So again, we have the theme of communications (Airport control to Planes, including ILS) being of critical importance to the plot.

It’s also not long into *Die Hard 2* where we see - yep, you guessed it – another Kenwood HT. This time it’s easy to see the model, that it’s UHF, but there is a twist: “It’s Scrambled! The Scramble Mode must activate on this code panel. Even if we scanned it’s frequency we couldn’t listen in. These guys are Pros! ... This is a 10-digit control panel, 6-digit read out, there could be a million combinations!” Drat! Foiled by DTMF buttons and a neat bedtime story.

To your author’s dismay, *Die Hard 2* follows less in the trend of the radio driving character and plot development. Eventually they “Find a radio with the code still plugged into it” and are able to intercept a few plan hints and then the dominoes start falling a little faster.



Even though the handheld radios play less of a “development” role in the sequel, the movie focuses around control of communication vectors to secure the airport and the safety of the passengers, and ultimately the good guys winning and the bad guys losing. Sorry for the spoiler.

Even *Live Free Or Die Hard* years later (2007) goes **HARD** on the theme of communications disruption. The concept of a “fire sale” to disable and disarm a major metropolitan area is put into play, by which city infrastructure – power, communications, and transit – are completely disrupted and in some aspects controlled by the criminal element. They pull off crazy stunts like taking over broadcast on all television channels, on-air and cable. They intercept and masquerade as the DC Police Central Dispatch: “*Make the next right onto Concord.*” .. Right into our trap! Who knew cop cars were this close to APRS?



The only area for disappointment here is that FOX Studios apparently abandoned Kenwood for short-lived producer ADI, otherwise known as “Almost Definitely an Icom”.

This has somehow become my longest editorial yet, but hey, I hope you enjoyed some of the ham-radio-screengrabs and call-outs on this movie franchise. I also hope you grow to adopt Die Hard for the genuine Christmas Movie it was intended to be, so many years ago. I also hope you're able to draw some of your own parallels and maybe they'll even serve to make you appreciate the art of Radio a little bit more than before. Not that we don't routinely celebrate it, but it's still amazing to me that even in popular culture, the concept of being unable to communicate, or being forced to communicate in certain constrained ways can serve to form relationships, drive a story – and sometimes even BE the story itself.

There's an inherent "Magic", I believe, in the technology of Radio. There are all sorts of explanations, all manner of definitions, and plenty of scientific and mathematical representations of what radio is, how radio works, and what radio can and cannot do. But when you find yourself talking into a mic, calling out to someone, and having someone answer you back – there's really not a "formula" for what will happen next. And that, to me, is part of the magic of radio.

I hope you all had a very Merry Christmas, and are enjoying a wonderful 2022. See you at the next Christmas Party!

(Bring your HT!)

-de Joe N8CN

PS: The title of this article was indeed intended as homage to Wayne Green W2NSD, (SK, 2013) author of the "Never Say Die" column, editor of QST, and founder of 73 Amateur Radio Today in 1960.

Club Repeater Update

It's been a while since we discussed the intentions with the Cherryland ARC repeaters. In 2015, a donation to the Cherryland ARC was received so that we could install the new Yaesu DR-1X repeaters in place of our aging Motorola MSR-2000 and Kenwood repeaters at the site. The new repeaters went on the air on April 25th, 2015. Soon after, we began to experience some issues with stability. We upgraded firmware several times over the years, and eventually ended up replacing one unit. This did not resolve the stability issues.

At the time, the club also purchased an S-COM controller intended to control and provide link capability for both repeater systems. This was a result of an exhaustive research project by the technical committee. Interfacing to the DR-1X system was underway when Yaesu announced a trade-up program for the newer DR-2X system in 2017 and by 2018 we had received our DR-2X units. The hope was added stability and escaping a lock-up condition, but the new units seem to have the same bug.

