

CAARA Newsletter



AN ARRL AFFILIATED CLUB

MAY ISSUE- 2009



President's Corner

by Curtis AA3JE

Well, the buds are on the trees, NEARFEST is in New Hampshire, and I guess that means the spring is here.

While I will miss the fun of being up on the ladder in the gales of winter, the fact is that it is beginning to be fun to be outdoors again, and that means it's QRP TIME. Stop by the club on Sunday and see what David and Briggs are doing with kit building—it's amazing.

Speaking of amazing, 7 out of 7 of the members taking the upgrade class for General passed the exam fair and square! Some passed high, and some passed low, but all of them passed. This, combined with the amazing Technician class hosted by STAN STONE last month means we have a lot of new FCC paper out there this month. Get busy guys and gals.

Upcoming events include a new program, our first RADIO THEORY COURSE in recent years. This course open to all licensees and club members, covers the theory and practice of the superheterodyne receiver. All members who take the course will receive a radio kit, will work through the theory of each stage of the receiver as they build it, and take home a working superhet radio they have built with their own hands. The course is limited to six students per session, (if we have more applicants, I will run it again). There is no cost to the applicant, although you are expected to bring your own soldering iron. To sign up, contact the club secretary.

NOW GET SOME WIRE UP IN THE TREES AND GET OUT IN THE NICE WEATHER AND MAKE SOME CONTACTS!

MAY CLUB MEETING

With the help of Dick Macpherson WB1W we have a

plan for the upcoming regular members meeting coming up on Wednesday May 6th at 7:30 PM at the CAARA clubhouse at 6 Stanwood Street. There will be a speaker from the New England Historical Radio Society. Steve Russell WA1HUD will do a presentation on the society's efforts to preserve commercial morse radiotelegraphy on medium and high frequencies. You may find out more about the New England Historical Radio Society by going to www.nehrs.com

CAARA would like to welcome these new members to our club:

Dave Perkins KB1RXW of Beverly, MA
Darrell Perkins KB1RXV of Essex,MA
David Earle N1GSC of Beverly, MA
Charles Symonds KB1SFR of Gloucester,MA
Dave Marsh W7WPD of Hamilton,MA

The CAARA Board of Directors would like to announce that for any non member that tests with us in one of our VE sessions they will be able to become a member of CAARA for only \$15.00 instead of the usual \$30.00 yearly memberhsip fee. This discount only applies to non members and is only good for their first year of membership.

The CAARA Board of Directors has decided to restart the **Ham of the Year Award**. This award has not been given out since 2000. We will now start the nomination process for the Ham of the Year for 2008. This is how it will work. You may e-mail me at dburg101@aol.com with your choice of who you think is the most deserving of the award. You may choose as many people as possible. Here are sone guidlines, think of the club member who has done the most for CAARA, such as volunteering, mentoring, club spirit and positive attitude, bringing in new members, operating skills. Think about club members on committees or any member that the club has benefitted the most from.Email me you nominations and I'll bring them to the Board of Directors where we will choose the award winner form all your input. We hope to continue this tradition as a way to show appreciation for those who go beyond the call of duty for CAARA and for amateur radio.

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 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.

The Amateur's Code" written by Paul Segal, W9EEA, in 1028

The Radio Amateur is:

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

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

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

FRIENDLY...slow and patient operating when requested; friendly advice and counsel to the beginner; kindly assistance, cooperation and consideration for the interests of others. These are the hallmarks of the amateur spirit.

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

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

The first Massachusetts QRP Convention (MassCon) will be held March 12-13, 2010 in the Westford Regency Inn Conference Center in Westford, Massachusetts. The event is made possible by a generous contribution from Buddipole Antennas, and PART, the radio club of Westford, Massachusetts, host of the event, and also a major contributor.

Presentations from leading figures in the QRP world will be made in a comfortable, modern classroom setting from 8 AM through 5 PM on Saturday (March 13). Speakers expected to present include Allison Parent (KB1GMX), Dave Siegrist (NT1U), Bruce Beford (N1RX), Michael Rainey (AA1TJ), John Sexton (KO1H), and QRP Hall of Fame members George Heron (N2APB), Joe Everhart (N2CX), and Dave Benson (K1SWL). Attendees will receive a conference proceedings, CD, and other gifts at registration.

In addition to the Saturday seminar, a Friday evening gathering will be held on March 12, 2010 for attendees to meet the speakers, browse through vendor offerings, and do a little show-and-tell of their own. Vendors tables will continue to be available through Saturday evening.

Finally, a banquet will be held at the conclusion of the conference in the Westford Regency Inn. Steve Galchutt (WG0AT) will keynote the event showing movies and talking about operating portable QRP and hiking the peaks of Colorado with his pack goats Rooster and Peanut. Ticketing for the banquet is separate from the conference and attendees are invited to bring their friends and family to the event.

Registration for the conference is \$25 in advance, \$35 at the door. Seating will be limited. Details about how to register, obtain hotel reservations at the conference rate, and banquet reservations will be published on the conference web site later this summer.

Further information for the event may be found on the event web site http://www.masscon.org

REPEATER OPERATING ETIQUETTE

Repeater operation is a little bit different than other forms of amateur radio communication. Usually the signals are strong and clear so some of the practices used on the other bands are not necessary on VHF FM.

PURPOSE OF A REPEATER: In the strictest sense, the purpose of a repeater is to extend the range of handheld and mobile stations. Base stations with reasonable antennas often don't need the extended range afforded by a repeater. However, it is common practice for all types of stations to make use of repeaters. We need to think of the repeater as a valuable resource (especially wide coverage repeaters). If you are talking with someone who is within simplex range, go ahead and switch over to a simplex frequency and free the repeater up for other people to use. This is especially true if you are going to ragchew for quite a while.

CHECKING INTO THE REPEATER: If you are out mobile (or just hanging around the ham shack) and want to talk to someone, flip to the repeater frequency and see if anyone is around. It's not necessary to give a long call on VHF FM. Most stations indicate their availability for a call by transmitting and saying "K0ABC monitoring". Sometimes the term "monitoring" is interpreted as "I am here if anyone wants to talk to me" as opposed to "calling any station". You might try saying "This is K1ABC, anyone around?" If you have a specific request, such as traffic or weather information, say so. Someone will be much more likely to jump in on a specific request for help.

