



CAARA Newsletter



AN ARRL AFFILIATED CLUB

MARCH ISSUE- 2011



President's Corner

by *Stan-W4HIX*

Thank goodness for a January thaw—too bad it was in February. And as the month wraps up, we get another 6" of snow. I want to thank everyone that braved the snow for the first Field Day 2011 planning meeting. We're looking at making some changes this year, with a possibility of moving the site to Fuller School. This shift is not done lightly and we intend on evaluating the site by running a mini-Field Day on one of the spring contests. If that goes well, we'll see about a check on the Magnolia soccer fields in the fall.

Though the core of Field Day will be the same, we are looking at better preparation so we carry only the gear we need. The goal is to cut down on the clutter at the site and time and transportation issues of excess gear. We're also looking at better food planning so two menus will be proposed, one suited for Fuller and one for Babson. These are different because of the constraints of cooking at Babson.

Speaking of cooking, Hank W4IG and your president cooked up another bacon and eggs breakfast this month before our winter cleanup of the club. I have to admit, the club feels a little less cluttered and we had a ton of volunteers to help with the work. Thanks to everyone who participated.

Mike Burke, W1MB finished up the gas work for our generator. We now have everything to power our generator by natural gas and I hope to fire it up when we get some decent weather (or the next time we have a power failure). We also discovered that our chimney needs a liner, and Mike was instrumental in negotiating a

very good deal on that work. Thanks Mike! With a little luck, we can get some antenna work done on the roof at the same time.

Several members made it to the Marlboro Flea Market, where we turned some unwanted equipment into cold hard cash. The club is exploring other ways cashing in on excess equipment, including eBay. Speaking of eBay, the club now has a PayPal account, so club dues and donations can now be made online. Oh, and don't forget the CAARA Flea is scheduled for May 14th. We may also make run to the MIT Flea in April.

A serious inventory of the club's gear is underway. I want to thank Ruth WW1N and Dick WB1W for working on this. This is one of those projects that isn't particularly glamorous, but will pay big dividends on how we use and manage our equipment.

Rick WZ1B's CW class is in full swing, it is great to see such enthusiasm for this class. There sure are a lot of things going on at CAARA—it's a great time to be an Amateur Radio operator.

HELP WANTED: CAARA EBAY SALES

CAARA is looking for a few hams to help the club market and sell the excess ham radio gear and related supplies we have acquired on Ebay.com or QTH.com.

You should be well acquainted with how to use Ebay and process Paypal accounts, be able to write copy for the ad, and be able to use a digital camera.

If you are interested in helping with this worthwhile venture, please contact Briggs-AB2NJ or Dick-KR1G on the repeater or at a Sunday morning meeting.

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-Editor
K1TP

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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 old W1RK 443.700 repeater with antennas located in Magnolia is now owned and operated by the club and is currently running at the CAARA clubhouse.

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.

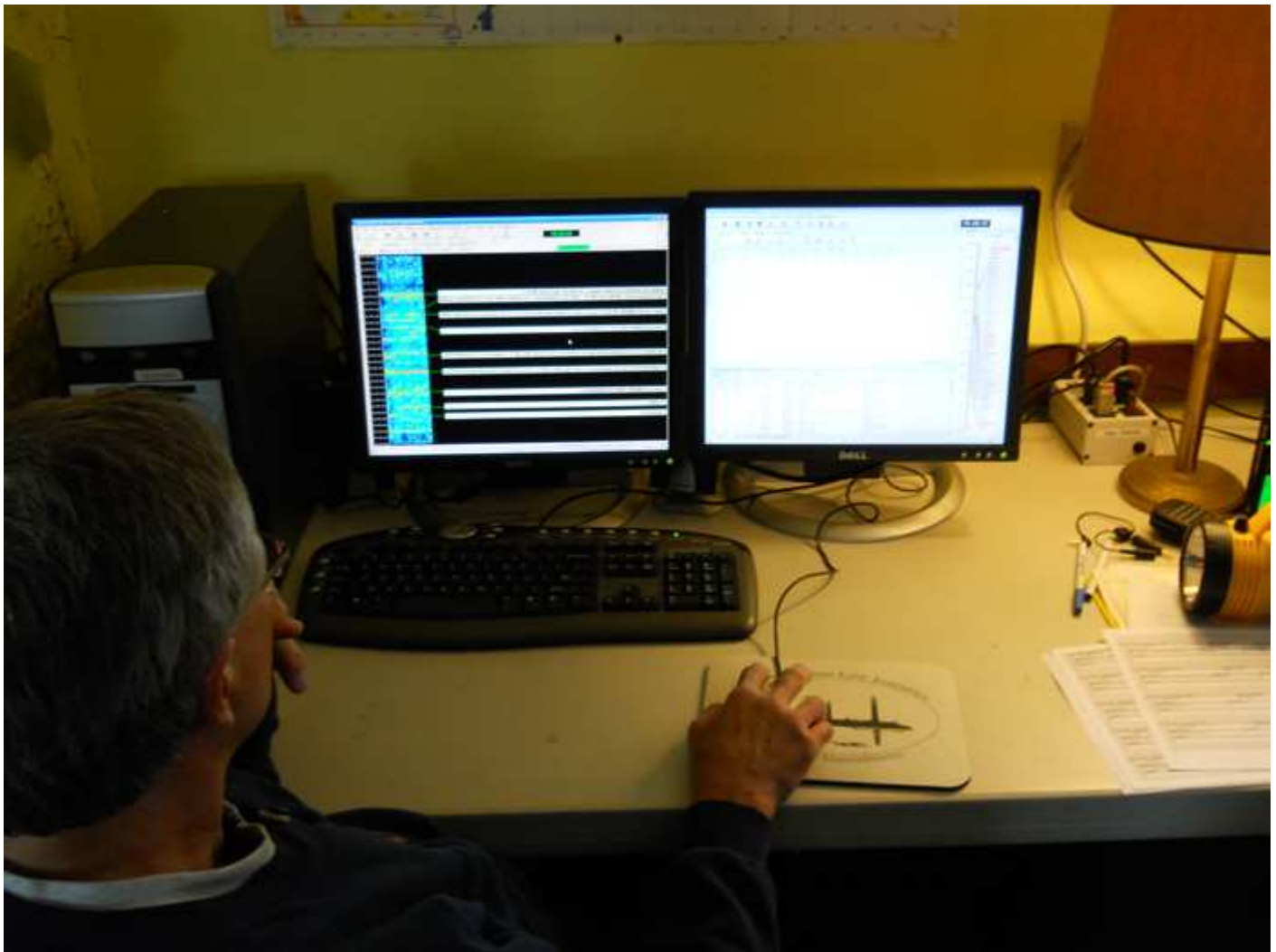
Each Sunday evening at 9:00pm, the club operates a 2 meter net on 145.130. This is an open and informal net which disseminates club news and prepares operators for emergency communications work. All are invited to check into the net as club membership is not a requirement.