An added challenge, the DR-2X presented a new "issue" in the way we would interconnect the controller, making "AMS" more difficult to work in a preferred way on the new version of the repeaters. Yaesu had removed a necessary data rate function in the new version.

The project stalled there for some time while different approaches were discussed. It does not seem possible to use the S-COM controller in the preferred way without permanently modifying the Yaesu repeaters. Many solutions and alternatives were discussed, and a few test scenarios were implemented on the test gear, but the results were not as positive as we had been hoping for.

(continued)

Club Repeater Update (continued)

The original intention of the project was one S-COM controller to control both the VHF and UHF repeaters to provide flexibility in linking, voice ID, scheduling, enhanced control, and a third port for a linking node such as Allstar or Echolink. Since we could not “get ther” immediately, in 2017 an Echolink node was made from a remote base unit and enabled on 146.86. It functioned there “OKAY” for several years. Also in 2018, the club purchased a Yaesu FTM-400 and a Yaesu HRI-200 was donated for use, and the club enabled a full-time “remote” link to the Wires-X WM_CONNECT Western Michigan Connect group. This has also been working “OKAY” since then, the largest challenge being windows computer stability.

Both “remote” link types were not desirable, as they were remote, and had the same priority as RF users. Done correctly, linking for repeaters (echolink, Wires-X, etc) *SHOULD* be done as close to the repeater as possible, and locally (not via the same RF path users use) so that it can be “de-prioritized” and/or easily disabled for emergency use or other events. Using a remote link, the link has the “same priority” as any user, meaning you have the possibility of “doubling” with an echolink or wires-x link signal, and could possibly be in a situation where you’re not easily able to disable the link from the repeater while coordinating an event or needing to restrict use to RF users – people with an HT miles away would be wiped out by the echolink or Wires-X link traffic.

We’re back on the path to get the “final plan” for the control of the repeaters back into action, and hopefully move the “link control point” for both Wires-X and Echolink (and other technologies) to the local repeater site.

Here's what has been done recently:

- Drake N8DMH is testing a replacement unit for the Yaesu DR-2X repeater for the UHF repeater on 442.500. The new repeater will be (for now) Wires-X permanently linked to WM_Connect and also be able to AMS to an Analog signal, with control passed to the S-Com Controller. We will have the option to enable other modes (such as DMR or D-Star) if we wish, but initially we will keep the same functionality as we have today; Analog or Wires-X/YSF on WM_Connect. The link to this will be direct instead of remote, which is a huge improvement alone.
- Drake N8DMH has replaced the “OKAY” working “svxlink” echolink node with an Allstar node. The Allstar node fills the same link as the other device, which is to provide basic Echolink connectivity to the 146.86 repeater. Currently, this device is still remote, but can be easily moved to local control on the S-Com controller once the RF side of the repeater is ready to accept the controller, which is the next phase. Along with Echolink, the allstar system is capable of using other features such as IRLP links, IAX trunks so users with Hamshack Hotline can “dial into” the repeater, an Autopatch (like we had in the 90s on 146.86), and more. As stated, this device is still “remote” but can be very easily installed locally in the future.

The repeater technical committee will be meeting more frequently to get us back on track and get the original plan of a “suitable controller” installed for both repeaters, with advanced linking available to both. We encourage club members to give their feedback at meetings.

Joe N8CN

Hams appointed to FCC TAC

From the ARRL Letter, January 20th, 2022:

Two Radio Amateurs Appointed to the FCC Technological Advisory Council (TAC)

FCC Chairwoman Jessica Rosenworcel named two prominent radio amateurs among her appointments to the FCC Technological Advisory Council (TAC) on January 19. Appointed were Greg Lapin, N9GL, and Michelle Thompson, W5NYV. Lapin chairs the ARRL RF Safety Committee and has represented ARRL The National Association for Amateur Radio on the TAC since 2001.



