



CAARA Newsletter



CAPE ANN AMATEUR RADIO ASSOCIATION

DECEMBER 2014 EDITION

President's Desk

by *Hank-W4RIG*



The holiday season is now with us once again and we have the CAARA Christmas Party scheduled for Saturday, December 6, 2014 at St. John's Episcopal Church Parish Hall @ 48 Middle Street. We've got some great door prizes such as a Wouxon dual band hand held Transceiver and an Oregon Scientific Weather Station ready to set up and use. Don't forget the Yankee Swap with a gift of about \$10 value. All revenue from the attendance and raffle will go to the operations of W1GLO during 2015. Check in with Dean Burgess on food items you can bring to the Christmas Party - we appreciate his continuing effort in keeping the party food in good order.

I'd like to acknowledge the hard work of Jon Cunningham at 6 Stanwood Street with both the building maintenance and especially the eBay sales for the benefit of our Repeater fund and operating budget. Jake Hurd and Larry Beaulieu have been helping with the selection of donated equipment for sale or inventory as well as packing and shipping efforts.

Curtis Wright has turned the reins of Public Service and Emergency Communications over to Gardi Winchester who is making a great effort to fill Curt's shoes and doing a fine job with recruiting for special events and training exercises. Gardi and his family have done a great job of cleaning up the Building at 6 Stanwood and getting the kitchen in fine operating condition.

Special thanks to Dick Ober for keeping the computer records in great shape and for getting out the call for 2015 dues. If you have not done so, please send in your dues or pay using Paypal. Stan Stone our treasurer is happy to get your cash and checks for membership dues - be sure to consider donating a few extra dollars to help with the membership dues for those who might be unable to pay for their membership due to infirmity or difficult economic conditions - we try to help our long time members who are in hospice care and extended senior residential circumstances.

I want to thank Roger Smith for the special efforts to maintain the building at 6 Stanwood - he has been most helpful with various upkeep such as trash removal and repairs to the weather strip on the front door among other routine maintenance needs.

My best wishes for the Holiday Season and a Happy 2015.

Information Desk

by *Dean-KB1PGH*



Well the delayed issue delivery problems still exist at CQ Magazine. As of today, November 1st, I received the September edition a week ago and I have yet to receive the October Edition so the situation there still has not improved. It's too bad for those advertisers and others who have paid to have time sensitive ads and other notifications published a month late. This situation has been going on now for at least 6 months so the future viability of CQ Magazine still remains in doubt. So for this month's column I will cover part 1 on the "How could you possibly be bored" aspect of amateur radio. Especially if just turning your rig on and finding someone to talk to. Now granted, there's nothing like a friendly long time "Ragchew" with another amateur radio operator on the other side of the world but there is much more going on all around the bands. Lets see, just about every weekend there some sort of contest or sweepstakes going on. Even if your not an avid contester you can still give away points to those who are participating by making contact with them. These contents and sweepstakes go on at 24 to 48 hrs so you can fit it in to your schedule. All throughout the year there are "Special Event" stations that are looking to make contacts. These stations mark important historical events and there are even event stations on naval museum ships. All you have to do is tune the bands for a while and you'll hear them. Then there are the SOTA (Summit on the Air) stations and the IOTA (Islands on the Air) stations which you can

(cont. p 3)



CAARA Newsletter
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). It is the policy of the editor to publish all material submitted by the membership provided such material is in good taste, relevant to amateur radio and of interest to CAARA members, and space is available. Material is accepted on a first come, first serve basis. Articles and other materials may be submitted by internet to Jon at k1tp@arrl.net. If possible, material should be in Word format. Material may also be submitted as hard copy to Jon-K1TP or any Club Officer.

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Jon Cunningham- K1TP Editor
Dean Burgess- KB1PGH Reporter

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Welcome to CAARA:

CAARA, an ARRL affiliated club, operates the 2 meter W1GLO repeater on 145.130 MHz with antennas located on the Cingular 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. The former W1RK 443.700 repeater with antennas located in Magnolia is now located at the CAARA clubhouse and has a very limited range.

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 rotating beam and vertical antenna along with a 2 meter packet station and 2 meter voice and 220 MHz transceivers.

Amateur radio exams are held on the second Sunday of each month at 10:00AM at the CAARA clubhouse. Anyone who is considering a new license or an upgrade, is welcome to test with us. There is no pre-registration necessary. Contact the head of our VE team Bob Quinn if you have any questions about monthly testing. Monthly member meetings are held on the first wednesday of each month at 7:30 PM except for July and August

Each Sunday evening at 9:00pm, 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.

New! The club is open every Tuesday from 4-8PM for CAARA members to stop by and socialize, as well as use the extensive collection of ham radio gear.

Information Desk

by Dean-KB1PGH



contact. These stations are portable where obviously they are transmitting from high atop mountains or an island in the middle of nowhere. You can find out more about these stations and their transmitting schedules at www.rsgbiota.org and www.sota.org.uk. You can even talk to pedestrian mobile HF stations. These hams refurbish old classic post WW 2 portable HF rigs, as well as newer portable HF rigs. They strap them to their backs and operate HF on 40 meters and above. You can find out more about these portable operators at www.hfpack.com. Plus there are people like myself who operate portable HF with the Buddipole. There is a Yahoo group you can join to find out when other Buddipole users will be on the air. If your looking for the pedestrian and portable HF stations there is calling frequency on 20 meters 14.342.5 MHZ USB. So you get the point, the bands are never quiet with all that activity going on,

Next month I'll give you a couple more ideas of who you can talk to on ham radio. I would like to continue from last months column where I discussed adding the Seafoam to your gas equipment to keep the gas from going bad. Now since we are in the winter season and I don't plan to use the Honda 2000i Generator until spring I have the other option maintenance I should mention. If you have gas equipment in storage you can always drain the gas out of the tank, the gas pump and especially the carburetor. Like for me, I can siphon the gas out of the tank, then drain the carb, then take out the spark plug, pull the start cord a couple of times to drain the pump in the carb, then drain the carb again until the entire line is empty. So don't get caught with a generator which won't start when you need it because you got lazy and just left it in the garage.

Before I close out this months column if you have any ideas of ham radio of which you would like me to cover please let me know. As a ARRL Public Information Officer in Eastern Mass I'm looking to cover every aspect of the hobby.

So for now 73

Dean Burgess KB1PGH- ARRL EMA PIO

Editor Roundup

by Jon-KITP



We have received a nice working TenTec Triton HF transceiver, the same model as the one the club owns but is non-operational. We have also received a Kenwood TS-530 with matching speaker, MFJ tuner and electronic keyer. It appears to be in excellent condition. As of late we have been getting quite a few donations of good operating ham radio equipment and accessories.

I have just a few items left to Ebay for the club general fund, we have sold over \$4000 dollars worth of gear this year. We still have a high end graphic scanner to sell before we shut down for the winter.

