

# THE CHERRY JUICE



Newsletter of the  
Cherryland Amateur Radio Club  
Traverse City, MI

ARRL AFFILIATED CLUB #1082



## Hamfests / Swaps

07/22/2017 - Harrison Hamfest (ARRL)  
8am-noon  
Harrison City Park  
905 West Spruce Street  
Harrison, MI 48625  
Sponsor: Gladwin Area Amateur Radio Club  
Talk-In: 147.200 (PL 103.5)  
Public Contact: John Hensley, W8CSX  
5125 Pickering Road Gladwin, MI 48624  
734-679-0385,  
[johnhensley1940@gmail.com](mailto:johnhensley1940@gmail.com)

## VE Exams

07/11/2017 - Gaylord, MI (ARRL VEC)  
Sponsor: Top of Michigan ARC  
Time: 7:30 PM (Walk-ins allowed)  
Contact: John W. Clements  
(989) 619-4499 [john@kc9on.com](mailto:john@kc9on.com)  
Location: Gaylord Regional Airport  
1100 Aero Dr  
Gaylord MI 49735-9822

09/12/2017 - Gaylord, MI (ARRL VEC)  
Sponsor: Top of Michigan ARC  
Time: 7:30 PM (Walk-ins allowed)  
Contact: John W. Clements  
(989) 619-4499 [john@kc9on.com](mailto:john@kc9on.com)  
Location: Gaylord Regional Airport  
1100 Aero Dr  
Gaylord MI 49735-9822

11/14/2017 - Gaylord, MI (ARRL VEC)  
Sponsor: Top of Michigan ARC  
Time: 7:30 PM (Walk-ins allowed)  
Contact: John W. Clements  
(989) 619-4499 [john@kc9on.com](mailto:john@kc9on.com)  
Location: Gaylord Regional Airport  
1100 Aero Dr  
Gaylord MI 49735-9822

## GENERAL MEETING: MAY 23<sup>RD</sup>

Tuesday - 7pm

The Salvation Army - Basement Meeting Hall  
1239 Barlow St., Traverse City, MI 49686  
(at the intersection of: Barlow st. & Boon st.)

## Program

PLAN for 2017 ARRL Field Day (June24-25!)



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**NEW BANDS! FCC Issues Amateur Radio Service Rules for 630 Meters and 2,200 Meters**vi ARRL News, 3/31/2017

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It's been a long time coming, but the Amateur Service will get two new bands in the near future. The FCC on March 28 adopted rules that will allow secondary Amateur Radio access to 472-479 kHz (630 meters) and to 135.7-137.8 kHz (2,200 meters), with minor conditions. The FCC Report and Order (R&O) spells out the details. It allocates 472-479 kHz to the Amateur Service on a secondary basis and amends Part 97 to provide for Amateur Service use of that band as well as of the previously allocated 135.7-137.8 kHz band. The R&O also amends Part 80 rules to authorize radio buoy operations in the 1900-2000 kHz band under a ship station license. Just when the new Part 97 rules will go into effect is difficult to determine just yet; more on that below.

"It's a big win for the Amateur community and the ARRL," ARRL CEO Tom Gallagher, NY2RF, said. "We are excited by the FCC's action to authorize Amateur Radio access for the first time on the MF and LF spectrum. As amateurs begin using these new allocations in the next few weeks, we encourage the entire Amateur Radio community, as secondary users, to be especially attentive to the rules."

It has not been an easy win, however. ARRL has been trying since the 1970s to convince the FCC to allow amateur access to parts of the spectrum below the Standard Broadcast Band. Through the Utilities Telecoms Council (UTC), electric power utilities have opposed Amateur Radio use of the MF and LF spectrum, raising unsubstantiated fears of interference to unlicensed Part 15 power line carrier (PLC) systems used to manage the power grid. The FCC said the Amateur Radio service rules it has adopted for 630 meters and 2,200 meters allow for co-existence with PLC systems that use the two bands.

Here are the highlights:

- Amateurs operating on 472-479 kHz will be permitted a maximum equivalent isotropically radiated power (EIRP) of 5 W, except in parts of Alaska within 800 kilometers (approximately 496 miles) of Russia, where the maximum would be 1 W EIRP. [EIRP is the product of the power supplied to the antenna and the antenna gain in a given direction, relative to an isotropic antenna (absolute or isotropic gain). EIRP is equal to ERP multiplied by 1.64.]
- Amateurs operating in the 135.7-137.8 kHz band will be permitted to run up to 1 W EIRP.
- The FCC is requiring a 1-kilometer separation distance between radio amateurs using the two new bands and electric power transmission lines with PLC systems on those bands. Amateur Radio operators will have to notify the UTC of station location prior to commencing operations. The FCC Wireless Telecommunications Bureau will provide details on the notification process later, but ARRL is urging radio amateurs interested in operating on either band to register at the earliest opportunity, to avoid having to protect any "post-notification" PLCs.
- The FCC placed a 60-meter (approximately 197 feet) above-ground-level (AGL) height limit on transmitting antennas used on 630 meters and 2,200 meters.
- The bands would be available to General class and higher licensees, and permissible modes would include CW, RTTY, data, phone, and image. Automatically controlled stations would be permitted to operate in the bands.