Here's the info for the Magnolia Historical Society's "Scrap Metal Drive" coming up in March.

Who: Magnolia Historical Society & North Shore Scrap Metal
What: Scrap Metal Drive (must be at least 70% metal)
Where: Scrap Metal Trailer Next Door to Magnolia Library- Drive up/Drop off!
When: March 13 thru Mar. 20
Why: Raise Money for the Magnolia Veterans Memorial

This is almost too simple and everyone has eligible scrap metal to get rid of. As long as it's at least 70% metal of any kind you can simply drop it off at the trailer parked alongside the Magnolia Library on the Lexington Ave side. They'll take anything and everything that's metal...just drop it off and wave goodbye. Toss it now before you have to pay to get rid of it later and elsewhere. Old tools, wagons, cars too, nails, gutters, tables, lawn chairs, buckets, washing machines, dryers, pots-n-pans, bikes, file cabinets, etc etc...EVERYTHING that's metal! Cars & trucks will be towed/picked up for free by Tally's (call Lisa for info).

Any questions, call: Lisa Ramos (978) 290-3005 or email: Lisa@magnoliahistoricalsociety.com



Caara Club Vice President Dick Macpherson WB1W works PSK-31 on 20 Meters at the Caara clubhouse's digital station during Sunday morning. The digital station consists of a Yaesu FT 897D and two new Dell LCD screens which the club just purchased.

CAARA HAS APRS !!!

Here's a picture of the club's Automatic Position Reporting System Argent Data Tracker 2 digipeater. It's a APRS modem that's connected to a Taesu FT-1500 2 Meter mobile rig. The rig is attached to the clubhouse Diamond V 2000 A Triband vertical through a Diamond M 2000 Triplexor. The digipeater listens for APRS packets and upon correctly receiving them, rebroadcasts the packets which, for us, gets picked up by W1MX, MIT's APRS i-gate in Boston. An i-gate is a station that relays the packet to a database (APRS-IS), where it can be used by websites like APRS.FI. If you log into APRS.FI and search for W1GLO-1, you will see the packets that W1GLO has handled. The station runs 24/7 and helps relay position information from travelers with APRS and get their position information out like any good repeater. APRS combined with GPS can relay speed, direction and altitude for mobile and portable stations like HT's. This application is invaluable for search and rescue and other amateur radio emergency communications work. The national APRS frequency is 144.390 MHz. Another APRS application is the ability to send weather conditions and text messages. If you look at a couple of Yaesu handhelds such as the VX-8DR and the VX 8GR you can see that they even have GPS antennas built in and APRS TNC's built in so you can send and receive text messages with other APRS users. With these HT's you can track several APRS users at the same time. They even have a "Smart Beacon" function where you can leave a trail of "Electronic Breadcrumbs" and others who log onto APRS.FI can see your track in real time. If you are interested in APRS another website to look at is www.aprs.org.



