CAARA Newsletter

AN ARRL AFFILIATED CLUB JANUARY ISSUE- 2011

President's Corner

by Stan-W4HIX

Well, what I thought was going to be a relaxing week off between Christmas and New Years has become a pretty busy time as far as emergency communications operations. The Cape Ann Blizzard of 2010 saw the first activation of the Gloucester CERT (Community Emergency Response Team) to help operate the Gloucester Emergency Operations Center. Ten members of CERT responded to the call for activation and reported at 4:00 PM on Sunday, Dec. 26th. Two CERT members (myself and Ruth WW1N) were CAARA members. This was the first time that EOC had been activated, so there was a lot to do in getting set up. The CERT members went to work on a work/sleep schedule, scrounged furniture and supplies from around the Fuller School, made coffee, and generally got the facility operational. The EOC suffered a power failure and the generator worked for a couple of hours until it failed. The Internet service was routed through the school system, so had many restrictions, and ultimately failed because the backup generator at Gloucester High School failed. We ultimately deactivated at 7:30 AM on Monday.

It was quite an experience, and a great shakedown exercise. I've been meeting with Gloucester IT managers to make the Internet connection more robust, and will be meeting with other city professionals that are working on radio improvements for the GFD and data communications for the DPW. The key lesson was that you have to test every system and learn their failure modes.

Field Day is coming, and I'm talking to the DPW about using the Fuller School as our site. This will strengthen CAARA connection with the Gloucester EOC and help us determine the best way to provide a strong integration of emergency radio communications and Gloucester's emergency management infrastructure.

I want to thank Curtis Wright for laying the foundation for our great relationship with the City. Without his work, we'd still be at home with our HT's, waiting for a call.

I want to wish everyone a Happy New Year—there's lots to do in 2011.....

Stan, W4HIX

SPAR WINTER FIELD DAY IS COMING !!!

Are you looking for a little ham radio action during the long cold winter days here on Cape Ann?Well CAARA has just the ticket for you.The club will once agiain be particpating in the SPAR Winter Field Day event which is always on the last weekend in January.SPAR is the term for "The Society for the Preservation of Amateur Radio" and this years field day event will be starting on 1700 UCT (12 NOON) on Saturday January 29th and will for 24 Hours until 1700 UCT (12 NOON) on Sunday January 30th.The great thing about this relaxed competition event is that you will be able to operate in the cozy confines of the Caara Clubhouse instead of some brave few who actually operate in the cold during this event!! This event will be a great opportunity to practice on your radio operating,CW and logging skills.Plus you get to know how to operate all of the radios that are in the second floor of the clubhouse.So come on down for some ham radio fun and just think that the ARRL 2011 Field Day is just 6 months away!! For more information on Spar and thier Field day competition their website is www.spar-hams.org .If you look around their website you just might find a couple of pictures of CAARA`s participation of their 2009 Field day competition.

73's

Dean Burgess KB1PGH

CAARA Clerk

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

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 W1RK 443.700 repeater with antennas located in Magnolia is owned and operated by club member Ralph Karcher and it too is available for club use.

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.

CAARA ANNUAL CHRISTMAS PARTY

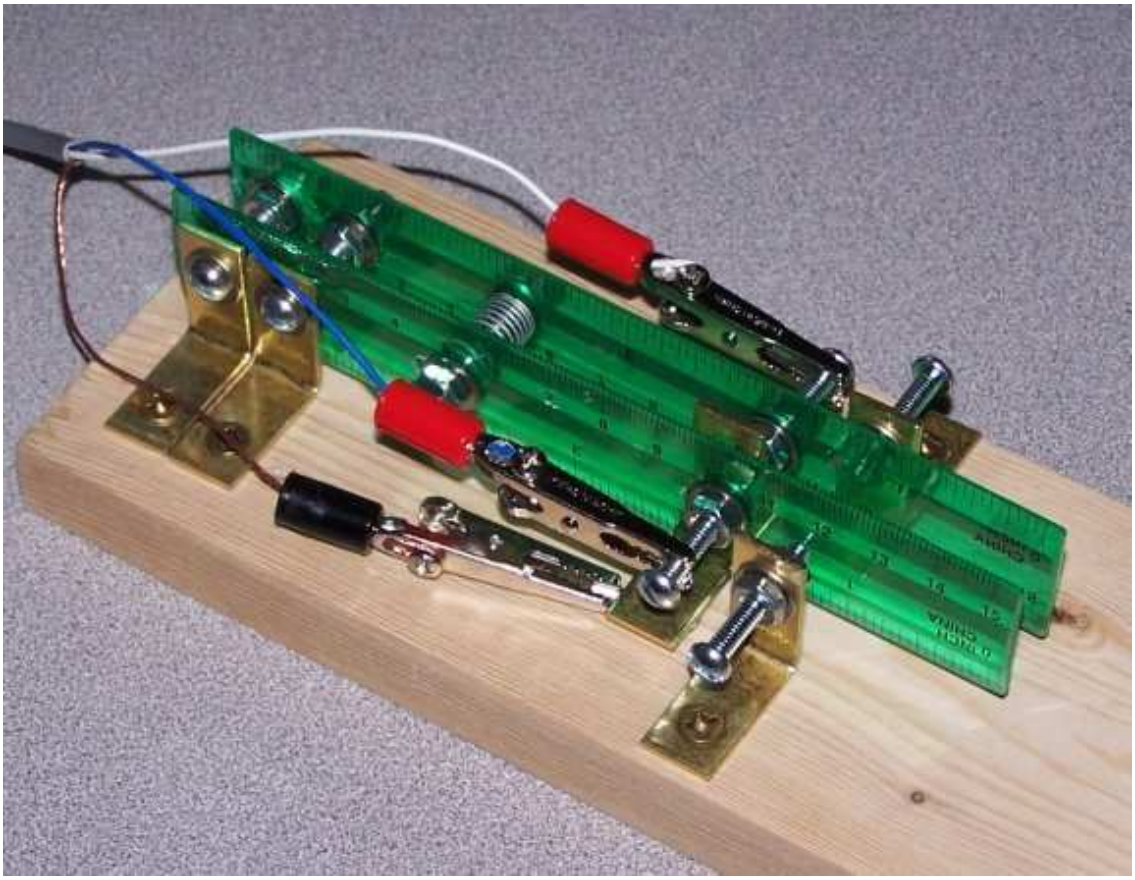
On Saturday December 4th CAARA held it‘s annual Christmas Party at St Johns Episcopal Church Hall on 48 Middle Street in Gloucester. The party was well attended and there was a wide variety of food and drink with all of the Pot luck dishes that the members brought in.It was a good time on catching up with many members who we don‘t get a chance to see that often during the year. We aslo had a great time with the Yankee Swap with a battle of who was going to end up with the $10 scratch ticket or the Dunkin Donuts gift card swapping hands many times before it was all over.At the end was the raffle with the grand prize being a Yaesu FT 1802 Mobile 2 MTR rig which was won by Dave Surronen KB1KR.The Caara Board of Directors would like to thank the Downey family for all of their help in the kitchen and everyone else who pitched in to make the party a great success.See you next year!
73‘s
Dean Burgess KB1PGH
Caara Clerk