In an unrelated action, the FCC allocated 1,900-2,000 kHz to the maritime mobile service (MMS) on a primary basis for non-Federal use in ITU Regions 2 and 3, and limited the use of this allocation to radio buoys on the open sea and the Great Lakes.

"We are persuaded by ARRL's comments to adopt final rules that are better tailored to the places where the commercial fishing fleet can make reasonable and productive use of radio buoys," the FCC said.

Amateur Radio was upgraded from secondary to primary in the 1900-2000 kHz segment in 2015. The FCC said it believes Amateur Radio and radio buoys "can continue to share this frequency band as they have done for many years." It declined to make additional spectrum available for radio buoy use.

#### Effective Date

The fact that the new rules contain a new information-collection requirement — notification of operation to the UTC — makes it difficult to guess at an effective date. The FCC R&O says the Office of Management and Budget (under the Paperwork Reduction Act) must first approve the information-collection requirements (in §97.303[g][2]). Once that happens, the revised Part 97 rules sections will become effective after the FCC publishes a notice in The Federal Register "announcing such approval and the relevant effective date."

## The Purple Crystal: A Column About Repeaters

Joe Erlewein, N8CN

In the last few Purple Crystal columns, we focused on area repeaters and changes. This month, we'll actually focus on repeaters WELL out of our area!

First - many (hopefully ALL) of you are aware that last year (and for actually a couple years previous) we had planned for and raised funds to replace the antennas and feed line on our club's W8TCM repeater systems, 146.86 and 442.50. This was no small expense! Since then, both systems have also been upgraded to Yaesu SystemFusion Digital-capable repeaters.

For a minute, let's talk about antennas and feed line - specifically, the OLD antennas and feedline. The board moved and approved to sell the old feed line and antennas for a reasonable fare. Some of you may recognize the name Rob Hall KV8P (ex AA8LA, ex N8LDQ) - Rob now lives in Ohio and is very involved with the Toledo clubs, specifically the TMRA (Toledo Mobile Radio Association). If you drive through Toledo, you may have used the 147.27 or the 442.850 repeaters there. As of April 21st, 2017, if you use those repeaters - Hey, it's just like old times! You're actually using the CARC's old 146.86 and 442.50 repeater antennas!



Rob visited Traverse City last fall and bought a lot of the surplus hardline and the club's old repeater antennas. They spent some time at TMRA going through the antennas, fixing some minor issues, and then re-deployed them for their flagship repeater systems. These repeaters, unlike ours, do NOT sit atop a tall tower. Instead, they are atop a "small" tower of



about 25 feet, which is on the roof of a large building. You can see from the pictures, it's a much less "dangerous" install than a free-climb install at a traditional tower site. This works well for their area, as there are almost no geographic high grounds, much less worry about ice and freezing, and really only wind-loading to worry about.

Rob wrote in to the silver towers of the Cherry Juice headquarters and had this to say:

Back last year the Toledo Mobile Radio Association (Toledo, OH) purchased the old DB-224E and the 70cm folded dipole antenna from Cherryland Amateur Radio Club, that were both in the process of being replaced there. We (TMRA) were immediately surprised at how well these antennas had held up and how great of shape they were in, given their long stay on the TV towers in Traverse City. It is apparent that our region in NW Ohio gets a lot more ice! haha (We had similar donations of antennas from this region that didn't fair nearly as well, or make it onto our towers)

These antennas were both recently installed on top of the University of Toledo Campus Dormitory, a long term site of ours (since the 1950's) at approximately 250' on our 147.27 and 442.85 FM repeaters. They have both outperformed the previous antennas (even though the DB-224E is not yet in a typical and preferred mounting location, being only partially side-mounted on our tower). As most know, 250' is fairly high here in this part of Ohio, where the elevation may only change 10-20' over the entire region. :)

(Continued)



### The Purple Crystal: A Column About Repeaters (continued)

Joe Erlewein, N8CN

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Both repeaters have picked up low power HT users, myself included, where HT access was near impossible prior. The performance has been so good, in fact, that the club voted last month to purchase and install all new similar (Sinclair folded dipole arrays) on all of our 6 of our club repeaters here in Toledo across all of our repeater sites (a rather hefty expense, but they now know it is worth it).

147.27 (pl=103.5) is our primary repeater for nets, club activities, public service events, ARES and skywarn in this area. Users were thrilled during the Glass City Marathon, a few weeks ago, to learn that they could now access the repeater from their HTs along the full marathon route.

