

The Monthly Newsletter of The Candlewood Amateur Radio Association P.O. Box 741 – Hawleyville, CT 06440-0741 Visit us on the Web at http://www.CaraRadioClub.org

Next CARA Meeting: Friday, August 10, Stony Hill Fire Station



Doors open at 7:30 for socializing and conversation. Business meeting begins at 8:00 p.m.

### Agenda:

- Pledge of Allegiance Introductions AB1WV
- > Reading of Minutes N1GSA
- Treasurer's Report WX1T
- CARA Hamfest Final planning discussion W1JGM
- > Old Business
- New Business CARA's two new Yaesu System Fusion DR-2X repeaters
- Program and Activities update

### President's Message - de AB1WV



Hey all,

It's been a busy summer, and I can report that my radio activities have waned a bit.

Between all my girls' activities, I can hardly find time to sit down and catch my breath. There have been a few days recently though when the bands have seemed to be a bit better. Maybe it will turn into a trend. Fingers crossed.

Our next meeting is on August 10th. We'll have final preparations for the Hamfest, as well as a few other business items. Our Vice President, Jay- N1NRP, has hinted at the possibility of a mystery presentation; and I can't wait to find out what it is.

John - W1JGM, has been working hard to get CARA's **two new** Yaesu System Fusion DR-2X repeaters up and running. We'll be looking for some volunteers to head up to Spruce Mountain again and swap them out soon so that we can return the original Yaesu System Fusion DR-1 machines, which have served us very well for past several years.

I hope to see you all at the meeting.

73

Marcus – AB1WV

## Vice-President's Message de N1NRP



Greetings CARA members and friends of CARA:

I hope everyone enjoyed the month of July.

Well, now we're in August, which is supposed to be the hottest month of the year- ya could have fooled me with some of those cold rainy days that we've had. But when the sun does come out, we usually do hit 90 degrees.

It was nice to see everyone at the July meeting to view the special presentation by Bob Naumann -W5OV on Tim Duffy - K3LR, and the K3LR Station and Story, via Skype.

I'm also excited that Greg and the repeater committee are making progress with our repeaters. I'm especially happy to learn that we're getting the 6-meter repeater going again as well as the 220 machine – plus all "before the snow flies".

I'm also looking forward to this year's CARA Hamfest. I want to thank John -W1JGM, for taking on that responsibility again this year. He's doing a fantastic job. Please make sure you all do what you can to help make this another successful Hamfest. Please attend the August meeting, as I'm sure John will have last minute details and something that you can volunteer for. Speaking of volunteering; I want to thank Tom-WX1T, for volunteering to take charge of the meeting refreshments detail as it's been getting more difficult for me to handle with this lousy ALS.

I would like to welcome back to the CARA Club long time member, Bruce Bertram - KB1YHX, and new members, AC1FJ - James Anderson, and KC1KAH - Ken Hall. Welcome! This is your club. Enjoy.

Our first annual Summertime pasta party at the Amerigo Vespucci Lodge was a great time. Thanks to all who attended. Thanks to CARA member, Andy - AC2OE for donating his 50/50 winnings at the dinner to the club. I look forward to having future upcoming events

Speaking of events; a W1QI Special Event HF and VHF Station was set up on July 28 at the Company A Volunteer Fire Department in New Fairfield, for the third annual Peter Weinberger Memorial Car Show. Thanks to club members: John - W1JGM, Tom-W1XT, and Eric- KC1EDE for setting up the station; and to Harlan -W1QH for donating the HF radio for use at the event. I stopped by for a little while. There were lots of cool cars on display, which were way out of my price range, but it was nice to dream of owning one of those babies - especially the 1967 Chevy Chevelle SS.

Keep in mind that the 10-meter CARA Rag chew net meets on Sunday at 7pm on 28.490 USB, and the CARA 2-meter FM net begins at 7:30 PM.

See you at the meeting. 73 - Jay

## July 13 CARA Meeting Minutes de N1GSA



The meeting was called to order by President Marcus Swearingen at 8:00 PM.

Pledge of Allegiance was recited.

We then had a K3LR Presentation via Skype, followed by a question and answer session. This was truly amazing seeing the scope of equipment and antennas that Tim Duffy has put together to be one of the leaders in Multi-Multi contesting.

His entire basement is dedicated to operating stations, complete with snack area and beverage center.

There is a building that he has built on the property to both house his lawn mowers etc. with a bunkhouse on the second floor to accommodate sleeping areas for those participating in longer contests.

After the presentation was completed, the regular meeting started with a Round Robin introduction. 18 People were present

The minutes of last meeting were read and accepted.

Treasurer reported a balance of \$3940.92

Gregory reported on the new repeaters. One of which has been delivered and was at the meeting for all to see. The second machine should arrive soon. The installation process will begin shortly.

John reported on the upcoming Hamfest. There is only one more meeting prior to this event. Vendors will be contacted and asked for donations. Another request for distribution of flyers. There is a new version that is available in PDF format.

The VE session has been scheduled for 9AM. Attendees for the VE session only will be exempt of the admission fee. There are upcoming Hamfests that are a great opportunity to distribute more flyers. We need all the attendance that we can get.

Candlewood Isle has been contacted again about our attendance for the Islands on the Air event. Hoping to hear from them soon.

Charlie reported on the Field Day event. 42 members attended. Plenty of help for all phases of the event, setup, food, operation, and teardown. Monetary totals are not yet finalized but looking as if we were under budget. There were somewhere around 140 people who stopped at the Information Table.

Jay wanted to thank all who attended the Pasta Dinner last Tuesday. It was nicely attended.

Tonight's snacks were paid for by Andy who won the 50/50 drawing at the dinner.

A request for someone to take over making the snacks and coffee for the meetings. Tom will take this. He and Jay will coordinate requirements.

Dan asked for pictures from any recent events to be included in the Capers Newsletter.

John reported on the Car Show in New Fairfield. He asked for a radio setup and operational for demonstration. Another great opportunity to make ourselves known to the public. Harlan will be there with the tripods and John will have an antenna. John will be there to setup at 7AM.

Harlan reported that the IC-7000 from Ridgefield EOC was going to be sent out for repair by Sander before his passing. The whereabouts of this radio are presently unknown.

Meeting adjourned at 9:46.