Suggestions for DX Pile-ups

1. The DX station operators are in charge of any pile-up.
2. The DX station should make and adhere to their operating rules quietly and respectfully.
3. The DX station should use, when appropriate, call areas and areas of the world for better accuracy, rate and order.
4. The DX station should use split operation and spread stations out, keeping in mind others not in the pile-ups. A must.
5. The DX station should give their call sign at least every 10 minutes and maintain a pattern especially when ending a QSO.
6. The DX station should create a rhythm or timing which maintains a good rate and allows the pile-up to call at the right time.
7. The operators in the pile-up, if not sure of a QSO, should dupe and the DX operator continue not wasting time commenting.
8. The DX station should work those who will create the fastest rate, at least at first, then make an effort to work the weaker stations.
9. No one should lecture on the air.
10. Everyone should always require and give full calls.
11. Know and practice the gray line.
12. Know the equipment being operated such as the split button, audio levels, keying wave form, etc.
13. NEVER be a “KC Cop”….never.
14. Operators giving spots on a DX Cluster should insure their accuracy!
15. Keep away from personal, political, and religious comment any time on the air and/or the DX Cluster. Keep all comments in the true spirit of ham radio whereby ALL ARE EQUAL.
16. Don’t rush when giving your call when the DX station is standing by, especially on CW. Time will be lost trying to obtain ALL of the call sign.
17. Don’t call the DX station constantly. Get in the rhythm.
18. Let the last station complete his QSO.
19. Use only the power it takes and figure out what that is!
20. Figure out the DX operator’s operating practice for greater success.

SMILE: YOU ARE ON CAARA CAMERA!

The club now has a security camera that takes a picture of all that enter the clubhouse and emails the photo to the BOD for reference.



You don’t have to spend a fortune on a commercial key, homebrew one with parts you have readily available around the shack!

CAARA FCC AMATEUR RADIO LICENSE VE EXAM DATES FOR 2011 !!
Here‘s the list of the upcoming Volunteer Examiner Test Dates for 2011 so everyone can plan accordingly if they are planning on taking an Amateur Radio License Exam or if they are a examiner you can put mark it down on your calendars. As always these test dates are on the second Sunday of every month at start at 10 AM. All test dates will be held at the CAARA Clubhouse on 6 Stanwood Street in Gloucester Mass.If you are planning on taking an exam please bring $15.00 for the test fee plus two forms of ID which either must include you picture and your Social Security number. You may pre register a date and reseve a spot by emailing our CAARA VE team leader Bob Quinn, WV1A at bquinn32@comcast.net . We also welcome walk-in‘s as well. Here are the dates. All days are on Sunday’s .

January 9 th	February 13 th
March 13 th	April 10 th
May 8 th	June 12 th
July 10 th	August 14 th
September 11 th	October 9 th
November 13 th	December 11 th

73‘s
Dean Burgess KB1PGH
CAARA Clerk and VE Team member

When Was the Battery Invented? *courtesy of the ARRL website*

The battery, today's technological necessity, is the result of 400 years of scientific effort.

One of the most remarkable and novel discoveries in the last 400 years is electricity. One may ask, "Has electricity been around that long?" The answer is yes and perhaps much longer, but the practical use of electricity has only been at our disposal since the mid to late 1800s. One of the early electrical attractions that gained public attention was an electrically illuminated bridge over the Seine River during the 1900 World's Fair in Paris.

The use of electricity may go back much farther. While constructing a new railway in 1936 near Baghdad, workers uncovered what appeared to be a prehistoric battery. The discovery was known as the Baghdad or Parthian battery (see Figure 1) and was believed to be 2000 years old, dating back to the Parthian period [The Parthian empire existed in what is now Iran from 247 BC-224 AD. — *Ed*.]. The battery consisted of a clay jar filled with vinegar. An iron rod surrounded by a copper cylinder penetrated into the liquid and produced 1.1 to 2 V of electricity.

Not all scientists accept the Parthian battery as being a source of energy because the application is unknown. [There are alternative explanations for the Parthian battery but it does work as a battery. — *Ed*.] It is possible that the battery was used for electroplating a layer of gold or other precious metals onto a surface. The Egyptians are said to have electroplated antimony onto copper over 4300 years ago.