Big thanks to the CARC from the TMRA and we'll look for you during field day in June (running 8A as W8HHF)!

73,

Rob Hall - KV8P

TMRA Vice-President / TMRA Technical Committee  
Toledo, OH

So - consider this. The CARC purchased these antennas (and probably the feedline) more than 25 years ago. We noticed a huge improvement to our systems after replacing them with new gear. Now the old antennas and feed line are back in operation in Toledo - and the group has noted a huge improvement over their previous antenna and feed line systems. Personally, I find this a testament to good construction and engineering, and fascinating that a chunk of metal can still vibrate this well after so many years. Cheers to Decibel Products / Andrew / Commscope!

Another thing I wanted to mention regarding Rob and his involvement with the TMRA is that they've been an invaluable resource as we have been researching options for "what works" and what is "best practice" for programming, modification, and external control of the Yaesu SystemFusion DR-1X repeater systems. TMRA has several of these in operation, in different varying deployments ranging from Mixed-Mode (both analog and digital capable) and fixed-digital mode.



Some of the DR-1X systems are even using external power amplifiers for higher-output at 100% duty cycle, and some are using the Masters Communications SC-50 decoder/squelch board (far surpasses the detection of both CTCSS and weak signals which is present in the DR-1X by default, uses the revolutionary design of the Motorola Micor).

There will be a discussion and vote at the next CARC meeting regarding a new controller for both repeaters.

73 de Joe N8CN - [joe@n8cn.org](mailto:joe@n8cn.org)



## Equipment for Sale

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### For Sale - Flex-1500

This is a great SDR radio that provides a fantastic receiver and low power transmitter. I've purchased an ICOM-7300 and this is gathering dust on the shelf. The unit is "as-new" and works fantastic. The original box is included. Additional information at: <http://www.flexradio.com/amateur-products/flex-series/flex-1500/>

I really like the flexibility of the SDR interface. It's great to see sections of the band and see the locations of the signals. Much better than spinning the dial and hoping someone's on.

This unit is like new and works as new. I'd take \$440.00, the going price on eBay without the shipping.

Don KI8KR

KI8KR@icloud.com <http://dshikoski.com>

### For Sale - Icom ID-880H

I have an Icom ID-880H Dual-Band (VHF/UHF) D-Star mobile radio for sale. It is in near-new condition and was used primarily as a base-station radio. The head is magnetic and easily remote-mounts to any metallic surface, making mobile installations very simple and clean. Comes with original box, manual, mic, power cable, mounting bracket, face separation cable. Radio works well, I just have many radios and honestly haven't used the D-star feature of this radio in (literally) more than a year. Hoping someone else will be able to make better use of this fine radio! (PS - it is a FINE FM radio also - good audio, good sensitivity, and puts out rated power. It has a notably fast "scan" feature and you can name memory channels, etc.) Asking \$325.00.

Joe N8CN

[joe@n8cn.org](mailto:joe@n8cn.org)

### HyGain DX-77A Vertical

HyGain DX-77A vertical antenna for sale. It is mounted on a 10' tower. I am moving to a condo and cannot use it. I am asking \$175 or OBO. It would require taking down. Located in Rapid City

Larry K2MHE

231-322-6216

### Yaesu VX-7R quad-band HT

I have a Yaesu Submersible VX-7R handheld transceiver in excellent condition for sale. Rated for 30 minutes of submersion at a depth of 3 feet (JIS-7). Tough magnesium body with rubber bumper pads. Provides a full 5 Watts of power output on the 50, 144, and 430 MHz Amateur bands, with bonus coverage of the 222 MHz band at 300 mW. Capable of simultaneous reception of two VHF frequencies; two UHF frequencies; one VHF and one UHF frequency; or one general coverage frequency and one Ham frequency. Includes LiOn Batt, charger, & a speaker/microphone combination. I am asking \$100 if you know someone who is interested.

Steve Wyckoff

231-392-1181



### What TBARG has been up to lately:

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Here is a brief list of the activities the [Traverse Bay Area Radio \(Emergency\) Group \(TBARG\)](#) has been up to in the last couple of months!

**Munson Emergency Communications** - TBARG has developed a relationship with Munson Medical Center and Munson owned hospitals in Northern Michigan. TBARG will be working under Munson Volunteer Services and Munson Information Services to create a new Munson Emergency Communications service.

TBARG members received training on volunteer policies and procedures and received credentials (a Munson ID badge to provide access to all of Munson Healthcare facilities). TBARG/Munson vetted and completed volunteer training for 23 ham operators. On April 19<sup>th</sup> of 2017, TBARG/Munson Emergency Communications participated in a simulated large scale exercise in which power was lost to all of Northern Michigan for a prolonged period of time. Ham radio played an important role in maintaining communication between multiple hospital facilities.

