





#### AN ARRL AFFILIATED CLUB

FEBRUARY ISSUE- 2010



# President's Corner

by Curtis AA3JE

WOW, and I do mean WOW!

I am writing this after the Winter Field Day and Tech in a Day events this weekend. We had 21 new hams, (18 techs, 2 generals and 1 Extra), this weekend, about a zillion new patch cords and a blizzard of new contacts. We also learned that it was a very good idea to make a window board with pass-through connectors and foam weather seals for cold weather. Passing the cables out the window worked well, but the high winds and low temperatures made for wicked drafts. Both events were well attended, and very well run. We had 6 VEs and two spares for the Tech in a Day testing and operators all over

the place for Winter Field Day.

This is going to be a hot year for events, starting with this month's members meeting (see Brigg's email for details). We are having so many events that we will need to make active use of the web site, and its associated calendar.

If you are less active than you would like to be, look on the CAARA website and drop by at one of these events. It's really fun and there are a lot of new faces, with brand new tickets, who need your help.

(On that note, anyone wanting to help with the "Now you have your license, what can you do with it?" class contact the CAARA clerk, or myself.

73's, Curt Wright AA3JE



Dick- KR1G showing some tricks of the trade to the eager crew making pl259 jumper cables. Last weekend the club was a beehive of activity with club members participating in Winter Field Day, Tech in a Day class, and the regular Sunday Morning meeting;

# SIGN UP!

# Feb. 3 Special CAARA Meeting!

CAARA will be hosting Dale & Mickie Clement who will present the extraordinary "AF1T Antenna Demonstration and Transmission Line Presentation"

> It will be very entertaining & educational and is a 'must see' for all hams!

E-mail Briggs, ab2nj, and tell him you're coming. RSVP asap: ab2nj@arrl.net or ab2nj@verizon.net

He'll send you a confirming reply with details & directions! This meeting will be at a different location, it will start earlier and run later! Of course, all are always welcome but for seating and planning, your reservation is politely requested.

### 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

## **Board of Directors- 2008-9**

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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.



Al-AG1F (started the tube collection at the club), Mike-K1MB (club plumber and cw extrodanaire), Fran-WU1S, Jon- K1TP at Field Day We had ham exams during the day----early ninteen eighties...

**CAARA MEMBERS IN THE NEWS:** I see club member Charlie Symonds (W1HRA), will be retiring as principal of Rockport High School at the end of this school year. He should have more time to play radio now. Congratulations for all your years of service.



# DX MAGAZINE PUBLISHES 2009 MOST WANTED RESULTS.

The DX Magazine's "2009 Most Wanted Survey" has been posted on the publications Web site and printed in the January / February issue. The top five most sought after entities appear to be number five Yemen; number four Bvouvet Island; number 3 Marion Island, number two Navassa Island. The number one most wanted country is North Korea.

The survey was conducted between September and October of 2009. The listing shows the top 100 World-Wide most wanted and also includes their 1998 comparison ranking for 2008. Its on line at dxpub.com/dx\_news.html/ (DX Magazine) Briggs- AB2NJ, Hank-W4RIG and Ruth-KB1SXO participating in the PSK 31 Competition at the CAARA clubhouse in January.



#### Dear CAARA Board,

I'm the Principal Organizer for the Massachusetts QRP Convention. Would you consider including a blurb about the Massachusetts QRP Convention (MassCon) in The CAARA Newsletter?

The Massachusetts QRP Convention will be held **March 12-13, 2010.** We've got a tremendous line-up of speakers including three QRP Hall of Fame members and a Nobel Prize winner. And, don't forget to check out the banquet!

http://www.masscon.org

Thanks and 73!— Scott (NE1RD)

PS I got my start at one of your testing sessions in 2002 passing all four elements on a Sunday morning. Thank you!