Repeater Notes:

We have been running the 2 meter repeater with two antennas and a set of duplexers for years because it is considered the best way to operate the system. You can run one antenna with a little desensing (lack of RX sensitivity) but we never had any luck doing it with the old Kendecom Repeater.

We purchased a new Kenwood repeater and I soldered up a new harness for the duplexers to run one antenna and surprise, it works great.

We took the 440 repeater from the club and installed it on the other antenna on the tower and it is being tested right now for coverage and it seems to work pretty darn well. The 2 meter antenna seems to work ok on 440 mhz with a 1.1 swr. Granted this is not the way to run things but this is just a test.

Please give it a whirl, try to key up the 443.700 club repeater and give us a shout. We are only running about 15 watts.

I am working with the tower company now and trying to get the go ahead to replace both antennas and we should have details and pricing very soon. It is going to be expensive because we have to use their preferred tower installation company.

The 220 repeater is also at the club house and we are attempting to put it back on the air and have run into a few problems. The duplexers seem to have a problem and we still need to get the new J-pole 220 antenna completed for use. We will have it on the air in the next month. Jake and I will be starting the renovation of the second floor operating room with a new operating table, wiring, paint, etc. and I hope we have this done in the next month or so.

WHAT'S GOING ON AT THE CAARA EMCOM CENTER?

Hello to all CAARA members- Here are some of the door prizes that will be raffled off at the club's Christmas party. A Wouxun 2M/440 dual band radio, a Oregon Scientific Weather Station, an atomic clock and a Oregon Scientific weather radio. There will be some other items as well so you can't win the if you don't come to the party and buy tickets for this important club fundraiser.

73, Dean Burgess- KB1PGH

The photo below shows a recent piece of art, a hanging motif crafted of tubes by our own talented member, Bob Quinn- WV1A. Many thanks Bob for all you do and have done for the club over the past thirty years! In the background is the tube cabinet which has been painted and installed on the first

floor previously on the second floor. A crew consisting of Bill Canty, Bob Spanks, Jon Cunningham, Tony Marks, and Jake Hurd put together the Cushcraft R5 from the basement on a Tuesday afternoon a few weeks ago.

Jon Cunningham, Gardi Winchester, Ross Burton, and Jake Hurd mounted it to the rear building and it is now up and running, This is an important addition to the second floor stations and we will soon be adding a wire antenna that will cover 40 and 75 meters. We suddenly find ourselves with a multitude of working hf radios and not enough antennas. A good problem when you think about it! A photo on the right of the R5 antenna installed.



HANGING TUBE ART
by Bob Quinn -WV1A



Get ready for 'Frequency' - the series

Get ready to share the airwaves Tim Allen. The neighbors are buying a ham radio!

Tim Allen plays Mike Baxter, the lead character on the ABC sitcom "Last Man Standing". In the series Baxter is portrayed as having amateur radio as his hobby.

Although ham radio has only been briefly interjected into a few episodes it has been enough to endear the show to amateur operators everywhere. The ARRL supplied amateur radio certificates and other assistance in dressing the set. Tim Allen recently earned a Technician class license in real life.

Now it appears that ABC might be sharing the admiration of the amateur radio community with a neighboring network.

A just published article in The Hollywood Reporter has stated that NBC is looking to create a television series based on the 2000 New Line Cinema action - thriller movie "Frequency".

While amateur radio has only briefly been presented on "Last Man Standing", it would almost certainly figure prominently into all of the

scripts of "Frequency".

The original movie featured Jim Caviezel stumbling onto his late father's (Dennis Quaid) 60's era Heathkit transceiver and thru a quirk of nature associated with the aurora borealis is able to communicate 30 years back in time to his dead father.

It is reported that NBC has already

issued a 'script plus penalty' commitment for the series. Jeremy Carver is writing the script for Warner Brothers Television and will also be the Executive Producer of the series. Toby Emmerich who wrote the movie will be a co-producer.

PHOTO IS DONATED CLUB GEAR LOOKING FOR A FEW GOOD HAMS TO TRY OUT!



Just a Quick Stop

by Curtis- AA3JE

Now that I am retired, sort of, my dear lady, SHE WHO MUST BE OBEYED, asks me to run to the store when she needs something. Which I am glad to do. One would think my willingness would reduce the inevitable friction when two strong minded individuals (well, ok, one strong minded and one weak minded) live together. Unfortunately, this is not always the case, as I will show.

On the particular day in question, I had been sent for a short list of pasta making ingredients for dinner, and it should have been a quick hop. Since I had another errand, I asked if I could combine them. I was told that would be no problem.

Now the other errand was to stop by Tad's house. Tad is a friend, not mechanically inclined, who had put his snow blower away last season, and had found it would not start this season. This is very common since they started putting ethanol in the gas, and I picked up some STABIL and some GUMOUT, and swung by his house.

Tad told me the unit was in the garage, and could I look at it while he finished what he was doing. I said sure, found the blower, which was a nice big 24 inch unit, and I put the STABIL and the GUMOUT in the tank, and shook the unit to distribute it. The easiest way to do this was to push down on the handles and just shimmy it back and forth. Seen from behind, with my backfield in motion, this was a peculiar sight. This led, of course, to Tad's asking what I was doing,

when he arrived. I told him it was a special dance to invoke the mechanical gods before starting the repair. The sad part was that I think he half believed me.

So I cranked the thing over. No joy.

So I pulled the shroud, and sniffed, no gas odor.

So I sprayed GUMOUT down the carb throat, and cranked and she fired up.

So it was a gas problem. No sweat.

So I pulled the gas line, and no gas came out. I was looking closely at the thing, when Tad turned on the gas shut off valve, (which had been shut off) and I verified using my famous "taste test" that plenty of gas was coming down the line.

A f t e r removing the e x c e s s gasoline from my person, and borrowing a shirt from Tad, we tried again.

I looked for the float bowl drain. There was none. This was not suprising as they stopped putting those on carburetors in 1954. So we pulled the float bowl.

It was full of nice clean gas. No help there.

So I sprayed GUMOUT up the main jet. Nice and clear. So I claimed victory and reassembled everything.

No start.

So I pulled the float bowl assembly. It seemed to work fine. So I reassembled it all again. Now it started on full choke, but died if you opened up the choke at all.

So I pulled it all down again. This time I asked if this had happened before.

"Oh sure. Last year. They said I needed a new carburetor. \$175 plus labor."

"Do you have that carburetor?"

He did, and with an example that I could hold in my hand, I realized that the main jet was in the float bowl assembly, not the carburetor body. I looked at the new one, and it was obvious it was solidly plugged with corrosion due to ethanol-gas.

We found a bit of floral wire the right size, and cleared it out. We reassembled everything, and discovered that the O ring had soaked up so much GUMOUT it was now too big. So we dried it out in the microwave, which caused a small fireball from the vapors, not bad, and this time there were no leaks, and it ran like a top. I was running late, and sent a quick email to the spouse.

We packed up, and I went home, feeling pretty triumphant, when I realized I had not actually gone to the store. A quick 180 and fifteen minutes later, I arrived home with the groceries. I hauled the groceries up to the kitchen, and realized that no one had greeted me. Then it came. The throat clearing. The tapping of the toe.