Three Yachtsmen Killed by Somali Pirates were Hams

Four Americans — including three Amateur Radio operators — who were being held hostage on their yacht by pirates off the coast of Oman have been killed. Scott Adam, K9ESO, and his wife Jean, KF6RVB, along with Bob Riggle, KE7IIV, and Phylis Macay were on board the S/V Quest when pirates boarded their vessel on Friday, February 18. The Adams were based in the Los Angeles area; Riggle and Macay were from Seattle. According to the US Central Command, the boat was in the Indian Ocean, headed toward the Somali coast when on Friday, the 58 foot yacht sent a distress signal. The boat was being trailed by US Navy forces; it was about a two day sail from the Somali coast. They had begun tracking the yacht after being alerted that a Danish naval helicopter had seen the Quest off Oman under the pirates' control. The Central Command oversees US anti-piracy operations in the Indian Ocean.

Officials were in the process of negotiating for the Americans' release when gunfire was heard around 1 AM (EST) on Tuesday, February 22. "As (US forces) responded to the gunfire, reaching and boarding the Quest, the forces discovered all four hostages had been shot by their captors," a statement from US Central Command said. "Despite immediate steps to provide life-saving care, all four hostages ultimately died of their wounds."

There were signs of divisions among the 19 pirates during the hostage standoff, Central Command said. On Monday, two of them came aboard one of the Navy vessels, the USS Sterret, for face-to-face negotiations and did not return to the yacht. The incident turned fatal on Tuesday morning when the pirates fired a rocket-propelled grenade at the Sterret, which missed, and US naval personnel heard gunshots coming from the yacht. At that point, a team of 15 special-operations forces boarded the yacht. On Saturday, President Barack Obama authorized the military to use force in case of an imminent threat to the hostages, said White House spokesman Jay Carney.

After the grenade was fired at the Sterret, several pirates came on deck with their hands raised, as if trying to surrender, said Admiral Mark Fox. The gunfire erupted on board almost immediately. But US officers said it was not known whether the hostages had made an escape attempt or whether disagreements among the pirates prompted the shots. Fox — the Commander of US Navy's Fifth Fleet, responsible for naval forces in the Persian Gulf, the Red Sea, the Arabian Sea and the coast off East Africa as far south as Kenya — said that the incident was the deadliest one he could recall involving US citizens held by pirates. It is believed 19 pirates were involved in the hijacking.

The Navy had been closely monitoring the S/V Quest for about three days, once it became known to be pirated. Four US Navy warships comprised the response force dedicated to recovering the Quest: the aircraft carrier USS Enterprise, the guided-missile cruiser USS Leyte Gulf and the guided-missile destroyers USS Sterret and USS Bulkeley. The bodies of the four Americans are now on board the Enterprise.

The Adams planned to travel across the Indian Ocean from their temporary dock in Phuket, Thailand, and then head up the Red Sea and through the Mediterranean to the Greek islands. They had considered shipping the boat to avoid the dangers of the trip, but decided instead to join a rally of yachts heading to the same location. For reasons unknown, the foursome apparently decided to break off from the Blue Water Rally, which organized and supported the group of boats headed toward the Mediterranean. Blue Water Rally organizers released a statement on their website, saying that said the Adams chose to take an independent route from Mumbai to Salalah, Oman, and left the rally on February 15. In a statement on February 22 after hearing of the deaths from "the pirate menace which is plaguing the Indian Ocean," Blue Water Rally called the Adams, Riggle and Macay "brave adventurers."

A former TV unit production manager, Scott Adam, 70, was an experienced sailor who had owned a boat most of his life. And although 66 year old Jean Adam, a retired dentist, became seasick easily, she took medication for it because she loved being on the water. According to their website, the Adams — who each have children from previous marriages — planned to hand out Bibles during their trip. — Thanks to The Associated Press and US Central Command for some information



So how have you done over the last few months? Or do you just wait until the answers are given the next month. Were you able to apply the theory to the questions at the end? Dick-WB1W

This month again we will add another four questions from the 1976 ARRL License Manual, plus a couple of application questions. Up until now these questions and answers are the same as they would have back in 1976. This month we will add some to put you back in the era of 1976. And remember to answer as you would in 1976. For those born after 1976 give them a try. Ask some older hams for some help. They are always willing to show their knowledge and in turn you will bring a little glow back into their hobby.

So let's start with last month's answers:

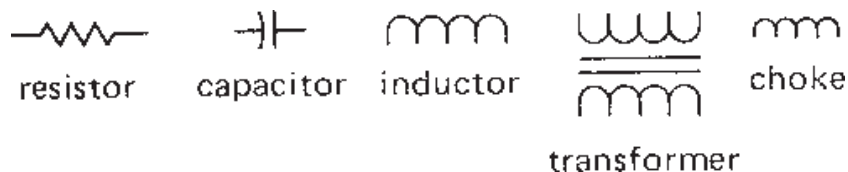
1. *What is the principle of an electrolytic capacitor? Why are they widely used in amateur equipment? (General Class question)*

The electrolytic capacitor uses aluminum-foil plates with a semiliquid conducting chemical compound between them; the actual dielectric is a very thin film of insulating material that forms one set of plates through electro-chemical action when a dc voltage is applied to the capacitor. The capacitance obtained with a given plate area in an electrolytic capacitor is very large, compared with capacitors having other dielectrics, because the film is so thin - much less than any thickness that is practicable with a solid dielectric. Their wide use in power-supply filters is attributable to their low cost and high capacitance for a given volume, as compared to other types of capacitors.