Welcome to the *Massachusetts QRP Conference* (MassCon), the first ever QRP convention in Massachusetts. The purpose of the event is to educate,

entertain, and to dare participants to grow, try new things, and expand their knowledge and abilities within the hobby. To do this, we have attracted some of the brightest minds in QRP world, including three members of the <u>QRP ARCI QRP Hall of Fame</u>, to present on a variety of topics such as RF design, filter design, and contesting. It isn't enough to listen, though, and hence the theme of this event is **Do it!** Never tried portable operations QRP? **Do it!** Never tried to build a kit or dare to design and build your own gizmo with *ugly construction* techniques? **Do it!** Attendees will learn new things, get a bag full of great stuff, and have memories for a lifetime. Peruse the tabs above to learn about the scheduled sessions, speakers, and staff. Then, plan to attend the first ever *Massachusetts QRP Conference*. See you there!



HAM RADIO LIVE FROM THE INTERNATIONAL SPACE SHUTTLE



ISS008E07170

## The Good Old Days....anonymous

I could hardly wait to get home that Friday afternoon so I could tell my parents about the shortwave radio I saw at the Hobby Club. They always encouraged me when they knew I was interested in something new, but I'm sure they had never seen me as excited about anything as I was this time. I described in detail what I had seen: "It had a toilet paper tube with wire on it. and a funny aluminum thing, and other stuff, and a battery, and everything!". Of course they didn't know what "stuff and everything" was, but neither did I. I suppose they also wondered about the relationship between toilet paper and shortwave radio.

The next day, my mother told mygrandmother about my new interest. She, in turn, told John Roy about it the next time he delivered groceries from Osborn's store. John said that he had a crystal radio set when he was younger, and that he would give it to me if he could find it. That was exciting news for me, even though I didn't know what a crystal radio set was. Another kind of shortwave radio, I supposed. My mother had some doubts about letting me have it, because she had heard that crystal sets cause interference to other radios. That information turned out to be incorrect, however. A week later when John delivered groceries

at my grandmother's house again, he also delivered the crystal set. It was in a thin paper shopping bag along with a pair of earphones. I was a little disappointed when I saw it, because it didn't look at all like a radio. It didn't even look like Bill Hill's shortwave set. What it did look like was a board about eight inches square. Mounted on the board and shaped like a pancake was a flat, round coil of wire, wound between spokes sticking out of a central wooden hub. The insulation was cleaned off of the wires in one area, and there was a pivoting arm arranged so that a contact on the end of it could be moved to touch any of the wires in the coil. John had explained to my grandmother that I was to adjust the arm to select the radio station I wanted to hear.



Also mounted on the board was a small shiny piece of metal with a little spring that touched the surface of the metal. I learned later that the shiny metal was the "crystal" and the spring was called the "cat's whisker". According to instructions from John, I would have to adjust the position of the cat's whisker on the crystal until the sound in the earphones was loudest. The other items

on the board were four screws to which the earphone wires and an aerial wire and a ground wire were to be connected. My father knew about aerial and ground wires, because he had rigged them up to the Atwater Kent radio. So he helped me drive an iron pipe into the ground, and we strung a wire up into a tree to use for an aerial. I had been allowed

to set up a card table in the dining room upon which to conduct my radio experiments. I ran a wire to the iron pipe and connected it and the aerial wire to my crystal set. Now I was ready. I requested silence in the room while adjusting my cat's whisker and station selector arm. I pressed the earphones to my ear and heard – nothing. I re-checked my connections and readjusted my cat's whisker. Still I heard nothing. Could John Roy have played a trick on me? I couldn't believe that. My father said we were probably too far from the radio stations for the crystal set to pull them in. After all, we were almost 100 miles from Chicago, where the big stations were. I suppose he was right, and went to bed tired and disappointed.

The next time my grandmother saw John Roy, she told him about the crystal set's failure and my disappointment. He was sympathetic and said that it should work and that he would come over and help me. The next Saturday, John came in and looked at my setup. He looked at my aerial, and ground wires and shook his head. He said the ground connection was not good enough. The aerial was not good enough either, but might work if we improved the ground. So we disconnected the wire from the iron pipe and ran it across the dining room floor, through the kitchen, and connected it to the cold water pipe under the sink (we didn't have hot water pipes in those days). My mother was afraid she would trip over the wire, so we tried to hide it under the linoleum floor covering. No we were ready to try again. As John put on the earphones and adjusted the cat's whisker, I noticed a smile come across his face. When he adjusted the contact arm on the coil, the smile got bigger. He took the earphones off and handed them to me. Could I hear it? Yes! I heard it! It was music! I could really hear it! Music was coming through my crystal set and out of my earphones. I could hardly believe it. John Roy had become a hero.