IDENTIFICATION: FCC regulations require an amateur operator to identify at the end of a series of transmissions and at least **every ten minutes** during a series of transmissions. It is considered good practice to identify your station when you first come on the air (even though the FCC doesn't require it). This lets other stations know who you are right from the start. **Simplify Operation: You do not have to ID everytime you transmit and you only have to ID yourself- not the party you are in qso with. You do not have to say "over" when a repeater has a courtesy beep.**

Q-signals

(QTH, QSY, QSL, QRT, QSO, etc.) were developed for use solely on CW (morse code) where keeping things as short as possible is obviously desirable. A number of the Q-signals (the ones mentioned here in particular) have found there way into common use on phone (voice) modes. To some degree, that's ok and probably unavoidable, but when you can, try to just say what you mean. In particular though, don't start every sentence with "QSL" (or its "plain-English" equivalent of "Roger"). Think about a telephone conversation with someone; You wouldn't say "Yes, I understand" every time it's your turn to speak, right? That's what's you're doing when you say QSL or Roger at the beginning of your transmission. Just talk like you would on the phone.

BREAKING: Breaking in on a conversation is just that, interrupting someone else when they are talking. A repeater is a shared resource, so we should expect that other people may have a need to use the machine while we are on the air. No one has exclusive rights to the frequency and repeater.

The best way to break into a conversation is to simply give your call sign in between transmissions. Some operators use the word "break" which is somewhat controversial. In some circles it is perfectly acceptable, while in others it is reserved for emergency communications. Usually, if you have time to squeeze the word "break" in, you can just as well squeeze in your call. Using your call sign instantly identifies yourself to the stations using the repeater and often results in a "Go ahead, Joe" instead of "Is there a breaker in there?".

Of course, if operators using the repeater make it a point to pause between transmissions, it makes breaking in that much easier and more orderly. Most repeaters have a "courtesy beep" of some sort which forces operators to wait for a short time between transmissions. If they don't wait, they run the risk of timing out the machine and having it shut down on them.

Most FM repeater operating can be done with a minimum of slang and jargon. Plain language works quite well. Try to avoid the overuse of Q signals, phonetics, etc. such as "Roger, roger, Joe, I QSL your QSL and thanks for the QSO from your QTH, roger, roger."

SIGNAL REPORTS

FM signal reports are often given in terms of receiver quieting. A strong signal will fully quiet an FM receiver, while a weak one will be quite noisy. A "Full quieting" report is given to a signal which exhibits no background noise or hiss. Signal reports are often given in terms of "percent quieting" to give the transmitting station a better idea of the signal quality.

Remember that when using a repeater there are two communication paths at work — the path from the transmitting station to the repeater and the path from the repeater to the receiving station. Either one of these paths can exhibit noise due to a weak signal. If the receiving station has a strong S-meter indication but the transmitting station sounds noisy, the transmitting station is probably weak into the repeater. Remember that the signal strength indicated by your S meter is due to the repeater and not the transmitting station.

A frequency modulated transmitter used on the VHF/UHF amateur bands should be set for a maximum frequency deviation of 5 kHz with full modulation. Unlike SSB transmitters, the signal strength of an FM signal is independent of modulation level. That is, a dead carrier produces just as much power as a fully-modulated signal. Excessive modulation of an FM transmitter does not improve the reception of the signal and often degrades it. On the other hand, inadequate FM deviation causes weak received audio. The level of audio heard on the receive end is relatively independent of received signal strength. This means that changing transmitter power does not affect the loudness of the audio at the receive end.

SIMPLEX OPERATION

Repeaters are very powerful and useful tools for amateur communications. They can dramatically extend the range of a handheld or mobile transceiver and they offer extended capabilities such as autopatch, weather station access, etc. All of the emphasis on the utility of repeaters can lead the new ham to conclude that repeaters are *the only thing* worth using on the VHF/UHF bands.

Simplex operation is direct station-to-station radio communication without the use of an intermediate relay station (i.e., repeater). The range is much more dependent on antenna type, antenna height and power output than repeater operation but significant distance can be covered. Two mobiles having a QSO on flat land can typically cover 15 to 20 miles. If one station is on a hill, the range can be much longer. If you happen to be standing on top of Pikes Peak (at 14,110 feet about sea level), you can contact someone *several hundred miles away*. Which leads me to my next point: simplex operation can be fun. It is a challenge to see how far your signal can go (yes, *without* some powerful repeater extending your range).

So don't forget about simplex. Some of the best contacts I have ever had were on simplex. One of the reasons is the challenge of seeing how far your signal will go. The other factor is that there are fewer people listening on simplex. There is less of the "party line atmosphere" that can exist on a repeater where everyone within repeater range will hear every word of every station. (Also, you are not tying up the precious resources of the repeater.) Often, this leads to a longer and more meaningful discussion between you and the operator on the other end.

For the best performance on simplex, use SSB (single-sideband) or CW (continuous wave, Morse Code). You will find that all of the really serious VHF weak-signal operators use SSB and CW. The focus of this document has been on the FM mode, so I won't go into great detail here. But I must point out that for getting the most out of simplex operation, you'll want to check out the non-FM modes.

Jim and Briggs do a little battery powered HF'ing at the beach on March 31



Jim-W1DDX enjoying the sunny weather and a little ham radio. The rig is a battery powered Kenwood 440 and the antenna is a Comet V-Dipole. Briggs-AB2NJ doing the photography.



An impressive sight at the beach.



A close up of the antenna junction.

RADIO LAW: FCC PROPOSES UP TO 20 MHz AT 70CM FOR MEDICAL BREAKTHROUGH

The FCC has suggested the allocation of 20 MHz of prime UHF spectrum in 413 to 456 MHz band for a truly worthy cause. But one that could adversely impact current spectrum users including the Amateur Radio and Amateur Satellite services.

FCC Notice of Proposed Rulemaking ET Docket 09-36 seeks comment on a recommendation to allocate up to 20 MHz of currently occupied UHF band space for use by wireless medical devices. These are tiny appliances could be implanted into the human body and used to restore sensation and mobility to paralyzed limbs and organs.

The devices would act as a wireless medical micro-power network within the patient. Among the conditions that could be treatable using them include polio, Lou Gehrig's disease, cerebral palsy, and spinal cord injuries.

