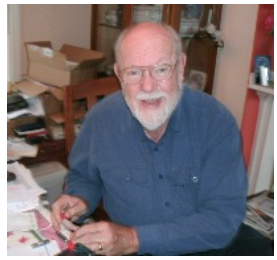
CAARA NEWS

Cape Ann Amateur Radio Association
AUGUST 2019 Edition

PRESIDENT'S COLUMN

by Hank- W4RIG.



Special thanks to Ron Beckley N1RJB for the installation of the Red Cross Radio and front door repairs at 6 Stanwood. Also great job on maintenance by House Co-Chairman Dave Linsky N1CDL.

The Board has made the recommendation that the CAARA Annual meeting be held on the second Saturday in September and recommendation to the membership to make this change an amendment to the CAARA Constitution for future annual meetings. This permits a day meeting on a Saturday rather than a night meeting on a Wednesday, and has been found to be highly successful in encouraging participation by more members.

The Board also appointed a committee of Jon Cunningham K1TP, Tony Sarracino AB1XK, Jake Hurd W1LDL and Larry Beaulieu AJ1Z(as Chairman) to review the equipment and inventory of parts and kits now at 6 Stanwood for potential sale, retention for Club use or disposal. They are authorized to work on cleaning out the excess materials as appropriate without further review by the Board.

A Nominating Committee will be appointed to make recommendations for those elected positions that will be available for consideration for the new Board in September. Members interested in running for the Board or Officer positions should contact the Club President W4RIG by the next Board meeting on August 10.

INFORMATION DESK

by Dean- KB1PGH

First off let`s start with the ARRL Contests for August.On August 3-4 there is the 222 MHZ and up distance contest. Then on the 17-18th there is the 10 GHZ and up contest.After that comes the Rookie Round up RTTY contest on August August 18.

Next,did you know that earthquakes can negatively affect HF radio propagation?In the latest ARRL news they stated that radio amateur Alex Schwarz VE7DXW reported that there was just about a complete HF radio blackout and severe attenuation on 20 meters on the west coast for about 12 hours after the big July 4th California 7.1 earthquake .Interesting too is that there was a rise in the band noise level on 15 and 10 meters before the earthquake struck because of the electric field lines.Alex also stated that there is a article in the October 2018 edition of the Scientific American called "Earthquakes in the sky" by Erik Vance so google that if you want to read more.

Moving on, I have carried around a Baofeng 5VR HT in my car for about 8 years now and the radio was getting "Long in the tooth" with age and was starting to have issues,plus it did not do the Yaesu Fusion digital mode that is on the CAARA 440 repeater so I could not monitor and talk from the car or on foot so I decided to buy a Yaesu FT 70 DR 2 meter and 70 cm handheld.Years ago I had a Yaesu FT 60 handheld and after a while I regretted selling it.It was a easy radio to operate and program.One of the main reasons why I bought the FT 70 DR was the wideband receive from 108 MHZ to 579 MHZ that it has so it can double as a scanner to listen to the aircraft band,marine

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Cape Ann Amateur Radio Association
6 Stanwood Street
Gloucester, MA 01930

CAARA Newsletter is a monthly publication of the Cape Ann Amateur Radio Association (CAARA).

Jon Cunningham- K1TP Editor
Dean Burgess- KB1PGH Reporter

Welcome to CAARA:

CAARA, an ARRL affiliated club, operates the 2 meter W1GLO repeater on 145.130 MHz with antennas located on the ATT cell tower in the Blackburn Industrial Complex in Gloucester Massachusetts. It has an average effective radius of 60 miles, and serves Eastern Massachusetts, Cape Cod, Rhode Island, Southern New Hampshire, and maritime mobile stations.

CAARA also operates the W1GLO repeater on 224.900 located at the CAARA clubhouse.

The former W1RK 443.700 repeater is now on the ATT cell tower in the Blackburn Industrial Complex with greatly enhanced performance.

The Association is one of the few amateur radio clubs that has its own clubhouse. Located at 6 Stanwood Street in Gloucester, it includes a permanent HF station with beam, vertical/wire antennas along with an operating 2 meter packet station as well as 2/440 meter voice and 220 MHz Transceivers.

Amateur radio exams are held on the second Sunday of each month at 10:00 AM at the CAARA clubhouse. Anyone who is considering a new license or an upgrade, is welcome to test with us. Pre-registration necessary.
Contact the head of our VE team Rick Maybury-WZ1B if you have any questions about monthly testing.