Modern Battery Experiments

The earliest method of generating electricity was by inducing a static charge in some substance. In 1660, Otto von Guericke (1602-1686) constructed the first electrical machine consisting of a large sulphur globe that, when rubbed and turned, attracted feathers and small pieces of paper. Guericke was able to prove that the sparks generated were electrical in nature. The first practical use of static electricity was the "electric pistol," which was invented by Alessandro Volta (1745-1827). An electrical wire was placed in a jar filled with methane gas. When an electrical spark was sent through the wire, the jar would explode.

Volta (see Figure 2) then thought of using this invention to provide long distance communications, albeit only one Boolean bit. An iron wire supported by wooden poles was to be strung from Como to Milan, Italy. At the receiving end, the wire would terminate in a jar filled with methane gas. To signal a coded event, an electrical spark would be sent by the wire to detonate the electric pistol. This communications link was never built.

In 1791, while working at the University of Bologna, Luigi Galvani (1737-1798) discovered that the muscle of a frog contracted when touched by dissimilar metallic objects. This phenomenon became known as "animal electricity" — a misnomer, as was later proved. Prompted by these experiments, Volta initiated a series of experiments using dissimilar metals. He tried combining zinc, lead, tin or iron as positive plates and copper, silver, gold or graphite as the negative plates.

Early Batteries

Volta discovered in 1800 that certain fluids would generate a continuous flow of electrical power when combined with a pair of dissimilar metals. This discovery led to the invention of the first voltaic cell, more commonly known as a battery. Volta discovered further that the voltage would increase when voltaic cells were stacked on top of each other. Figure 3 illustrates such a serial connection.

In the same year, Volta released his discovery of a continuous source of electricity to the Royal Society. No longer were experiments limited to a brief display of sparks that lasted a fraction of a second. A seemingly endless stream of electric current was now available.

France was one of the first nations to officially recognize Volta's discoveries. France was approaching the height of scientific advancements and new ideas were welcomed with open arms. By invitation, Volta addressed the Institute of France in a series of lectures at which Napoleon Bonaparte was present as a member (see Figure 4). Napoleon helped with the experiments, drawing sparks from the battery, melting a steel wire, discharging an electric pistol and decomposing water into its elements.

After Galvani's successful experiments and the discovery of the voltaic cell, interest in galvanic electricity became widespread. Sir Humphry Davy (1778–1829), inventor of the miner's safety lamp, made new

discoveries when he installed the largest and most powerful electric battery into the vaults of the Royal Institution. He connected the battery to charcoal electrodes and produced the first electric light. Witnesses reported that his voltaic arc lamp produced "the most brilliant ascending arch of light ever seen."

Davy began to test the chemical effects of electricity in 1800 and soon found that by passing electrical current through some substances, decomposition occurred, a process later called electrolysis. The generated voltage was directly related to the reactivity of the electrolyte with the metal. Davy understood that the actions of electrolysis and the voltaic cell were the same.

In 1802, Dr William Cruickshank designed the first electric battery capable of being mass produced. Cruickshank arranged square sheets of copper with equal sheet sizes of zinc. These sheets were placed into a long rectangular wooden box and soldered together. Grooves in the box held the metal plates in position. The sealed box was then filled with an electrolyte of brine, or watered down acid, resembling the flooded battery that is still with us today (see Figure 5).

Rechargeable Battery

In 1836 John F. Daniell, an English chemist, developed an improved battery that produced a steadier current than Volta's device. Until then, all batteries were primary, meaning that they could not be recharged. In 1859, the French physician Gaston Planté invented the first rechargeable battery. It was based on lead and acid, a system that is still used today.

In 1899, Waldmar Jungner from Sweden invented the nickel-cadmium battery (NiCd), which used nickel for the positive electrode and cadmium for the negative. Two years later, Thomas Edison produced an alternative design by replacing cadmium with iron. High material costs compared to dry cells or lead acid systems limited the practical applications of the nickel-cadmium and nickel-iron batteries. It was not before Shlecht and Ackermann achieved major improvements by inventing the sintered pole plate in 1932 that NiCd gained new attention [sintering is the process of fusing nickel powder at a temperature well below its melting point using high pressures]. This resulted in higher load currents and improved longevity. The breakthrough came in 1947 when Neumann succeeded in completely sealing the nickel-cadmium cell.

In the 1980s and 1990s, the attention was on nickel-based chemistries. Concerned about environmental contamination if NiCd was carelessly disposed, some European countries began restricting this chemistry and asked the industry to switch to nickel metal hydride (NiMH). Many say that the NiMH is an interim step to lithium-ion (Li-ion) and this may well be true. Much of the research focuses on improving lithium-ion batteries. Besides powering cellular phones, laptops, digital cameras, tools and medical devices, Li-ion is also a candidate for vehicles. Li-ion has a number of benefits including a higher energy density, is easier to charge and does not have maintenance issues unlike nickel-based batteries. Nor does Li-ion suffer from sulfation that is common with lead-based systems.

Electricity through Magnetism

Electricity through magnetism, an alternative method of generating electricity besides static charge and battery, came relatively late. In 1820, André-Marie Ampère (1775-1836) noticed that wires carrying an electric current were at times attracted and at other times repelled from one another. In 1831, Michael Faraday (1791-1867) demonstrated how a copper disc provided a constant flow of electricity while revolving in a strong magnetic field. Faraday, assisting Davy and his research team, succeeded in generating an endless electrical force as long as the movement between a coil and magnet continued. This led to the invention of the electric generator and then the electric motor. Shortly thereafter, transformers were developed that could convert alternating current (ac) to any desired voltage. In 1833, Faraday established the foundation of electrochemistry by publishing his laws of electrolysis.