Respectfully Submitted Gary S. Adams *N1GSA* Secretary

### CARA July 27 Planning Meeting Minutes

Meeting called to order at 8pm by VP Jay Albano

John stated that the Car Show would begin setup at 7am. He has all necessary equipment in his car, Antenna, rope, coax, etc.

The actual show will run from 9 to 3. Last year there were 90 to 100 cars. This year they are hoping for double that. Plenty of parking at the school next door. There is a rain date planned for Sunday if Mother Nature does not cooperate. The only band used will be 20 meters. Those who come to work the event will get a commemorative Tee Shirt.

Dan brought up about the CARA Banner design. It has fallen by the wayside in recent months. It would be nice to have it for the Islands on the Air event and also the Hamfest.

Our QSL cards and Business cards should be updated as well.

There were some issues brought up about our Field Day. Some of the ropes were not sufficient to set up our antennas. We may need to replace and add to our inventory.

The Field Day date was brought up for next year and do we want to commit to having the event at Tarrywile next year. Should we reserve the date and commit to this. Also have extra Field Day Pins been ordered for those that did not receive one?

What has been planned for the YCCC/CARA meeting coming up?

Are there any plans for meetings till the end of the year as to programs?

Is there something with Oscar and EMCOM coming up?

The Christmas party will come up in Dec with the Card sort in Jan.

John reported on Hamfest preparations. He has received a book, catalogs with gift certificates. There are more gift items that are to be coming.

He has a Rig Blaster Nomic to announce the event on the repeater. The permits are all in place. The VE session will be at 9:30 with sign up beforehand.

ALL attending the event will be required to pay the admission. We need to be sure to be setup early enough to charge admission as the first people start to arrive.

There is a sign-up sheet at the admission table. The signs are in the storage. He mentioned about signs on RT 84. Jay has 50/50 tickets. Raffle prizes need to be decided. Sign-up sheets will be coming out soon. WE NEED EVERYONE to sign up for this event. Inventory was discussed and a trip to Bethel EOC is necessary.

Meeting adjourned at 9:20 pm.

### July CARA Meeting Review: "The K3LR Station & Story" de W1QK

CARA was pleased to host a special presentation via Skype by Bob Naumann -W5OV, at our July meeting. Bob explained his role as Sales Manager for DX Engineering, and his life-long friendship with Tim Duffy – K3LR.

We learned about Tim and his World-Class winning contest SuperStation that he's assembled in Western Pennsylvania and the design and implementation of improvements and changes in the station and antennas over the past decades.

Bob also briefly explained the relationship between DX Engineering and Summit Racing.

Bob also mentioned that he lived in Brookfield as a youth.



### CARA Repeater Committee: de W1JGM



The CARA Repeater Committee met on Friday, July 10 before the monthly meeting. Both replacement Yaesu System Fusion repeaters have now been received. W1JGM reported that the process to program them is underway.



CARA needs to return the two current Yaesu repeaters as part of the terms of the swap. The Echo-link station is being used for the Hamfest announcement.



The current Echo-link station consists of one of CARA's HP laptop computers and a Btech portable transmitting to a ground plane antenna.



The Echo-Link station is a Dell computer transmitting on an ADI 8T portable to a 3 - element 2-meter cubicle quad.

Summer Pasta Party – July 10 Photo & Image Credits: N1NRP & Amerigo Vespucci Lodge # 160



























### CARA activates W1QI at Car Show de W1JGM & W1QK Photo Credits: W1JGM



CARA put W1QI on the air as a Special Event Station for the Third Annual Peter Weinberger Memorial Car Show on Saturday, July 28 from Company A Volunteer Fire House on 302 Ball Pond Road in New Fairfield.







The show was from 9:00 am to 2:00 pm. Proceeds benefited the New Fairfield Volunteer Fire Dept. and the Peter Weinberger Memorial Scholarship fund. It was free for spectators.











Yes, that's a dragster on top of the Cadillac!



A 20M SSB station was set up and 25 contacts were made.

CARA Participants: W1JGM, WX1T, W1QH, KC1EDE, N1NRP. Thank you!

There were 50 cars on display and over \$1600 was raised.

A great day was had by all – and all for a good cause too.





Additional information: https://news.hamlethub.com/newfairfield/danbur y/events/44333-3rd-annual-peter-weinbergermemorial-car-show

### **ARRL Connecticut Section News:**



ARRL CT Section Manager, Chuck Motes - K1DFS. No July SM message available.



### **Connecticut Phone Net – CPN**

Meets daily: M-F 6:00 p.m. 3.973 MHz. Sunday: 10:00 a.m. 3.965 MHz. CARA Contributions: Wednesday Net control: Harlan, W1QH Net Manager: Tom, WX1T



### Weekly CARA NETS:

CARA 10M "Rag Chew Net": 28.490 MHz. 7:00 pm Sunday

CARA 2M NET:

W1QI 2M Repeater – 7:30 pm Sunday

### CARA PSK31 Digital NET:

28.100 MHz. 7:00 pm Tuesday; 1500 Hz.

## Worked All Connecticut Counties Award, WACC – Sponsored by CARA:

http://www.cararadioclub.org/activities

## Upcoming Contests, Hamfests & Meetings:

- Aug. 4: ARES Region 5 Drill
- Aug. 5: North American QSO Party CW
- Aug. 6: NARA meeting

- Aug. 10: CARA monthly meeting
- Aug. 13: ARES meeting Danbury EOC
- Aug 18: North American QSO Party SSB
- Aug. 18-19: International Lighthouse & Lightship Weekend operating event
- Aug. 24: CARA monthly planning meeting
- Aug. 25: W/VE Islands QSO Party Candlewood Isle – W1QI
- Aug. 25: Ohio, Kansas and Hawaii QSO Parties
- Aug. 26: CARA Hamfest

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- Aug. 27: ARES Region 5 Monthly meeting
- Aug. 1, 8, 15, 22, 29: CWOps CWT 1300Z,

1900Z, 0300Z

New England and other local hamfests:

http://web.mit.edu/w1gsl/Public/ne-fleas

### Complete Contest calendar at:

http://www.hornucopia.com/contestcal/contestca I.html

### Upcoming CARA Calendar:

Aug. 10: CARA Monthly meeting Aug. 24: Monthly planning meeting – SHFD Sept. 7: September Capers input deadline



The next scheduled meeting of the Yankee Clipper Contest Club will be held at the ARRL Boxboro New England Division Convention in September.