Monthly member meetings are held on the second Saturday of each month at noon.

Each Sunday evening at 9:00 PM, the club operates a 2 meter net on 145.130. This is an open and informal net which disseminates club news and prepares operators for emergency communications work. All are invited to check into the net as club membership is not a requirement.

band and public service frequencies.The Yaesu FT 70 DR is very well built and this HT is even built To Mil Spec IP 54 standards which makes it dust and water resistant.Even the battery has a rubber gasket around it.The display is backlit and easy to read and the buttons are also backlit to help at night. Yaesu also built a very strong belt clip which is actually made out of metal.The Yaesu FT 70 DR comes with a high capacity Lithium Ion battery which has a 8 hour run time.It also puts out 5 watts of power and has the weather channels built in to listen to if need be.One of the best features though is the ease of use on this handheld.It is very easy to program any VFO frequency including squelch codes right from the keyboard on the fly.Plus programming VFO frequencies right into the memory is very easy and straight forward as well.There`s something to be said for not having to go into multiple menus to get to your VFO and memories on the more expensive HT`s.To be quite honest if you just got your Technician class amateur radio license and you are unable to program this HT I don`t know what to tell you. I tried it out on the Yaesu fusion digital mode on the clubs 440 repeater and had a QSO with Jon K1TP and everything sounded great.The speaker is 700 mw and sounds loud enough for me.I would easily recommend he Yaesu FT 70 DR for a starter HT for a new Techie.Even if you don`t have a Yaesu Fusion repeater around.Of course you can use this HT on the Shark RF Openspot 2 wi fi Hotspot to talk to the Yaesu Fusion chatrooms.One big cheap mistake that Yaesu did with this HT is with the manual.The manual that it comes with does not cover all the aspects on how to program the HT.You have to go online to the Yaesu website to download the "Advance Manual".What a cheap cop out by Yaesu by not printing the full manual just to save a couple of bucks.I would recommend getting the "Nifty" manual for this HT.I would also recommend this dual band HT to anyone on a budget or who does not care about using GPS or APRS on the more expensive rigs. You can purchase the Yaesu FT 70 DR for $149.95 at Amateur Radio Outlet and that price includes free shipping.

Meteor Scatter

Meteor scatter is a form of propagation mode that is used for medium distance ham radio communications, especially on bands like 144 MHz.

It enables contacts to be made over distances of 1500 to 2000km on these frequencies allowing contacts to be made over much longer distances than might otherwise be possible.