Once the relationship with magnetism was discovered in the mid 1800s, large generators began producing a steady flow of electricity. Motors followed that enabled mechanical movement and the Edison light bulb appeared to conquer darkness. The three-phase ac technology developed by Nikola Tesla (1857-1943) enabled transmission lines to carry electric power over great distances. Electricity was thus made available to humanity to improve overall quality of life.

The invention of the electronic vacuum tube in the early 1900s was the significant next step toward high technology, enabling the development of frequency oscillators, signal amplifications and digital switching. This

led to radio broadcasting in the 1920s and the first digital computer called ENIAC in 1946. The discovery of the transistor in 1947 paved the way to the integrated circuit 10 years later. The microprocessor ushered in the Information Age and revolutionized the way we live today.
Humanity depends on electricity, and with increased mobility, people are moving more and more toward portable power storage — first for wheeled applications, then portability and finally wearable use. As awkward and unreliable as the early batteries may have been, future generations may look at today's technologies as nothing more than clumsy experiments.

History of Battery Development.

1600 William Gilbert (UK) Establishment of electrochemistry study
1791 Luigi Galvani (Italy) Discovery of "animal electricity"
1800 Alessandro Volta (Italy) Invention of the voltaic cell
(zinc and copper disks)
1802 William Cruickshank (UK) First electric battery capable
of mass production
1820 André Marie Ampère (France) Electricity through magnetism
1833 Michael Faraday (UK) Announcement of Faraday's laws
1836 John F. Daniell (UK) Invention of the Daniell cell
1839 William Robert Grove (UK) Invention of fuel cell (H2/O2)
1859 Gaston Planté (France) Invention of the lead-acid battery
1868 Geroge Leclanché (France) Invention of the Leclanché
cell (carbon-zinc)
1899 Weldmar Jungner (Sweden) Invention of the
nickel-cadmium battery
1901 Thomas A, Edison (USA) Invention of the
nickel-iron battery
1932 Shlecht and Ackermann Invention of the
sintered pole plate
1947 Neumann (France) Successfully sealing the
nickel-cadmium battery
1949 Lew Uir, Eveready Battery (USA) Invention alkaline-manganese
battery
1970s Group effort Development of valve regulated
lead-acid battery
1990 Group effort Commercialization of nickel-metal
hydride battery
1991 Sony (Japan) Commercialization of
lithium-ion battery
1996 Moli Energy (Canada) Introduction of Li-ion
with manganese cathode
2005 Valence, A123 System (USA) Introduction of Li-ion with
phosphate cathode

I remember slide rulers but this was before my time!

The **Curta** is a small, hand-cranked mechanical calculator introduced in 1948. It has an extremely compact design, a small cylinder that fits in the palm of the hand. It can be used to perform addition, subtraction, multiplication, division, and, with more difficulty, square roots and other operations. The Curta's design is a descendant of Gottfried Leibniz's Stepped Reckoner and Thomas's Arithmometer, accumulating values on cogs, which are added or complemented by a stepped drum mechanism.

History of the Invention

The Curta was conceived of by Curt Herzstark (1902–1988) in the 1930s in Vienna. By 1938, he had filed a key patent, covering his complemented stepped drum, Deutsches Reichspatent (German Empire Patent) No. 747073. This single drum replaced the multiple drums, typically around 10 or so, of contemporary calculators, and it enabled not only addition, but subtraction through nines complement math, essentially subtracting by adding. The nines' complement math breakthrough eliminated the significant mechanical complexity created when "borrowing" during subtraction. This drum would prove to be the key to the small, hand-held mechanical calculator the Curta would become.

His work on the pocket calculator stopped in 1938 when the Nazis forced him and his company to concentrate on manufacturing measuring instruments and distance gauges for the German army.

Description and use

Numbers are entered using slides (one slide per digit) on the side of the device. The *revolution counter* and *result counter* appear on the top. A single turn of the crank adds the input number to the result counter, at any position, and increments the revolution counter accordingly. Pulling the crank upwards slightly before turning it performs a subtraction instead of an addition. Multiplication, division, and other functions require a series of crank and carriage-shifting operations.

The Curta was affectionately known as the "pepper grinder" or "peppermill" due to its shape and means of operation. It was also termed the "math grenade", due to its superficial resemblance to a certain type of hand grenade.

Use in car rallies

The Curta was popular among contestants in sports car rallies during the 1960s, 1970s and into the 1980s. Even after the introduction of the electronic calculator for other purposes, they were used in time-speed-distance (TSD) rallies to aid in computation of times to checkpoints, distances off-course, etc., since the early electronic calculators did not fare well with the bounces and jolts of rally racing.

Contestants who used such calculators were often called "Curta-crankers" by those who were limited to paper and pencil, or who used computers linked to the car's wheels.

Curta calculators contributed to the saying when describing the process of calculating, "Cranking out the answer."