Speaking of the 2018 ARRL New England Division Convention in Boxboro, have you ordered your admission and banquet tickets? https://boxboro.org/

# Some information about the convention:

FEMARA Inc. is a Massachusetts non-profit corporation that sponsors and runs the ARRL New England Division Convention. The group, which has been in existence for over 30 years, began as a consortium of area radio clubs. Our goals are twofold; to offer the richest and most diverse ARRL Convention in the country, and to support the <u>ARRL</u> <u>Foundation</u>'s scholarship program. FEMARA is qualified under IRS 501(c)(3). Donations to FEMARA are deductible as allowed by IRS regulations.

How are we doing? Please let us know.

Scholarships This is why we hold the convention.

Your donations, and all proceeds from the convention go to the FEMARA scholarship fund at the ARRL Foundation, which helps students attend a college or trade school of their choice. The ARRL Foundation administers the perpetual fund.

Each year the foundation scholarship committee meets to carefully review hundreds of applications received from remarkably talented young men and women. The foundation receives cash and stock donations from hams and their families worldwide which include bequests from living wills and trusts. Please consider helping this great undertaking.

For applications write the <u>ARRL Foundation</u>, Newington, CT 06111 - When you donate to the foundation, please specify the FEMARA New England Fund! View the past scholarship recipients.



Connecticut ARES Region 5 conducts a weekly net each Wednesday at 7:30 p.m.

New Milford: 146.730 MHz -600 kHz PL 192.8 Hz

NARA analog repeaters for this net:

Washington: 441.850 MHz +5 MHz PL 77 Hz Woodbury: 444.800 +5 MHz PL 192.8 Hz Warren: 53.970 MHz –1 MHz PL 110.9 Hz Please check in – All are welcome.

### 2018 CARA Ham Exam Schedule:



## 2018 Amateur radio exams sponsored by CARA at the Stony Hill FD:

September 8, December 1. Starting at 11:30 a.m. Walk-ins are welcome, but it's helpful if candidates call or e-mail Frank Sileo, N1PE, at 203-438-0218, or send a message to frsileo @ att.net

### Other upcoming VE exam sessions:

### Norwalk CT 06854-2164

08/04/2018 **Sponsor:** Greater Norwalk ARC **Date:** Aug 04 2018 **Time:** 9:00 AM (Walk-ins allowed) **Contact:** Tom J. Alessi (203) 253-7745 **Email:** k1ta@arrl.net VEC: <u>ARRL/VEC</u> Location: Greater Norwalk ARC 100 Fairfield Ave Norwalk CT 06854-2164

### Trumbull CT 06611-1944

08/09/2018

Sponsor: CT Regional Testing Center Date: Aug 09 2018 Time: 6:30 PM (Walk-ins allowed) Contact: Kevin W. Cellini (203) 209-6495 Email: kevin.cellini@gmail.com VEC: W5YI VEC Location: http://441700.org/CRTC/crtc.htm 49 Sunrise Ave VE's Residence Trumbull CT 06611-1944

### Litchfield CT 06759-3404

08/14/2018 **Sponsor:** Northwest Amt **Date:** Aug 14 2018 **Time:** 7:00 PM (Walk-ins allowed) **Contact:** Lawrence S. Polowy (860) 283-4089 **Email:** <u>Ispolowy@snet.net</u> **VEC:** <u>ARRL/VEC</u> **Location:** Litchfield Firehouse 258 West St Park in Rear Litchfield CT 06759-3404

### Newtown CT 06470-2134

08/26/2018

Sponsor: CARA Western CT Hamfest

Date: Aug 26 2018 Time: 9:30 AM (Walk-ins allowed) Contact: Frank R. Sileo (203) 438-0218 Email: frsileo@att.net VEC: <u>ARRL/VEC</u> Location: Edmond Town Hall 45 Main St Newtown CT 06470-2134

Note: Hamfest Admission required for exam candidates.



CARA used N1MM+ Contest Logger during the ARRL 2018 Field Day. For a free download, visit: https://n1mm.hamdocs.com/tiki-index.php



## NEWS, PRESS RELEASES, AND GENERAL INTEREST

The following is **not** a paid advertisement nor endorsement. CARA is an ARRL Affiliated Club, and an ARRL Special Service Club, and we encourage you to consider joining the ARRL to support the programs that the organization sponsors – Editor.

### Downloadable contest award certificates in

PDF and JPEG formats are now are available for some recent ARRL contests on the ARRL website, and more will be available in the future. Just type in your call sign and press Go. The website will even show certificates for the station call of multioperator efforts where the typed call sign was submitted as one of the operators. As of this publication, the following contests support certificate download:

- 2017 ARRL 10 GHz and Up Contest
- 2017 IARU HF Championship
- 2017 ARRL 222 MHz and Up
  Distance Contest
- 2017 ARRL September VHF Contest
- 2017 November Sweepstakes
- 2017 ARRL 10 Meter Contest
- 2017 160 Meter Contest
- 2018 RTTY Roundup
- 2018 January VHF Contest

According to Bart, W9JJ, ARRL Contest Branch Manager, "The new online certificates will offer enhanced content over what has been previously available on ARRL certificates. New recognitions have been added for Top 10 participants in a broader number of geographical (country, Division, Section) or categorical entries."

WRTC 2018 is a wrap! The participating teams had to place well in multiple contests in the 2 years preceding the event to qualify to compete; by definition, they all went into this last event as winners. The top-ten box is detailed in the Results and Records section below. WRTC 2018 highlights and awards ceremony videos are available on the WRTC 2018 website, with English subtitles provided for the some of the interviews conducted in German. A mapped view of the locations of all of the WRTC 2018 competitor stations can be found here.

The WRTC Committee asks that paper QSL cards for the Y8\* stations to **NOT** be sent through the bureau at this time. There will be an announcement forthcoming about how to request QSL cards for contacts with WRTC 2018 Y8\* calls electronically. (David, K3ZJ)

The <u>WRTC Sanctioning Committee</u> has announced that <u>WRTC 2022 will be</u> <u>organized by the Italian Host Committee</u>. See the Conversation section, below, for more information.

Remember: use VHF Contest mode and exchange grid squares when using *WSJT-X* and FT8 in most contests occurring at VHF and above. Signal reports are not usually required, so don't send them. As always, check the rules for a particular contest to be sure.