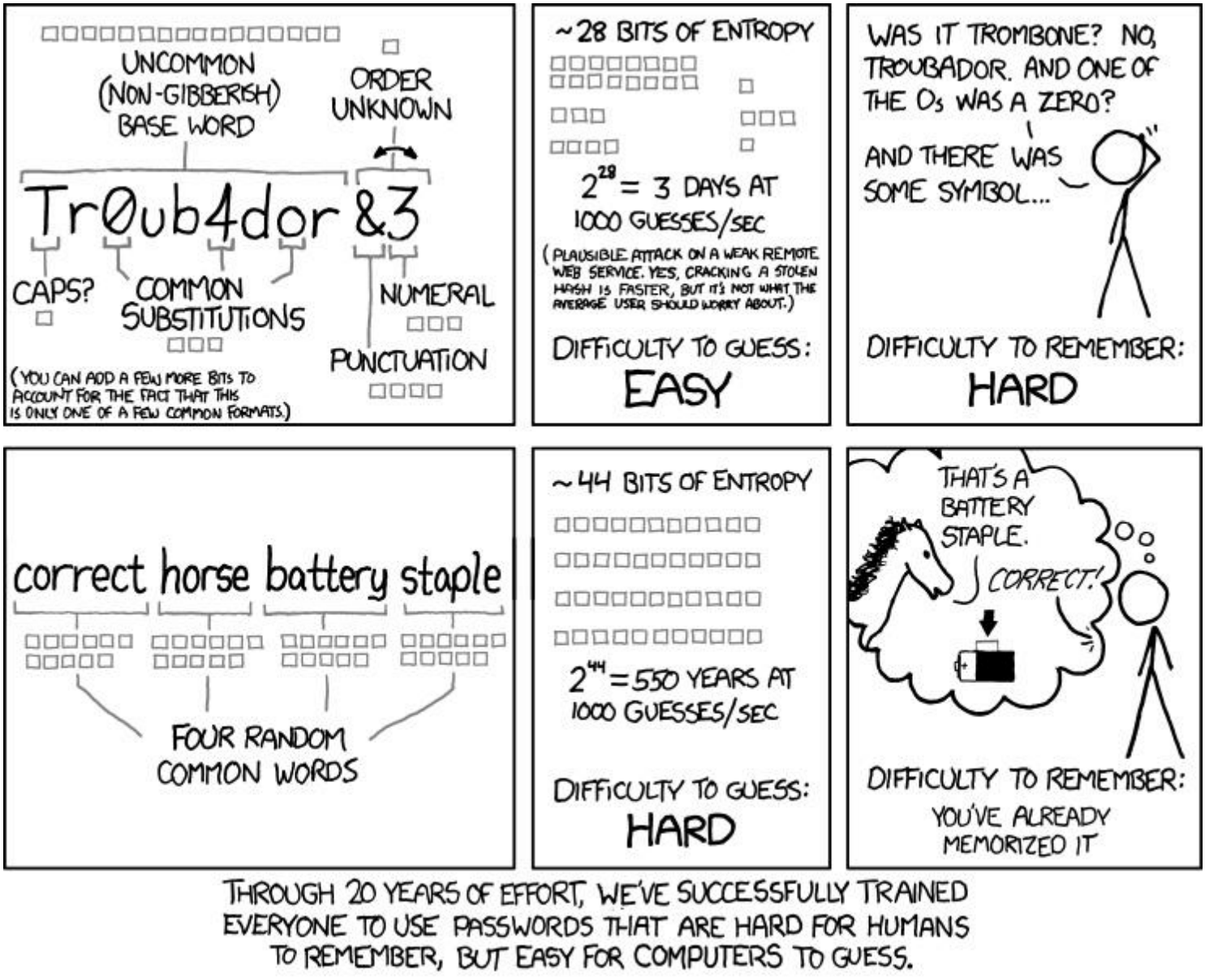
As the name implies, meteor scatter uses the fact that meteors enter the upper reaches of the Earth's atmosphere. When they do so they burn up leaving intense trails of ionisation - typically around the same altitude as the E region in the Ionosphere. Although the meteors are very small, and the trails not that large, it is still possible to use them to "reflect" radio signals and thereby extend the range over which a signal can travel.

Amateur radio activity tends to focus on times when there are meteor showers, but meteors are always entering the atmosphere. The meteor showers give much greater numbers of meteors and also the meteors tend to be larger, which leads to larger ionisation trails.

Find out more about meteor scatter and how it can be used by commercial operations as well as radio amateurs in our article on Electronics Notes.

https://www.electronics-notes.com/articles/antennas-propagation/meteor-scatter-burst-communications/basics-tutorial.php

CARTOON from Dick- K1VRA



New Raspberry Pi 4 Problem Reported with Certain USB-C Cables

TechRepublic reports that the Raspberry Pi Foundation has confirmed that the recently released Raspberry Pi 4 will not work when powered using certain USB-C cables. The economical, single-board computer is the first Pi board to use a USB-C power connection. Pi co-creator Eben Upton has confirmed that not every USB-C cable will work. “The Pi 4 doesn't receive power when used with electronically marked or e-marked USB-C cables — the type used by Apple MacBooks and other laptops,” the article quotes Upton as saying. “A smart charger with an e-marked cable will incorrectly identify the Raspberry Pi 4 as an audio adapter accessory, and refuse to provide power.”C

Upton said he anticipates the issue will be fixed in future board revisions, but until then, Raspberry Pi 4 owners will need to use non e-marked USB-C cables — the type many smartphone chargers use — with a power supply that can deliver the 5.1 V at 3A the board needs. Another option is to purchase the official Raspberry Pi 4 power supply, which costs around $8. Older chargers with A-C cables or micro B-to-C adaptors will also work if they provide enough power.

Ham radio operator killed when tower he was dismantling collapses

A ham radio enthusiast who took care of Manchester's public school grounds for 20 years was killed over the weekend when a radio tower he and a friend were dismantling collapsed.

Joe Areyzaga, of Goffstown, was known to his fellow ham radio enthusiasts by his call sign, K1JGA. They said he was a good friend, loving husband and father to six. His friend, Dave Bolduc, shared a photo of the two working on Bolduc's radio tower.