I listened for a few minutes, then laid the earphones down and shouted for my mother to come and hear the music. While she listened I ran to the window and looked at my aerial wire. I imagined I could see the music coming through the air from Chicago, filtering through the tree branches, and sliding down the wire into my crystal set. At that moment I was hooked forever on the fascination of radio.



Galena crystals for detection

#### How it works

A crystal radio receives programs broadcast from radio stations. Radio stations use sound waves to modulate the amplitude of radio waves and transmit them from their antennas. Radio waves from all stations in range of the receiver travel across the crystal radio antenna and induce electric current between the antenna wire and the ground wire. A tuner circuit is used to select the radio-frequency energy from just one station. The crystal detector (such as a Cat's whisker detector or diode) recovers the original sound frequency current from the radio frequency carrier. The earphones then convert the recovered audio-frequency current back into sound.

Cats Whisker detector



## **LORAN-C** Termination Information

The Coast Guard published a Federal Register notice on Jan. 7, 2010, regarding its intention to terminate transmission of the LORAN-C signal Feb. 8, 2010. A LORAN Programmatic Environmental Impact Statement Record of Decision stating that the environmentally preferred alternative is to decommission the LORAN-C Program and terminate the North American LORAN-C signal was published in the Federal Register on Jan. 7, 2010.

The <u>Homeland Security Appropriations Act for Fiscal</u> <u>Year 2010</u> allowed for termination of the LORAN-C signal on January 4, 2010, after certification from the Commandant of the Coast Guard that it was not needed for maritime navigation and from the Secretary of DHS that it is not needed as a backup for GPS. Full details are contained in Section 559 of <u>this act</u> which can be found at the Government Printing Office website (clicking on the link will open a new window).

In accordance with the DHS Appropriations Act, the U.S. Coast Guard will terminate the transmission of all U.S. LORAN-C signals effective 2000Z 08 Feb 2010. At that time, the U.S. LORAN-C signal will be unusable and permanently discontinued. This termination does not affect U.S. participation in the Russian American or Canadian LORAN-C chains. U.S. participation in these chains will continue in accordance with international agreements. The Canadian Coast Guard has also <u>issued a statement</u>, which is shown on their website.

You may view the estimated remaining LORAN-C signal coverage areas of these international chains in Appendix B, <u>pages B-6 through B-9</u> of the Specification of the LORAN-C Transmitted Signal, COMDTINST M16562.4A. The <u>entire Specification</u> may be downloaded also.

The Coast Guard strongly urges mariners currently using LORAN-C for navigation to shift to a GPS navigation system and become familiar with its operation as soon as possible. Mariners will not be able to rely upon LORAN-C for navigation as of Feb. 8, 2010.

LORAN-C has, as a result of technological advancements in the last 20 years, became an antiquated system no longer required by the armed forces, the transportation sector or the nation's security interests and is used only by a small percentage of the population. The Coast Guard understands that LORAN-C is still used by a small segment of the public and that those users will have to shift to GPS or other systems; however, continued use of limited resources to operate LORAN-C is no longer prudent use of taxpayer funds and is not allowed under the 2010 DHS Appropriation Act.

### Regarding the end of the LORAN-C ERA

I don't know if I can reply to this "broadcast".

But for the interest of the club: Thanks for recognizing this relatively obscure part of USCG service and history as it comes to an end. I spent my entire 23 year USCG career, except for one afloat tour on a Medium endurance cutter in Virginia, working in the LORAN program in the Pacific. I was the last operations officer for the Central and NW Pacific LORAN Chains. Most of my adult life was given to supporting this system. It kept me from ever returning to Gloucester while I served in the Coast Guard from the early 70's to the late 90's when I retired here in Hawaii to stay. I guess the good news is: I outlasted LORAN. I am one of the few people who has spent a lot of quality time at virtually every LORAN Station in the Pacific, including Alaska. I believe one of the very first operational stations, ever, was the one on Nantucket which will operate to the end. If you ever run into other Coasties who served in this area of LORAN operations during those decades, ask them if they know "Gus MacFeeley", a certified "LORANIMAL"... they likely do.