### WORD TO THE WISE

### Receiver **Desensing**

Desensing is the overloading of receivers by very strong signals on frequencies near to the desired receiving frequencies, limiting or preventing reception on the desired frequency. This can be an acute problem when a receiver is used close to broadcast television, AM/FM, or commercial transmitters, as might be the case during roving operations from hills or summits. Usually, the stronger the field strength of the interfering signal, the farther away the interfering signal can be in frequency and still have an effect.

### **RESULTS AND RECORDS**

In the WRTC 2018 event, the top-ten box of winning teams was dominated by Europeans:

	Call	Team	Score		
1	Y81N	LY9A	LY4L	5,690,685	
2	Y81A	DJ5MW	DL1IAO	5,273,488	
3	Y82V	N6MJ	KL9A	4,891,710	
4	Y81M	F8DBF	F1AKK	4,832,968	
5	Y86Q	LZ4AX	LZ3FN	4,814,454	
6	Y84Z	ОМЗВН	OM3GI	4,671,216	
7	Y89A	S50A	S57AW	4,631,679	
8	Y89R	US2YW	UW7LL	4,626,450	
9	Y84W	9A7DX	9A3LG	4,614,338	
10	Y82G	IZ3EYZ	IK4VET	4,568,432	

### CONVERSATION

### Notes from Germany -- WRTC 2018

Ward, NOAX, traveled to Germany with his wife Ellen for the WRTC 2018 event. Ward, who is on the WRTC Sanctioning Committee, was also a judge for the event. He had to be right there in the tent with a team for the entire 24 hours of the contest. Here are his thoughts after the event:

The things I will take home from WRTC 2018 in Wittenberg, Germany, are personal: warm greetings, deep discussions, raucous You may have seen photos of the happy Lithuanian team holding their first-place trophies -- they bested a very strong field with more than 5,000 QSOs. All this from a 30-foot tower with a two-element Yagi and a pair of inverted Vs. It's hard to beat that kind of performance, emphasizing just how good laughter, intense competition, and sincere congratulations. This is what WRTC is truly about. We could get into a big analysis of technique and equipment and strategy. At some point, each of those rates a full discussion. For now, the afterglow of sharing the event with everyone is what dominates my thoughts.



Even toward the end of the contest, Robert S57AW (left) and Tine S50A (right) kept focused right through to the closing bell at 2 PM [Ward, N0AX, photo]

The organizing committee, led by Christian, DL1MGB, and Michael, DL6MHW, did an awesome job in putting on this biggest WRTC yet. Sixty-three teams, spread out across the farmland southeast of Wittenberg, all got an equal opportunity to make a run at the top spot. The hundreds of volunteers were truly awesome with many of them camped out at the operating sites for days to be sure the antennas were in order and that everything was ready for the competitors. Once the competitors were onsite, no job was too big or small for them to handle -- from food to troubleshooting noise problems. WRTC can't work without volunteers and that includes all of the main committee members, too -- good job!

all of the front-running WRTC team operators really are. One of the leading WRTC contenders asked, "Y81N -- who are those guys? They were everywhere!" Congratulations to Lithuania's first WRTC winners!



The teams all worked hard through the night with good rates on 40 and 80. Excellent work for using the low inverted Vs on those bands. [Ward, NOAX, photo]

Conditions on the HF bands turned out to be quite good for a low-flux, mid-summer contest. There really were no dead periods, including the sleep-inducing wee hours. The low bands kept pumping out QSOs all night long. How the committee arranged this, along with having the rainstorms pass over us on Thursday so we didn't have any local QRN, remains a mystery -but please tell the next organizers!

Speaking of the next WRTC, it was announced during the Closing Ceremony that the WRTC 2022 event has been awarded to an Italian group and will be held in the city of Bologna. Not only that, the WRTC HQ will be Marconi's house! We look forward to the complete set of qualification and operating rules for this biggest on-the-air competition in ham radio. On your marks, get set, go -- and we'll see who are the Team Leaders in 4 years.



A technical innovation, the SCC (Score Collecting Computer) connected to the operator's network and reported the score on the WRTC network at the HQ Hotel. [Ward, NOAX, photo]

But back to those personal elements. Ellen and I stayed in Wittenberg for an extra day to have a little time before heading home. The hotel was so quiet and peaceful. In the town we were once again anonymous in the flow of residents and the regular tourist numbers -- no groups of hams wearing their WRTC T-shirts were seen. It is always this way -after the intense experiences of a WRTC, we disperse again to the ends of the world. We think, "What just happened?" and the whole event becomes slightly unreal in our memory -- or maybe it is that our world has become a little different as a result and we are adjusting. At any rate, it is like a dream -- did it really happen? Yes, it really did! We'll remember it forever, like the other WRTCS.

All contesters, whether they were at WRTC 2018 or not, can carry that WRTC spirit along -- fellowship, fair play, friends for life, all competing -- as it should be. That doesn't have to end after leaving Wittenburg. Keep the flame alive and share it with others so that WRTC 2022 once again presents the best of the best. That really is what it's all about.

73, Ward N0AX



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### FT-8 Update from the VHF Contesting Reflector: July 25, 2018

It looks like we will only have one more major VHF contest with all the confusion on FT8 with regard to contest mode and rover procedures. Here is what K1JT posted to the WSJT Yahoo group yesterday. I suppose there will be some issues with people with out-of-date software, but the backward-

incompatibility will soon get them to download the new version.

### 73,

Steve VE3SMA

Hi to all,

Of course, we are well aware of the issues many have experienced when using WSJT modes in North American VHF contests. To summarize, there are two main problem areas:

- Decoding of messages with two callsigns followed by "R " and a 4-character grid, and the related autosequencing, depend of proper and coordinated setting of a checkbox at both stations.

- There is a crying need for transparent support of "/R" (Rover) callsigns in all standard messages, during contests.

Here's some background information aimed at relative newcomers and casual users of WSJT, followed by a brief preview of program features we plan to make available in Version 2.0 of WSJT-X.

### Contest Mode

### -----

Standard JT-style messages (those used in all of the structured WSJT modes) have 71 information bits: two 28-bit callsigns and a 15-bit grid locator. The 15-bit field can alternatively convey a signal report (with optional "R"), or "RRR", "RR73", or "73". One additional bit re-purposes the 71 bits to carry a 13-character free test message. In a 72-bit packet there are NO free bits available to insert "R " before a grid locator, or "/R" after a callsign.

