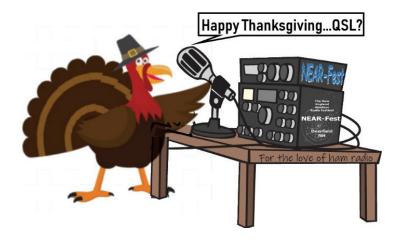


# SHARK NEWS

THE OFFICIAL NEWSLETTER OF CMARC

November 2021





#### From the Desk of the President:

#### For November

We have set up EV Testing for anyone who would like to move up to the next class of Ham License or to just get started in the Ham world. We have more information on our website page About Our Club.

We have made it through another year. We did better with Field Day in 2021 but I think we can do much better in 2022 with more members coming out to help set up, work radios on Field Day and to help pick up after the event.

2022 looks to be a very good year for our club with all the events we have planned. We start in January with Winter Field Day, then Museum Ships Weekend, Field Day, Lightship & Lighthouse Weekend, The MS City to Shore Ride and we hope many days in the Wildwood Aviation Museum.

Please read the weekly updates from the President, this will keep you up on what we are doing for the club week to week. This is on the Club News & Newsletter page of the Website.

Keep up to date on every thing we are doing by using the Club Website, Meeting & Events are listed as far out as we can to help everyone plan ahead.

**Constitution & By-Laws are** posted on the "Members Only" page. They will start January 1, 2022.

- - - Tech Corner - - -

## <u>Capture Effect</u>

Capture Effect is an interesting characteristic of many FM (frequency modulation)

receivers. It can be described in complex terms but simply stated it is when two

FM signals are on the same frequency and one of them is clearly received. Ok now it can start out the one signal is clearly being received and is perfectly

readable. Then a second FM signal is now also being transmitted on the same

frequency and it is stronger then the first signal. Now when we say stronger we

mean just moderately stronger. So all of the sudden the first signal disappears

and the second signal is now being received as perfectly readable with no interference, and the first signal just appears to be gone. Ok now that is an example of Capture Effect stated in simple terms but yet that is exactly what

can happen. This can and does happen with not all, but many FM receivers.

It is the result within the Limiter and/or Demodulator stages of some FM receivers when two FM signals are present on the same frequency and one of the signals is a bit stronger then the other signal. Now if one signal is a lot

stronger then the other Capture Effect can still happen but we just wanted to

state that Capture Effect can happen with signals where one is just a bit stronger.

When one is much stronger it may capture and hold. Now if this were an AM

(amplitude modulation) signal with an AM receiver and there were two signals

on the same frequency with one being a bit stronger then the other, the two signals would be received and be coming through the speaker. They would however be interfering with each other and it would be very messy for the listener to correctly hear either one of them, but the listener would know that two or more signals were present on the same frequency. Ok, now lets get back

to FM. If two FM signals are about the same strength and on the same frequency

then the listener may clearly hear bit of both signals but not at the same time.

One signal would be clear for a period of time, then the other signal would appear

and be clear for a period of time, could be seconds or minutes. Ok this has been

just a brief taste of Capture Effect. If you are more interested in Capture Effect

there are many links on the Internet and some YouTube videos that cover in

much more detail. Below is a link for wikipedia. Oh, I also read that one of the

reasons why Aircraft Communications is still AM is because there is no capture

effect and it is important not to have any Aircraft Communications missed because

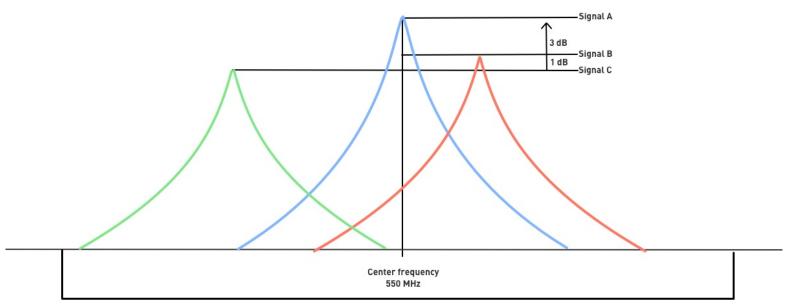
of Capture Effect. One more tid bit, I read is that in AM for one signal to overtake

another signal (not by capture effect) by pure overriding strength that it needs to

be about 20 times stronger for signal "A" to completely overtake signal "B" if on the

same frequency.