The 400 MHz band is targeted because it is optimal for RF propagation through body tissue. The devices would require at least 5 MHz of bandwidth to function and would operate on a low power, secondary non-interference basis.

Twenty MHz of spectrum in four band segments are proposed so that the device would have multiple options in case one band segment was already in use in a given area. These are 413 to 419 MHz, 426 to 432 MHz, 438 to 444 MHz and 451to 457 MHz. Its assumed this allocation would be on a secondary, non-interfering use with current users of this band space. In fact, comments are also being sought on the potential for interference between these new devices and current spectrum users. Amateur radio and amateur satellites have heavily used allocations in the 420 to 450 MHz band.

In announcing the release of ET Docket 09-36 acting Commission Chairman Michael Copps stated that he was pleased to support this Notice of Proposed Rulemaking which he says examines the possible allocation of additional spectrum and service rules for use by advanced wireless devices. He indicates that this new technology could significantly enhance the quality of life of many Americans that suffer from a wide array of neuromuscular disorders.

<u>The text of the FCC news release can be found at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-289482A1.doc or http://tinyurl.com/ct8ntw) (FCC)</u>

CQ World Wide DX Contest breaks 10,000 log barrier

For the first time, more than 10,000 logs have been submitted for the **CQ World Wide DX Contest**, according to Contest Director **Bob Cox, K3EST**.

In addition, Cox reports that the number of **CW** logs have exceeded the number of phone logs for the first time in more than 20 years.

According to Cox, there were a total of 5013 SSB logs and 5272 CW logs submitted for the 2008 running of the event, for a total of 10,285 logs. This is the first time that the CQWW – already the world's most popular amateur radio contest – has broken the 10,000 log mark. Of these, nearly 98% were submitted electronically.

It is also the first time since 1986 that more CW logs have been submitted than SSB logs. "This is a clear indication," says Cox, "not only of the health of contesting and of CW, but of ham radio as a whole." In addition, the logs contained the callsigns of more than 50,000 different amateur stations making at least one contest contact, indicating that many more stations participate in the CQWW Contest than submit logs.

APRIL MEMBERS MEETING: J-POLE ANTENNAS: THEORY AND ACTUAL CONSTRUCTION TECHNIQUES



John Graves -WA1JG using a MFJ antenna analyzer on his homemade J Pole made out of a 2 by 4 and some ladder line as Paul Anderson KA1GIJ and Mark Rogers KB1PLC look on.



Curtis with a homebrew J-Pole constructed from common copper plumbing pipe.



Curtis holding one that he made out of PVC pipe and stripped Romex wire wrapped around it.

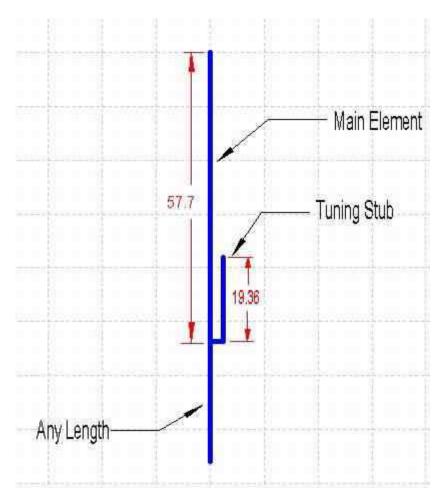
J-POLE Plans

If you are looking for an inexpensive, and easy to construct antenna, the J-pole antenna is a great one! In about an hours time, and about \$15 worth of materials, you can have a great performing omnidirectional j-pole antenna.

The j-pole antenna is basically an end fed half wave dipole that uses a 1/4 wave shorted matching stub as an impedance transformer. The j-pole antenna will yield slightly less than 3 DB of gain omnidirectionally.

The material I chose to build the j-pole antenna was 3/4 inch copper pipe used for plumbing. Here are the plans to build a two meter J-pole antenna:

The above dimensions for the J-pole are in inches. Measurements on overall length, and stub length are from the centerline of the separation pipe (horizontal) to the top of the antenna. The Connect at measurement is 2 1/4 inches from the top of the horizontal member to the point of connection. The distance between the main element of the j-pole centerline and the tuning stub centerline is 2". I cut a length of RG-8X foam coax to a length of 67" for the feedline, and coil up 4 turns (as small as you can get it) just below the horizontal part of the matching section. This will de-couple the feedline from the j-pole antenna, and help provide some lightning protection. Connect the center conductor of the coax to the main element, and the shield to the tuning stub of the j-pole.



In all of the above dimensions, they are

to be considered starting points for constructing a j-pole. I temporarily attach the coax using 1 inch hose clamps, and adjust the coax connection first to the lowest SWR. From there, I adjust the length of the main element of the J-pole. Then I start over by re-adjusting the coax connection.

The point where the tuning stub attaches to the main element is the j-pole antenna's ground point. That is why you can make it any length. Its a good idea to provide a ground here. This too will help with lightning protection. (provided your tower is properly grounded!)

Only use rosin-core solder. Don't use "plumbing solder", acid-core solder, or plumbing paste. The acid in these materials breaks down the solder joint when electric current passes through it.

NEAR-Fest V Schedule of Events

Friday, May 1st 2009.

6:00 AM: Fairgrounds Gate 'G' opens for Blue (Staff) and Yellow (Commercial Vendors) passholders ONLY. Commercial vendor set up commences.

9:00 AM: **Pre-Paid Entry, Gate 'F' opens for RED ticket and passholders only.** Once the Pre-Paid entry line has entered the General Admission line will enter through Gate 'E'.

3:00 PM: "Mobile HF Operation: Equipment and Strategies or How to Work Rare DX Stations! While Driving to Work......" with Neil Kaltman, K6SMF

(Located in the **Entertainment Building**, see map)



Now that he's retired Neil travels to hamfests all over the USA and does a great deal of HF mobile operating, working plenty of DX as he travels from event to event. Over the years he has developed a deep knowledge of the installation and safe operation of mobile equipment. His presentation will cover equipment selection, installation, proper grounding, antennas and the basics of working DX from a mobile: how to crack a pile up; the best protocol to use when working DX stations; strategies; successful QSL methods, and so on.