The "NA VHF Contest" checkbox presently in WSJT-X is a stop-gap feature added in 2016 to the MSK144 mode, and later to FT8. These modes conventionally use 15-second T/R intervals and offer semiautomated message sequencing. NA VHF contests require the exchange of 4-character grid locators. Signal reports are OK, but not required. Contesters wanted a way to send messages like "K1ABC W9XYZ R EN37", thereby increasing their QSO rates by eliminating some transmissions from the standard minimal-QSO sequence.

Rovers

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Rovers move from grid to grid and must append "/R" to their callsign during the contest. These ardworking folks definitely need some help if they are to use WSJT modes effectively.

All structured modes currently supported in WSJT-X permit messages like these:

CQ K1ABC/R FN41 DE K1ABC/R 73

... but you can't use a second callsign in place of the "CQ" or "DE". Once again, there is no room for such information in a 72-bit packet.

Some time ago we created workarounds that enable QSOs using a "/R" callsign or an "R+grid" message fragment. But these capabilities are limited and necessarily somewhat clumsy. Users must understand what's possible and what's not, and they must be careful about some necessary program settings. Decoding "R+grid" messages requires ticking a checkbox, and if someone else sends you standard signal reports you need

to uncheck the box or manually edit your messages. Also, for reasons explained in the WSJT-X User Guide, this feature cannot work well when world-wide propagation is possible -- as it has been recently on 6 meters.

All in all, it's not a happy situation -- especially when considering the typical presence of many casual operators who happen upon a contest and just want to make a few QSOs. Recently K9AN, G4WJS, and I have been developing enhanced versions of the MSK144 and FT8 protocols that extend the message payload to 77 bits. For a taste of what's to come, here's a brief list of things made possible by the extra bits:

1. NA VHF Contest operation with full support of grid exchanges and "/R" (Rover) callsigns

2. EU VHF Contest operation with the exchange of 6digit grids, QSO serial numbers, and "/P" (portable) callsigns

3. ARRL Field Day operation with standard Field Day exchanges

4. ARRL RTTY Roundup operation with standard contest exchanges

5. Better and more user-friendly support for compound and nonstandard callsigns

6. A special "telemetry" message format for exchange of arbitrary information up to 71 bits

7. The existing FT8 DXpedition mode will be supported, and a more powerful DXpedition mode may be offered as well.

All of these features work seamlessly and automatically. No "contest mode" checkboxes are needed. In most situations decoding sensitivity will be slightly better than at present for FT8; for MSK144 it will sometimes be about 0.5 dB worse. Occupied bandwidths will be the same as they are now, and false-decode rates will be significantly lower.

Much of the necessary programming is finished. Many of the new features have been tested on the air, and we find them to work well. Don't rush to download something -- these capabilities are not yet publicly available. There is more testing and code optimization to do. With summer vacation plans, etc., our current plans call for a beta-testing period probably starting in mid to late September. A full release should then be possible a couple of months later. In particular: we are planning to make WSJT-X Version 2.0 available in time for you to read its new documentation and practice using it before (for example) the ARRL RTTY Roundup, January 5-6, 2019, and the ARRL VHF Sweepstakes, January 19-21, 2019.

THIS IS IMPORTANT: The new protocols cannot be backward compatible with the existing ones. We will probably provide some temporary "bi-lingual" capability for FT8, but not for MSK144. It will be essential for users to upgrade to Version 2.0 in order to use the new features and communicate with others who have made the upgrade.

We will provide plenty of advance notice about a transition interval and an essential "must upgrade by" date.

-- 73, Joe, K1JT

K1JT and team have written a short paper on what the new FT8 version 2.0 will do and the path to getting there...

### FT-8 Version 2.0 notes:

http://physics.princeton.edu/pulsar/k1jt/wsjtx\_v2.0.txt





### CW Ops CW Academy: Interested in learning CW or improving your skills?

Check out www.cwops.org

CW Ops "CWT" Every Wednesday Regular Tests. Full Speed Start: 13Z, 19Z, 03Z (+1), 1hour each session Exchange: name/number (members) name/SPC (non-members) Avoid DX pileups!

CW Ops CW Practice Sessions:

For: On-air practice at 13+ wpm for CWA students, graduates, others wishing to have realtime CW practice with others similarly afflicted with a love of CW and a need to improve proficiency, with a goal of 25+ wpm.

Purpose: To improve CW through on-air practice at a time and place when others are likely available.

Time and place: 7035-7045 kHz every Tuesday, Friday and Sunday around 6-8 pm local time.

### W1QI operation in CWT: August 15, 16 de W1QK

**W1QI** will again be activated in 2018 during three CWT Sessions on August 15 at 1300 UTC and 1900 UTC, and on August 16, at 0300 UTC by Trustee, W1QK. The operator's name sent will be **WALT**, in honor and in memory of one of CARA's Charter Members, Walter J. Munzer (1900 - 1968). Walt was 1QI, and then eventually became W1QI, which was issued to him in 1927. Walt was the **original** holder of W1QI until he became an SK 50 years ago in 1968, and CARA applied for, and was granted his call as our club callsign in 1969.

Former CARA President, Bruce King -W1CSM, was the first W1QI Trustee. Ken Gleszer - W1KAY (SK), was the second W1QI Trustee until 1978. We hope to contact you during future W1QI activations in upcoming CWT sessions, special events, contests, and during the annual ARRL Field Day.

### NG1R becomes CWops Lifetime Member # 2087

Roger Mitchell - NG1R, former CARA President and current Director, was recently nominated by N8DNA #1743 and sponsored by CW ops members W1QK #1506, W2VM #1764, and K4WW #2017 to become CW ops Lifetime Member #2087.

Congratulations on this achievement Roger and keep up the CW operating! Here's NG1R taking a quick break from a portable operation – but where's the keyer paddle?

Roger also recently upgraded his shack with an ICOM IC-7610.



Morse Code and it's use as Assistive Technology:

/https://blog.google/products/search/makingmorse-code-available-more-people-gboard/

## Some Thoughts & Comments about FT8 from the CWOps Reflector:

So far, I haven't dabbled in FT8, but that's only because of my impeding membership in "Procrastinators of America" which I plan to join once I take time to fill out the membership. I have read on the DXLab Suite software Groups.io cluster that FT8 DX is working very well. ARRL LoTW already recognizes the mode. To be clear, I have not spent much time investigating this, nor will I.