For the younger hams in CAARA, you need to know that it was Gloucester hams who mentored me as a youth interested in radio that led to an exciting and important career in Coast Guard Electronics that I now look back on with a great deal of pride. That journey now includes my present position as the Navy Computer and Telecommunication Area Master Station Pacific's (NCTAMS PAC) Electronics Materiel Officer where I oversee the Navy's RF (VLF to EHF) infrastructure for half the world.

If mentoring young people in their interest in radio and related technology isn't written into CAARA's purpose statement, it should be - I'm proof. Your roots are also

my roots with Ralph, W1RK and other hams in Gloucester who have earned a real legacy for many others, like me. I haven't forgotten them in all these years, and I never will.

When we closed the LORAN station on Kure Atoll, as the project officer I left a bronze plaque on the concrete tower pedestal left from the 650ft LORAN tower after it was pulled down after operating for over 30 years. I place the plaque in honor of the many Coasties who spent their year on that sandbar 1200 miles NW of Hawaii. that says "You can leave Kure Island, but Kure Island will never leave you."

Funny, now that I have come and gone from so many places over the past 40 years, Gloucester never left me either. I guess it never will.

73 and Aloha!

Gus MacFeeley, NH7J

LT, USCG (ret) CAARA – CENPAC DIV

### **VE EXAM UPDATE- SUNDAY, JANUARY 10**

# We had 3 candidates appear before the CAARA VE Team this morning.

We were surprized to hear that Erin Maybury, daughter of Dr. Rick Maybury, WZ1B, was going to attempt a Technician Examination. Rick said that Erin had been studying the Technician License Manual, and gone through the Question Pool, and that this was a preparation for Erin to attend a "One Day Technician Class" that would be offered in Lanesville by club member Stan Stone, W4HIX later in the month, and give Erin a chance to see what a Technician Class Exam looked like prior to the class.

Lo and behold, when the examination was scored, it was learned that Erin had passed the examination. "She what?" the bewildered father exclaimed when Bob Quinn announced that "Erin Passed!!" after the test was scored.

The proud father beamed and hugged his daughter hearing the news.

The a member of the VE Team asked Erin if she wanted to join the radio club, to which she replied,

"Yes!!" Looks like we might have a whole ham family in the making!!!

Examination Recap:

The total participants were  $\underline{3}$ , Total exams passed were  $\underline{3}$ , and we have  $\underline{3}$  new Technician Class licensees awaiting their new calls hopefully by the end of the week.

Respectfully submitted: BILL POULIN, WZ1L-VE TEAM MEMBER



Rick- WZ1B and daughter, Erin, who just passed her Tech Exam at the CAARA Club.



Ham radio is everywhere .... even on the Simpson's!

# This past year was a banner year for new Amateur Radio licensees.

According to <u>ARRL VEC</u> Manager Maria Somma, AB1FM, the FCC issued more than 30,000 new ham radio licenses. "In 2009, the demand for Amateur Radio exam sessions remained elevated and is still running at a higher rate than before the FCC's restructuring of the license requirements in 2007," Somma said. "This high level of exam session activity has produced an elevated become radio amateurs or upgrade their existing licenses," Somma said. "In 2009, ARRL VEs administered 44,595 exam elements at 6369 <u>ARRL</u> <u>VEC-sponsored exam sessions</u>. The number of amateurs who want to be Volunteer Examiners and who want to teach Amateur Radio classes is also going up — we've seen a spike in the number of applications from General and Extra class radio amateurs who want to give back to their community by <u>serving as ARRL</u> <u>examiners</u> and instructors."

influx of new applications, far outpacing recent years."

A total of 30,144 new licenses were granted in 2009, an increase of almost 7.5 percent from 2008. In 2005, 16,368 new hams joined Amateur Radio's ranks; just five years later, that number had increased by almost 14,000 — a whopping 84 percent! The ARRL VEC is one of 14 VECs who administer Amateur Radio license exams.