If you are interested in mobile HF operation, be sure to attedn this forum. Neil's many years of experience as a highly successful DXer offer valuable advice, tips and secrets for everyone - whether new to the hobby or experienced - in working the rare ones and confirming the contact. The techniques that Neil will teach you are not limited to mobile operation so anyone interested in DX is urged to attend. Neil will also take questions from the audience, so here's your chance to ask the man who knows how it's done.

A past President of the Southern California DX Association, K6SMF joins us from Canoga Park California. His achievements working DX stations are very impressive: ARRL DXCC Honor Roll - 352 Confirmed contacts. He is one country short of the coveted "Top of the Honor Roll" certificate.

The Sunspots are returning! (Really, they are) The HF bands will soon provide worldwide DX opportunities not seen in years. What better way to prepare yourself and your mobile station than attending a forum by one of the premier DXers of our time.

5:00 PM: The R-390A Receiver Workshop with George Rancourt, K1ANX (Located in the Entertainment Building, see map)

This fourth installment in George's ongoing presentations on the R-390A receiver will cover the NSA-modified R-390A named the R-725. It will cover the origin of the pre-production versions of this radio, the actual use of the production receivers and all the technical mysteries of the radio. George will include information about how to adjust and calibrate the PTO. He will bring along a home made PTO tuning jig and describe it's use. He will also discuss paint, colors, sources, painting techniques, front panels, and more. As always he will answer your questions and help you with your projects so be sure to bring questions to share at the forum.

In an age before frequency synthesis and microchip technology, Collins designed a complex system of gears and cams for tuning ferrite slugs simultaneously with their famous PTO unit for precise frequency control. Without a doubt, the complexity of the tuning section has caused many a user to think twice about servicing or even owning this receiver. We are fortunate to have George help us understand, servicing and maintaining this wonderful receiver.

Here's George at NEAR-Fest II showing us how to work on a R-390A. Better get there early or you'll be standing!

Saturday, May 2nd 2009.



9:00 AM: **GEMOTO** Forum - **P25** Digital Voice Communications for Ham Radio Applications; moderated by Rick Zach, K1RJZ

(Located in the **Entertainment Building**, see map)

Some of the subjects under discussion are:

- * Why are Homeland Security funding grants promoting P25 over analog?
- * If p25 is so great, why is it already showing up as surplus at ham prices (cheap)?
- * Will my older analog radio work on a P25 repeater? (answer: YES!)
- * Underlying technology and how is it differentiated from D-STAR?
- * type of gear to buy and for how much?
- * Who is behind the repeaters and where are they?

Comment from MrMike: I am pleased to welcome these fellows back for their second Forum at NEAR-Fest. If you think that ham radio is "dying", think again! These guys embody the very essence of our hobby. Our fathers got WW-II surplus equipment that no one else wanted for next to nothing, converted it, got on the air and had a ball! Essentially the GE-MOTO gang are doing the same thing in the New Millenium.

For more information about the GEMOTO group and the Forum please visit their Web site:

http://www.gemoto.com/

GEMOTO (pronounced G-E-MOTO) is not a club but is a loosely organized group of like-minded individuals with common interests; converting commercial equipment for amateur FM and repeaters. Anyone of similar interests is cordially welcome to join them at one of their famous breakfast "meetings".

10:00 AM:Volunteer Exam Session conducted by Bruce Anderson, W1LUS (Located in the Meeting Room, see map)

The Volunteer Examination session begins at 10:00 sharp. Be sure to have all your identification, licence (if you have one), documentation and exam fee ready. For more information on the Volunteer exams or if you are a ARRL accredited VE wishing to help, please contact the VE Coordinator at w1lus@att.net. Pre-registration is not required. Just show up and give it your best shot. Good luck!

Note: Anyone who successfully passes an amateur radio licensing exam for the first time will receive a free ticket to the next NEAR-Fest with our compliments.

10:30 AM: Vintage Radio Refurbishing & Restoration with Ron Baker, WB4HFN (Located in the Entertainment Building, see map)

Known far and wide for his work, Ron Baker shares his knowledge and experience of reviving classic tube gear with the NEAR-Fest audience.

This forum discusses some of the differences between "Restoring" and "Refurbishing" vintage ham equipment. Ron will specifically cover the Drake and Collins lines, but the same basic techniques apply to all vintage ham equipment. He will go through the basics of refurbishing a radio and discuss some of the basic methods for servicing vintage ham gear. This presentation will help you bring new life to those old radios that have collected dust awaiting attention.

12:00 PM: "Never Say Die" or "How Ham Radio has Helped Change the Whole World...and for the Better" with Wayne Green, W2NSD/1

(Located in the **Entertainment Building**, see map)

This NEAR-Fest we are fortunate to have a very special guest - Wayne Green, W2NSD/1 who will need no introduction to many of us who have been in the hobby for a while. If you don't know Wayne he's outspoken and at times controversial but, above all, a true supporter of amateur radio and its importance to young people. I am sure that you will enjoy meeting him.

Here's what Wayne wrote in response to my request for a description of his talk:

"Our hobby is a fabulous stepping stone for teenagers into the high tech world, so we need to encourage kids to see what we're doing and the fun we're having. And high tech is the future."

"Bio? An angel came into church one Sunday when I was twelve with a box of radio parts and asked if I was interested. Wow, was I! With them I built a cigar box radio from an article in Popular Mechanics. It worked, and I was hooked...for life."

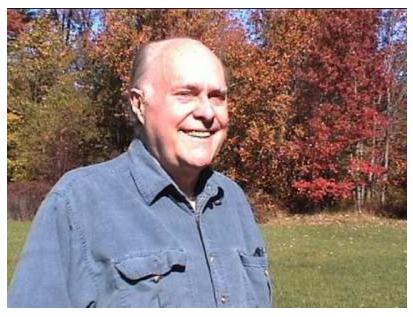
"The rest would take a ten-volume set. Like publishing 73 Magazine for 43 years."

One thing I can promise for certain: this will be an interesting and well-attended forum so plan on arriving early.

2:00 PM: Awards Ceremony and Door Prize Drawing (Located in the Relaxation Grove, see map)

More than simply a prize drawing, this is the time we honor individuals, present updates to the NEAR-Fest mission, and provide a little insight as to what lies ahead. It's a nice way to wind down the show, along with an excellent opportunity to meet distinguished guests and the crew who brings you NEAR-Fest.