2. *What are inductive and capacitive reactance? How are their phase angles related? (Extra Class question)*

Inductive and capacitive reactance are measures of the opposition to the flow of alternating current offered by inductance and capacitance, respectively. Inductive reactance is proportional to frequency; capacitive reactance is inversely proportional to frequency. In neither case is power dissipated in the reactance, although the unit of reactance is the ohm, the same name as the unit of resistance. In both types of reactance, the phase angle between current and voltage is 90 degrees, but in inductive reactance, the voltage leads the current by 90 degrees, and in capacitive reactance the current leads the voltage by 90 degrees. Thus, if inductive and capacitive reactance are connected in series so that the same current flows through both, the inductive and capacitive voltages are 180 degrees out of phase. If the reactances are in parallel so the same voltage is applied to both, the current through the capacitance is 180 degrees out of phase with the current through the inductance.

3. *Draw the schematic symbol of a resistor, a capacitor, an inductor, a transformer, a choke? (Novice Class question)*



4. *How do resistors combine in parallel and in series? Capacitors? Inductors? (General Class question)*

The formula for resistors in parallel is:

$$R_{\text{total}} = \frac{1}{\frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3}}$$

or for only two resistors in parallel,

$$\frac{R_1 R_2}{R_1 + R_2}$$

The formula for resistors in series is:

$$R_{\text{total}} = R_1 + R_2 + R_3 \dots$$

The formula for capacitors in parallel is:

$$C_{\text{total}} = C_1 + C_2 + C_3 \dots$$

The formula for capacitors in series is:

$$C_{\text{total}} = \frac{1}{\frac{1}{C_1} + \frac{1}{C_2} + \frac{1}{C_3}}$$

or for only two capacitors in series,

$$\frac{C_1 C_2}{C_1 + C_2}$$

The total inductance of two or more inductors connected in parallel is:

$$L_{\text{total}} = \frac{1}{\frac{1}{L_1} + \frac{1}{L_2} + \frac{1}{L_3}}$$

or, for only two inductances in parallel

$$\frac{L_1 L_2}{L_1 + L_2}$$

provided the coils are not inductively coupled to another.

Under the same conditions (no mutual coupling), the total inductance of two or more inductors connected in series is:

$$L_{\text{total}} = L_1 + L_2 + L_3 \dots$$

Last month in addition to the four questions from the 1976 license manual three questions were added to help apply the theory in the questions. Below are the questions with the answers for the three.

A. *If you have five capacitors, each 5uF, connected in series what is the equivalent capacitance?*

From the formula above the equivalent capacitance would be 1uF.

B. *You find another 5uF capacitor and add it in parallel with the above five in series what's the new capacitance of the circuit?*

Capacitors in parallel add, so the equivalent above is 1 uF added to the new 5 uF would give 6uF.

C. *You go to a ham flea and buy two boxes with three terminals. Each box has three terminals on the outside (A, B, & C). You measure the resistance across each terminal and find that resistance of both boxes measure the same resistance. So being the good ham that we all are the first thing you do is open the box. The first box has three resistors connected in a Delta configuration. The resistors are marked as follows: $R_{AB} = 200$ ohms ; $R_{BC} = 400$ ohms; and $R_{AC} = 600$ ohms.*

What resistance did you measure across each terminal?

A to B = ? B to C = ? A to C = ?

Across terminal A to B you have R_{BC} & R_{AC} in series for equivalent resistance of 1000 ohms which is in parallel with R_{AB} . Solve for 1000 ohms in parallel with the 200 ohm resistor gives a resistance of 167 ohms across terminals A to B. Solving the same way for the other two gives across
B to C = 267 ohms and across A to C = 300 ohms

So now you open up the second box and find it also has three resistors but the resistors are not marked. In addition, these resistors are connected in a Wye configuration.

What is the resistance of each resistor in this second box?

$R_X = ?$ ohms $R_Y = ?$ ohms $R_Z = ?$ ohms.

Answer: $R_X = 100$ ohms; $R_Y = 67$ ohms; $R_Z = 200$ ohms

Now for this month's questions from the license manual:

1. What is Ohm's Law?

How does it relate to resistive and reactive impedances?