https://en.wikipedia.org/wiki/Capture\_effect

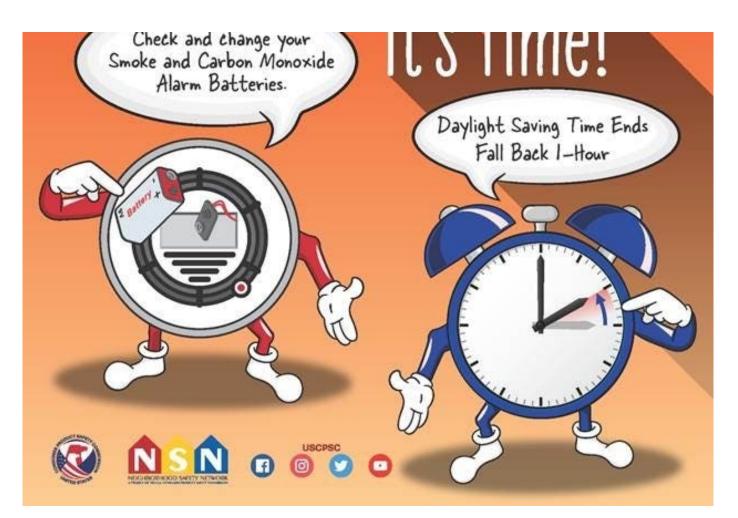


200 kHz bandwidth

Hope this was interesting? Any comments, please do so. Enjoy Amateur Radio.

Lou (WA2GKH)

Happy 50th Anniversary to Lou and Peg







#### Southern NJ Section News November 2021 Tom Preiser N2XW SNJ Section Manager

n2xw@arrl.org

November looks like a big contest month. The <u>ARRL November Sweepstakes</u> (SS) weekends are coming up shortly. The CW weekend is November 6 - 8, while the phone weekend is November 20 - 22. Both events begin on Saturday at 2100 UTC and conclude on Monday at 0259 UTC.

The SS offers operating categories for every preference. The goal for many seasoned SS operators is to complete a "clean sweep" by contacting all 84 ARRL and Radio Amateurs of Canada (RAC) Sections.

Some Sections are harder to contact than others. Northern Territories (NT) is always a challenge, but there's a slim chance that snagging NT could be easier this year.

#### Submit your log, no matter how big or small!

All contest participants, whether they are serious contesters or just casual operators, should submit their log to the contest sponsor. Submitting logs assists the contest sponsor with the scoring of the contest, as QSOs are cross-checked against the logs of stations that are worked. Additionally, contest sponsors allocate resources to contests based upon the total number of logs submitted, assisting them in gauging how much activity there is in each event.

If you do make a few casual contacts in a contest, and do not submit a log, the stations you worked will not be penalized. For example, if you made a few contacts in the contest to "hand out points" to other contesters, your QSOs with them would be considered as "unique." Unique's are call signs that appear in only a few logs that were submitted by the stations that worked you.

Lastly, you might be surprised at how well you might do in a contest, even if your QSO count is low.

# East Coast Amateur Radio Service Offers Support for Amateur Radio-Related Initiatives

The East Coast Amateur Radio Service, Inc (**ECARS**) has announced that it can provide financial support for worthy amateur radio related initiatives.

"The focus of this <u>grant program</u> is to support amateur radio and other non-profit organizations with programs to educate, license and otherwise support amateur radio activities — with emphasis on youth-based projects," ECARS said.

ECARS routinely supports scholarship grants through the ARRL Foundation and has awarded other grants to organizations for youth programs or for emergency assistance.

"We actually get far fewer requests than we have expected from this program," said ECARS President Vic Klein, WA4THR.

Information on applying for an ECARS grant is on the <u>organization's website</u>. Preference is also given to requests that benefit the ECARS service area and to groups IRS 501(c)(3) tax-exempt organizations.

Grant funds are budgeted for this purpose each year from the ECARS general operating funds or from donations specifically earmarked for the grant fund. The Board of Directors reviews applications quarterly, with awards announced in the first month of the next quarter. Evaluation of received grant applications is scheduled for March 15, June 15, September 15, and December 15.