The club is continuing it's contest series by participating in the New England QSO party. The QSO party has two time slots for competition. It officially starts at 4 PM local time on Saturday, May 2nd and ends at 1 AM Sunday morning. The contest begins it's second round on Sunday May 3rd at 9 AM and goes until 8 PM Sunday morning. This contest will be headed up by Nat Henrickson NG1Z and Mark Watson W1MAW.

We are also planning to have a BBQ on Saturday night at the CAARA Clubhouse as well during this event. If you wish to reserve a spot to compete in a more relaxed competition and to practice your skills for the ARRL Field Day in June, you can e-mail Nat at nglz@nsradio.org.

The ARRL Field Day will be held on June 27 and 28, 2009 at various locations throughout the United States and Canada. Field Day is an annual event which thousands of Radio Amateurs become involved in every year. It helps develop the skills and challenges of emergency preparedness and allows the general public to get involved and meet radio amateurs. The radio stations are operated in various locations and under various conditions, such as outdoor settings using generators, solar energy, and other means of power sources. Some amateurs operate out of their homes using their own personal radio stations. It's a great challenge and much fun!

The Cape Ann Amateur Radio Association is one of many that are involved with the ARRL Field Day. This year's event will take place at the Babson Cooperage Museum field on RT 127 in Rockport. Plan to take the opportunity to stop in and participate. Experience the many activities and meet the Radio Amateurs and learn about Amateur Radio.

FIELD DAY NEWS Stan-W4HIX

CAARA will take a new approach to logging at Field Day this year. In addition to traditional paper logs, CAARA will attempt to enter the 21st century in a networked, multiuser, online database to enter contacts made during the this year's outing. With the example set by Nat Henricksen (NG1Z) and Mark Watson (W1MAW) in contesting at the club, CAARA will be using N1MM Logger contest logging software. The logging team for CAARA, Dick MacPherson (WB1W), Stan Stone (W4HIX) and Tom Howell (N1NKA) will attempt to have computer control of each station, allowing the ability to enter QSO's in real time. In



addition, these computers will be linked either by a cable or WiFi to a central server that will pull these contacts into a central database. All contacts will also be entered in paper logs for backup and later entry to the database if required. Our goal is to have all contacts ready for upload by the end of Field Day.

Dick MacPherson has already reconditioned one of the PCs at the club, loaded N1MM Logger and tested control on one of the club HF transceivers. Stan Stone has done the same on his PC laptop and controlled the club's FT-897 which is being considered for 6m work. A cellular broadband modem PCMCIA card will be borrowed from Axcelis Technologies in Beverly for use during Field Day. The current plan is to install the card in the PC (with a PCMCIA to PCI adapter) which will provide us with broadband Internet access. With a little luck, we will share this Internet connection through the PC to a Linksys WRT54GS WiFi router. Internet access will be available for DX clusters, helping us find those elusive stations. Early field tests are being planned to determine if reasonable bandwidth is available with the cellular modem at this year's Field Day site of Babson Field in Rockport.

So CAARA slowly moves forward in technology. Good luck to everyone this year at Field Day.

'Mills on the Air' Weekend - GB6MW Meopham Windmill

Cray Valley RS operated **GB6MW** from Meopham Windmill in Kent for the first time last year, and we will be repeating the operation over the weekend of 9-10 May for **National Mills** weekend.

The mill is open to the public on Sunday 10th only, but we plan to be active on both days on HF and VHF.



Windmills are of necessity located in clear, high places and this is great for amateur radio too!

On 80/40/30m we will be using a doublet hanging from the cap of the mill, and for the HF bands a 3-el tribander will be mounted next to the mill on a 35ft mast.

The main equipment for HF will be the club's FT900 and FL2100z amplifier. Omnidirectional antennas will be used for 144MHz FM and SSB.

Tree Antennas

As part of the recent simulated Catastrophic Disaster, members of the Australia's **Maryborough Electronics & Radio Group, 'MERGE'**, gathered with the usual collection of bits and pieces which could conceivably be lying around after such a disaster.

They had, on previous exercises, exhausted the more common HF antenna designs, so Van, VK4VAN, suggested that they try to utilise a *tree* as the radiating element.

This idea was part of a British patent in 1917, but it was not useable as it involved driving a spike into a tree in the park, totally against Council regulations. http://www.rexresearch.com/squier/squier.htm

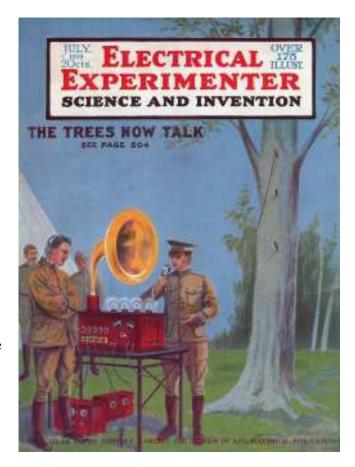
An article by W5JGV, about a toroidal feed to a tree antenna on the 40m band, seemed more useful. http://w5jgv.com/tree_antenna/index.htm

Among Ray, VK4TPT's, collection of antenna documents were both articles in printed form, so a length of flexible water pipe was quickly converted into a coil and wrapped as a yoke around a nearby Gum tree.

Conveniently, there was a water tap at the base of the tree and one end of the coil was connected to it as an earth.

From VK4TPT's box of bits came an old tuning capacitor which was connected in series between the other end of the coil and the antenna socket of Ray's trusty TS-520S.

A little adjusting of the coil and capacitor soon caused a solid noise signal from the 520S and a quick tune across 40m brought in signals from VK2, 3, 5 and 7.



Further adjustments produced a useable match and a 4/1 contact was made with VK2JE, Brian, who was MO-BILE near Tuncurry, NSW.

This was followed by a 5/6 contact with Seth, VK2CJA in Coffs Harbour, and several 5/9+ contacts locally.

Ray and Van would have liked to try other bands, but the BBQ, in conjunction with the Woocoo SES, was under way, and the lads were just a little hungry.

It's obvious that tree antennas do work, but the big question now is: What will 'MERGE' try next year?