The awful doom. The words, the words!

"DO YOU KNOW WHAT TIME IT IS?"

"Er, no?"

"YOU HAVE BEEN GONE FIVE HOURS."

"That long?"

"WHERE WERE YOU?"

"Fixing Tad's snow blower. "

"OH, PLAYING WITH YOUR LITTLE FRIENDS?"

"I sent an email"

"OH"

I felt a little miffed that my marvel of mechanical deduction was referred to as "playing with my little friends", but I'll take what I can get.

Safety tip. Keep track of the time. And always send an email. Works every time.

CAARA NET EVERY SUNDAY NIGHT at 9 PM

Don't forget that the Cape Ann Amateur Radio Association holds an informal weekly radio net on the clubs 2 meter repeater frequency of 145.130 MHZ with a pl tone of 107.2. This net is held every sunday night at 9 PM sharp. For those reading this newsletter out of range of the CAARA repeater you can still check in on the clubs echolink mode. CAARANET is designed for checking the operation of the

clubs repeater system and those radio systems of those who check in. CAARANET is informal and all sorts of ham radio traffic is passed including all topics surrounding the hobby. So make sure you check into the net each week to find out what's going on in ham radio on Cape Ann! CAARANET is run by a group of net operators who operate on a rotating schedule. Here's a list of the following net controllers in order:

Stan W4HIX
Dean KB1PGH
Hank W4RIG
Jake W1LDL
Nate KB1VST
Roger KB1YTJ
Gardi KA1BTK
AI N1QEH
Ruth WW1N

Radio station WWI - Henry Ford's short venture into radio.

One day in 1922, Henry Ford decided he wanted to be in the radio business. He walked into one of his executive's offices and said "I want you make me one of these wireless outfits". With the help of a Ford employee who had been in the Navy wireless corps, they built 250-watt station WWI in Dearborn, Michigan. The on-air talent was recruited from the Ford factory workers, and featured bird calling imitations, the Ford Hawaiians band, and The Ford Motor Company Band, among others.

In October of 1922, Ford talked about building 400 stations around the country. But he quickly became disillusioned with radio as more competing stations went on the air, and with the need to comply with gov-

ernment regulations and constant equipment upgrades. WWI left the air in 1926.

It's interesting to note that many station call letters were issued alphabetically by region at that time, and that the call sign WWI was issued right before the Detroit News was assigned WWJ.

HOMELAND SECURITY PLAN INCLUDES AMATEUR RADIO

Ham radio will be a part of the Department of Homeland Security's 2014 National Emergency Communications Plan as we hear from Bill Pasternak, WA6ITF: — The ARRL reports that the latest United States Department of Homeland Security's 2014 National Emergency Communications Plan, or NECP, formally incorporates Amateur Radio. This, in its blend of media outlets that could support and sustain communications in a disaster or emergency situation.

According to the new plan, amateur radio operators can be important conduits for relaying information to response agencies and personnel when other forms of communications have failed or have been severely disrupted.

The document also describes changes that lie ahead for other forms of emergency communication such as 9-1-1 systems. It notes that the Next Generation 9-1-1 will enhance the capabilities of current networks by permitting the transmission and reception of photos, videos, and text messages. This says the agency would provide additional situational awareness to dispatchers and emergency responders.

RADIO INTO SPACE: NASA ANNOUNCES \$5 MILLION CUBESAT QUEST CHALLENGE

NASA has announced a mini-satellite or Cube Sat design contest that will see participants competing for \$5 million in prize money and a chance to have their winning satellite flown to the moon by the space agency. Called the Cube Quest Challenge, the objective of the competition is to design, build and deliver to NASA a flight-qualified small satellite, or CubeSat capable of advanced research in the vicinity of our moon and beyond. The competition consists of three separate challenges, with the prize monies divided between them as outlined by NASA. The first of these will be comprised of four ground tournaments to determine which entries are capable of being carried to space. This will have a prize of \$500,000. A Lunar Derby will be a \$3 million competition for establishing the capability to put a CubeSat into a stable orbit around the moon and demonstrating both its durability and communication capabilities while there. There will also be a Deep Space Derby for demonstrating a CubeSat's durability and communication at distances up to 10 times the distance beyond that of the moon. It will bring with it a prize of \$1.5 million. A NASA release says that the prize purse in the Cube Quest Challenge is the largest cash prize the agency has ever offered. The winning Cube Sat will be launched as a secondary payload on the first integrated flight of NASA's Orion spacecraft and Space Launch System rocket. Full information about the completion including entry requirements are at tinyurl.com/nasa-cubesat-challenge

(NASA, TechTimes, Phys.org, others) **

HAM RADIO IN SPACE: NEW HAM OPERATOR ARRIVES AT THE ISS

Ham radio has returned at the International Space Station. This with the arrival of European Space Agency Astronaut Samantha Cristoforetti, eye-zed-one-U-D-F, after a 5 hour and 45 minute trip that began at the Bikenour Cosmodrone in Kazakhstan. Cristoforetti made the trip along with United States Astronaut Terry Virts and Russian Cosmonaut Anton Shkaplerov. The three new arrivals were welcomed to the orbiting outpost by Commander Barry Wilmore along with Cosmonauts Yelena Serova and Alexander Samokutyaev. Virts, Shkaplerov, and Cristoforetti will remain aboard the station until mid-May. The current crew I slated to return to Earth in early March. (ESA)

MUNICH OLYMPICS SHORTWAVE STATION DEMOLISHED

Germany's national ham radio society, the Deutscher Amateur Radio Club says that a bit of communications history came to an end on November 4 with the demolition of the Wertachtal shortwave transmitter towers. The shortwave station using these towers came into operation for the Munich Olympics in 1972. At the time it was the largest shortwave transmitter in Europe with 29 masts up to 125 meters in height high. The first test transmissions began on April 10, 1972, using several 500 kilowatt transmitters. The demolition of the facilities started in May and the plant will be completely gone by the end of the year. (WIA News) **

WORLDBEAT: RUSSIAN

FEDERATION LAUNCHES RADIO SPUTNIK BROADCAST SERVICE

Russia has gotten into the terrestrial broadband news and information game. This with word that it has launched a media brand called Sputniknews dot com with modern multimedia centers in dozens of countries. It appears the streaming station, website and mobile phone apps purpose is to counter the news outlets of English speaking nations such as Voice of America and the BBC. Sputnik hopes to broadcast in 30 languages, with over 800 hours of programming covering over 130 cities and 34 countries by the end of next year. Sputnik's actual broadcasting will use modern formats, such as digital DAB, DAB+, HD-Radio, FM radio as well as mobile phones aps along with Internet broadcasting around the clock. In a 2013 interview with R-T News, Russian President Vladimir Putin expressed his wish to break the Anglo-Saxon monopoly on the global information streams. Radio Sputnik went live on November 10th. More about the new multi-platform service is on the web at tinyurl.com/russia-radio-sputnik (RT News, Southgate, SPUTNIKNEWS.COM) **

DUTCH FIRM RELEASES EUROPEAN POLICE RADIO DETECTOR

A Dutch company has introduced a radio-based detection system that can alert drivers if a police officer or other emergency services official is using a two-way radio nearby. At least it can in Europe. Amateur Radio Newline's Hal Rogers, K8CMD, reports: — According to a United Kingdom's Sunday Times article the unit called Blu Eye monitors frequencies used by

Europe's TETRA encrypted communications networks used by most government agencies. It doesn't allow the user to listen in to the actual transmissions, which is illegal and would require advanced decryption capabilities, but can detect a radio in operation up to one kilometer away. Even if a message isn't being sent, TETRA radios transmit pulses out to the network every four seconds that the Blu Eye unit can also receive. A dashboard-mounted monitor uses lights and sounds to alert the driver to the proximity of the source, similar to a radar detector.