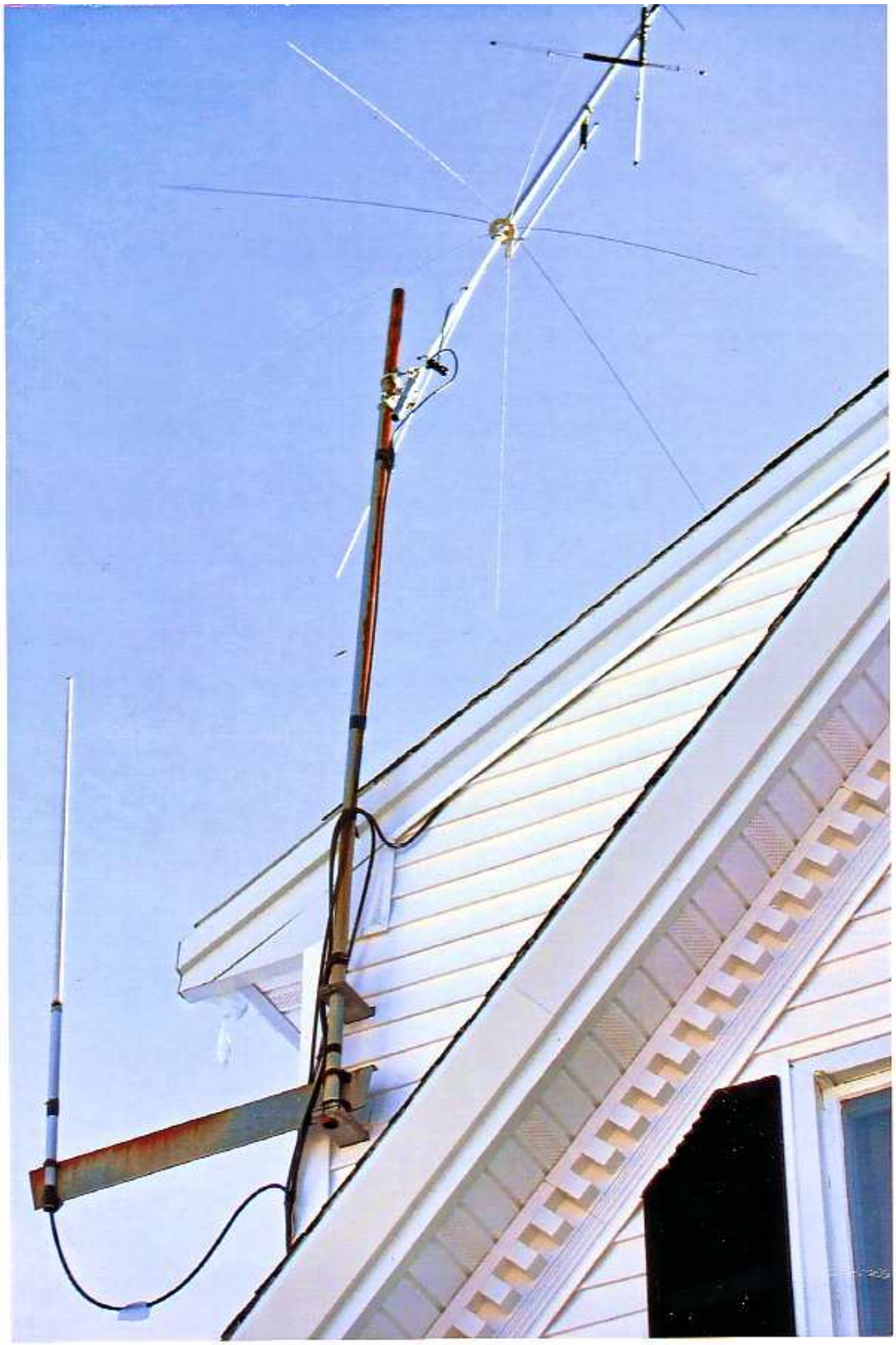
Use by pilots

The Curta was also favored by both commercial and general-aviation pilots, before the advent of electronic calculators, because of both its precision and the user's ability to confirm the accuracy of his or her manipulations via the revolution counter. Because calculations such as weight and balance are a matter of life and death, precise results free of pilot error are essential.

The real cost of a Curta

While only 3% of Curtas were returned to the factory because of repairs under warranty, a small, but significant stream returned the Curta in pieces. Many purchasers attempted to disassemble the Curta. Reassembling the

machine was more difficult, as assembly required intimate knowledge of the orientation and installation order for each part and sub-assembly. Many identical looking parts, each with slightly different dimensions, required test fitting and selection as well as special tools to adjust tolerances. One chagrined owner, on showing up to the dealer to retrieve his $600 Curta, now reassembled for an additional $300, was told, “don’t feel bad. Curtas really cost $900. Everyone takes them apart.”



Joe- WB1CHJ just put this antenna up in the fall and the winter blizzard bent it over....but Tom-K0TB is on the way to fix it.

Last month questions and answers were all directly from the 1976 License Manual. Question 1. was from the Advanced Class material, 2. Novice Class, 3. Extra Class and 4. General Class.....by Dick-WB1W

1. *A resistor, capacitor and inductor each have 100 ohms of resistance or reactance. What is the equivalent series impedance of these three elements?*

   The value of the resistor itself, 100 ohms. Since capacitive and inductive reactance are of opposite effect, they cancel each other in a series circuit.

2. *What is: Resistance? Inductance? Capacitance? What are the units of value for each?*

   Resistance is an obstacle to the flow of a current through a circuit, most often the means through which the circuit accomplishes its aims; the filament of an incandescent light bulb is a resistor and power furnished to it is converted into heat and light. **Inductance** is a measure of the ability to store energy in a magnetic field, usually of a coil of wire. **Capacitance** is a measure of the ability to store energy in an electric field, usually between two conductors close together but separated by an insulator. **Resistance** is measured in ohms, kilohms and megohms; **capacitance** in farads, but microfarad (millionth) and picofarad (millionth of a millionth) levels are common in radio work; **inductance** in henrys, millihenrys (thousandths) and microhenrys (millionths).

3. *Of what importance is the signal-to-noise ratio of a receiver? At what radio frequencies is this ratio most important?*

   The signal-to-noise ratio of a receiver determines the minimum signal that may be detected without being masked in the receiver noise. This ratio becomes most important in the vhf range and above, because at frequencies where propagation is via the ionosphere atmospheric noise is more of a factor in determining the overall signal-to-noise ratio than receiver noise.