I don't think I have seen a more pristene VHF Clegg station in years. The tube rigs are the proud possessions of Briggs-AB2NJ and can seen and operated on the second floor of the Clubhouse. Another good reason to attend a club meeting or the Sunday Morning Cofffee Social and Solder Melting meeting!

The History of CAARA: Part 1

In 1974 the concept of the Cape Ann Amateur Radio Association began when the then Civil Defense Director, Larry Sargent WZBE, determined that the city needed a C.D. Communications Team. Larry taught the first course to ten potential amateur radio operators who coupled with a pool of local licensed amateurs, would make up the first C.D. Communications team. Classes were held at the West Gloucester Fire Station.

Once the idea to form an organization to serve Gloucester and the Cape Ann communities was born the Sawyer Free Library hosted the first meeting to create the organizations by-laws. The initial purpose of CAARA was to tarin people and establish a reservior of trained communication specialists o assist the City of Gloucester in times of emergency service via the civil defense.

In the first year, the founding members affiliated the organization with the A.R.R.L. and the west Gloucester fire station served as the first headquarters for the disaster team. The Cape Ann Amateur Radio Association started with 13 members.

In 1975,An agreement was established with the Cape Ann Pigeon flyers,who owed the then current lease,to share the city owned 6 Stanwood Street Building.CAARA held their meetings in the second floor while the Pigeon club was on the first floor. Part 2 of the History of CAARA coming in the next newsletter.

HELP!



Wanted for Field Day: One large tent with screening which will hold 2-6 foot card tables. Maybe you have one tucked in the garage or basement that you do not use or need anymore and you would like to donate to the club?

Contact Jim-W1DDX or anyone on the BOD or Field Day Committee as soon as possible.



Sunday Morning Field Day organizational meeting at the clubhouse with Jim-W1DDX, the 2009 Field Day Chairman, running thru the list of to-do's with Sue and her daughter, and Dean-KB1PGH listening attentatively. Jon-K1TP and Chuck-N1OCT were out of camera range.

MUSEUM SHIPS WEEKEND EVENT sponsored by

The Battleship New Jersey Amateur Radio Station

MUSEUM SHIPS WEEKEND 2009 June 6 - 7, 2009 0000Z June 6, through 2359Z June 7, 2009

Ships wishing to participate should send a note to museum@nj2bb.org with the name of ship, callsign, location and contact info for person responsible.

Please read the <u>rules for ships</u> wishing to participate before contacting us.

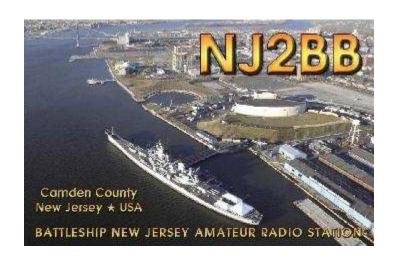
Here is the list of paticipants so far for 2009 Museum Ship Event - 25 SHIPS We will add ships to the list as they notify us of their participation.

* Ships with an asterisk are new to Museum Ships Weekend

<u>NAME</u>	TYPE OF SHIP	LOCATION	CALLSIGN
USS Hornet	Aircraft Carrier	Alameda Point, CA	NB6GC
USS New Jersey	Battleship	Camden, New Jersey	NJ2BB
<u>USS Alabama</u>	Battleship	Mobile, AL	<u>W4A</u>
SS Willis B Boyer	Bulk Carrier	Toledo, OH	W8WBB
MV Cap San Diego	Cargo Ship	Hamburg,Germany	DL0MFH
Ex MV Dresden	Cargo Ship	Rostock, Germany	DL0MCM
*USS Mohawk	Coast Guard Cutter	Key West, FL	TBA
HMS Belfast	Cruiser	London, UK	GB2RN
USS Littlerock	Cruiser	Buffalo, New York	W2PE
USS Indianapolis CA-35	Crusier	Indianapolis, IN	WW2IND
USS Cassin Young	Destroyer	Boston, MA	WW2DD
SS Sankt Erik	Icebreaker	Stockholm, Sweden	8SØHRA
*USS LCI(L)-1091	Landing Craft	Eureka, CA	W6ZZK
* <u>USS Hazard</u>	Minesweeper	Omaha, NE	K0USA
MS Atlantis	Minesweeper	Dresden, Germany	KD0MHD
<u>U-5075</u>	Seehund Submarine	Quincy, MA.	WW2MAN
USS Becuna	Submarine	Philadelphia, PA	W2RM
S637 Espadon	Submarine	Saint-Nazaire France	F6KBG
USS Cobia	Submarine	Manitowoc, Wisconsi	n <u>NB9QV</u>
<u>U-995</u>	Submarine	Laboe Germany	DL0DMB
<u>U9</u>	Submarine	Speyer, Germany	DK0SP
*USS Marlin	Submarine	Omaha, NE	TBA
USS Cod	Submarine	Cleveland, OH	W8COD
*USAT LT-5	Tugboat/Cargo Transpor	t Oswego, NY	W2CXV
Naval Tech'l Museum	A.R.M.I.	Italy	IY1SP

While operation on any amateur frequency is allowed, most ships will be operating in the General portion of the bands

<u>SSB</u>	<u>CW</u>
3,860 KHz	3,539 KHz
7,260 KHz	7,039 KHz
	10,109 KHz
14,260 KHz	14,039 KHz
18,160 KHz	18,079 KHz
21,360 KHz	21,039 KHz
24,960 KHz	24,899 KHz
28,360 KHz	28,039 KHz
50,160 KHz	50,109 KHz



EVENT PSK 31 OPERATIONS 14.070 MHz 10.142 MHz 18.100 MHz 21.070 MHz 28.120 MHz

Some ships will also be on 3880 KHz - 3885 KHz and 7290 KHz Amplitude Modulation with either their ships original equipment or modern equipment.

While any operating mode can be used in this event and CW and SSB are the dominant modes, we are encouraging all the participating ships, that have the ability, to fire up their original equipment on

3885 KHz, 3600 & 3625 (in the UK), 3705 (W. Europe), 7290 KHz and 14.286 KHz in the AM mode.



QSL via the Bureau or send SASE with US Postage, or SAE with IRC or "Green Stamp" to: Margaret Burgess, KB2BRR 150 Schooner Ave, Barnegat, NJ 08005 USA

Requests without a SASE will not be processed unless we have funds to provide stamps & envelopes. All extra donations received will be used to support the Battleship New Jersey ARS

MAY CONTEST CALENDAR

NCCC Sprint Ladder 0230Z-0300Z, May 1

AGCW QRP/QRP Party 1300Z-1900Z, May 1

MARAC CW QSO Party 0000Z, May 2 to 2400Z, May 3

MARAC SSB QSO Party 0000Z, May 2 to 2400Z, May 3 10-10 Int.