BROADBAND HAMNET RELEASES NEW SOFTWARE

Broadband-Hamnet has announced a new firmware release titled 3 dot zero dot zero. This latest version includes the Ubiquiti M9-series airMAX devices, giving Hams use of the 900 MHz band for mesh networking. This latest release builds on a series of advancements that build on the Ubiquiti firmware released for the 2.4GHz and 5.8 GHz Ham bands earlier this year. More is on the web at broadband-hamnet.org. (Broadband Hamnet) **

EMERGING TECHNOLOGY: NEW RASPBERRY PI PICO COMPUTER

A new and inexpensive Raspberry Pi pico-computer christened the model A+ has been released. Selling at only about \$20 US depending on where you buy it, this is a truly updated version that features among other things a 700 MHz Broadcom CPU with 256MB RAM; a 4 pole Stereo audio output, a composite video port and a full size HDMI connector. Also included are ports for connecting a CSI camera and

Raspberry Pi screen display that are sold separately. The Raspberry Pi A+ measures only 56 by 65mm with standard mounting holes already drilled into the PC board. A full article on this latest single board tiny computer at tinyurl.com/raspberry-pi-model-a (G7V FY)

DX In DX, F6BLP will be active as 6W7SK from Senegal between January 10th and February 15th of 2015. This will be a holiday style operation mainly using C-W on 80 through 10 meters with the possibility of 160 if things work out. QSL to F6BLP, either direct or via the bureau. W8GEX and W8CAA will be active as C6ADX and C6AYL respectively, from the Island of Exuma through December 3rd. Listen out for them on 60 through 10 meters using SSB and RTTY. QSL to their home callsigns. KL7SB will be operational as E51RAT from Rarotonga through December 6th. Activity will be limited as time permits, but look for him on 80 through 10 meters, primarily on CW with some SSB, RTTY and some digital modes. QSL via NI5DX. OE4AAC will be operational as S79AC from Mahe and Praslin Islands in the Seychelles Island group between January 17th and February 10th of 2015. Activity will be holiday style on 40 through 10 meters on CW only. QSL OE4AAC, direct, by the bureau or ClubLog's Oh QRS. Lastly, K6REF is currently active stroke KC4 from the United States Camp at Ross Ice Shelf in Antarctica. The team is there for both survival training and seismometer installation. Late word is that they should be there for another week or more. Ham radio operation has been on 20 meter SSB around 14 dot 243 MHz around 1900 UTC. More is on the web at waponline.it This weeks DX news

courtesy of the Ohio-Penn DX Newsletter) **

PAY PHONES MAY DISAPPEAR IN DA BIG APPLE

And finally this week, a legendary device that pre-dated the cellphone and the smart phone appears to be on its way to oblivion in one of the world's largest cities as we hear from Amateur Radio Newsline's Jim Damron, N8TMW: — Pay phones on New York City streets would become a remnant of the past under a plan that would replace them with stand-alone devices offering free Wi-Fi and nationwide phone calls as well as mobile phone charging capability. New York City Mayor Bill de Blasio calls the project LinkNYC. He describes it as a plan proposed by a group of companies working together under the name CityBridge that have been selected to replace the old pay phone system. Up to 10,000 column-like devices would be placed in all five boroughs starting next year if the plan is approved by the city's Franchise and Concession Review Committee. The devices, along with Wi-Fi, would also have touch screens for users to access city agencies and digital displays for advertising and announcements. These devices would replace 8,400 pay phones around the city. The only phones left would be three booth-style pay phones on New York's Upper West Side that would be preserved as pieces of New York City history. Mayor De Blasio noted that the plan would not cost city taxpayers anything. He said the money to cover the cost would come through revenues from the advertising. New York City leaders claim that advertising revenue from these new devices would bring in \$500 million over the next 12 years.



A look at the Red Dee 2 Connect

by Dean-KB1PGH

As I work HF portable I rely on the Anderson Powerpole system of DC power distribution. The Anderson Powerpole DC power distribution system is the preferred method used by ARRL ARES and the RACES emergency communications groups. The wiring is universal between many different radios and power supplies and the connectors are basically foolproof which makes for safer power distribution. Plus the connection system makes for quicker connecting and disconnecting of radios and power sources. I was finally able to connect my car's battery to the Anderson Powerpole system to operate my VHF rig, but if I wanted to hook up anything else in addition to that I could not, or it would just be a pain to have to disconnect the one DC line, say I wanted to hook up my Icom 7000 or the charger for my HT. So I purchased the Red Dee 2 Connect distribution block. It takes one DC input and turns it into 3 low loss, high current separate outlets. It can handle up to 58 VDC and up to 45 amps max which is more than enough. It's a little bit bigger than a bottle cap and is well constructed. The power and ground connections are also color coded to match the Anderson Powerpole system. I would highly recommend this for any one's emergency communications "Go Kit" and for casual portable ham radio use. The Red Dee 2 Connect block is \$20.99 and can be found at www.powerwerx.com.



Morse Express presents the 2014 Christmas Key

The Morse Express 2014 Christmas Key is fully adjustable, with precision pin bearings at the trunnion, and it has two miniature binding posts. Its balance is perfect, and lever tension is provided by a compression spring that is located forward of the trunnion posts. The 2014 Christmas Key measures 1¼" x 2¼" at the base. It is 1½" tall and it weighs just over 1½ ounces.

The Morse Express 2014 Christmas Key is a limited edition of 150 keys priced at \$89.95,



This week Yaesu FT-991 has been type-accepted by the FCC this week.

FT-991 ALL-BAND, MULTIMODE PORTABLE TRANSCEIVER

The FT-991 is the next generation in all mode, all band MF/HF/VHF/UHF transceiver with C4FM (System Fusion) Digital capability. The FT-991 includes multi-mode operation on CW, AM, FM, SSB, and Digital Modes (Packet, PSK31, RTTY and C4FM), with 100 Watts of HF/50mhz Capability (50 Watts VHF/UHF).