**Established the Importance of Organization and Professionalism** – TBARG developed a clear chain of command and created a new way to share important information (shared Google Drive). Members of TBARG were also given TBARG business cards with their names, call sign, contact info.

**Developed Communication Procedures Consistent with FEMA ICS** – We worked within pre-established methods of communication that were developed by FEMA/ARES/RACES. We established how we were to communicate with each Munson facility and put that information into the ICS 205/215 forms.

**Backup Power to Communication Equipment** – Joe Erlewein and Glen Johnson installed a battery backup to the 146.86 repeater and established procedures to maintain that power for prolonged periods of time.

**Re-Establish Packet Radio Systems** – We got several packet stations back up and running and will be expanding this system for future exercises. In the future, we will be looking at additional digital communication strategies.

**Developed Relationships with Northern Michigan Ham Radio Groups** – We have established relationships with the CCE group, Benzie CERT/ARES/RACES, and Leelanau ARES/RACES.

**ECHOLINK** – A new Echolink access is now available for the 146.86 repeater.

**New Tower** - We are in the process of putting in a new tower at Glen's office in Traverse City.

**Grand Traverse LEPC** – Glen and Ernie attend the Local Emergency Planning Committee on a monthly basis to interact with local county emergency services staff.

Glen Johnson  
President of TBARG

### New District 7 EC

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5/14/2017

After serving ARES for half a century, and serving as District Emergency Coordinator for almost two decades, Thomas 'Red' Duggan, WA8RLI, has decided to step back. Red will continue as EC for Crawford, and as ADEC for District 7.

Red has served admirably for longer than most of us can remember, and I personally called him to thank him for his service to the state, and to ARES. There are few, if any, who have served so long and so enthusiastically.

Red plans to spend more time enjoying the hobby, building things, repairing things, pursuing some astronomy, and generally do the things many of us wish we had more time for.

**Michael Dell, K8LMJ**, has agreed to take the position of District 7 EC. Mike has extensive experience in ARES, at one time serving as EC for Grand Traverse, and has considerable technical depth as well. Please welcome Mike and help him get acquainted with his new role.

73 de WB8RCR, John J. McDonough, ARRL MI DRG SEC



## New Net on W8IRA: The IRA Link System Michigan Noon-Time Round-Up!

Beginning on Friday, April 14th at 12 noon EDT, or 1600 Z, a new net will be hitting the air waves on the W8IRA Independent Repeater Association Link system. It will be called the IRA Link System Michigan Noon-time Roundup Net.

The net will be held on Monday, Wednesday, and Friday each week, with the possibility of expanding to a five-day schedule if interest and participation are sufficient. So, find a link near you, and please join us!

The purpose of the net is to promote activity on the IRA Link System, and also to help identify and trouble-shoot any problems that might be occurring with system repeaters.

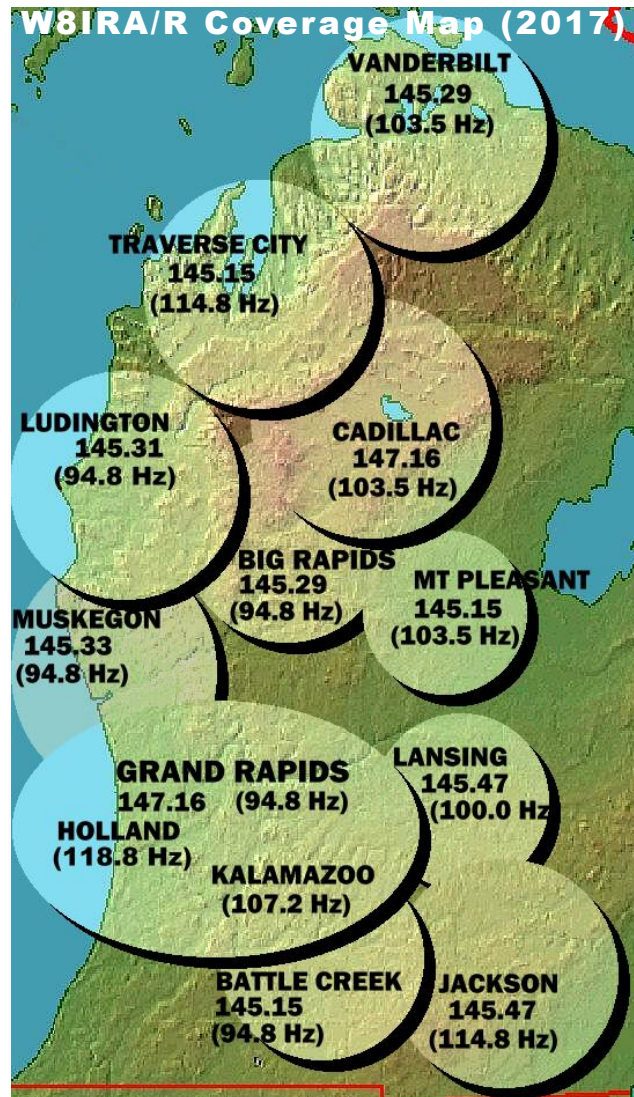
The net also will be a great way for Michigan hams to communicate with each other during the mid-day hours while mobile, or just looking for conversations with fellow hams.