An FT8 DXpedition Mode has been developed for WSJT-X.

FT8 DXpedition Mode development https://dx-world.net/ft8-dxpedition-mode/

FT8 DXpedition Mode User Guide http://radioaficion.com/news/ft8-dxpeditionmode-user-guide/

FYI - I will never operate in that mode and I never will.

When the Baker Island DXpedition came on, I needed Baker Island only on 80m, 160m and digital. I never was able to hear them on 80 or 160, but running WSJT-X in FT8 DXpedition mode I was able to get the digital contact.

I'm on DXCC Mixed and CW Honor Roll (I need P5 for mixed #1, 6 for CW #1). I am a mode agnostic - I will work them when and on what mode I hear them.

Religious arguments about mode preference are only self-defeating.

I really don't mind FT8, I consider it experimentation and self-training which it says on my licence. I am a bit of a snob about it though, like its a guilty secret. My QRZ page has a link to ClubLog showing my last 10 QSOs with mode. If I do any FT8 I then have to do a string of CW QSOs as quickly as possible to push the FT8 off the bottom of the display in case anyone looks. Sad but true.

### 73, Peter GM0EUL

Gee, here in the exalted, esoteric, sometimes called elitist group which calls itself THE CW OPERATORS, you are saying that there's merit in another mode? I hope lightning didn't strike from the gods of thunder and lightning for this blasphemy! :-)

Our radio club had a live demo of FT8 at a recent meeting. It seemed interesting, especially if one wished to make DXCC within a week or two, or WAS in a weekend. It doesn't seem to be useful for ragchewing, but it wasn't designed to be.

That it has brought out thousands (maybe millions world wide) back into the ranks of active ham radio operators is a big plus.

I personally hope I die with the last dot from my hands on my trusty J-38 or Vibroplex Blue Racer Bug. If I do, send condolences to the ham who was chatting with me. I probably won't care one way or the other. 8-)

But my demise could be during one of my rare incursions into SSB, or even rarely RTTY, PSK-31, or FT-8. The greatest hope is that I'm cognizant of my surroundings and capable of pounding the brass (CW), flapping my jaws (SSB) or typing on a computer keyboard (RTTY, PSK-31, or FT-8)>.

72/73 de n8xx Hg QRP >99.44% of the time

73, John K8AJS

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Enough of this FT8 bashing.... the rest of the story.

I've been sitting reading all the pontificating of how FT8 will ruin ham radio.

I am also one of the team leaders for KH1/KH7Z and worked with Joe Taylor on the DXpedition mode for FT8 under WSJT-X. In fact, when I was one of the test stations running the prototype program, many CWops members called.

We obtained the Special Use Permit that mandated we go to Baker this year before September, use verticals limited to 43ft and be limited in environmental impact all during a solar cycle minimum. We needed all the tools this hobby has to offer in our kit.

We took some of the best CW operators on the planet. Those of you that worked us know that. We were on 20 mtrs every time it was open. EVERY TIME. Two stations (SSB and CW) only had 20 mtr antennas. We said our purpose was ATNO QSOs and we met that promise. In fact, 40% of our QSOs were on 20 and 47% of all our qsos were on CW. 26% of our contacts were with unique callsigns.

That said, many nights after 20 died on CW and phone, FT8 stations on 20 kept on going and working stations worldwide. 900 stations worked Baker Island ONLY on FT8 and ONLY on one band. Comments of those ranged from newcomers to DX to stations with attic antennas that had never worked a top ten country before. FT8 has a place on DXpeditions. It is here to stay.

BUT, the biggest pileups were on CW. The most QSOs were on CW. The FT8 ops all knew how to operate CW.

CW is not dead. It will never be dead.

Denigrating FT8 does nothing to enhance our hobby or the image of our club.

Just one ham's opinion. One who has been there and done that.

73 Don, N1DG CWops #2

### For Sale: Asking Price Reduced

### Alpha 99 High Performance Amplifier

Alpha 99 high performance HF amplifier. 10-160 Meters including WARC bands. Manual tuning. Wired for 240 VAC. Uses two 4CX800 tubes. Full power (1500 watts) output with 55 watts input. This amp is clean both inside and out. The amp was purchased from Alpha in 2002. SN 9902240255. There are no scratches, no rubbed-off lettering, or dents in the case. This is a one-owner amplifier. Non-smoking environment. There are no mods. Included with the amp is a factory operating manual. Includes two new spare matched Svetlana 4CX800 tubes in unopened boxes with receipt. Extra spare parts also included. This amplifier will NOT be shipped - however, original cartons are included. Inspection, demonstration, and local pickup in South Salem, NY.

No trades. Being sold by the XYL of WA2EVH (sk).

Call to make an appointment to check out this awesome amplifier.

Pictures available to email. Serious potential buyers please. Asking price is \$2500. (914) 548-2040.



### Reminder: Send ads to your CAPERS Editor to post items for sale.

And now for something different; a little content for the engineering-inclined CAPERS readers:



### Apply Sensor Fusion to Accelerometers and Gyroscopes

https://www.digikey.com/en/articles/techzone/2018/jan/applysensor-fusion-to-accelerometers-and-

gyroscopes?utm medium=email&utm source=tnl&utm camp aign=35242 TNL1807A&utm content=article1learnmore\_US& utm cid=9117872&WT.v sub=9117872&WT.mc id=em Email %20Batch%20Program-30380-send-emailcampaign&WT.z email=35242 TNL1807A0B0US article1learn more&mkt tok=eyJpljoiTXpSalltUXdaV115WTJJdylsInQiOJp WG9KdjZja1c3NDRpVIR3VG9EaTgwMDhHV3grODVYS2FcL2t vaU56RE5MeUxsNVdgMIE1XC9XdIgwZ1JHWExTUTNYdWVQ Y1FpeUIFdVFxR2haeFk4QVNgMjdFTIhvVGhIY09TZ1FJZ1czb mk5SzB0ZGJHQit4WXVLbjZOZVpONVBzIn0%3D

Source: Digi-Key Electronics

Ham radio technology used in Thailand cave rescue UK radio amateur John Hey G3TDZ (SK) designed the special low frequency radio equipment, the Heyphone, used in the recent cave rescue in Thailand.