The New FT-991 now includes a high-resolution full color 3.5" TFT Touch panel for superior operability and visibility, incorporating a High Speed Spectrum scope with ASC (Automatic Spectrum-scope control) built right in.

The FT-991 is designed for the most competitive operating situations, with a suite of new features to enhance the experience. Whether you primarily operate at home, mobile or in the field, the FT-991 will provide outstanding fundamental performance plus give you easy access to the full range of exciting modes available on the ham bands today.



Comes with programming cable and software. I saw this in QST for about \$139.00! Cheap way to have dualband and enjoy the use of our newly installed 440 machine.

2m/70cm Dual Band Mobile

10 Watts

Only 4 3/4" x 1 1/2" x 3 3/8"

CTCSS/DCS Encode/Decode Built In

199 Memory channels

Transmit 400-470 MHz and 136-174 MHz

Receive 400-520 MHz and 136-174 MHz

How About a New 12 Volt Automotive Connector?

Don't get me wrong — I do like standard connectors. A while back, I wrote about how the micro-USB connector became the standard power/data connector for mobile phones. Well, that is unless you own an iPhone.

The good news is that we do have a standard power connector for 12 VDC in automobiles. The bad news is that it is an ugly behemoth derived from — can you believe it? — a cigarette lighter. For some background and history, see the Wikipedia article. The Society of Automotive Engineers (SAE) has a standard that describes this power



connector (SAE J563). Alan K0BG correctly warns us to “never, ever use existing vehicle wiring to power any amateur radio gear” including the 12 volt accessory plug. (I always follow this advice, except in the cases when I don't.) I also found this piece by Bill W8LV on eham.net that describes the crappiness of these connectors.

Well, there is a new standard power connector showing up in cars: the USB port. These ports provide the data and power interface for mobile phones, integrating them into the auto's audio system. Standard USB ports (USB 1.x or 2.0) have a 5V output that can deliver up to 0.5A, resulting in 2.5W of power. A USB Charging Port can source up to 1.5A at 5V, for 7.5 W of power. This is not that great for powering even low power (QRP) ham radio equipment.

Now a new standard, USB Power Delivery, is being developed that will source up to 100W of power. The plan is for the interface to negotiate a higher voltage output (up to 20V) with 5A of current. Wow, now that is some serious power. We will have to see if this standard is broadly adopted.

Two things are obvious to me: 1) the old cigarette lighter connector needs to go away and 2) it is not clear what the replacement will be.

What do you think? Any ideas for the next generation of 12V automotive connector?

73, Bob K0NR

SKYWARN Recognition Day 2014 is December 6

12/02/2014 ARRL Reprint

SKYWARN Recognition Day 2014 gets underway at 0000 UTC on Saturday, December 6 (Friday, December 5 in US time zones). This will mark the 16th annual event. Co-sponsored by ARRL and the National Weather Service (NWS), the 24-hour event recognizes the vital public service contribution that Amateur Radio operators make while working with NWS offices during severe weather events. It also is aimed at strengthening the bond between Amateur Radio operators and local NWS offices.

The volunteer SKYWARN program comprises nearly 290,000 trained severe weather spotters — many of them radio amateurs — who identify severe storms and provide NWS forecasters with reports of local weather conditions during severe weather events. On SKYWARN Recognition Day, Amateur Radio

operators visit National Weather Service offices and contact other stations in the US and around the world. WX4NHC at the National Hurricane Center in Miami will be among the NWS sites on the air for the occasion.

SKYWARN Recognition Day is not a contest. The object is for stations to exchange some basic information with as many NWS stations as possible on 80 meters through 70 centimeters (excluding 1.25 meters). Repeater contacts are permitted. Stations exchange call signs, signal reports, locations, and a one or two-word description of the weather at their respective locations.

More than 70 amateur stations are expected to be on the air from National Weather Service offices across the US, and some will use special event call signs. They will operate on various modes including SSB, FM, AM, RTTY, CW, and PSK31. While working digital modes, these special event stations will append “NWS” to their call signs (eg, N0A/NWS). It is suggested that a licensed non-National Weather Service volunteer serve as a control operator for stations set up at NWS offices.

The **VoIP** SKYWARN and Hurricane nets will participate in SKYWARN Recognition Day. The weekly VoIP SKYWARN/Hurricane Preparation Net will meet 1 hour earlier on December 5, prior to the official start of SKYWARN Recognition Day. The weekly net and net activations for hurricanes employ the EchoLink *WX-TALK* Conference server Node #:7203 which is integrated with IRLP Reflector 9219.

December is Youngsters On The Air Month!

12/01/2014 ARRL Reprint

During December special event stations around the world will take part in celebrating the first worldwide Youngsters on the Air (YOTA) activity. Stations using YOTA-suffix call signs will be active from all three International Amateur Radio Union (IARU) regions. Although most YOTA stations will be in Region 1, one YOTA station will be on the air from St Lucia in the Caribbean (Region 2), and another will be active from the Philippines (Region 3). IARU Region 1 Youth Working Group Chair Lisa Leenders, PA2LS, said YOTA Month is an opportunity to give individuals aged 25 and younger a chance to make contact via Amateur Radio in all available modes.

“With this event we are trying to get more youth activity on the air,” Leenders told ARRL. “In addition to licensed younger radio amateurs, unlicensed young people will be able to get behind the mic together with a [control operator] to experience a possible new hobby. YOTA month is not a contest but a friendly way of making radio contacts.”

She suggested that participants exchange names and signal reports as well as other information, including age, location, and additional interests. A Youngsters On The Air Award will be available. The International YOTA organization is offering three award levels — Bronze, Silver, and Gold — for working YOTA stations.

YOTA stations will be on all bands and modes, and some of the YOTA-suffix stations plan to be active

during December contests. A special QSL card will be sent to all who work a YOTA station.

**NCDXF GRANTS K1N
NEVASSA ISLAND \$35000
A S S I S T A N C E**

In DX up front, the Northern California DX Foundation has announced a major contribution of \$35,000 to the K1N Navassa Island DXpedition planned for January of 2015. Navassa is an environmentally fragile area which since 1996 has had access strictly controlled by the U.S. Fish and Wildlife Service. As such no DXpedition has been approved since that time. This in turn has made it the number one most sought after entity on Club Logs 2014 most wanted list. The KP1-5 Project has been working for over 12 years to obtain permission to operate from Nevassa. There are strict limitations to the number of visitors and the time allowable on the island. Planners say that access has been granted for two weeks in January, as that month has the least bird nesting. However, January weather makes access by sea all but impossible. For safety, the Fish and Wildlife Service requires a helicopter landing for all personnel and equipment raising the cost of the operation considerably. Details of the DXpedition are at www.navassadx.com (NCDXF)

NASA's new Orion spacecraft completes first spaceflight test

NASA marked a major milestone Friday on its journey to Mars as the Orion spacecraft completed its first voyage to space, traveling farther than any spacecraft designed for astronauts has been in more than 40 years.