If you have any questions, or would like more information, please contact Tom Behler: KB8TYJ, the Net Manager. He can be reached at: [tombehler@gmail.com](mailto:tombehler@gmail.com)

If you would like more information on the Independent Repeater Association (IRA) Link System, go to: [www.w8ira.org](http://www.w8ira.org)

We look forward to your participation in this new and exciting ham radio activity!!

ARRL Michigan Section  
Section Manager: Larry Camp, WB8R



## Industry Changes impact Hams

via CQ Newsroom, 3/29/2017

More bad news for builders: RadioShack has again filed for protection under Chapter 11 of the bankruptcy laws, leading to the closing of even more stores across the country. It is the retailer's second attempt at reorganization in the past two years. A company news release said it will be closing about 200 more stores and will be "evaluating options" on the remaining 1300.



Another blow for circuit designers and builders is the announcement in March by International Crystal Manufacturing that it will be going out of business, most likely by the end of May. No reason was given for the decision in the letter posted on the company's website.

Ham Radio Outlet (HRO) has closed its Sunnyvale, California location, consolidating it with its store in Oakland, some 40 miles to the north. National Sales Manager Steve Gilmore blamed skyrocketing costs as well as traffic and parking problems for the decision to close the chain's Silicon Valley location.



## **FCC Proposes Levying Huge Fine on New York Police Radio Jammer** via ARRL Letter, 4/17/2017

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The FCC has proposed a fine of more than \$400,000 on a Queens, New York, man who has admitted making unauthorized transmissions on New York City Police Department (NYPD) radio frequencies, maliciously interfering with NYPD officers' communications. Jay Peralta, 20, is alleged to have transmitted false bomb threats, false claims of criminal activities involving firearms, false distress calls from purported NYPD officers, and threats against individual NYPD officers. The unauthorized transmissions began a year ago, according to the FCC.

"Through his actions, as he described them to the NYPD, Mr. Peralta has demonstrated not only a deliberate disregard of the Commission's authority and rules, but of the safety of NYPD officers and the public that they are called to serve and protect," the FCC said in a Notice of Apparent Liability (NAL), issued on April 14. "Commission action in this context is therefore essential to safeguard authorized operations on spectrum licensed for public safety uses, and, accordingly, a substantial penalty appears warranted."

The FCC said the NAL addresses nine unauthorized and interfering transmissions that Peralta has admitted to the NYPD that he made on its radio system. The FCC said Peralta's unauthorized transmissions included false bomb threats, false claims of criminal activities involving firearms, false distress calls from purported NYPD officers, and threats against individual NYPD officers.

FCC Chairman Ajit Pai, said that with the NAL, the FCC is making it "abundantly clear that it will not tolerate unauthorized and illegal use of the radio spectrum." The entire Commission now must sign off on such proposed fines, and Pai said he was grateful to his fellow FCC members for "agreeing to act swiftly and strongly" in the matter. "This may not be a typical pirate radio case in which an unauthorized operator inflicts damage on a radio broadcaster that is operating with a valid FCC license," Pai said, "but it does involve unauthorized interference to critical public safety communications systems."



FCC Chairman Ajit Pai

Peralta was arrested last fall along with two other men suspected of committing several robberies. According to news accounts, police found a cache of scanners and radios in one of the suspects' homes.

The FCC said it was alerted by a Twitter post about an unlawful intrusion on the NYPD radio system and dispatched an Enforcement Bureau agent to check it out. On September 30, the NYPD contacted the FCC's New York Office and advised that it had arrested Peralta and another individual in connection with unauthorized transmissions on NYPD's radio system. According to police reports, the other individual arrested — Ricardo Torres, 29, described as "a ham radio enthusiast" in some news accounts — allegedly provided the radios used.

Torres, is said to hold an FCC General Mobile Radio Service (GMRS) license but his name does not appear in the Amateur Radio licensee database. Police said they found 15 portable radios, 9 scanners, roof-top antennas, an amplifier, and assorted other electronics in Torres's apartment.



Peralta has 30 days to pay or contest the proposed \$404,166 FCC forfeiture.



**New Tower Law Cited as Too Broad by FCC Commissioner**

via CQ Newsroom, 3/19/2017

A new law requiring the Federal Aviation Administration (FAA) to enact certain new tower marking rules is too broad, according to FCC Commissioner Michael O'Rielly, "and could use tweaks."