4. *What does the term "S/D ratio" in a ssb transmitter mean? How can the S/D ratio be determined?*

The S/D (signal-to-distortion) ratio in an ssb transmitter is the ratio in dB between the peak carrier amplitude and the 3rd- and 5th-order IMD (intermodulation distortion) products. The ratio can be determined by subjecting the signal to spectral analysis while feeding a two-tone signal into the audio channel of the transmitter and observing the IMD level on the spectrum analyzer display tube. For a two-tone signal, the frequencies of the IMD products can be found by multiplying the transmitted frequency of one of the tones by two and subtracting the frequency of the other one. This will give the frequencies of the 3rd-order IMD products. The 5th-order products are found by multiplying one frequency by 3 and subtracting twice the other frequency. An alternative method might be to sample the transmitter output and supply the signal (under two-tone modulation) to the input of a highly selective receiver which has an S meter of accurate calibration. Tuning across the spectrum near the desired signal will provide responses at the 3rd- and 5th-order frequencies. The level of the responses can then be compared to the carrier frequency to establish the power ratio in dB. An S/D ratio of 25 dB is minimum.

This month's questions:

1. What is a dummy antenna? How can it be of use to amateur operators?
2. What is a dipole antenna?
3. Compare the characteristics of a horizontal half-wave dipole with those of a quarter-wave ground plane antenna?
4. What constitutes a parasitic antenna element?

CAARA RESPONDS TO BLIZZARD SENDING STAN-W4HIX AND RUTH- WW1N TO FULLER SCHOOL

Power outages struck three key emergency centers in Gloucester during the height of the post-Christmas snowstorm — leaving the Police Department, the city emergency operations center at Fuller School, and Addison Gilbert Hospital sporadically in the dark before back-up generator systems kicked in.

No major problems were reported in the immediate aftermath.

Shortly after noon on Monday, as the official blizzard warning expired, Main Street sidewalks were all but deserted, plow crews were still pushing through piles of slush and snow and street traffic, while light, snarled frequently.

“Phones have been ringing, basically, just nonstop,” said police Lt. Kathy Auld.

Many reported poles down, trees down, wires down — you name it.

“All over the city, the cable and phone lines are down,” Auld said.

At the Fuller School complex, where the city’s emergency management headquarters was established for the first time in a former computer room, Director Miles Schlichte said officials were juggling a variety of safety concerns and coordinating storm response from various city departments.

“It really makes stuff a whole lot more efficient if you’re in the same room,” he said.

Schlichte said the operations center was opened at 4 p.m. on Sunday.

“I will say it was quite successful for the first time,” he allowed.

Nothing came easily in this storm, however.

“Right at the height of the storm, with everybody moving around,” he recounted ruefully, “we lost power.”

Assisting at the make-shift center was Gloucester’s Community Emergency Response Team, drawing in part on 30 volunteers, according to program manager Carol McMahon.

Ruth-WW1N standing

“I’m not aware of any significant injuries,” Schlichte said, assessing the storm’s impact at midday.

By noon at Addison Gilbert, life was getting back to normal. Some staff members spent the night.

“So we were very well staffed. ... Not too bad, just a long evening,” said Edward Holden, a Northeast Health System facilities director.

“We really did pretty well. The volume was down in the emergency room,” which helped, Holden said.

Intermittent loss of regular power “kinda made for a little bit of struggle through the evening,” he said, adding that similar problems were experienced at Seacoast Nursing and Rehabilitation Center.

Meanwhile, at police headquarters on Main Street, regular power had been out from about 5:30 a.m. to around 12:45 p.m., Auld said, and the generator doesn’t effectively power the heat. So by Monday afternoon, she said, the building was warming up.

Saying she was reluctant to jinx things, Auld shrugged over how the city had coped with the storm itself.

“I’d say overall, it’s been pretty good considering the size of the storm,” she said.

Monthly members meeting agenda

When: Wednesday, January 05 2011 @ 07:30 PM EST - 09:00PM
Event Type:
Where: Caara clubhouse
6 Stanwood Street
Gloucester, MA 01930
Description: During January‘s regular members meeting we will have a DVD presentation of the 2009 amamteur radio Dxpedition to Desecheo Island which is an unhabited island located in the Carribean.You will see how over 30 amateur radio operators made the logistical trip to the island and racked up over 115,000 qso‘s to boot under the callsign of K5D.

ARRL’s QSL Bureau in ‘high gear’

The ARRL Web page reports that with the increase in sunspots, individuals are working more DX which means the ARRL’s Membership and Volunteer Programs Department - especially the DXCC Desk and the ARRL Incoming and Outgoing QSL Bureaus - are working in high gear.

The League states, “Compared to 2009, 2010 saw a dramatic increase in the number of cards we received from ARRL members that were sent to foreign QSL Bureaus, as well as the number of cards we sent out to the Bureaus,” said DXCC Manager Bill Moore, NC1L.

”In addition, the number of DXCC applications - including those for initial awards and endorsements - also increased.”

Through December 14, 2010, the ARRL Outgoing QSL Bureau received 709,800 cards destined for foreign QSL bureaus from ARRL members in the US. This represents an increase of 16 percent over the 2009 number of about 612,000 cards. In 2009, the ARRL shipped 673,500 cards - or close to 4500 pounds of cards - to foreign bureaus.

”We have processed nearly 660,000 cards in 2010, and the year isn’t even over yet,” said MVP Administrative Manager Sharon Taratula. “I would not be surprised if we surpassed 750,000 cards by the end of the year.”

As the number of QSL cards has increased, so have the number of DXCC applications. In 2009, the DXCC Desk processed 7134 applications for initial awards and endorsements; these 2009 applications included almost 762,500 QSOs. So far in 2010, the DXCC Desk has processed 6895 applications, containing almost 860,000 QSOs, for an increase of 13 percent over 2009.

”With all of the year’s applications not yet fully processed,
we’ve seen the number of QSOs increase in 2010 over 2009, even though the number of applications is a tad lower,” Moore said. “Come the end of the year, I expect the 2010 application total to surpass the 2009 number.”