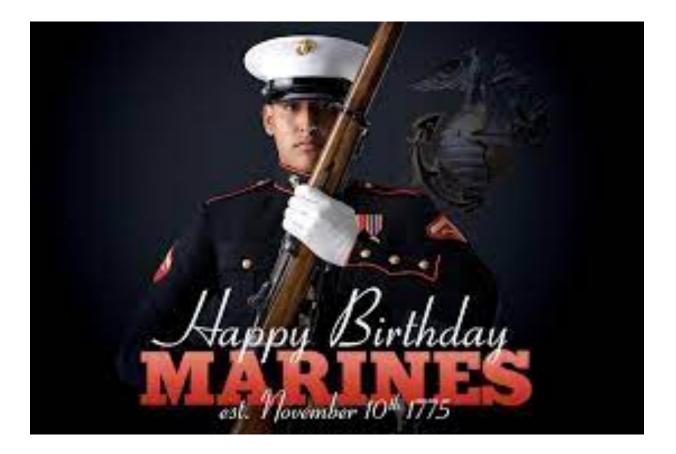
Organizations selected will receive a check that is to be applied toward the purpose described in the application, with a report to follow to ECARS that indicates how the funds were used and the results of the program. Photos are welcome, and ECARS will assume that they represent authorization to publish.

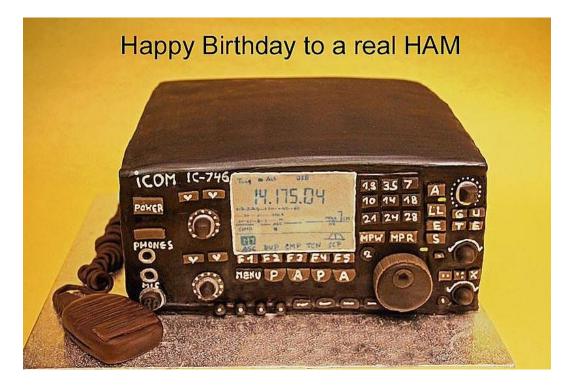
#### WSJT-X Version 2.5.1 has been Released

The *WSJT-X* development team has announced the general availability release of *WSJT-X* version 2.5.1. This release mainly contains improvements and repairs defects related to Q65 and JT65 when used with nonstandard and compound call signs. Those planning to use Q65 or JT65 to make weak-signal contacts involving a nonstandard call sign should upgrade to this version. Also included is a new feature for microwave aircraft scatter, as well as repairs for bugs detected since the general availability release of version 2.5.0.

#### Regional (Atlantic & Hudson Divisions) Hamfests & Events

November 6, 2021 : New Jersey Antique Radio Club, NJARC Fall Hamfest, Parsippany PAL Building, 33 Baldwin Road, Parsippany, NJ. www.njarc.org November 7, 2021 : Washington Amateur Communications, 2021 WACOM Hamfest, Washington County Fairgrounds, 2151 North Main Street, Washington, PA. www.wa3com.com \*\*\*\* CANCELLED \*\*\*\* November 14, 2021 : Long Island Mobile Amateur Radio Club, Hamfest and Electronics Fair, Levittown Hall, 201 Levittown Parkway, Hicksville, NY. www.limarc.org November 26, 2021 : Fair Lawn Amateur Radio Club, Ham Radio Auction, Fair Lawn Senior Center, 11-05 Gardiner Road, Fair Lawn, NJ. www.fairlawnarc.com





November Bill Aber N2JAI Edward Russell W2RF Ed Taylor N2EWT Regional Skywarn websites for on-line and in-person training classes

Philadelphia/Mt Holly Skywarn : www.weather.gov/phi/ skywarn State College, PA Skywarn : www.weather.gov/ ctp/skywarn Pittsburgh, PA Skywarn : www.weather.gov/ pbz/skywarn

Skywarn Spotter Training - Winter Edition : Virtual via GoToWebinar Register via links at the top of www.weather.gov/pbz Thursday, November 4, 2021 @ 1900 - 2030 Hours https://register.gotowebinar.com/register/ 273364297951323918 Tuesday, November 16, 2021 @ 1000 - 1130 Hours https://register.gotowebinar.com/register/ 5888858253023822604

Basic Skywarn Training - Virtual Talk Schedule : Fall 2021 Register via a link at the top of www.weather.gov/ctp/ SpotterTalks Monday, November 8, 2021 @ 1830 - 2030 Hours https://register.gotowebinar.com/register/ 1124633688033954320 Thursday, November 18, 2021 @ 1830 - 2030 Hours https://register.gotowebinar.com/register/ 4460834541194742288

#### Special events for November 11/09/2021 | Hedy Lamarr Day 2021

**Nov 9-Nov 10, 1700Z-0100Z, N9H**, Rochester, NY. W2JLD. ROC-HAM/EchoLink 531091; Allstar 2585,47620,47918; other EchoLink conferences will be connected for this. QSL. John Derycke, W2JLD, 85 Amherst St. Apt. 2, Rochester, NY 14607. SASE please. https://www.roc-ham.net