The ARRL Letter reports that O'Rielly said the law could "force expensive retrofits to practically 50,000 existing towers," including broadcast and cell towers, "with little gain to air safety." The law's primary goal is to protect small low-flying aircraft such as crop-dusters from colliding with temporary meteorological testing towers, or METs. But O'Rielly said it is so broadly written that it could potentially affect tens of thousands of other towers that really do not need to provide the additional markings.

Amateur radio towers were not specifically cited by O'Rielly, and the ARRL says the rules called for by the new law would affect only "a very small subset" of ham towers.



FCC Commissioner Michael O'Rielly  
(FCC photo)

**"Frequency," "Last Man Standing" TV Shows QRT**

via ARRL News, 5/10/2017

Hollywood Reporter reports that The CW television network has pulled the plug on the Amateur Radio-themed show "Frequency," which stars Peyton List as young police detective and radio amateur Raimy Sullivan. "Frequency was a combination of two of the season's most popular trends: time travel and movie reboots," Hollywood Reporter said, noting that the show had been averaging 1.5 million viewers.

As in the 2000 movie Frequency that inspired the TV show, Amateur Radio provides a means for the protagonist to reconnect over time with her late estranged father Frank Sullivan. NBC had initially expressed interest in launching a "Frequency" TV reprise but ultimately passed on the idea.

"Frequency" had joined ABC's "Last Man Standing," starring real-life radio amateur Tim Allen as Mike Baxter, KA0XTT, in providing Amateur Radio some small-screen exposure, albeit fictional.



News on May 10 from Variety is that ABC has now canceled "Last Man Standing" after six seasons. Occasional scenes on "Last Man" showed Allen's character at his ham station. The program's producer is John Amodeo, NN6JA, and real-life Amateur Radio special events have been staged from the show's Hollywood set.

**Hamvention and Social Media**

via ARRL News, 5/18/2017

*I'm editing this edition of the Cherry Juice from a hotel in Dayton near Wright-Patterson Air Force Base, the night before Hamvention opens. This, from ARRL News:*

ARRL will be taking to social media from **Hamvention®**, when the show gets under way on May 19 from its new venue, the Greene County Fairgrounds and Expo Center in Xenia, Ohio. The ARRL Hamvention team will be posting updates, observations and videos, and may even do live shots via Facebook Live video.

"This will be the first convention where we've done an all-out digital media push," ARRL Publications Manager Steve Ford, WB8IMY, noted.

ARRL Media and Public Relations Manager Sean Kutzko, KX9X, and QST Managing Editor Becky Schoenfeld, W1BXY, will be on the show floor, wandering among the exhibits, and visiting the forums for all 3 days of Hamvention, which wraps up on May 21.

Keep an eye on ARRL's social media feeds on **Facebook**, **Instagram**, and **Twitter**, as well as on the ARRL **home page** news crawl for updates and maybe a few surprises. Friday and Saturday summaries will be posted on the ARRL website.