Greg Lapin, N9GL

ARRL Laboratory Manager Ed Hare, W1RFI, noted that Lapin has been involved with RF safety and the FCC since the last FCC significant rules changes in 1998," he said. "He is again helping the FCC prepare information on OET Bulletin 65, Supplement B for amateur radio, giving guidance for amateurs who need to comply with the FCC rules on RF exposure. His work is highly respected by the FCC and the ARRL Lab, making it easier for amateurs to evaluate their stations."



Michelle Thompson, W5NYV

Thompson is CEO of the Open Research Institute (ORI), which she will represent on the TAC. ORI is a non-profit research and development organization dedicated to open-source work that includes such areas as amateur satellites and digital communications. She is an ARRL Life Member. Thompson will discuss "Digital Communications Technology" on February 10 at the ARRL National Convention in Orlando, as part of the Technology Academy workshop Track.

The TAC serves to assist the FCC in identifying important areas of innovation and developing informed technology policies that support US competitiveness in the global economy. The TAC will consider and advise the FCC on topics such as 6G, artificial intelligence, advanced spectrum-sharing technologies, and emerging wireless technologies, including new tools to restore internet access during shutdowns and other disruptions. The TAC will hold its first meeting of the year on February 28.



Coming March 12-13, 2022

QSO Today Virtual Ham Expo

The next QSO Today Virtual Ham Expo will be held live from March 12-13, and then on-demand for 30 days afterwards. We promise an amazing learning and networking experience to help you improve your amateur radio knowledge and get exposed to new ideas, equipment, and practical techniques. No need to travel - participate from your home or office! Information can be found at <https://www.qsotodayhamexpo.com>.

Listen, engage with 60+ internationally recognized ham radio luminaries. Our speakers are experts and deeply know their material. Most importantly, they've worked hard to make sure that you'll understand the material and can apply it immediately to your projects.

So, so many different topics - everybody will find something of high value. There's content for everyone whether a newly licensed ham looking for next steps to using that license or a 30+ year experienced ham looking for new projects. Some of the more interesting presentations include: *Core HF Communication Concepts; Fundamentals of Shortwave Propagation; Deep Dive of An FPGA DVB-S2 Implementation; Fun With The NanoVNA; and Helically Wound Vertical for 160M.* [Click Here for Presentation List](#)

Watch as many presentations as you want! A big limitation of in-person events is that you can't watch many of the presentations (you can only be in one room at a time). At the Expo, return anytime within 30 days to view any speakers and presentations you missed as well as explore exhibitor offerings.

[QSO Today Virtual Ham Expo Main Website](https://www.qsotodayhamexpo.com)

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Check out our live [Kumospace](#) video lounges for attendees to interact with each other and exhibitors. At the Expo we'll debut exciting but proven technology to further improve the live video interaction experience with exhibitors and fellow operators. You'll find this is a great way to meet up with friends, talk to vendors, and network on specific subject areas.

Take advantage of our calendar technology to efficiently organize your time. Once our presentations are scheduled, you can download speaker times in your local time zone directly to your Google or Outlook calendar. You'll then have a complete schedule of sessions to join to maximize your time during the Live period with speakers that are the most important.

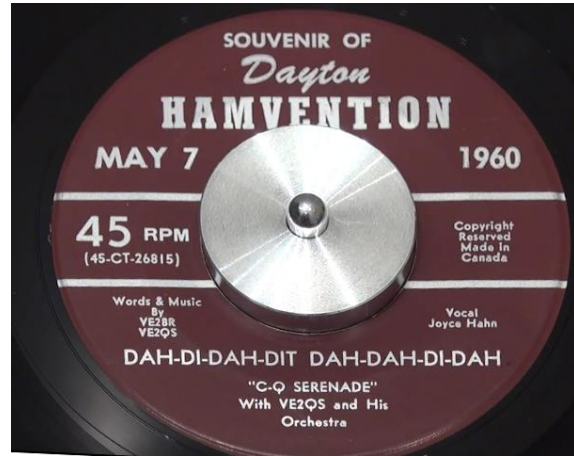
ARRL, the national association for Amateur Radio®, is a QSO Today Virtual Ham Expo Partner. FlexRadio is the Expo's Platinum Sponsor, Elecraft is our Gold sponsor as of this time.