2. How does voltage division occur across series-connected resistors? Capacitors? Inductors?

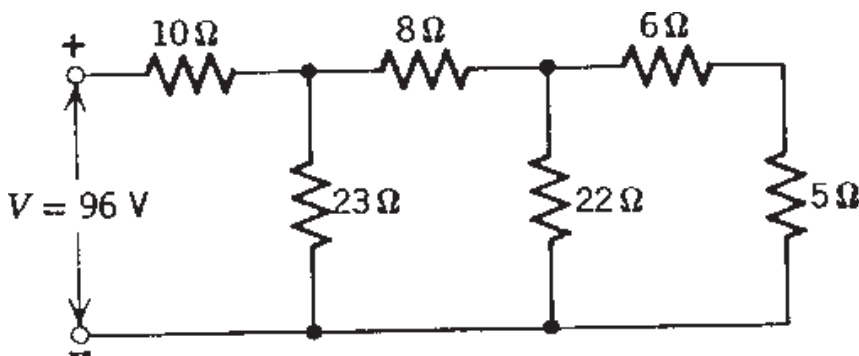
3. What visual observation within an operating vacuum tube's envelope would indicate that the tube is gaseous?

4. How does a squelch circuit operate?
Draw a commonly used squelch circuit?

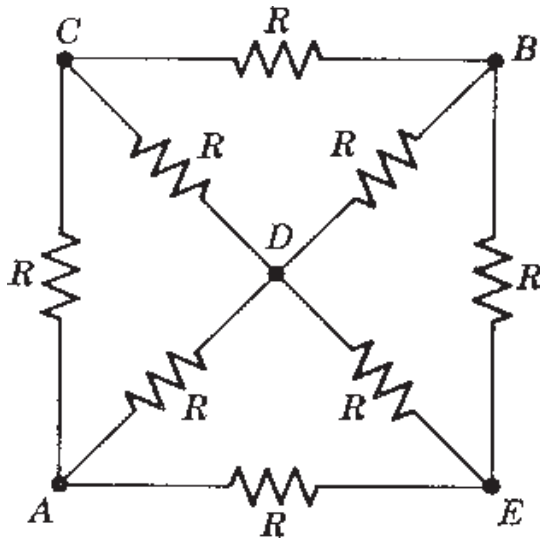
(remember this is from a 1976 license manual, tubes????)

Again this month, let's add a couple of problems related to the above.

A. What is the current input in the circuit below?



B. What is the resistance between A and B if $R = 100$ ohms?



(Hint: apply a voltage and develop an equivalent circuit.)

You're A Ham

35 ways to spot a Radio Amateur

From the web site of the West Tennessee Amateur Radio Society <http://www.qsl.net/wtarc/youreaham.htm>

You might be (and probably are) an Amateur Radio operator, if:

1. You have bought black electrical tape in ten packs.
2. You have stripped wire with your teeth.
3. You have told your child, "One day, all this will be yours," and he or she did not respond at all.
4. You would rather help another Ham friend to hook up new equipment, or to put up a new tower, than to mow your own lawn.
5. You have grabbed the wrong end of a hot soldering iron.
6. You have gotten an RF burn from your own antenna.
7. You have given out RST reports while you were on the telephone.
8. When the microphones or visual aids at a meeting did not work, you rushed up to the front to fix them.
9. You have told the XYL, when she noticed a new rig in the shack, "Why, that has been there for years."
10. You have set your watch to UTC only.
11. You have had to patch your roof after an antenna project fell onto it.
12. You have put a GPS tracker in the XYL's car or on the riding mower, just so you could watch it on APRS.
13. You have tapped out "CQ" or "HI" on the car horn in Morse Code to another Ham.
14. Your teenager has refused to ride in your car because it looks like a porcupine.
15. You know the Latitude, Longitude, and Elevation of your home QTH.
16. You have gone into the local Radio Shack store, and the store clerk has asked you where something is and how it works.
17. You have answered the telephone with your call sign, and then finished the conversation with "73" and your call sign.
18. You have looked for antennas, radios, and Morse Code in movies and television shows.
19. When you look at anything made of wire or metal tubing, you wonder if it could be used as an antenna.
20. Your call sign is listed on one or more of your hats, T-shirts, or other garments.
21. You regularly carry one or more tools in your pockets at any given time.
22. When any kinds of batteries go on sale, you get really excited.
23. When you look at a barbecue grill, it creates ideas about ground plane antennas.
24. You have designated all your friends as Hams or Non-Hams.
25. You have referred to your Ham friends by their call sign suffixes instead of their real names.
26. You have intentionally confused Non-Hams by telling them that the only things you talk about on the air are pork products.
27. You have intentionally scared Non-Hams with the word "RADIATION"!
28. You have looked at telephone poles and power line towers as potential antenna supports.
29. You have thought you were still hearing CW, SSB, or SSTV tones, even when your Ham radio was off.
30. Your Go-Bag has more clothes in it than your dresser does.
31. You have a SKYWARN sticker on your back window.
32. Your significant other sits in the back seat, and your radios ride in the front.
33. Your neighbors wonder if you are a "Narc" (narcotics officer), a Spy, or a Federal Agent.
34. The cops pull you over because they want to see the inside of your car.
35. Your cell-phone's ring tone is your Ham radio call sign, sent in Morse Code



RADIO POLITICS: CONGRESSIONAL MEASURE COULD LEAD TO LOSS OF 70CM AMATEUR ALLOCATION

A new measure introduced into Congress could eventually lead to the reallocation of the amateur 70 centimeter band to other services. That's if the big business lobby can convince legislators that the security of the nation will not be compromised by such a change.