For more info on how to use the ARRL’s Bureau systems (IN/OUT), see the following Web pages:

Incoming QSL Bureau:
http://www.arrl.org/incoming-qsl-service

Joe-K1JEK behind the counter explaining how his Cobra Antenna works to hams at HRO in Salem, NH

Rick-K1BQT, formally of Cushcraft and now MFJ, with salesman Dave waving for the camera. Rick has designed antennas as well as well as designing qrp radios, etc. for MFJ.

Pictures of HRO in Salem, NH. I travel to HRO once a month to play with the rigs and have lunch at the Chinese Restaurant next door with the guys from the 3864 afternoon SSB group.....*k1tp*

W7EQI TO CHAIR HOUSE ENERGY AND COMMUNICATIONS

United States Representative Greg Walden, W7EQI, of Oregon used Morse code when he tweeted the news to his followers on Twitter that he had been named Chairman of the House Energy and Commerce Committee's Subcommittee on Communications and Technology.

The full text of Walden's Twitter message read – and we quote: "Will chair comm and tech sub 73s w7eqi"

In a follow-up message Walden explained that hisst tweet was Morse code and that it was just the ham radio operator in him having fun.

Walden is one of two ham radio operators in Congress. The other is Rep. Mike Ross, WD5DVR from Arkansas.

Among other things, the subcommittee Walden will chair has responsibilities that include oversight of the FCC. (Worldradio OnLine Bulletin)

ARRL Straight Key Night: A Return to Amateur Radio's Roots

For more than 40 years, ARRL Straight Key Night has long been the favorite event of many amateurs. Always on New Year's Eve and Day, Straight Key Night gives hams a chance to return to the time when Amateur Radio was just a bit simpler — a time when a straight key or an old bug, along with a basic transceiver, was all that was needed to communicate around the world. In fact, that's still all that is needed. Keep the CW paddle or

computer keyboard on the shelf this night and send CW the way it's been sent since the beginning.
"Morse code has been around longer than radio itself," said ARRL Contest Branch Manager Sean Kutzko, KX9X. "If you have a rusty fist, break out that key and make some QSOs with old friends and new. If your fist still works as well as ever, you might earn a 'Best Fist' vote or two! Many amateurs also bring out their older rigs for this night. Why don't you?"
Straight Key Night is not a contest: no score is kept, no prizes are awarded, no fast exchanges of information are required. It's a chance to get on the air and make some leisurely QSOs. This event is about the enjoyment of radio at its most basic and provides an excellent opportunity for all amateurs to return to our roots, proving that simpler is sometimes better.
ARRL Straight Key Night is held on January 1, 2011 from 0000-2359 UTC (7 PM EST December 31, 2010 through 6:59 PM EST January 1, 2011). E-mail a list of stations worked — along with votes for Most Interesting QSO and Best Fist — by January 31, 2011. You can also submit your list by January 31 via postal mail to ARRL Straight Key Night, 225 Main St, Newington, CT 06111.

ARRL Shows IBEC BPL Systems Are Interfering, Violating FCC Rules

ARRL, the national association for Amateur Radio has filed a complaint with the Federal Communications Commission documenting ongoing harmful interference and egregious rules violations by Broadband over Power Lines (BPL) systems installed by IBEC, Inc. in Virginia, Pennsylvania, and Indiana. The ARRL has requested that the FCC "initiate immediately an enforcement proceeding regarding these BPL systems, and cause them to cease operation until such time as they are each in full compliance with the Commission's Rules." Contrary to earlier representations to the ARRL and to statements in the online BPL database, IBEC's systems in these locations are not universally notching the Amateur bands as is necessary in order to avoid emissions at levels that are likely to cause harmful interference to licensed Amateur Radio stations. In fact, measurements by ARRL staff and confirmed independently show that IBEC systems are not even notching the aeronautical bands that the FCC rules require BPL systems to avoid and are operating at power levels that cause radiation well in excess of the FCC limits.
The ARRL even discovered IBEC BPL systems in operation that are not listed in the online BPL database – another clear violation of the FCC rules, which require listing 30 days prior to initiation of service.
"While IBEC was cooperative in the early stages of their BPL system development and appeared to understand what was necessary to avoid harmful interference, it appears that corners have been cut in the course of deployment," observed ARRL Chief Executive Officer David Sumner, K1ZZ. "We can only speculate as to the reasons why they have taken this path, but the fact is that IBEC is not playing by the rules and their systems must cease operation until they are brought into compliance."
For months, amateur operator Kevin Ward, K4BDR of Afton, Virginia has experienced harmful interference at his home as well as during mobile operation during his regular commutes to work. The BPL system in his area uses power lines owned by the Central Virginia Electric Cooperative. Complaints to IBEC have been fruitless. Measurements taken in the area of Lovingston and Arrington, Virginia show that the system is operating well in excess of maximum radiated emission limits and without necessary notching. Measurements of radiated emissions from an IBEC system in Martinsville, Indiana using power lines owned by the South Central Indiana Rural Electric Membership Cooperative (SCI REMC) gave similar results.
IBEC systems were observed operating in Somerset, Pennsylvania and Fairfield, Virginia well above permitted radiated emission levels, despite there being no listing in the online BPL database anywhere in the vicinity of these locations.
ARRL General Counsel Christopher D. Imlay, W3KD observed, "The information supplied to the FCC in support of this complaint amply justifies the modifications of the BPL rules urged by ARRL in ET Docket No. 04-37, including the mandatory, full-time notching of all Amateur Radio allocations by BPL systems, to a notch depth of at least 30 to 35dB." This rulemaking proceeding was reopened by the FCC as a belated response to an April 2008 order by the United States Court of Appeals for the District of Columbia Circuit, which ruled in favor of the ARRL in finding that the FCC had failed to comply with the Administrative Procedure Act and had not provided a reasoned justification for some of its decisions in adopting rules for BPL systems.