Spring Contest, CW 0001Z, May 2 to 2359Z, May 3 10-10

Int. Spring Contest, Digital 0001Z, May 2 to 2359Z, May 3

Microwave Spring Sprint 0600-1300 local, May 2

7th Call Area OSO Party 1300Z, May 2 to 0700Z, May 3

Portuguese Navy Day Contest 1500Z, May 2 to 1500Z, May 3

Indiana QSO Party 1600Z, May 2 to 0400Z, May 3

New England QSO Party 2000Z, May 2 to 0500Z, May 3 and 1300Z-2400Z, May 3

ARI International DX Contest 2000Z, May 2 to 1959Z, May 3

RSGB 80m Club Championship, SSB 1900Z-2030Z, May 4

ARS Spartan Sprint 0100Z-0300Z, May 5

NCCC Sprint Ladder 0230Z-0300Z, May 8

SBMS 2 GHz and Up WW Club Contest 0600 local, May 9 to 2000 local, May 10

VK/Trans-Tasman 80m Contest, Phone 0800Z-1400Z, May 9

EUCW Fraternizing CW QSO Party 1000Z-1200Z, May 9 and 1800Z-2000Z, May 10

CQ-M International DX Contest 1200Z, May 9 to 1159Z, May 10

VOLTA WW RTTY Contest 1200Z, May 9 to 1200Z, May 10

FISTS Spring Sprint 1700Z-2100Z, May 9

Nevada Mustang Roundup 1700Z, May 9 to 1700Z, May 10

50 MHz Spring Sprint 2300Z, May 9 to 0300Z, May 10

SKCC Weekend Sprint 0000Z-2400Z, May 10

RSGB 80m Club Championship, Data 1900Z-2030Z, May 13

NCCC Sprint 0230Z-0300Z, May 15

Feld Hell Sprint 1200Z-2200Z, May 16

EU PSK DX Contest 1200Z, May 16 to 1200Z, May 17

His Maj. King of Spain Contest, CW 1200Z, May 16 to 1200Z, May 17

Manchester Mineira All America CW Contest 1500Z, May 16 to 2359Z, May 17

Run for the Bacon QRP Contest 0100Z-0300Z, May 18

NAQCC Straight Key/Bug Sprint 0030Z-0230Z, May 21

RSGB 80m Club Championship, CW 1900Z-2030Z, May 21

QRP Minimal Art Session 1900Z-2300Z, May 21

NCCC Sprint 0230Z-0300Z, May 22

Baltic Contest 2100Z, May 23 to 0200Z, May 24

MI QRP Memorial Day CW Sprint 2300Z, May 25 to 0300Z, May 26

SKCC Sprint 0000Z-0200Z, May 27

CQ WW WPX Contest, CW 0000Z, May 30 to 2359Z, May 31

Kids Roundup 1400Z, May 30 to 2200Z, May 31

ARCI Hootowl Sprint 2000 local - 2400 local, May 31

Hamvention Live Video/Audio:

We will be broadcasting live video and audio of the Dayton Hamvention again this year. In addition to the video, hams around the world can join in on the website chat room. We are viewed each year in 150 countries and bring the hamvention experience to those that can not make it in person.

The fun starts live on Wednesday May 14th at about 0800 CDT as we depart Memphis, Tn for our 550 Mile drive to Dayton. We will be broadcasting the drive live and people can have fun trying to guess where we are or comment about what food we are eating as we wear the Helmet cam into the restaurants. We will also be transmitting live on Thurs May 15 as we set up our fleamarket space 3350-3351.

If we have time we might broadcast again from the Air Force Museum on Thurs afternoon. Then we will broadcast the entire show live Friday – Sunday. At approx 1:00 pm on Sun we will start our 550 mile drive back to Memphis and will broadcast it live.

The Hamvention website has a link to our site incase someone forgets our address.

The address to join in on the fun is http://ws5kub.com/ — I changed my call this year to W5KUB (dropped the "A")

You can get lots of other information about this on our website. There are maps there showing our route, and also links that explain how we do this.

Thanks and hope to see you there.

Tom Medlin W5KUB 21

Dictators and Amateur Radio

by Francisc Grünberg, YO4PX

Amateur radio was always contemplated by dictators with distrust and fear, as a suspect and potentially dangerous avocation.

The ability to transmit messages over the barbed wire of the "Iron Curtains" and across heavily guarded borders, where weapons are pointed more into the country than out, was associated in the Romanian People's Republic, and in the other former or current totalitarian régimes as well, with the activity of spies on the enemy's payroll.

In the dictators' paranoiac imagination these spies, disguised as radio amateurs, were trying to undermine the "heroic effort of the people for the construction of the new society": another name for the total control and submission of its citizens, the final endeavour of all régimes with socialist, communist, military, tribal or fundamentalist ideologies.

Risking the simplification inherent to any generalization, the degree of democracy present in a country is directly proportional to the number of its licensed radio amateurs, the liberties they enjoy and the administrative obstacles they may or may not confront. Today, an indication of such freedom is the absence of bureaucratic hindrances imposed on the importation of amateur radio rigs, getting a transceiver through customs at national frontiers, and the willingness to allow visitors' time-limited amateur radio activities.

Western democracies acknowledge radio amateurs' merit, as pioneers of the short waves to humanity's benefit and for the services they rendered and continue to render to their communities. Laws in these countries grant radio amateurs and their equipment freedom of movement and activity thanks to reciprocal agreements. The CEPT Convention provided a huge step forward as it simplified operation for amateurs of the signatory countries.

In Spain amateur radio is considered a form of art. In Güimar, Canary Islands, a statue was dedicated to amateur radio, with a syrinx (panpipes) representing the five (in 1974) amateur short wave bands. Many American presidents proclaimed amateur radio a national resource.