On Facebook Phil Karn KA9Q posted: Naturally I got interested in the technical aspects of the cave rescue in Thailand, particularly communications. They used the "Heyphone", a voice radio designed by a UK radio ham, John Hey, G3TDZ, as open-source hardware specifically for cave rescues. It uses upper (single) sideband voice on 87 kilohertz in the VLF (very low frequency) band. (That's what it says -- 87 kHz is actually LF). The "antenna" consists of two stakes driven into the ground about 20m apart. Enough of the current between them fringes outward to couple to another antenna up to a few hundred meters away (or down). John Hey passed away in 2016 so he didn't get to see his work used here. But ham radio should get some of the credit. Phil Karn KA9Q.

https://facebook.com/phil.karn.98/posts/1015527 6627256486 https://twitter.com/ka9q John Hey G3TDZ Heyphone Cave Rescue Communication System http://bcra.org.uk/creg/heyphone/ Al Williams WD5GNR has written an article on Hackaday about the cave equipment:

https://hackaday.com/2018/07/11/ham-designed-gear-used-in-thailand-cave-rescue/

--Southgate Amateur Radio News http://www.southgatearc.org/



CARA is an ARRL – Affiliated Club

### **Member and Station News:**

Your news or story could be included here in the next issue of CARA Capers. Contact W1QK, Capers editor.

There's always lots of blank space that could be filled with text, pictures, stories, tall tales, and whatever else you've got to contribute.

Come on folks – just snap a pix of your station, antennas, mobile installation, etc. and send it in!



ARES Region 5 members to participate in August 4 ARES Drill. de W1QK

The annual Region 5 ARES Communications Drill will be held on August 4. Many CARA and NARA members will be participating from their local EOC's or from other specific locations.

Amateur radio stations in Region 5 including local EOCs, other public safety facilities and relay stations on mountaintops and in homes will be active.

Participating stations will include ARES operators, local and club-affiliated amateur radio operators, and local EMDs with amateur radio licenses. While the general amateur radio community is always welcome to participate in most ARES on-the-air activities, this drill will include specific information that will be exchanged among ARES member stations on simplex 2M frequencies.

Four "Local Nets" will be established within CT ARES Region 5 North and South.

The drill will include a unique opportunity for all participating ARES operators to practice receiving and transmitting information where accuracy is paramount.

Information will be exchanged that will enable participating stations to reveal a hidden "Fox" as part of the training exercise.

Another element of the drill will involve sharing specific municipal resources among the towns according to a pre-planned portion of the drill. According to Mike Walters – W8ZY, ARRL CT Section Emergency Coordinator, observers from other CT ARES Regions have been invited to listen to the drill with the intent of possibly conducting similar exercises in other ARES regions throughout the state of Connecticut. It's been generally accepted that for many years, CT ARES Region 5 has been a pacesetter by conducting weekly nets, scheduled monthly meetings – both in Region 5 North and South, annual drills, and other planning; plus on-the-air activities.

### Announcing: The Great 2018 "Go-Box" Competition

Editor: Thanks to Douglas, WA1SFH for submitting this announcement.



ANNOUNCEMENT... Release Date: JULY 4, 2018

WHAT: The Great 2018 "GO BOX" Competition

### DATE: Sunday, October 21, 2016

Hours: 8:30 am - 10:30 am

WHERE: **NUTMEG HAMFEST 2018** Sheraton Four-Points Hotel 275 Research Parkway, Meriden, CT

## A Perfect excuse to "Get Organized" to "Go Portable"!

- Make Portable operations less of a hassle and chore.

- Eliminate the last minute hunting for gear before leaving.

- Banish the frustration of not having what you need at the operating site... because it is still back at the home QTH. Note: For many hams on a budget, their "Go Box" does "double duty" as their Home Station.

The "Go Box" is probably the best way to organize your radio equipment for those times when you want to (or need to) "Grab-'n-Go" for Portable Operations such as:

- Day Trips to: the Park, Beach, Woods, or... the In-Laws.

- Weekend Get-Aways
- Vacations
- Public Service Events
- ARES Drills/Exercises
- Real World Disasters



#### Don't Have a "Go Box"? BUILD ONE!

You can build/assemble your own "Go Box" in less than one day, and it will probably better than my Proof of Concept example.

Learn more at:

www.ctaresregion2.org/forum/prepared-togo-go-go

### **BE CREATIVE!**

Your creative design and build may be exactly the thing that get someone else to build his own "Go Box"... or modify their existing "Go Box".

### **BRING IT!**

Come with your "Go Box" to the Nutmeg Hamfest for Display, Judging, and Awards



### 3 Groups / 10 Categories

### Group 1: The Basic "Go Box" (Voice)

1A: VHF/UHF – Voice Only 1B: HF – Voice 1C: Combination(V/U/H)

## Group 2: The Intermediate "Go Box" (Voice and Data)

2A: VHF/UHF – Voice, Data (RMS Express, "Classic" Packet Radio)
2B: HF – Voice, CW, Data (RMS Express "Winmor")
2C: Combination (V/U/H)

### Group 3: Advanced "Go Box" (Mesh)

3A Data 3B Video 3C Phone 3D Combination (D, V, P)

### ... ENTRY CRITERIA ...

Open to ALL Hams (not just ARES members)



### **REQUIREMENTS (The Non-Negotiables)**

- VHF/UHF radios must be capable of a range of 5-25 watts (or more) output.

- VHF/UHF "Go Boxes" with an HT must have a 20-30 watt amplifier. (2m or dual band)

- HF radios must be capable of 5-100 watts output

- Must use Anderson Powerpoles for 12v D.C. power connections.

- Must have provision for Battery AND Commercial Power

- Batteries need not be fitted inside the "Go Box"

#### itself.

A separate Battery Box is perfectly acceptable.

#### - Battery Capacity Requirement:

Must be sized for a full day shift (13 Hours: 12 hour shift + 1 hr. for late relief operator). - Note the difference between the Duty Cycles for Field Stations and Net Control Stations. May use multiple Batteries to achieve goal. see: <u>www.ctaresregion2.org/forum/the-gobox/1...e-right-size-battery</u>

### Judges will be looking specifically for:

- "Go Box" weather resistance

- "Go Box" portability (weight, dimensions, carrying handles, wheels).