Early Bird Tickets will go on sale February 1st, 2022, and are just \$10 (through March 6) and then \$13.50 to the end of the on-demand period. Tickets include entry for the Live 2 day period and the 30 day on-demand period. Save on gas, lodging, and transit time to attend the QSO Today Virtual Ham Expo on March 12th and 13th. For more information, go to <https://www.qsotodayhamexpo.com>, or click on the blue button below.

Save the dates: March 12-13, 2022 on your calendar!

CQ Serenade

When I was younger and studying for ham exams, I had an audio-cassette series that I had copied from someone who copied it from someone else, who also had a non-original copy. The quality of these tapes were, suitably, astounding, and though they were titled “The Rhythm of the Code”, the one thing that this uneven and intermittently skewed cadence did not have, to me as a marching band percussionist in high school, any steady “rhythm” at all. But it made me seek out uses of “Morse Code as Music” as a study aid, and there was surprisingly MUCH material to work with. A prime example of this use of CW, This little nugget of joy comes to us by way of Ernie, K8RCT:



<https://www.youtube.com/watch?v=IQe0oouN2s>

Please enjoy!

Classifieds

88ft of tower material in sections

88ft total length of sections available.

The two largest pieces are 23ft long, others varying lengths as short as 8ft.

304/304L stainless steel construction using 1.25" schedule 10 pipe and solid round stock lattice.

Originally fabricated as a multi-arm lift system for support of a variable elevation food conveyor.

Several sturdy base plates welded to ends of some sections.

Some sections separated by cutting, cut in locations that lend themselves to reassembly by welding.

Asking \$2000.00

Located in Bellaire, MI. Contact: Kevin Kalchik, KE8SBW
kevin.kalchik@gmail.com



January 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2 SMASH Net 3.935 MHz 9:00 AM	3 TBARG & MESH NETS 146.86 MHz 8:00 PM	4 Breakfast Big Boy - 9am Board Meeting Salvation Army 7:30 PM	5 TBARG District 7 DMR Net TGIF Talk Group 2416 TC: 443.3125+ TS1 8:00 PM	6	7	8 SATURDAY NIGHT LIVE NET - 8:00 PM PL 114.8 Sherman Hill Repeter
9 SMASH Net 3.935 MHz 9:00 AM	10 TBARG & MESH NETS 146.86 MHz 8:00 PM	11 Breakfast Big Boy - 9am Project Night Salvation Army 7:30 PM	12 TBARG District 7 DMR Net TGIF Talk Group 2416 TC: 443.3125+ TS1 8:00 PM	13	14	15 SATURDAY NIGHT LIVE NET - 8:00 PM PL 114.8 Sherman Hill Repeter
16 SMASH Net 3.935 MHz 9:00 AM	17 TBARG & MESH NETS 146.86 MHz 8:00 PM	18 Breakfast Big Boy - 9am Project Night Salvation Army 7:30 PM	19 TBARG District 7 DMR Net TGIF Talk Group 2416 TC: 443.3125+ TS1 8:00 PM	20	21	22 SATURDAY NIGHT LIVE NET - 8:00 PM PL 114.8 Sherman Hill Repeter
23 SMASH Net 3.935 MHz 9:00 AM	24 TBARG & MESH NETS 146.86 MHz 8:00 PM	25 Breakfast Big Boy - 9am Club Meeting Salvation Army 7:30 PM	26 TBARG District 7 DMR Net TGIF Talk Group 2416 TC: 443.3125+ TS1 8:00 PM	27	28	29 SATURDAY NIGHT LIVE NET - 8:00 PM PL 114.8 Sherman Hill Repeter