#### 11/10/2021 | 158th Anniversary of Lincoln's Gettysburg Address

**Nov 10-Nov 20, 1200Z-2330Z, WO4L/W1G**, East Berlin, PA. Robert Hess. 7.185 14.288 3.830 18.155. Certificate & QSL. Robert Hess, 74 Curtis Dr, East Berlin, PA 17316. Beautiful full color 11 x 14 Certificate and or a QSL Card available please see QRZ page for WO4L or W1G, for instructions.. and any previous Certificates still available watch spotting nets to see where we are...DX SUMMIT bigbob7388@gmail.com

#### 11/11/2021 | Veterans Day from High Point State Park

**Nov 11, 1230Z-2330Z, WS2E**, Montague, NJ. WS2E. 7.055 7.240 14.055 14.320. Certificate & QSL. Michael Sorton, 408 Elderberry Ally, Milford, PA 18337. Will include POTA K-1619, and possible a 2fer. Summit activation in planning. Will have multiple stations on the air. Everyone welcome to come out and join in. A 8.5 x 11 photo certificate is planned as well as qsl card. watch QRZ.com for details land updates. ws2e@arrl.net

#### 11/13/2021 | Hillsboro Lighthouse Special Event Station

**Nov 13, 0900Z-1400Z, NB4RC**, Deerfield Beach, FL. North Broward Radio Club. 14.280 14.270 14.260 14.250. QSL. NB4RC, 4116 NW 1 St., Deerfield Beach, FL 33442. joeyjet.com/index.php/amateur-radio/nb-radio-club

#### 11/17/2021 | 2021 Hammarlund Radio Hullabaloo

Nov 17-Nov 19, 0800Z-2000Z, W4H, Mars Hill, NC. High Appalachian Mountain Amateur Radio Society. 7.250 14.250 14.045 14.071. QSL. Jerry Robinson, P.O. Box 366, Mars Hill, NC 28754. hamars.club

## ARRL News: Amateur Radio Emergency Service and SKYWARN Respond to Major Nor'easter

A major nor'easter struck eastern Massachusetts and Rhode Island this week, with ferocious winds stronger than those that Tropical Storm Henri brought to the region in August.

Starting on the evening of October 26, eastern Massachusetts amateur radio operators on the Amateur Radio Emergency Service® (ARES®) and National Weather Service (NWS) SKYWARN<sup>™</sup> storm spotter teams joined forces to help emergency services provide a focused and effective response as the powerful nor'easter caused widespread damage. Tree and wire damage, trees falling on homes and cars, and a few cases of direct structural damage to weakened structures have been reported. ARES and SKYWARN operations will continue until the impact of the weather system subsides.

"We have handled several hundred reports of damage, and photos of damage are streaming in from ARES and SKYWARN operators to support damage assessment efforts and to keep the NWS in Norton apprised of the severe weather conditions affecting the region," said Rob Macedo, KD1CY, Eastern Massachusetts ARES Section Emergency Coordinator and ARES-SKYWARN Coordinator for NWS Boston/Norton.

ARES-SKYWARN operators relayed reports of hurricane-force wind gusts reaching 94 MPH in Edgartown, Massachusetts, at Chappy Ferry Point; 84 MPH in Dennis, Massachusetts; 79 MPH in Sandwich, Massachusetts, and 78 MPH in Rockport, Massachusetts. Amateur operators with WX1BOX, the amateur radio station at NWS Boston/Norton; Cape Cod ARES and SKYWARN, and South Coast SKYWARN completed overnight operations, when the peak winds occurred.

"The dedication of our volunteers to provide this critical information in a major storm like this one to the NWS, media, and emergency managers during such a grueling stretch is very critical to inform people what is happening during such a significant storm when they wake up in the morning, so they will hopefully make safe decisions to avoid being out in a significant severe wind situation," Macedo said.

Cape Cod ARES was activated by the Barnstable County Regional Emergency Planning Committee (BCREPC) to staff the Multi-agency Coordination Center (MACC) at the Barnstable County Emergency Operations Center (EOC). The damages, power outages, and intermittent