- Ease of access to console controls

- Clear Ownership and Function identification labeling

- Ease of Access to component connections/replacement

- ARES standard antenna connections: SO-239/PL-259.

- SMA to SO-239 adapters/jumpers (as appropriate)
- Multiple headset jacks
- Use of Bluetooth / remote i/o devices
- User Manuals

Option: Need not be in "Go Box" itself.

Can be in a "Office" Bag/Case which is Part of "Go Kit"

- Adapters and spare fuse storage Option: Can be included as part of the "Go Kit"



**BONUS POINTS** 

+ Having a CW Key with your HF radio.

+ Keeping each "Go Box" under 25 pounds in weight. - Good luck in achieving that in the "Combination" categories (1C, 2C, 3D).

Note: The use of Helium (or any other Anti-Grav device) is grounds for immediate disqualification.

+ Having a display of different device Adapters with Anderson Powerpoles.

Examples:

Radio D.C. Power Line to Anderson Powerpole, Cigarette Lighter Plug to Anderson Powerpole, Powerline with Rings or Hooks at one end (for Power Supply or Battery Terminals) and an Anderson Powerpole at the other end Powerline extender (6') with Anderson Powerpole Connectors at both ends. Etc.



**RF Safety** We recommend that antennas NOT be mounted on "Go Boxes". see: hintlink.com/power\_density.htm

Accordingly, we suggest that, as a rule of thumb...
- VHF/UHF Antennas be installed away from the "Go Box" at a minimum of 17 feet.
- HF Antennas be installed away from the "Go Box" at a minimum of 14 feet.



#### AWARDS

The Decisions of the Judges are FINAL! - There will be no appeals.

Special Note: The Judges can be bribed. LOL!



http://www.ctaresregion2.org/forum/preparedto-go-go-go/622-the-great-2018-go-boxcompetition

Visit us on the Web at http://www.cararadioclub.org

#### **Executive Board:**

President – Marcus Swearingen, AB1WV ab1wv@silverswear.net Vice President – Jay Albano, N1NRP jjalbano@aol.com Secretary – Gary Adams, N1GSA mrclipper69@yahoo.com Treasurer – Tom Coury – WX1T couryt1@gmail.com

#### Directors:

Harlan Ford, W1QH hford01@snet.net Roger Mitchell, NG1R roger.mitchell@snet.net Dan Fegley, W1QK w1qk@snet.net

CAPERS is the monthly newsletter of the Candlewood Amateur Radio Association Editor: Dan Fegley, W1QK

CARA is an ARRL Affiliated Club



### A brief word from your editor...

**CARA CAPERS** is the monthly publication of the Candlewood Amateur Radio Association, Inc. (CARA) and is intended to present news, issues, and opinions of interest to CARA members and the Amateur Radio Community.

We encourage contributions of articles, letters to the editor, etc. and welcome newsletter exchanges with other clubs from around the country and around the world. Permission is granted to reprint material contained herein as long as proper credit is given to this newsletter and the author.

Ideas for and contributions to the CAPERS should be submitted to: w1qk@snet.net.

Submissions must be received no later than the last Friday of the month preceding month of issue, *unless otherwise specified*.

Submissions should be in MS Word format or ASCII text. Photos should be in .jpg format.

Material received after the deadline will be used in the next month's CAPERS if it's still current and /or newsworthy.

The CAPERS is published by CARA Capers Editor. All material contained herein is considered the opinion of the author and not necessarily that of CARA.

Announcements of events are for informational purposes and do not necessarily constitute an endorsement by CARA.

No responsibility for accuracy is assumed by the CARA Capers editor or newsletter staff.

Typos are included for the entertainment of those who enjoy looking for them and should be reported immediately to any nearby member of the CARA Executive Committee or other member of the Board of Directors :-)

Courtesy of: The Mahoning Valley Amateur Radio Association's Award Winning monthly newsletter: "Voice Coil"

http://www.mvara.org/Newsl/Current.pdf

### NOTICE TO CAPERS READERS

**CAPERS** is an important aspect of our club. It's time for more participation with this publication.

**CAPERS** is looking for ANY and ALL input. Don't be shy, just send a few words, a picture, link, or short message to Dan Fegley, your Editor. If possible, text should be submitted in Microsoft Word format, and images in .jpg format. Please use picture files that are sized for publication.

### w1qk@snet.net

**CAPERS** deadline for input: LAST Friday of the Month preceding the meeting.

**CAPERS** will be released: Monday before the scheduled Friday monthly meeting – or earlier if possible.

73- Dan, W1QK – CARA Capers Editor





## For Immediate Release

Contact:	John Morelli
Telephone:	203-417-0160
Email:	W1JGM@arrl.net
Website:	hamfest.cararadioclub.net

### **Electronics and Amateur Radio Hamfest: August 26 Sponsored by the Candlewood Amateur Radio Association**

Once again, Candlewood Amateur Radio Association (CARA) will be hosting the Western Connecticut Hamfest and Swapmeet on August 26<sup>th</sup> from 8 am till noon. This annual event is held at the Edmond Town Hall, at 45 Main Street, Newtown, CT. This is "The Biggest Little Hamfest in Western CT" and is sure to have plenty for all electronics, maker, and Amateur Radio enthusiasts.

Every year, enthusiasts from the greater Danbury area and surrounding states gather to swap gear, knowledge, and stories. This year there will be an amateur radio license testing session (9:30 am) as well as a presentation about emergency communication and the Amateur Radio Emergency Service (ARES) at 10:AM. Get those books out and get, or upgrade, your FCC Amateur Radio license at the same time you look around and find that piece of tech you can't go home without.

There will be electronics and radio equipment vendors, tailgating, and refreshments as well. Door prizes will be announced periodically, and you are entered with your admission. Raffle tickets will be sold for some great gear as well.

There are still spaces available for tailgate sales spots or tables in our indoor area. At \$15 and \$20, respectively, these spots include one admission each. Get rid of that gear you don't use anymore. There is sure to be someone there interested in your unused computer, electronic or radio gear. Regular admission is \$7 at the door (\$1 discount with the flyer, available at our website). Kids under 12 are free!

For further information go to hamfest.cararadioclub.org or contact John Morelli W1JGM at <u>W1JGM@arrl.net</u> or 203-417-0160.