February 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
30 SMASH Net 3.935 MHz 9:00 AM	31 TBARG & MESH NETS 146.86 MHz 8:00 PM	1 Breakfast Big Boy - 9am Board Meeting Salvation Army 7:30 PM	2 TBARG District 7 DMR Net TGIF Talk Group 2416 TC: 443.3125+ TS1 8:00 PM	3	4	5 SATURDAY NIGHT LIVE NET - 8:00 PM PL 114.8 Sherman Hill Repeter
6 SMASH Net 3.935 MHz 9:00 AM	7 TBARG & MESH NETS 146.86 MHz 8:00 PM	8 Breakfast Big Boy - 9am Project Night Salvation Army 7:30 PM	9 TBARG District 7 DMR Net TGIF Talk Group 2416 TC: 443.3125+ TS1 8:00 PM	10	11	12 CHERRYLAND ARC SWAP N SHOP St Francis HS Gym 123 E 11th St. Talk In: 146.86

[Did you know we have an Online Google Calendar that is always up-to-date?](#)

[You can even add it to your phone, See more Nets, and get reminders.](#)

[Check it out:](#)

http://cherrylandarc.com/?page_id=26



Coming Soon – February 12th!

48th Annual HAM RADIO

Swap-N-Shop

February 12th, 2022

8am – noon

Flyer on Next Page – Please Copy and Distribute!

[Early-Bird Table Reservations Here:](#)

(<https://forms.gle/WziWSczpifJnzWqFA>)

(Payment required via PayPal/Square/Venmo)

Or via traditional mail with enclosed check to:
Cherryland ARC, PO Box 987, Traverse City MI 49685

2022 Great Lakes Division ARRL Sanctioned Hamfest Calendar

January 23rd – HPARC Swap, Royal Oak, MI – CANCELLED

February 5th, HARA Swap & Shop, Negaunee, MI

February 12th, Cherryland ARC Swap & Shop, Traverse City, MI

February 26th, Livonia ARC Swap & Shop, Redford MI

March 5th, Cave City Hamfest, Cave City, KY

March 12th, MOVARC Hamfest, Bidwell, OH

March 13th, Winter Hamfest, Elyria, OH

March 20th, TMRA Hamfest and Computer Fair, Perrysburg, OH

April 9th, Cuyahoga Falls ARC Hamfest, Cuyahoga Falls, OH

April 24th, Athens Hamfest, Athens OH

May 5th, Wexaukee ARC Cadillac Hamfest, Cadillac, MI

May 20th, Dayton Hamvention, Xenia OH

May 21st, GMARC Trunk Swap, Shelby Township, MI

Coming Highlights

January

Project Nights JAN 11,18

Club Meeting JAN 25

February

Board Meeting FEB 1

Project Nights FEB 8,15

Club Meeting FEB 22

SWAP N SHOP FEB 12

March

Board Meeting MAR 1

Project Nights MAR 8,15,29

Club Meeting MAR 22

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Ernie, K8RCT

Vice President

Glen, K8SGZ

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Drake, N8DMH

Board Member

Scott, WX1J

Elections Jan 25th!



48th Annual HAM RADIO

Swap-N-Shop

SATURDAY

February 12th, 2022
8am - noon

Admission \$5.00 – Table \$8.00

**Door
Prizes!**

St. Francis High School
Gymnasium
123 E. 11th Street
Traverse City, MI
49684

Parking in parking lot
at Cass and 11th St.

General Information / Table Reservations:

Joe Erlewein, N8CN

(231) 668-4223, swap@cherrylandarc.com

[Click Here for Online Table Reservations](#)

**License
Exams
9 am**

Volunteer
Examination
Info:

Hope Francisco,
AA8SN:

AA8SN@ARRL.NET

231-218-0622



**An ARRL-Sanctioned
Swap Event**



Talk-In
146.860 (-)
W8TCM / R
PL 114.8 / YSF