Society for the Preservation of Amateur Radio

SPAR Announces Winter Field Day 2011

Not only during Field Day in June, do the bands come alive with improvised signals proving the ability to respond to emergencies. Since emergencies and natural disasters don't always happen in the summer, during Winter Field Day, frigid winds, icy limbs and bitter cold replace the thunderstorms and blistering heat of summer. In 2007 SPAR established a Winter Field Day event and invited all Amateur Radio operators to participate. The event was repeated in 2008 and was considered a success, so it was then designated an annual event to be held the **last full weekend each January**. In 2007 - 2010 the event was enjoyed by many, but it is time to issue the invitation for the Fifth Annual SPAR Winter Field Day!

The 2011 Winter Field Day will be held from 1700 UCT (12:00 noon EST) Saturday January 29, 2011 through 1700 UCT (12:00 noon EST) Sunday January 30, 2011. The object of the event is familiar to most Amateur Radio operators: set up emergency-style communications and make as many contacts as possible during the 24 hour period. The rules encourage as many contacts on as many bands and modes as possible, because during a real emergency, the most important factor is the ability to communicate, regardless of band, mode or distance. The official rules can be found at the SPAR web site. The event is open to all amateurs, although we encourage everyone to join in the discussions and other activities sponsored by SPAR. Information about SPAR can be found on the SPAR Home Page. Membership is free and open to all amateurs who want to encourage technical and operating skills. You can register by going to the SPAR Forum and registering, using your amateur callsign as your user name.

Please join with SPAR in promoting amateur radio and keeping our bands alive!

The SPAR Winter Field Day

Purpose: To encourage emergency operating preparedness in the winter.

When: The contest runs for 24 hours during the last full weekend in January each year from 1700 UCT (12:00 noon EST) Saturday to 1700 UCT (12:00 noon EST) Sunday. For 2011, the dates are January 29 and 30, 2011. Station set up may begin no earlier than 1300 UCT (8:00 AM EST) on January 29, 2011.

Bands: All bands, except 12, 17, 30 and 60 meters.

Modes: Any mode.

Categories:

- a) Number of operators: 1, 2, Multi
- b) Site: Indoor, Outdoor, Home

For example, 2 operators at a remote campground would be 2O, 1 person at home would be 1H, 5 club members operating from a community center would be MI.

Exchange: Callsign, True RS/T (not all 599), Category, local outside temperature (with F or C). For example 1 person from a campground where the temperature is 28 F might send "KX5XYZ 449 1O 28F" or "KX5XYZ 449 1O -2C"

QSO Points: 1 point per QSO, regardless of band and mode. The object is to be able to communicate and in an emergency it doesn't matter what band and mode is used. Busted exchanges will be penalized by 1 additional point for each missed exchange or callsign. Duplicate contacts (same station, band and mode) will not be counted, but will not be penalized.

Multiplier: Count 1 multiplier for each mode operated per band. For example, operating CW and Phone on 80, 40, 15 and 10 meters, CW and PSK31 on 20m, FM on 2meters and satellite on 1.2 GHz would be a total

multiplier of 12.

Bonus: Count 1000 points if commercial power is not used, 1000 points if outdoors and 1000 points if not at home. For example, operating outdoors in your backyard without commercial power would be 1000 + 1000 = 2000 points (outdoors, no commercial power), while operating from a campground tent using commercial power would be 1000 + 1000 = 2000 points (outdoors and not home).

Final Score: QSO Points x Multiplier + Bonus Points.

Logs: Logs should be submitted to "winterfd@spar-hams.org" before March 1st to be considered. All logs must be in Cabrillo format and should contain the following information:

- Frequency (kHz)
- Mode (CW = CW, AM SSB FM = PH, Digital = DI, SSTV = TV, Satelite = SA)
- Date and time (UTC)
- Callsign, RS(T) and Exchange sent
- Callsign, RS(T) and Exchange received

The Cabrillo QSO template is as follows. Please enter BONUS points in the Cabrillo Soapbox comments as shown.

SOAPBOX: BONUS 2000

```
   ————————info sent———————— ————————info rcvd————————
QSO: freq  mo date       time call          rst exch   call          rst exch
QSO: ***** ** yyyy-mm-dd nnnn ************** nnn ****** ************** nnn ******
QSO:  3799 PH 1999-03-06 0711 W5ALT         59  1H35F WB5XAC         59  MO13C
```

Results will be posted on the SPAR website and included in The Roundtable. Pictures, description of operations and logistics are encouraged and welcome.

Definitions:

Location - the place where an amateur station is setup for the contest.
Home - operating from the place where an amateur station is normally established. If the station used in the contest is setup before 8AM local time, it is a home operation.
Indoor - operating from inside a building at a temporary location where amateur radio is not normally available, including community centers, etc. If it has a permanent roof and walls, it's indoors.
Outdoor - operating from remote locations with no permantent building, including campgrounds, tents, RV's, etc.
Band - the normal amateur band allocations recognized by the ITU, i.e. 160, 80, 40, 20, 15, 10, 6, and 2 meters, plus the UHF bands. To be counted as a band, at least 1 valid QSO must have taken place on the band during the contest. 75 meters counts as part of 80 meters.
Mode - CW, Phone (including SSB, AM, FM), Digital (including PSK, RTTY, and soundcard modes), SSTV, satellite.
Operator - Any person that operates the radio, keyboard, microphone or CW key, including logging assistance. This does not include non-operators, such as someone who brings food, but does not participate in operating.

Miscellaneous:

- - All rules governing amateur radio must be observed throughout.
- - The decisions of the SPAR BoD is final.