For whole decades BY1PK was the only workable station in China - until silenced by the infamous Cultural Revolution. Now we hear many BY calls and, on the VHF and LF bands, thousands of licensed QRP stations. No doubt the tenacious efforts of Martti Laine, OH2BH played a decisive role in this opening to the world.

After many years of silence in Saddam Hussein's Iraq, a single station, YI1BGD was licensed. This followed a demonstration by Erik Sjölund, SMOAGD, who made some 50 contacts before Iraqi officials who were amazed by the number of hams eager to contact a new country.

North Korea authorized only a few sporadic operations, the most productive being the activity of Ed Giorgadze, 4L4FN. He made more than 16,000 QSO's before the authorities shut him down. KA2HTV's recent failure doesn't offer much hope the situation will soon change.

Myanmar's (Burma) military junta is quite reluctant to issue licenses to foreign operators. But they are occasionally heard, especially when intended to convince the generals that liberalizing amateur radio could boost the country's image to a world concerned by human rights violations.

Contact with an Albanian station was an unattainable dream during the Stalinist dictatorship of Enver Hodja. Now there are some active stations thanks to powerful associations that championed getting a ZA call sign on the air after many decades.

In Poland all amateurs were forced to hand over their equipment following the imposition of martial law, inspired by the Soviet Union, in December 1981. General Jaruzelski stifled in bloodshed the protests of the trade union Solidarnos?, and the SP prefix was absent from the bands for almost two years.

Turkey for many years was prominent on the Most Wanted Countries List, now a few local stations and occasional visitors can be worked from TA-land.

Under the Taliban régime licensing a YA station was hardly conceivable in a country where the most elementary human rights were violated. Now hams working for international organizations are sporadically active from Afghanistan.

But where tradition is shattered, short instruction courses and donated gear cannot replace the passion and knowledge transmitted from generation to generation, from mentor to disciple, which ensures the perpetuity and development of the hobby. Hopefully, the spirit will reignite in Libya, Yemen, Rwanda, Iran, Sudan, Mount Athos, Somalia, Congo, Cambodia, Laos, countries and entities where amateur radio activity is inexistent or drastically restricted...

There are cases when the oppressive régime feels itself impregnable and magnanimously allows the licensing of a few "reliable" residents, intimates of the power wielders, for propaganda's sake to defend itself from the international amateur radio community's disapproval. Some dictatorships, after lengthy negotiations, authorize time-limited activities for foreign operators present as United Nations officials, NGOs or peace-keeping forces.

In Romania the dictatorial régime branded amateur radio as well. For 45 years the state of one's "dossier" was decisive in obtaining a license. In the 1950s those applicants who hadn't a "healthy origine" (i.e., originated from a family of workers or peasants) could experience huge difficulties, and not only in the realm of amateur radio. Family members living in the West, unfavourable information from the schools' secretary of the Communist Party, from the college or employer's "cadres office" (today's personnel office) regarding the applicant's lack of enthusiasm and attachment to the "Party Line," denunciations, containing mostly mendacious and misinterpreted information - all were grounds for denial without explanation of the application or suspension of a previously issued license.

Truly impartial historians of Romanian amateur radio should record its decades-long constraints as subordinate to the army. This practice followed piously on the heels of the Russian pattern. The Securitate (the former Romanian secret police) exercised relentless control of the licensing procedure through the so-called Higher Radio Commission, overseeing the entire activity of the radio amateurs, beginning with the assignments in leading positions in the county clubs and in the Romanian Amateur Radio Federation and ending with the accurate inventory of the equipment owned.

In the 1980s the Radio Control Centres launched a series of residential inspections and license suspensions for varying periods of time. Was it merely coincidence that many holders of those suspended licenses were also members of reputable foreign clubs? This group included the most active and notable amateurs, authentic ambassadors of Romania on the air.

Yearly "informative materials" drawn up by the Securitate and presented with the force of "truth" cited "negative aspects," like "relations with foreigners" (regulated by notorious Law 23 requiring compulsory detailed reports about the nature of these relationships and their progress), the correspondence of amateurs, alike the correspondence of all other presumptive "unfaithful" citizens, was inspected and systematically censored. Receiving a transceiver from friends or relatives in Western countries was a terrible humiliation and a matter of

suspicion - an opportunity for blackmail.

But not only amateur radio was subject to thorough supervision. The presidential couple Ceausescu deemed profoundly undesirable: computers, video recorders, TV antennas pointed towards Bulgaria, Serbia and Hungary, TV satellite dishes, books, magazines and newspapers from abroad, everything enabling the free circulation of ideas and information, not to mention the free movement of Romanian citizens.

We don't have yet sufficient and complete information about the Stalinist trial of George Craiu, YO3RF, and the ordeal of his imprisonment. We don't know the truth about the conviction of YO7DZ. I don't think amateurs are aware of the fact that in the 1987 anticommunist uprising in Brasov, two years before the revolution and the régime's collapse, a ham was among the participants. He was charged during the inquiry with "subversive communication with the West," although he was a short wave listener and possessed only a receiver! After 1989 he also faced a defamation lawsuit, because he thought he recognised a member of Parliament on the TV screen as his torturer. We don't know how many persons abandoned hope after their failed attempts to obtain a license.

To understand the past a people must become acquainted with it and finally to admit it. With no hard feelings, no resentments, but fully aware of the truth. This truth must not be silenced and buried under the dust of archives. I think it's important to be uttered, recorded and known, in order to avoid all the tragic mistakes of the history.

Birthday of Samuel Morse

Samuel Morse, who introduced telegraph communications in the United States, was born 218 years ago today on April 27, 1791 in Charlestown, Massachusetts.

On 24th of May 1844, he famously sent the message "What hath God wrought" (quoting Numbers 23:23) by telegraph from Washington D.C to Baltimore.

The telegraph Morse code used in those days differed in a number of respects from the International Morse code used today and a description of the differences can be found at http://en.wikipedia.org/wiki/American_Morse_code

Wiki - Samuel F. B. Morse http://en.wikipedia.org/wiki/Samuel_F._B._Morse



Our first club member interview with photos of his/her station.

NEARFEST Report with photos of some of the gear that was available.

CW Project: Plans to build a 5 watt cw rig using old tubes and a handful of parts.

WANTED:

Tower Sections...contact K1TP

73 until next month...