“Today’s flight test of Orion is a huge step for NASA and a really critical part of our work to pioneer deep space on our Journey to Mars,” said NASA Administrator Charles Bolden. “The teams did a tremendous job putting Orion through its paces in the real environment it will endure as we push the boundary of human exploration in the coming years.”

Orion blazed into the morning sky at 7:05 a.m. EST, lifting off from Space Launch Complex 37 at Cape Canaveral Air Force Station in Florida on a United Launch Alliance Delta IV Heavy rocket. The Orion crew module splashed down approximately 4.5 hours later in the Pacific Ocean, 600 miles southwest of San Diego.



The Importance of 1929

The Importance of 1929 – Part 1

When it comes to the **Bruce Kelley QSO Party** and the rules involving the use of circuitry and tubes popular in 1929 or earlier, some have enquired..."*Why 1929...what was special about that year in particular?*"

Over the past few nights I've spent some enjoyable hours reading QSTs from the late '20's. It seems that 1929 was really the beginning of much that we have come to recognize, for all of our lives, as 'Amateur Radio'....but to answer the question, we really need to go back a few more years.

Prior to that time, and especially in the very early years, amateur radio seemed to have much in common with the 'wild-west'. Rules, if any, were difficult to enforce, as was licensing. Many hams operated without a licence, choosing their own call letters. There was a lot of crazy stuff happening...bootleggers, broadcasting music and a general 'every man for himself' approach.

Headquarters - Courtesy: <http://qsl-history.webs.com/>

The establishment of the ARRL in 1914, by Hiram Maxim, was the beginning of what was to be a tough fight to educate and organize amateur radio activity in North America.

With the appearance of QST, in 1915, membership grew quickly and it soon became a sign of notability to be a League member. By the late 20's radio was thriving and growing at unprecedented rates. The U.S. amateur population grew from 16,000 in 1926, to 30,000 in 1932 alone. By 1938 there were 50,000 licenced hams in the U.S.

However, a federal judgement, in 1926, ruled the Radio Act of 1912, to be largely unenforceable, creating even more chaos amongst broadcasters. Things were getting somewhat chaotic in the amateur radio world as well as in the commercial field. The time was ripe for some serious changes.

In order to gain some control over this new technology and the chaos surrounding its usage, more so in the commercial field (ships, aircraft, broadcasting, telegraph), the U.S. Congress passed the **Radio Act of 1927** thus giving more tools to the recently-established **Federal Radio Commission**, the forerunner of today's FCC.

Although the Radio Act of 1927 gave the FRC the power to enforce regulations, it came down to the international agreements hammered out in the winter of 1937 to make things happen. The International Radiotelegraph Conference, attended by representatives from 72 countries, met in Washington, DC to grind out some international 'rules' since the growing popularity and surprising success of the 'shortwaves' was now of worldwide concern.

Much as we see today, the fight for radio spectrum had begun. The **172-page Washington document**

American Radio Relay League Station 1AW

Hiram Percy Maxim, Owner 276 No. Whitney Street, Hartford, Conn.

Radio Y-934 1-29-23

Your _____ signals were worked here on _____ at about _____
heard

<p>A.M. _____ E.S.T. _____ P.M. _____</p> <p>on Tuska three-circuit tuner and two stages audio amplification, Baldwin phones. Audibility _____</p> <p>Remarks: <i>The Q5 of your card I am on 8.3 meters and heard lots of punch so I ought to be getting one.</i></p>	<p style="font-size: 2em; color: red; font-weight: bold;">1AW</p>	<p>Wave-length _____ QRM _____ QRN _____ QSS _____ Weather _____ Tone _____ Wave _____</p>
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Would like report on 1AW's signals if you hear them. Best 73's.

Hiram Percy Maxim Operator

makes fascinating reading and in it we see the basis for many of amateur radio's beloved fundamentals.

Courtesy: <http://www.arrl.org/>

It was here, that the new '1929 rules' were established and ham radio would never be quite the same...a very good thing.

The amateur's of 1927 didn't know it yet, but they would soon be deep in rebuilding their stations to meet the 'new requirements' of 1929!



SALISBURY, MA: W1TCS-Terrence Andrew Marengi Sr., lifelong Salisbury resident, died peacefully on December 6, 2014, after a courageous battle with cancer, surrounded by his loving family and dear friends. He was the devoted husband of Deborah (Johnston) Marengi of Salisbury.

Born October 22, 1954, in Newburyport, he was the son of the late Louis and Mary Marengi. He was a graduate of Triton Regional High School.

He was the owner of **TCS Communications Corporation of Salisbury and Northeast Tower Associates**. His business has been located in Salisbury for over 39 years.

He was also very involved with the Salisbury community, serving as chairman of the Board of Selectmen, director of the Emergency Management

Agency, Conservation Commission, Special Police Officer, president of The Salisbury Lions Club, and assisted with, as well as funded, many local charities. Terrence was a longtime member of the Star of the Sea Parish in Salisbury, and also a member of St. Mark's Lodge, A.F. & A.M. of Newburyport.

Terry enjoyed many activities. He enjoyed piloting his plane, snowmobiling, boating, hunting and fishing, and coaching baseball. He was also an avid Ham Radio operator. However, his greatest pleasure was spending time at his camp with his wife, children and grandchildren.

In addition to his wife of 41 years, he leaves behind two sons, Terrence A. Marengi Jr., and wife, Tiffany, Louis A. Marengi and wife, Brandy; his daughter, Alita J. Kaszuba and husband, Cameron, all of Salisbury.

Terry leaves siblings Marylou Williams and husband, Richard, Dean Marengi and his wife, Elizabeth, of Salisbury, Thomas A. Marengi of Tampa, Fla., Richard Marengi of North Carolina, Judy Calk of Amesbury, and Linda Paulhus of Newburyport.

He also leaves five grandchildren; and many nieces and nephews, whom he loved very much. He was predeceased by his grandson, Walker Marengi. *I knew Terry from camping in NH and he was a great guy, a regular on 3836 afternoon group.....jon-K1TP*

220 Repeater News- *Jon-k1tp*



Jake and I have been working on the 220 repeater and making an attempt to get it back on the air with a homemade J-Pole antenna. The antenna was started by John-WA1JG and Jake-W1LDL and hopefully will be finished this week.

The 220 repeater had been previously operating with two antennas and I decided to try to make it run on one antenna by constructing a bridge. The bridge length is critical and there are formulas taking into effect the velocity factor of the cable used, etc. To make a long story short, my first attempt was a disaster and the SWR was terrible.

Back to the drawing board! Bob-WA1UCG did everything possible to try to find out what the correct length should be from the current manufacturer of a similar duplexer, our duplexer company went out of business. Bob got an answer and was given a length for a starting point, I also got a formulas for figuring out the length from a ham in NH.

In the meantime, Jake found we had a spectrum analyzer which was donated generously by Curtis-AA3JE and he went to town learning how to use it to tune the duplexers up. Thank God for YouTube. While Jake was tuning the cans, he found and replaced a bad T-Connector and managed to tweak the cans so they seemed to be working fine.