cell service from some providers could mean an extended activation for ARES members in Cape Cod and the Islands, Macedo explained. According to the Cape Cod and Islands ARES District Emergency Coordinator Frank O'Laughlin, WQ1O, "Damage assessments in the region will give us a better sense of how long it will take to restore power and in some cases communication service to the Cape [Cod] and Islands area, and that will determine how long Cape Cod ARES will be needed, and if additional support from Eastern Massachusetts ARES will be needed." Macedo called the nor'easter "one of our more extraordinary weather systems within the last few years, and the most severe of several other major SKYWARN/ARES activations in this past year." As many as 500,000 customers lost power in the ARRL Eastern Massachusetts Section, with hardest-hit areas in southeastern Massachusetts, Cape Cod and the Islands, and the Cape Ann area north of Boston, where hurricane-force wind gusts pummeled the region for several hours. Maximum sustained winds were 50 and 65 MPH. Rhode Island reported nearly 93,000 customers without power at the peak. These outages were an order of magnitude greater than during Tropical Storm Henri in Rhode Island, and about five orders of magnitude more severe than Henri in Massachusetts. Storm conditions wound down toward the evening of October 27, allowing the process of more widespread power restoration to begin

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## 3M Issues a "Stop Use and Inspection Notice" for Self-Retracting Lifeline with Anchor Hook

#### 11/02/2021

3M has issued a "Stop Use and Inspection Notice" for the 3M<sup>™</sup> DBI-SALA® Nano-Lok<sup>™</sup> Self-Retracting Lifeline with Anchor Hook. The company advises owners to remove the anchor hook product from service until an inspection is performed. The notice pertains to "specific versions" of the anchor hook. "3M Fall Protection has identified a very low potential for the DBI-SALA® Nano-Lok<sup>™</sup> Self-Retracting Lifeline with Anchor Hook to be assembled with an unformed top swivel eye rivet. An improperly formed rivet may become displaced from the top swivel eye. *An unformed rivet may result in the SRL [Self-Retracting Lifeline] becoming detached from the anchor hook, which could result in severe injury or death*," 3M said. "Due to this, we are sending out an inspection notice so this issue can be detected by inspecting the self-retracting lifeline." **More details** are on the 3M website.

## ASRTU-1 CubeSat with V/u FM Transponder Submitted for IARU Coordination

11/03/2021

China's Harbin Institute of Technology has applied for IARU Coordination of the ASRTU-1 CubeSat. Among other capabilities, the satellite will provide a V/u FM amateur radio transponder. ASRTU-1 is a 12U CubeSat mission designed by Russian and Chinese university students for education and amateur radio.

Harbin Institute of Technology has successfully developed several amateur radio satellites, including LilacSat-2 (CAS-3H), LilacSat-1 (LO-90), DSLWP-A (LO-93), and DSLWP-B (LO-94). A new SDR-based transceiver was developed for ASRTU-1 to provide communication and experiment resources to radio amateurs, including a V/u FM transponder, a UHF telemetry downlink, and a 10.5 GHz image downlink. The satellite will also allow radio amateurs to send commands to control the satellite to take and download images.

ASRTU is planned for a launch from Russia in the fourth quarter of 2022. — *Thanks to the IARU* 







YOUTUBE Video

A Beginner's Guide To Ham Radio In Space https://youtu.be/dx9nbx2tKil

How and Why to Get Started in Operating Amateur Radio Satellites

https://youtu.be/Vp7h4ikthDQ

### AMATEUR RADIO SATELLITE COMMUNICATIONS https://youtu.be/7p-BAeWf0U0





# Thursday, November 25th

The Amateur's Code

by Paul M. Segal, W9EEA (1928)

The Radio Amateur is:

CONSIDERATE..... never knowingly operating in such a way as to lessen the pleasure of others.

LOYAL..... offering loyalty, encouragement and support to other amateurs, local clubs and the American Radio Relay League, through which Amateur Radio in the United States is represented nationally and internationally.

PROGRESSIVE..... with knowledge abreast of science, a well built and efficient station, and operation beyond reproach.

FRIENDLY..... with slow and patient operation when requested, friendly advice and counsel to the beginner, kindly assistance, co-operation and consideration for the interests of others. These are the hallmarks of the amateur spirit.

BALANCED..... Radio is an advocation, never interfering with duties owed to family, job, school or community.

PATRIOTIC..... with station and skill always ready for service to country and community.

THIS SPACE FOR "RENT" (aka Call For Articles)

For "Rent"? Sort of... Rather, do you have any news of interest to the SHARK readers. Have you run across Some amateur radio related news items? How about links to home brew projects or new equipment? Have you worked or played with a new technology.

Or maybe you're one of the more experienced operators in our community.

You don't have to be a Pulitzer Prize winner to submit an article. I'll take anything, but would love to get articles that are at least two pages in length (single-spaced). Photos are great, too! Please remember, any submissions

need to be free of copyrights. Creative Commons are okay, but I will need references to be able publish them with attribution.

Thanks & 73 DE KB2YJD, Editor