"You're going up, inspecting it and making sure everything looks good, bolted tight," Bolduc said. "We all have all the very appropriate gear."

Areyzaga was killed and another amateur radio friend was seriously injured when he was helping his friend dismantle his radio tower in Deerfield.

"Upon arrival, the first member from the department found two individuals entangled in what appeared to be a tower and some sort of cabling that was on the ground," Fire Chief Matt Fisher said.

The men were harnessed to a section of tower more than 40 feet up when the tower collapsed.

"They always used the utmost safety," said Areyzaga's wife, Elizabeth Areyzaga. "It was just a freak accident. It was some sort of soft spot somewhere in the tower."

His wife said her husband was a self-taught handyman who could fix anything. She said he loved his job working for Aramark and overseeing the grounds of Manchester's public schools.

"He was an incredible, incredible person, and the world will never be as bright now that he's not in it," she said.

Members of New Hampshire's tightknit ham radio community said Joe Areyzaga was someone who was always willing to help.

"He would drop anything to do anything for anybody, ham-related or not," Bolduc said.

Dhruv Rebba, KC9ZJX, is 2019 Newsline Young Ham of the Year

Fifteen-year-old Dhruv Rebba, KC9ZJX, of Normal, Illinois, has been selected as the 2019 Bill Pasternak, WA6ITF, Memorial Amateur Radio Newsline Young Ham of the Year (YHOTY). His parents are Hari Rebba, VU2SPZ, and Shailaja Panyam. A rising sophomore at the Normal Community High School, Dhruv is a member of the Central Illinois Radio Club. He has been licensed since 2013, after a visit to Dayton Hamvention® with his dad sparked his interest in Amateur Radio.

"He was going to the Hamvention, and so I wanted to tag along," Dhruv recalls. "There I got to see all the cool stuff like the Morse code keyers and all the radios and everything, and I decided to start studying for my Technician class."

After getting his license, Dhruv became involved in ARRL Field Day and public service events with the Central Illinois Radio Club, including the We Care Twin Cities Half Marathon and the Hop on for Hope Bike Ride/Walk. Dhruv says he found a way to combine his interest in space and engineering with his new hobby, joining AMSAT and pursuing his dream of a school contact with an astronaut aboard the International Space Station.

In October 2017, he served as lead control operator for an Amateur Radio on the International Space Station (ARISS) contact with students at his school, Chiddix Junior High, who spoke to astronaut Joe Acaba, KE5DAR. On July 27 of this year, Dhruv helped to facilitate another ARISS contact with Scouts attending the World Scout Jamboree in West Virginia, and he was able to monitor the contact from home.

ARISS presentations at Dayton and Huntsville, Dhruv's selection as an ARISS mentor, and networking with those putting together the ARISS contact for the World Scout Jamboree led to his involvement in the July 27 contact.

In 2018, Dhruv was selected to take part in the Dave Kalter Memorial Youth DX Adventure. He traveled to Curacao last summer, where the PJ2Y team logged a record 6,262 contacts with 135 entities. His favorite mode is SSB.

Dhruv has earned many accolades for his Amateur Radio pursuits, including the Young Ham Lends a Hand Award at the 2019 Dayton Hamvention Youth Forum; a Presidential Award from AMSAT, and the Radio Club of America Young Achiever Award.

Dhruv has traveled to India to promote Amateur Radio awareness. In an appearance at the ZPHS N.P Kunta school in Anantapur, he discussed the importance of wireless communication and its role during disasters.

Dhruv started the Universal Help Foundation to help underprivileged students on a global scale. Among the Foundation's first activities was a digital project at a girls' high school in India this past January. He also has an interest in robotics and has served as a mentor helping elementary school students build robots. This past April, Dhruv's MetalCow Robotics team finished fourth overall in an international competition sponsored by NASA.

A visit to the AMSAT booth at Hamvention 2019 prompted him to sign on as a volunteer for an ARISS plan that's under consideration by NASA's Deep Space Gateway (DSG).

The Young Ham of the Year was established in 1986 by Amateur Radio Newsline cofounder Bill Pasternak, WA6ITF (SK), in 1986. After Pasternak died in 2015, his name was added to the award to memorialize his commitment to recognizing the accomplishments of young radio amateurs.