On February 10th, Representative Peter King of New York introduced HR 607, the Broadband for First Responders Act of 2011. King is the Chairman of the House Homeland Security Committee. HR 607 addresses certain spectrum management issues, including the creation and maintenance of a nationwide Public Safety broadband network. As part of that network, the bill provides for the allocation of the so-called "D-Block" of spectrum in the 700 MHz range for Public Safety use.

The D-Block consists of two, 5 megahertz-wide segments of spectrum from 758 to 763 and 788 to 793 MHz. These became available when the FCC ended analog television broadcasts in June 2009 and reallocated the 698 to 806 MHz band for Public Safety and commercial broadband.

At that time it was anticipated that the D-Block would be auctioned for commercial use. However there are several bills in Congress providing for the allocation of the D-Block for Public Safety use, and HR 607 is one of those.

But HR 607 uniquely provides for the reallocation of other spectrum for auction to commercial users, in order to offset the loss of revenue that would occur as the result of the allocation of the D-Block to Public Safety instead of commercial auction. HR 607 lists the paired bands of 420 to 440 MHz and 450 to 470 MHz among the bands to be reallocated for commercial auction within 10 years of its passage.

His measure has been referred to the House Energy and Commerce Committee, which handles telecommunications legislation. There it is likely to see opposition from the United States military and others concerned with the nations overall security. This is because of the infrastructure that currently exists to protect our nations cities and shores.

One thing to keep in mind is that the spectrum in question is allocated as military as primary user and all others, including amateur radio as secondary users. As we in ham radio all know, the military recently spent

10's of millions if not billions of taxpayer dollars to upgrade its PAVE-PAWS long range radar system to a point where UHF ham repeaters and even some individual operations on both coasts were forced to reduce power or go completely QRT.

Ironically the cooperation between hams and the military in resolving issues associated with the PAVE-PAWS upgrade more than likely makes them one of amateur radios best allies in retaining the spectrum in question. That's because Representative King and his co-sponsors could face strong opposition from the U.S. military establishment which is almost certain to do all it can to derail such a spectrum reallocation.

Hamfest/Convention

03/05/2011 | MTARA 23rd Annual Hamfest

Location: Feeding Hills, MA

Type: ARRL Hamfest

Sponsor: Mount Tom Amateur Repeater Association

Website: <http://www.mtara.org>

Learn More

Hamfest/Convention

04/03/2011 | Framingham ARA Flea Market

Location: Framingham, MA

Type: ARRL Hamfest

Sponsor: Framingham Amateur Radio Association

Website: <http://fara.org/flea>

Learn More

Hamfest/Convention

04/17/2011 | Flea at MIT

Location: Cambridge, MA

Type: non-ARRL Hamfest

Sponsor: MIT Radio Society, Harvard Wireless Club, MIT Electronics Research Society, & MIT UHF Repeater Assn.

Website: <http://www.swapfest.us>

Hamfest/Convention

03/27/2011 | CVRC Hamfest

Location: Henniker, NH

Type: ARRL Hamfest

Sponsor: Contoocook Valley Radio Club

Website: <http://www.k1bke.org>

Learn More

Hamfest/Convention

04/29/2011 | NEAR-Fest IX

Location: Deerfield, NH

Type: non-ARRL Hamfest

Sponsor:

Website: <http://www.near-fest.com>

Hamfest/Convention

04/16/2011 | PAWA Hamfest

Location: South Portland, ME

Type: ARRL Hamfest

Sponsor: Portland Amateur Wireless Association

Website: <http://pawa-maine.org>

Learn More

Hamfest/Convention

06/04/2011 | 24th Annual Bangor Hamfest

Location: Hermon, ME

Type: ARRL Hamfest

Sponsor: Pine State Amateur Radio Club

Website: <http://www.n1me.com>

RADIO RECORDS: ROS ACROSS THE ATLANTIC ON 500 KHZ

A new low frequency record between the United Kingdom and Canada has been set using a newly developed digital mode called R-O-S. Jeramy Boot, G4NJH, is in Nottingham, in the United Kingdom with the rest of the story:

At 2134GMT on 13 February, Joe, VO1NA managed a full beacon decode from Graham, G0NBD on 502kHz using the ROS mode. It is believed this was the first live data mode decoded over the Atlantic on this band.

The signal to noise ranged from -23 to -27dB, giving a 100% decode of the test message. The transmission was sent using MF-7 with an estimated ERP of 1 watt from a 35ft top loaded vertical. The ROS mode did a good job of resolving the signals despite deep and rapid QSB over the 3500km path.

At just over a year old the ROS data mode is relatively new and uses an adaptation of multiple frequency shift keying and forward error correction to help make successful contacts under very difficult band conditions. The software for the R-O-S is completely free,

but is still not legal for use by United States amateurs to transmit with. None the less US hams are free to listen in using it world-wide. More information can be found in cyberspace at rosmodem.wordpress.com (GB2RS)

The Tower

Dear Ms. Jones

Patsy Insurance Co.