The next issue was to add the newly constructed bridge for one antenna use. We put it in line and yikes, it worked! We did find the 220 amplifier was not working and will deal with that in the future.

The repeater is operating on 224.900 and is running into a dummy load while we wait for the J-Pole antenna to be completed and mounted on the CAARA building. The next page shows Jake working on the duplexers with the spectrum analyzer.



YUKON 13.1 MILE HALF MARATHON COVERED BY CAARA



The CAARA club under the direction of ENCOM Director Gardi-KA1BTK provided communications for the December 7, Sunday event which started and ended at Good Harbor Beach. Hank- W4RIG was net control and Gardi was the tail bike (yes, he biked 13.1 miles in 30 degree weather).

The following participated: KC1BTK, KC1BUA, KC1AQH, W4RIG, W4HIX, WA1UCG, W1RAB, AND KB1YTJ....I hope I have not missed anyone.



Straight Key Night on OSCAR 2015

You are cordially invited to participate in Straight Key Night on OSCAR 2015, sponsored by AMSAT for radio amateurs throughout the world.

This year's event is being held in memory of Captain Charles Dorian, W3JPT, who passed away in 2014, aged 92. Chuck, who had held many senior positions in the U.S. Coast Guard, was one of AMSAT's earliest members and served as secretary of the Board of Directors.

Participation in AMSAT SKN on OSCAR is easy and fun. Just operate CW, using a straight key or non-electronic "bug," through any amateur satellite between 0000 and 2400 UTC on January 1, 2015. There is no need to send in a log, but all participants are asked to nominate someone they worked for "Best Fist." Your nominee need not have the best fist of those you heard, only of those you worked. Send your nomination to w2rs[at]amsat.org. A list of "Best Fist" nominees will be published in early February.

Great efforts by Philippine hams
The emergency communications provided by hams continues as the devastating Typhoon Hagupit (locally called Ruby) moves slowly across the Philippines.

Thelma Pascua DU1IVT, Philippines Amateur Radio Society (PARA) Chief Operating Officer reports that both 7.095 MHz and 144.740 MHz is in use by the Ham Emergency Radio Operations (HERO) network.

"As Typhoon Hagupit enters its third day ham operators continue to provide essential traffic as the storm progresses through Philippine territory," she said.

PARA, the IARU member society, has sent requests to the neighbouring

ORARI in Indonesia, and JARL in Japan, asking for help to publicise the need for all operators to steer clear of the 40 metre frequency used for emergency traffic.

Thelma DU1IVT said, "A HERO volunteer and RADNET-5 President Ronald Madera DW5NLH from Tacloban advised that the Oras West Elementary School used as evacuation centre in Eastern Samar has collapsed, resulting in injuries to evacuees. A rescue team was despatched and this event was to be covered by a news team."

At the height of the typhoon there were no HERO volunteers in the provincial capital of Borongan. That shortage resulted in a HERO request via Captain Rick Catungal DV6RCC, an Army Captain managing disaster communications in Capiz, and through the Philippine National Police headquarters in Camp Crame, Quezon City, Metro Manila.

Gil Lappay 4F2KWT helped in providing contacts with a relay of messages were needed until the request was received.

Confidence that the HERO network could adequately handle all emergency traffic was shown by around 150 stations that checked in.

As the typhoon was on the move, hams reported the weather and any other developments into the emergency net.

Helping to keep that team in action with provisions and logistics are Nards DU1LC, Joe, DU1IL and other ACER members.

The NTC regional offices have also set up stations. From NTC Region 3 Alex DU3AL, Bong DU3BS, Ka Diego DU3DYG; Region 6 assisted by the Panay Amateur Radio Club and PARA District 6 Manager Ned DU6NE with the constant monitoring of Bobby DU6BG.

Other stations were reporting local conditions. Nanding DW5OCF on Ormoc City, Southern Leyte; Jay DV7JAY, Sidney DW7EEE and DW7EQN on Cebu; Art DV7DRG at Dumaguete City with the rest of NORAD 7 members; embedded members in the Department of Social Welfare and Development (DSWD) Operations Centre (OpCen), Edmund DV7DTE, Ivan DV7DRP reporting wind conditions in Vallehermoso, Negros Oriental - all the way to the Bicol area with DX4CN embedded in the Daet Camarines Norte National Disaster Risk Reduction and Management Council (NDRRMC) reporting efforts with Lito DU4DF in Naga City. Dito, DW1OZR is reporting from Pinamalayan, Oriental Mindoro, on the evacuation efforts in a precautionary measure, prior to the typhoon making landfall in Mindoro.

The typhoon is expected to make a six (6) landfalls before it eventually exits the Philippine Area of Responsibility.

ACCESS-5 members 4Nelson, DW5MGB and Edgar DV5EST will be going to Borongan Eastern Samar to set up HF communications on 7.095 MHz and VHF. Mario 4F5MM and Jerick 4F5JMS will be going to Catarman, Northern Samar as part of the assessment team from the Office of Civil Defence.

Nathan DU5AOK was able to talk to Mayor Mabalcon of Paranas, Samar earlier in the day and the Mayor said "the presence of many volunteers is very encouraging".

Lester DV5PO is reporting about Borongan, Eastern Samar. His report will be vital to those awaiting his assessment of the aftermath in his area.

Other hams are embedded in the different disaster and risk reduction operations centres in the different

local government units. Iver DV6ILA and Arnel DV6WAV are manning the Roxas City operations centre. ACCESS-5 is attached with the Office of Civil Defence, Leyte Province. Vie DU5VIE of RADNET-5 at the Tacloban City CDRMC operations center. Ton, DW1QGG is embedded as operator with the Marinduque authorities. Dulce, DU4UW is attached to disaster communications at the Sorsogon on the Bicol Peninsula at southern tip of Luzon.

RESEARCHING THE MYSTERIES OF NVIS

Near Vertical Incidence Skywave propagation, better known as NVIS, is turning in some rather interesting mysteries as well as solving others as we hear in this special report from VK2LAW of the Wireless Institute of Australia: -- One of the most interesting findings in the results of Near Vertical Incidence Skywave propagation, comparing a communications path between two amateur stations ZS6KN and ZS6KTS over a distance of 51 kilometers it is interesting to note that on June 20 2014 there was a good communications path from approximately 05:00 to 16:30 after which the signals disappeared. The pattern was the same for July but the signals were considerably stronger than August or September. During September a strong dip in signal strength can be seen. The other interesting observation from the graph is that propagation opens earlier and closes later as we go into summer which indicates variations in the D layer of the Ionosphere as the Sun rises earlier and sets later. Not enough data has been collected to make any meaningful conclusions. If the path was pure groundwave the signals would have been more or less constant throughout the day or night.