Dhruv will receive the 2019 YHOTY award during the Huntsville Hamfest on August 17 in Huntsville, Alabama. — Thanks to Amateur Radio Newsline

A Year of Digital- How FT8 drove me back to bugdom…

I've always been primarily a CW operator, however, in the early 1990s I tried RTTY briefly, to augment my DX chasing. My setup used an MFJ-1278 multi-mode TNC controlled by a Commodore 64 computer. Running 50 watts with a Kenwood TS-440S transceiver in RTTY mode was enough to turn on the cool-ing fan, but also helped me work VR6BX on Pitcairn Island from my apartment QTH. My experiment with RTTY ended when the Commodore power supply failed a couple of years later. It wasn't until mid 2017 that I returned to the digital modes. I started out with the Weak Signal Propagation Reporter (WSPR) mode developed by Joe Taylor, K1JT. Originating from a miniature beacon transmitter (SOTA Beams WSPRLite Propagation and Antenna Tester) powered by a computer USB source, WSPR transmissions two min-utes long are detected, decoded, and reported by receiving stations all over the world. Reception reports are posted and summarized on the web. The 200 milliwatt signals from my modest backyard vertical antennas were heard regularly across the pond to Europe and into the Pacific, thanks to modern digital signal processing technology.Then, in November 2017, at the urging of my digital elmer, Bob, KEØFIL, I moved on to two-way digital communications, using the new FT8 mode, also developed by K1JT. I acquired a USB sound card and downloaded the free software WSJT-x. Bob helped me setup the Tx and Rx signal levels, and looked over my shoulder as I made my first FT8 QSO. It was (and still is) pretty exciting to watch the call signs and QSO exchanges decoded by the computer every fifteen seconds as an array of 50 Hz-wide signals were displayed in the 3 KHz confines of the waterfall spectrum display.The FT8 mode certainly lived up to the claims of its proponents—sometimes enabling weak signal communications that would be impossible us-ing CW or SSB with given real-time limitations of power levels, propagation, and antenna gain. I made a few QSOs with two-way signal reports of -20 to -24 dB below the noise in the approximately 3 KHz bandwidth. Us-ing 400 watts, I found I could "run" JA stations during my sunrise on 80- meters, and YBs shortly after sunrise on 40-meters–things I had not experienced with CW. Within only a few months, I completed WAS on four bands, and qualified for digital DXCC.

During 2018, there was a tremendous amount of worldwide FT8 activity–much of it spurred by the ARRL International Grid Chase event that spanned the entire year. FT8 is ideally suited for such an event, with short canned QSOs consisting of an exchange of call signs, grid squares, signal re-port and 73. Because of the activity level, however, it became frequently difficult to find an unused 50 Hz slot for transmitting, and QRM seemed to be causing too many QSOs to be aborted. Weak signal were, of course, particularly vulnerable so the probability of completing a QSO on a busy band with signal strengths around -20 dB was low. This seemed to negate the weak signal decoding advan-tages afforded by the mode. Meanwhile, my enthusiasm for digital communications began to wane, as I allowed FT8 to displace my usual CW operations and I noticed that my CW skills were beginning to atrophy a bit. I made three FT8 QSOs for every CW QSO during the calendar year 2018. I resolved to reverse that ratio during 2019. As much as I admire the marvelous technology employed in advanced digital modes such as FT8, my ham radio experience is rooted in the skills of decoding Morse by ear, and encoding by hand. By using FT8, I was using the computer to take over these critical functions of encoding and decoding radio signals. I had become a mere spectator in operating my own radio station. For me, the only way to get back to my ham radio roots was to go "cold turkey." I disconnected the sound card in my station and deleted all the digital mode applications from my computer. I began collecting bug keys and learning the fine points of their design and adjustment. I practiced and then began on the air activities with the bugs. I joined SKCC, and then was invited to join the "Bug User's Group,"and pledged to use my bugs for the majority of my on the air activity. I'm making fewer QSOs but more friends, and enjoying radio more than ever.

Chuck Guenther. NIØC

THE CURRENT WAR

Rob Mannion, G3XFD has written to tell us about a new film which has just gone on general release

Called 'The Current War', the film features the ‘war’ between the rival promoters of D.C. and A.C.

....Edison and Westinghouse.