Wata'ohoh, HI 96999-0101

I am writing in response to your request for additional information for Block 3 of the Accident Report Form (ARF) I submitted to you on April 1, 1997. I put "poor planning" as the cause for the accident. You said in your letter that I should explain more fully. I trust the following detail will be sufficient.

I am an Amateur Radio operator and on the day of the accident, I was working alone on the top section of my new 80 foot tower. When I had completed my work, I discovered that I had, over the course of several trips up the tower, brought up about 300 pounds of tools and spare hardware. Rather than carry the now unneeded tools and material down by hand, I decided to lower the items down in a small barrel by using a pulley, which was fortunately attached to the gin pole at the top of the tower. Securing the rope at ground level, I went back to the top of the tower and loaded the tools and material into the barrel. Then I went back to the ground and untied the rope, holding it tightly to ensure a slow decent of the 300 pounds of tools.

You will note in Block 11 of the Accident Report Form that I weigh only 155 pounds. Due to my suprise of being jerked off the ground so suddenly, I lost my presence of mind and forgot to let go of the rope.

Needless to say, I proceeded at a rather rapid rate of speed up the side of the tower. In the vicinity of the 40 foot level, I met the barrel coming down. This explains my fractured skull and broken collarbone. Slowed only slightly, I continued my rapid ascent, not stopping until the fingers of my right hand were two knuckles deep into the pulley. Fortunately, by this time I had regained my presence of mind and in spite of my pain, I was able to hold on to the rope. At approximately the same time, however, the barrel of tools hit the ground and the bottom fell out of the barrel. Devoid of the weight of the tools, the barrel now weighed approximately 20 pounds. I refer you again to my weight, shown in Block 11 of my submission.

As you might imagine, I began a rapid descent down the

side of the tower. In the vicinity of the 40 foot level, I met the barrel coming up. This accounts for the two fractured ankles, and the lacerations of my legs and lower body.

The encounter with the barrel slowed me enough to lessen my injuries when I fell onto the pile of tools and, fortunately, only 3 vertebrae were cracked. I am sorry to report, however, that as I lay there on the tools, in pain, unable to stand and watching the empty barrel 80 feet above me, I again lost my presence of mind and let go of the rope

**Sincerely,
Andy Clark, WA4PRF**

IC-9100 transceiver now available for order taking

In a recent press release, Icom America has provided more details of the eagerly-awaited Icom IC-9100 transceiver.

They say:

The **IC-9100** (aka 9100) is the new Icom HF/6M/2M/70CM and optional 23CM transceiver that many hams have been patiently waiting for. That wait is near an end, for the 9100 is now FCC approved.

“The 9100 will bring to the VHF/UHF/SHF market the same sort of top-end digital performance specs that Icom’s been bringing to the HF market since the introduction of the IC-7800 back in 2004”, explains Ray Novak, National Amateur Marketing Manager for Icom America.

The radio has three completely separate receivers enabling the 9100 to simultaneously receive two different bands. In SSB/CW/RTTY/FM and D-STAR V, power output is 2-100W on HF/6M/2M, 2-75W on 70CM, and 2-10W on 23CM. For AM, it’s 2-25W on HF/6M/2M.

The 9100’s double conversion super-heterodyne system with an image rejection mixer reduces intermodulation distortion in the HF to 70cm bands. Icom’s IF DSP technologies offer a host of digital features to guard against QRM and QRN, no matter which band you choose to explore.

“This is the rig that will especially appeal to both the satellite workers and the moon bounce crowd – two types of ham who covet the same bands; with different radio performance demands. The IC-9100 addresses both camps. The EME enthusiasts have not had this performance in a unit that did not require a homebrew

solution of combining a transverter and an HF radio. They’re going to love this radio”, says Novak. The rig is sized just right to set atop a desk in a den or shack, or grab and take out for a day of VHF/UHF “Rover” work in the contests. At only 24 1/4 pounds, the 9100 is surprisingly convenient to carry to your Field Day or other amateur radio event. In fact, the 9100 shares the same look, size and many of the same components as Icom’s recently launched IC-7410 HF transceiver. But the 9100 offers a whole lot more. Already FCC approved, the IC-9100 is still pending delivery to the US market and a recommended retail price.

A number of new accessories include: the UX-9100 1200MHz band unit; the optional 3kHz FL-431 and 6kHz FL-430 filters, for HF, increase the 1st IF’s selectivity; the UT-121 D-STAR module that allows for D-STAR DV ops and allows for D-PRS reporting (there’s a GPS button right on the 9100’s front panel to interface with an external NEMA Compatible GPS output); and the optional CS-9100 programming software that lets you add alphanumeric memory channels, call signs, filter widths and AGC settings from a PC via a USB cable connection on the 9100’s back panel.