-- Obviously its going to take a few more seasons of research to truly find the limitations of NVIS propagation as well as to fully understand its characteristics. (WIA News) **

HRIS: SUCCESSFUL LAUNCH OF ASTEROID RETURN MISSION

Japan has successfully launched its round trip Hayabusa 2 asteroid sample-return mission with a pair of amateur radio payloads along for part of the ride as we hear from Bill Pasternak, WA6ITF: -- The mission was carried into space on board a Japan Aerospace Exploration Agency launch vehicle on December 3rd. The primary payload is the Hayabusa 2 spacecraft on the first leg of its exploration and recovery journey to Asteroid 1999 JU3. Along for the ride into the final frontier are two amateur radio satellites named Shin'en 2 and ARTSAT 2 Despatch. The Shin'en 2 carries a one tenth of a watt CW beacon downlinking on 437.505 MHz and a telemetry downlink on 437.385 MHz. Also on board is a digital store-and-forward transponder with an uplink of 145.942 MHz and a micro power downlink at 435.270 MHz. ARTSAT2:DESPATCH carries a 7 watt Morse transmitter on 437.325 MHz. Its controllers say that they are seeking the assistance from hams here on Earth as part of a global monitoring system that it calls a cooperative diversity communication experiment. This effort will attempt to intercept signals from the spacecraft by properly equipped radio amateurs around the world in addition to those heard and recorded at the mission control center in Tokyo. This is in the hope of reconstructing the original data transmitted from the spacecraft. Each payload has its own website with tracking and other tech-

nical details. Shin'en 2 is at tinyurl.com/sinen-2 online. ARTSAT2:DESPATCH can be found at inyurl.com/artsat-2-in-space.

DX UP FRONT:

COCOS ISLAND IN FEBRUARY 2015 In DX up front, 3Z9DX, K7CO and TI2HMJ will be active as TI9A from Cocos Island between February 16th and the 23rd of 2015. It has been 6 years since the last TI9 operation, and because of this Cocos is ranked 26th on the most wanted list. The boat trip to the island will begin on February 14th 2015, and it takes 30 hours from Costa Rica. Their Radio Permit is issued for 7 days only. That means they can operate for only about 6 days but are also in possession of the second permit, which allows them to stay on the island overnight and thereby 24 hour a day operation. They will be using two radios on 80 through 10 meter CW, SSB and RTTY. QSL via 3Z9DX as directed at www.nielsen.net/ti9a (OPDX) ** **DX UP FRONT: BEAR ISLAND THROUGH MAY 2015** Also, LA9JKA will be on Bear Island for a work assignment until May 2015. In his free time he plans to operate on all HF bands and 6 meters. QSL via LA9JKA direct only. (Facebook DX)

RADIO STATION EMPLOYEE CHARGED WITH ALLEGED ARSON OF STATION

A Stafford, Arizona radio station is back on the air after an employee of KJK-FM allegedly set the station in early November and then stuck around to watch it burn. Amateur Radio Newsline's Jim Damron, N8TMW, has more: -- Shortly after 1 a.m. local time, Graham County Dispatch received an anonymous call about a structure fire at the radio station. When officers arrived, they no-

ticed smoke pouring out of the building and a man, later identified as Scott Louis Welbaum, standing in the parking lot watching. Welbaum was told to leave the area but informed officers he was an employee of the station and there was a significant amount of expensive equipment inside. The Safford Fire Department then responded to the scene and extinguished the fire. According to reports, Safford Fire Chief Clark Bingham advised the fire was possibly arson. Officers then learned the anonymous phone call had been placed at a pay phone at Walmart across the highway. A Thatcher officer responded to review surveillance footage from the store and saw a man he believed to be Welbaum approach and use a pay phone at the time of the tip. The subject was also wearing the same clothes as Welbaum. The suspect and two other employees who also have keys to the building were then taken to the Safford Police Department to be interviewed. During his interview, Welbaum allegedly became hostile toward the officers. When presented with a warrant to search his vehicle which was also parked at the scene, police say that Welbaum acted as though he was going to throw a computer and had to be talked down by an officer pointing his TASER at him. After a short struggle, Welbaum was handcuffed and transported to the jail, where a search revealed he was in possession of five green-tipped wood matches. He was then booked on a charge of alleged arson. KJIK-FM was back on the air by noon the same day.

GALILEO SATELLITE RECOVERED AND TRANSMITTING SIGNALS

Europe's fifth Galileo satellite, one of two delivered into a wrong orbit

by a Soyuz-Fregat launcher last August, has transmitted its first navigation signal in space on Saturday 29 November 2014. It has reached its new target orbit and its navigation payload has been successfully switched on. A detailed test operation is under way now the satellite has reached a more suitable orbit for navigation purposes. (Southgate) ** DX In DX, YB4IR will be active stroke 8 from Bandaneira Island between December 22nd and the 27th. Operations will be on 80 through 10 meters using CW, SSB and RTTY. QSL via his home callsign direct or via the bureau. For electronic QSL use Logbook of the World or Clublogs Oh QRS. DG1SGW will be active stroke PJ4 from Bonaire between March 1st to the 12th. Activity will be holiday style on the 160 through 6 meters using SSB and the digital modes. QSL via his home callsign, direct, by the bureau or Logbook of the World. N7XR will be active as VQ9XR for his operations in 2014 and 2015. These were to have started on or about December 3rd for approximately 3 weeks on 160 through 10 meters with a focus on CW, SSB and RTTY. He may use the callsign V92XR instead, which gives the prefix hunters a new one to go after. Either way, please QSL via his home callsign direct only. 3W3B who lives in Da Nang has announced that he will be active during the ARRL International DX CW Contest February 21st and 22nd as a Single-Op/All-band/High-Power entry. QSL via E21EIC or Logbook of the world. Lastly, DL2GAN will be visiting Nepal for a short term operation as 9N7CB from Kathmandu scheduled for end of December. His plan is to be operational on Christmas Eve which would be 8 am to 12 noon UTC on December 24th. Depending on propagation, bands of

operation will be 14 and / or 21 MHz SSB or CW if propagation is poor. QSL via his home callsign, direct or via the bureau. (This weeks DX report courtesy of OPDX) **

SIMPLY GRAPHENE

And finally this week, while only a few nanometers thick, Graphene is being touted by some in the scientific world as the new steel of the 21st century. Amateur Radio Newline's Stephen Kinford, N9WB, reports: -- Introduced to the world about a decade ago, graphene is a multi-layered material that is somewhere between 10 and 100 nanometers thick. This makes the material more like a very thin sheet of carbon. As a matter of fact, the material is so thin that it appears to be more like a sheet of paper but thinner. But even at that extreme thinness, graphene can hold weights that are 100 times heavier than steel. And graphene is an extremely good conductor of both heat and electricity. But the most important aspect found so far is that graphene can dissipate huge amounts of energy. Jae-Hwang Lee, of the University of Massachusetts Department of Mechanical and Industrial Engineering is a graphene researcher. He and his team say that the ability of graphene to dissipate energy is due to a high degree of stiffness combined with low density. This means that energy can move through it very quickly. What might this mean to those involved in emergency response work? Many things including something as simple dropping a hand held radio onto concrete and it not even being scratched. More important is that it continues to work as if nothing at all had happened.

73 until next month!