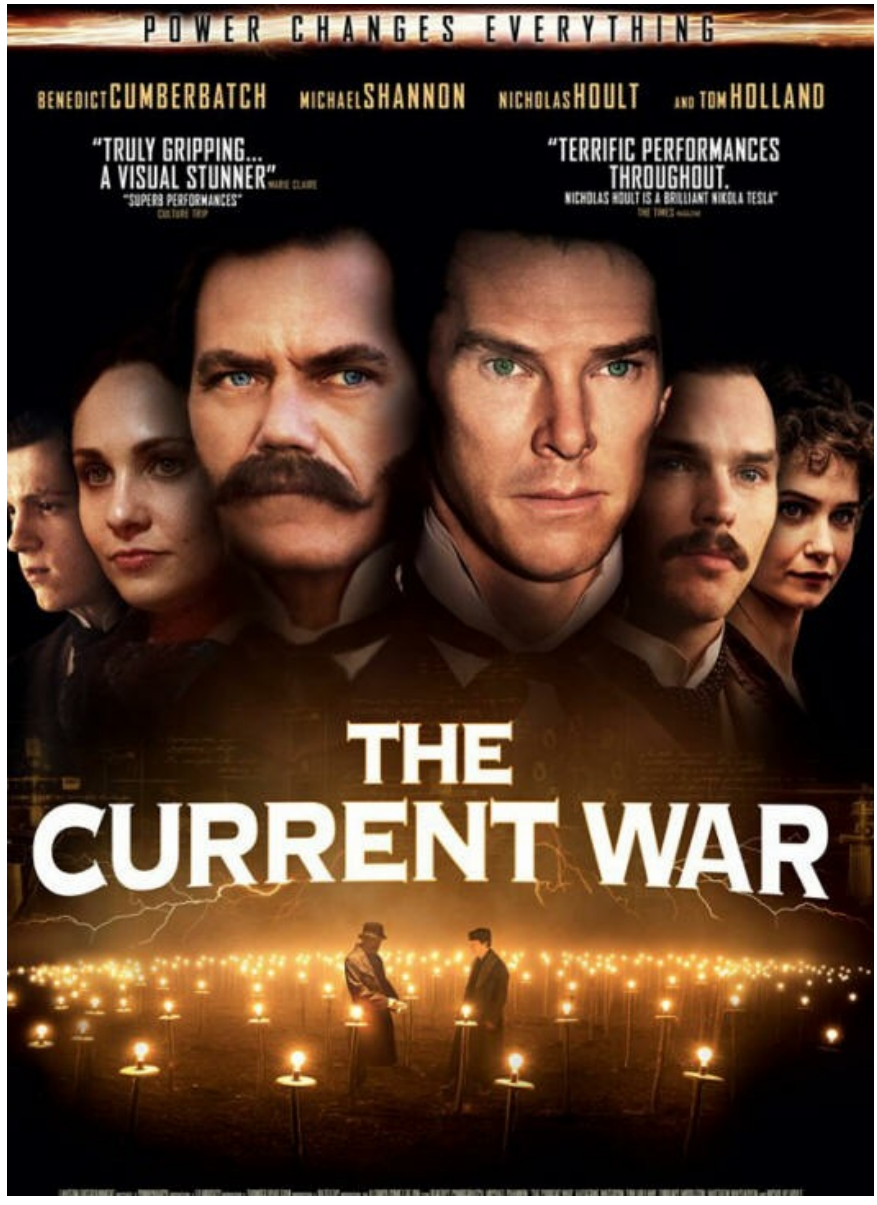
The film stars Benedict Cumberbatch, Michael Shannon, Katherine Waterston, Tom Holland, Tuppence Middleton, Matthew Macfadyen and Nicholas Hoult

Rob adds: It’s not often we see films that feature the stories of technology

• Our thanks to Rob, G3XFD for the above information

Ed: If you want to watch the film in the comfort of your own home, then you can find it here. The link below also contains a short trailer for the film:

https://www.imdb.com/title/tt2140507/



Owen Garriott commemorative SSTV event

ARISS plans to celebrate the life and accomplishments of astronaut, scientist and ham radio pioneer Owen Garriott with a commemorative SSTV event featuring images from Garriott's work with ham radio during his missions in space.

Transmissions will be sent at 145.800 MHz FM in the SSTV mode PD-120. Once received, images can be posted and viewed by the public at http://www.spaceflightsoftware.com/ARISS_SSTV/index.php

You can apply for a special SSTV ARISS Award for posting your image.