Also coming soon for the 9100 is optional remote control software. The RS-BA1 allows you to use the 9100 from another room using your home network or even from a remote location over the Internet. Pricing for this new accessory is not yet available.

History This Week

1675 John Flamsteed appointed 1st Astronomer Royal of England

1681 King Charles II grants William Penn royal charter for Pennsylvania

1863 Congress authorizes track width of 4’8½” for Union Pacific RR

1897 Marconi demos to UK Army etc achieving about 5 kms.

1893 Edison opens first motion picture studio, West Orange, New Jersey.

1894 First steel sailing ship Dirigo, launched in Maine, USA.

1899 SS “R F Matthews” collided with the lightship, which alarmed the lighthouse ashore to get assistance. This was the first time ever a distress call was transmitted by radio from a ship at sea! Sent ‘HELP’ etc...

1908 Dutch scientists produce solid helium

I HAD TO BUY THIS HALLICRAFTERS RADIO BECAUSE...



1. I NEEDED A HEDGE AGAINST THE COMING COLLAPSE OF GOLD.
2. I'M SO OLD I CLUTCH AT STRAWS WITH TUBES.
3. MY GRAB AND GO BAG LACKED SOMETHING BULKY AND BROKEN.
4. IT NICELY MATCHED FOOD IN MY BEARD.
5. THE LIMIT WAS ONLY ONE PER CUSTOMER.
6. MY COLLECTION WAS MISSING AN 538C WITH THE BLACK MOLD OPTION.
7. IT REMINDED ME OF JUNIOR HIGH SCHOOL.
8. IF IT WORKED, I COULD RUN IT ON 80 D-CELLS.
9. IF IT WORKED, I COULD LISTEN TO RADIO MOSCOW FOR HOURS AND HOURS AND HOURS.
10. I'LL NEVER REGRET NOT RESTORING THIS VINTAGE LAPSE IN JUDGEMENT.

ARISS ham radio contact planned for ESA astronaut Paolo Nespoli, IZ0JPA and Gran Canaria

An Amateur Radio on the International Space Station school contact is scheduled Thursday 3 March at 14.17 UTC for the Technological Centre for Innovation in Communications (CeTIC), Las Palmas de Gran Canaria, Las Palmas, Spain.

The Institute for Technological Development and Research in Communications (IDeTIC), formerly known as CeTIC, is a Research and Development centre at the University of Las Palmas de Gran Canaria (ULPGC), which was founded in 2006. Formerly the CeTIC was composed of three research divisions in communications engineering with more than 10 years worth of experience, to whom were later added two new divisions in early 2009.

Its main goal is transferring technology between companies and the university and, as part of it, to teach and train students in communications. Our staff includes researchers (both internal and third-party), PhD, MSc and BSc students, along with other collaborating staff members. In the last 5 years our research strategies and results have been supported by more than 200 publications on scientific magazines and international conferences. All of them endorsed by our participation in more than 50 research projects, most being joint collaborations amongst international institutions and cutting-edge technological companies. The contact will be a direct, operated by EG8ISS.

The event will also be broadcast on streaming video at www.isscontact.eu.

The conversation will be conducted in English.

Students will ask as many of following questions as time allows.

1. Laura (15): Can you tell me the different procedures that you must follow if you have an important technical problem?
2. Rodrigo (17): Are the effects of climate change on Earth visible from space?
3. Jorge (11): Has the station any way to simulate day and night so you know when to sleep?
4. Bethany (13): Can you see pollution on Earth from space?

5. Andrea (11): How old were you when you first thought of being an astronaut?
6. Adrian (16): How do solar storms affect the space station?
7. Abraham (11): Would a game console like the Wii work on the ISS?
8. Luis (23): Do you see sparks when you close your eyes as the astronauts in the Apollo program used to?
9. Daniel (25): What do you do in your free time?
10. Hector (25): What is the temperature in degrees Celsius inside and outside the station?
11. María (13): Have you seen the Canary Islands from space?
12. Juan (16): How are circadian rhythms affected by living in orbit?
13. Mario (11): Does food taste the same as here?
14. Laura (18): What will you miss most from space when you'll be back on Earth?
15. Paula (11): How long do you think it will take to inhabit other planets?
16. Nestor (24): If you established communications with a U.F.O. and you only had three words to describe humanity, which ones would you choose?
17. Varkha (17): What would happen if you found space debris on your way?
18. Victoria (15): What would you do if any member of the crew in the spaceship got seriously sick?
19. Christian (13): What is more important for the space trip: physical training or psychological preparation?
20. Esther (16): I would like to work for a space agency, what do you advise me to do?

ARISS is an international educational outreach program partnering the participating space agencies, NASA, Russian Space Agency, ESA, CNES, JAXA, and CSA, with the AMSAT and IARU organizations from participating countries.

ARISS offers an opportunity for students to experience the excitement of Amateur Radio by talking directly with crewmembers onboard the International Space Station. Teachers, parents and communities see, first hand, how Amateur Radio and crewmembers on ISS can energize youngsters' interest in science, technology and learning.