**CARC Board Meeting Agenda / Minutes - Feb 7, 2017**

David Poinsett, W8APT

## Minutes for Cherryland Amateur Radio Club Board Meeting, 2/7/2017

Present: KC8RLU, N8CN, W8SGR, W8TVT, K8RCT, KJ4KFJ, WB8APT, W8VPC, W8NWO, K8WPE, KC8ZAP, K8SGV, AA8SN

1. Minutes from last month - K8RCT motion to approve. KC8RLU 2nd. Approved.
2. Treasurers Report - Tabled
3. Repeater System Upgrade Proposals
  - a. Battery purchase and installation.
    - i. N8CN to discuss with K8SGZ.
  - b. New Fusion repeater to replace 440 machine.
    - i. Repeater ready to install - Coordinate with Jim Marco
    - ii. KJ4KFJ motion to sell MSR-2000 w/ RC-85 controller (old 86 repeater) and keep Kenwood 440 machine as a spare. K8RCT 2nd. Approved unanimously.
  - c. Upgrade two meter Fusion repeater with new firmware Still under consideration
  - d. Repeater Controller investigation - report from committee (N8CN & W8VPC & K8SGZ)
    - i. RC210 vs ASCOMM 7330 Controller
    - ii. Other options - N8CN to discuss with K8SGZ and W8VPC
  - e. Antenna on Interlochen tower
    - i. N8CN motion to invite John Martin to present options for investigating problem. W8VPC 2nd. Approved unanimously
  - f. EchoLink on 86 repeater
    - i. K8RCT motion to install EchoLink on 86 repeater. KJ4KFJ 2nd. Approved unanimously. K8SGZ and N8CN will have kill switches.
4. Swap report W8TVT reports 44 tables total. This Includes 5 for club and 2 donation tables. 6 tables still available. Additional equipment has been donated for sale. K8SGZ suggests Power Point and video display for swap. AA8SN reports 15 people registered for license exams and that more VEs are needed.
  - a. Sign up volunteers -
  - b. Sound system - KC8RLU confirms that W8QPO has sound equipment.
  - c. Door prizes (N8CN) -
    - i. dual-band (Ed Fong) antenna,
    - ii. Baofeng HT To be supplied by K8SGZ
    - iii. quad-band (6m, 2, 220,440) radio,
    - iv. Various gift certificates available
  - d. Refreshments - Donuts & Coffee only W8TVT confirms that Weavers will help with refreshments.
5. TBARG report (from Jan 12 meeting and NET changes) K8SGZ reports upcoming practice exercise, and presentation made to Benzie Public Safety officials who expressed interest in partnership. No response from Munson, but branch hospitals interested. No access to gear in Munson. Suggestion to move gear to K8SGZ office. Suggestion to promote availability of Baofeng radios to new licensees; AA8SN will assist.
6. White Pine Stampede report. W8VPC reports 6 or 7 volunteers helped. Additional maintenance on portable command post needed. Worked with event staff on proper radio use. Skier injury provided learning opportunity. Event ended early. Event leaders want help again in 2018.
7. Net Control stations for MESH NET Lots of recent check-ins. K8RGB fills in when W8VPC is not available.
8. K8RCT expressed concern about access to club equipment in work room. KJ4KFJ motion to change lock. W8VPC 2nd. Approved unanimously.
9. February program ideas: Bring your HT, bring in your radio, QRP presentation by K8WPE, email N8CN with more ideas. Maybe have a program on amateur satellites in warmer weather.
10. K8RCT motion to adjourn. W8SGR 2nd. Approved.

**CARC Board Meeting Agenda / Minutes - Mar 7, 2017**

David Poinsett, W8APT

Present: N8CN, N8WK, KC8RLU, KJ4KFJ, W8APT, W8VPC, W8TVT, KC8ZAP, N8UL

1. Review Minutes from last month (W8APT) Ward N8WK motioned/ Dave KJ4KFJ seconded. Approved.
2. Treasurer Report (N8WK) Over \$5000 in account. Dues, quilt raffle, and other income deposited.
3. Committee Reports
  - a. Repeater/Technical
    - i. Glen K8SGZ and Joe N8CN have chosen battery and charger. Tray will be ordered. Glen K8SGZ previously donated \$200 toward purchase.
    - ii. UHF YFS DR-1X ready to be installed with above equipment. Will install when gear arrives.
    - iii. Upgrade of VHF DR-1X firmware under consideration  
Joe N8CN and Mike W8VPC recommends not doing the update.

**CARC Board Meeting Agenda / Minutes - Mar 7, 2017 (continued)**

David Poinsett, W8APT

- iv. External Analog Controller discussion
  - 1. Mike W8VPC, Glen K8SGZ and Joe N8CN to schedule meeting to make a selection of products. Others are welcome, please express interest. Committee will submit recommendation.
- 4. TBARG report (K8SGZ) Glen K8SGZ announces March 29 Munson Volunteer Training and March 22 Skywarn training.
- 5. NET CONTROL stations for MESH NET - call for participants.  
Mike W8VPC and Christian K8RGB doing okay but would like more participants.
- 6. Selection of March and April general meeting topics. DX Engineering Skype presentation on K3LR.
- 7. Adjourn Ward N8WK moves / Joe N8CN seconds. Motion carries.