See **https://ariss.pzk.org.pl/sstv/ for details.**

About ARISS:

Amateur Radio on the International Space Station (ARISS) is a cooperative venture of international amateur radio societies and the space agencies that support the International Space Station: NASA, Russian Space Agency, ESA, JAXA, and CSA. The US Center for the Advancement of Science in Space (CASIS) and the National Aeronautics and Space Administration (NASA) provide ARISS special support.

The primary goal of ARISS is to promote exploration of science, technology, engineering, and mathematics (STEM) topics by organizing scheduled contacts via amateur radio between crew members aboard the ISS and students in classrooms or informal education venues. With the help of experienced amateur radio volunteers, ISS crews speak directly with large audiences in a variety of public forums. Before and during these radio contacts, students, teachers, parents, and communities learn about space, space technologies, and amateur radio.

ROCKS *by Curtis-AA3JE*

I finally got a decision on where to put up the mast. These things are difficult, because SHE, (short for SHE WHO MUST BE OBEYED), likes Ham Radio but does not like antennas. Every winter (antenna work must be done in the dead of winter, preferably with a high wind and/or sleet) the following dialog takes place.

"I am going to put up the long wire."

"OH (EXPLETIVE DELETED), NOT WIRES IN THE TREES AGAIN!"

"Just one wire, thin, copper colored."

"IT ALWAYS LOOKS LIKE (EXPLETIVE DELETED)."

"It's just one wire."

"YES, AND THE TITANIC JUST HIT ONE ICEBERG!"

So I had to peer about and find a place with an acceptable coax run where I could hide the sloper. I found one, and started digging. There was just six inches of soil, and below that, rock.

Now I have come from Rockport, and have the gear and the will. So I put the front end loader on the front of the tractor, and the ripper on the back, and started in. As expected, the sucker was a big one! About 4-5 cubic feet, and 1200-1400 pounds. This was a problem, as the front end loader can handle only 700 pounds. Any more, and it just whines at you. So I dug around it, and used the ripper on the back to loosen it. The "ripper" or sub-soiler is a big hook on the 3-point hitch that can budge a ton, if you get a good run, don't mind a mild concussion and have the seat belt fastened.

So I pushed it up the ramp, got it on the lawn, and looked at it. It looked back.

Smirking.

"WELL, THAT IS LOVELY! WHAT'S THAT ROCK DOING ON THE LAWN?"

"Moving it in a minute, dear."

Now SHE is a native Rockporter. She knows things.

"YOU ARE GOING TO MOVE THAT? IT WEIGHS ABOUT ¾ OF A TON."

"I'll work on it, dear."

"YOU STILL GOT THAT ACCIDENT POLICY?"

This called for a rock drill and feathers and wedges.

Now I knew if I could drill it, I could split it. But the darn thing was 300 feet down the hill, and I don't have a portable generator anymore. (Sold it with the house. In Rockport, especially South End, you can use a generator. South Street is part of the "lap around the Cape" the locals drive to sober enough enough to go home, and they sometimes hit the power poles).

So big decision. Generator (where do I put it) or 10 gauge extension cord? Harbor Stuff has a nice10-gauge 3-wire for about a hundred bucks. So I bought three.

Someone might ask why not dig in a different place. I tried that. According to the USGS, I am on "Rocky Loam", which is 70-75% rock. Gifts of the glaciers. Besides, it was too late. I was hooked.

Here is the rock:

Here is the rock with 5/8 holes, feathers and wedges in it:

Here is what happened:

Each piece weighed about 500-700 pounds, and the tractor groaned and grunted, but lifted them. I added them to the pile. There were a few tense moments going across the hill, but we made it.

When I have enough, and can afford a cement mixer, I will build a tower.

Which is good, as I probably will be living in it by then. Next year, I will harvest the rocks again. They do that. Come up in the spring, I mean. I also want to put in a tilt-over tower, but that means a road into the woods (behind the trees).

ARRL Field Day 2019 Attracts Nearly 3,100 Entries

The 30-day deadline to submit ARRL Field Day entries via app upload and (timely postmarked) USPS mail is now past, and the ARRL Contest Branch reports 3,070 entries have been logged into the system. Last year saw 2,903 entries. ARRL Radiosport and Field Services Manager Bart Jahnke, W9JJ, said the total does not include entries postmarked by July 23 and still in transit. A number of entries still show a status of "PENDING." These include 280 incomplete entries that are missing the required list of call signs by band/mode (also known as a "Dupe Sheet"), or a Cabrillo file.

"This requirement is to ensure that claimed contact totals do not include duplicate contacts on the same band and mode," Jahnke said. "These entries, if not complete, may end up as check logs in the final listings."

An additional 191 entries are missing something other than Dupe Sheets. "These entries are complete," Jahnke explained. "Their scores at present are not benefiting from certain bonuses, for which documentation is still outstanding," he said. "Confirmation for entries submitted online using the web app include a link to update your entry. If ARRL generated the entry from paper, or if you are unable to update your entry, submit pending documentation via email, and the Contest Branch will update your entry, assuming that documentation/photos confirm the bonus points claimed."

Updates are permitted until August 23. After that, all entries as of that moment will be considered final. Results will appear in the December 2019 issue of QST.

PUBLIC SERVICE ROAD RACES

CAARA Public Service Schedule 2019

~~1 Fool's Dual March 31, 9:00am 5K Race Start 10:00am Half Marathon O'Maley Middle School 32 Cherry Street Gloucester, MA.~~
~~2 Twin Lights Good Harbor Beach April 27, 9:00am Half Marathon Start Thatcher Road Gloucester, MA.~~
~~3 Rocky neck Art Assn. 5K. Run/walk Team Challenge May Date T.B.D.~~
~~4 Fast Half May 11, 9:00am Half Marathon Start Hamilton - Wenham High School 775 Bay Road South Hamilton, MA.~~
~~5 YMCA Backshore 5K Thursday, May 16th, 6:00pm:, Good Harbor Beach, Gloucester~~
~~6 Motif No.1 Day Arts Fest & 5k Fun Run Date T.B.D.~~
~~7 Cape Ann Trail Stewards. Dogtown 5 Mile Trail Run 19 May 2019 9:00 AM~~
~~8 Twin Lobster June 2,8:00am 1-Mile Race Start 8:30am Half Marathon Start Gloucester High School 32 Leslie O Johnson Road Gloucester, MA.~~
~~9 YMCA Father's Day 5K Sunday, June 16th, 9am:, Rockport High School, 24 Jerdens Ln.~~
~~10 YMCA St. Peter's Fiesta 5K Thursday, June 27th, 6:00pm:, Stage Fort Park, Gloucester~~
11 Triple Threat August 4,8:00am 1M Race Start 8:20am 5K Race Start 9:15am Half Marathon Start Rockport High School 24 Jerdens Lane Rockport, MA.
12 Half Marathon by the Sea September 22, 10:00am Half Marathon Start Manchester Essex Memorial Elementary School 43 Lincoln Street Manchester-by-the-Sea, MA
13 The Lone Gull 10K Road Race September. Date T.B.D.
14 Parker River Half Marathon. October 6, 9:00am Half Marathon Start Triton Regional High School112 Elm Street Byfield, MA 01922
15 Ocean View November 3, 8:30am 5k Race Start 9:30am Half Marathon Start Ipswich High School 134 High Street Ipswich, MA 01938
16 Holiday MerryThon. December 1, 9:00am 5K Road Race Start 10:00am Half MerryThon Start Good Harbor Beach Thatcher Road Gloucester, MA.

Why should you participate in race events?

It helps the club financially, we receive a donation for each race. You are using amateur radio to provide a needed public service to ensure the safety and smooth running of a public event in local communities.

I would but I do not have a radio.

No excuse, we have loaner radio's available with a mag mount that will work in your car just by just plugging it into the cigarette lighter socket. We have loaner hand held radios as well!

I don't have transportation.

No excuse, we will pick you up and drop you off at your house.

I do not have the time to spare for a whole race.

Well, you can commit to a time slot, for just two hours. We will bend over backwards to get you to participate.

CAPE ANN AMATEUR RADIO ASSOCIATION

6 Stanwood Street
Gloucester, MA 01930

www.caara.net

Repeaters on 145.130
224.900 & 443.700

S	M	T	W	T	F	S
		Open House-5-10pm		1	2	3
4 CAARA NET ON THE	5	6 Open House-5-10pm	7	8	9	10 BOD Meet-11am Members Meet Noon
145.130 11 REPEATER EVERY SUNDAY	12	13 Open House-5-10pm	14	15	16	17
NIGHT 18 AT 9PM	19	20 Open House-5-10pm	21	22	23	24
25	26	27 Open House-5-10pm	28	29	30	31