**CARC Board Meeting Agenda / Minutes - Apr 4, 2017**

David Poinsett, W8APT

Present: N8CN, N8WK, KC8RLU, W8APT, W8VPC, W8TVT, KC8ZAP, K8WPE, K8RCT, K8SGV, AA8SN, KE8CVM, KA8HYE

- 1. Review board meeting minutes from last month. Approved.
  - a. Clarify process for review/approval and publication
  - b. Board and General membership approves their own minutes. General membership minutes taken only if there is a vote.
- 2. March Gen. Meeting re-cap. 25 attendees. Program was the K3LR story WSG Bob Naumann W5OV. Ken Musson won the 50-50 drawing and \$15!
- 3. Treasurer Report (N8WK) Ken sold an Art Dundon piece for \$50. Couple of membership renewals.
- 4. Ward N8WK motion to provide plaque for Michigan QSO Party. Ernie K8RCT seconds. Motion approved.
- 5. Ward N8WK moves to sponsor State Parks on the Air for Interlochen and Traverse City State Parks. Ernie K8RCT seconds. Ernie K8RCT moves to amend motion so expense does not exceed \$100. Ward N8WK seconds amendment. Amendment and motion approved.
- 6. Committee Reports
  - a. Repeater/Technical
    - i. SATERN station antenna - installed. Feedline needs to be routed and terminated. Work- bee this weekend or next proj night? Remove unused coax. Route hardline into existing holes. Saturday April 8, 1:30 pm. Ernie requests email for help.
    - ii. Glen K8SGZ and Joe N8CN to order charger and purchase battery from Sam's Club. Tray and cover have arrived. Needs to be wired-up. Will power both DR-1X repeaters. Next project night? Ward N8WK moves to add up to \$95 to Glen's donated \$200. Dave W8APT seconds. Motion approved. Prep gear at Glen's office. Glen and Joe will discuss generator backup.
    - iii. UHF YFS DR-1X ready to be installed with above equipment, pending scheduling. Joe N8CN to coordinate with TV station. Needs to be installed prior to April 19 emergency exercise with Munson Hospital.
    - iv. External Analog Controller discussion
      - 1. Much research is done, however we are not sure if the committee has a recommendation yet. Determine status tonight. Mike W8VPC provided general update. Committee will aim for recommendation for May meeting.
- 7. Review John KF8KK's report of Interlochen tower on a technical level. Send a thank-you note to John. John's written report shows system SWR 1.6. Hardline looks good. Coax jumper at top may need replacing when convenient. Recommended replacing antenna with 224 at some point. Coordinating with OTEC is possible.
- 8. Status report on Echolink node - will be moved to Glen's Office shortly. Joe N8CN to coordinate with Glen K8SGV to install.
- 10. TBARG report (K8SGZ) Joe N8CN moved to let Glen K8SGV use Honda generator on temporary basis. Ward N8WK seconds. Motion approved. Joe N8CN moves that all generators be provided to TBARG for an emergency. Joe KC8RLU seconds. Motion approved. Mike W8VPC has contributed greatly to the total ham hours in Michigan which is a leader nationwide. 20 hams now official Munson volunteers. April 19 state-wide emergency exercise. Munson very happy with participation. Thanks to Glen K8SGV for driving this. Thanks to Brad for helping put up first two tower sections for TBARG.
- 11. NET CONTROL - Status on NET. (consider removing this from every agenda) Mike W8VPC things going well. Some experiments with EchoLink.
- 12. Selection of April/May general meeting topics/presentations. FLEX Radio skype, video about big field day station 29A, John Martin KF8KK demo vector network analyzer
- 13. Joe KC8RLU will operate club station for Michigan QSO Party May 6. Joe KC8RLU moves to provide \$25 for food. Ernie K8RCT seconds. Motion approved.
- 14. Ward N8WK moves to adjourn. Joe N8CN seconds. Motion approved. Meeting adjourned at 8:16 pm.



# CHERRYLAND AMATEUR RADIO CLUB - INFORMATION

## Meetings:

### Club Meetings:

The official CARC Club Meeting occurs on the **Fourth Tuesday** of each month at 7pm. Anyone is welcome.

### Board Meetings:

The CARC Board meets on the **First Tuesday** of each month at 7pm. Board meetings are open all.

### Project Night:

The CARC meets for a "project night" on **all other Tuesday nights** at 7pm. Anyone is welcome to come and use the tools, parts, resources, and "elmers" in the project room / SATERN station.

**All Meetings** occur at the **Salvation Army building** on **Barlow St.** (at Boon st.) in **Traverse City.**

The project room is on the **basement level.**

## Membership:

### To become a member of the CARC:

#### 1. Fill out a membership form.

You may fill out a form at any meeting, fill out the form online via the website, or you can email [cherrylandarc@gmail.com](mailto:cherrylandarc@gmail.com) to receive a form via email.

#### 2. Submit dues with your form.

Dues are \$24 per year and are due January 1 each year or with your membership form submission. (pro-rated)  
(Family Memberships available for \$26)

That's all for the February 2017 issue of The Cherry Juice!

As always, if you have any suggestions or comments, I'm all ears!

[joe@n8cn.org](mailto:joe@n8cn.org)

73, Joe N8CN

## Club Repeaters

W8TCM/R

**146.86-** (PL 114.8)

W8ZTB Memorial Repeater

W8TCM/R

**442.50-** (PL 114.8)

W8NGH Memorial Repeater

## Club Officers

President

Joe Erlewein, N8CN

Vice President

Ernest Abel, K8RCT

Recording Secretary

David Poinsett, W8APT

Corresponding Secretary

Joe Schnaidt, KC8RLU

Treasurer

Ward Kuhn, N8WK

Directors

Mike Cleary, W8VPC

Dave Hanchett, KJ4KFJ

Chuck Mellberg, W8SGR

Cherry Juice Editor

Joe N8CN

## Club Radio Nets

### **MESH NET**

Monday Evening Social Hour

Each Monday, 8pm

146.86- (PL 114.8)

### **SMASH NET**

Sunday Morning Amateur Social Hour

Each Sunday, 9am

3.935 MHz