"When looking at the statistics over the last 10 years, these are some the highest numbers we've seen," Somma explained. "Additionally, our total number of licensees across all three classes has grown each year." Currently there are 682,500 licensed Amateur Radio

NEW FCC LICENSES					
ISSUED 2005 THROUGH 2009					
Year	2005	2006	2007	2008	2009
Jan	876	<mark>1,274</mark>	1,647	1,755	1,960
Feb Mar	1,357 1,705	1,605 2,531	2,435 3,478	2,998 2,816	2,263 3,463
Apr May	1,486 1,651	1,728 2,283	2,673 2,607	3,090 2,562	3,430 2,717
Jun Jul	1,493 906	1,967 1,401	2,281 1,786	2,402 2,077	3,011 2,220
Aug Sep	1,500 1,139	1,623 1,357	2,183 1, <mark>4</mark> 62	2,084 1,763	2,102 2, <mark>11</mark> 6
Oct Nov	1,385 1,540	1,781 1,993	2,109 2,132	2,303 2,197	2,404 2,344
Dec	1,330	1,569	1,935	2,019	2,114
Totals	16,3 <mark>6</mark> 8	21,112	26,728	28,066	30,144

operators in the US, an almost 3 percent rise over 2008. In 2008, there were 663,500 licensed amateurs; there were 655,800 in 2007. Broken down by license class, at the end of 2009 there were 17,084 Novices, 334,245 Technicians, 150,970 Generals, 60,795 Advanced and 119,403 Amateur Extra licensees.

"The ARRL VEC has been busy meeting the needs of the Amateur Radio community by helping people to Somma applauded all the volunteers whose "hard work and contribution of countless hours of time helps to ensure the future of Amateur Radio. The ARRL VEC thanks our 32,411 VEs from around the world whose dedication and service helped to contribute to the success of Amateur Radio. I am delighted by these important achievements. 2009 was a very good year for Amateur Radio and I am excited by the promise of 2010."

# JANUARY CAARA MEETING

Here are a couple of pics of the January CAARA members meeting. Dave Robertson talked about his Elecraft K3 kit built radio and his kit built software defined radio-the RF Space SDR IQ. Here are some notes I got-both are American made radios, the Elecraft has 6 roofing filters and has a 8 MHZ analog IF that goes to a mixer and then to a 15 KHZ IF Digital filter.vHe showed us some real time signal qualities of the operators on the 3879 MHZ Collins net during the demo and you could seen on the computer screen how some operators had inter modulation distortion on their signals and some overmodulated signals on PSK 31. *Dean-kb1pgh* 



Dave has done many presentations for CAARA.



A look at packet on the big screen. The packet software is free and the hookup to your radio is fairly simple- give it a try!



A recent photo of the second floor of the club. It is a great place to build a project, repair a rig, or play with some old vintage radio's and it's included in your club membership.

# FUTURE CLUB ACTIVITIES AND DATES Hello to all CAARA Members,

At the January Board of Directors meeting we took some time and set up the clubs event schedule for 2010 so members can mark their calendars accordingly. Of course as we get closer to each event we will notify the membership of all the details on the clubs event link on the clubs website. Here's the list.

Saturday January 30th, Stans Tech in a day course at Lanesville Community Center and SPAR winter field day contest at CARA clubhouse

Wednesday February 3rd, Regular Member's meeting at Lanesville Community Center, AF1T Antenna and feedline Demo 7 PM

Saturday March 20th, CAARA Spring Hamfest and Fleamarket Club Fundraising Event, Pigeon Cove Circle Center.

Sunday April 18th, CAARA Spring Dinner at Fortune Palace in Essex

Saturday May 15th, CAARA clubhouse and property Spring Clean-up day

Saturday June 26th thru Sunday June 27th, A.R.R.L. Field Day

Saturday July 3rd, Horribles Parade-Public service event, CAARA Bake Sale fundraising event

Sunday July 4th, Manchester Parade-Public service event, Lanesville Road Race-Public service event

Friday thru Sunday August 6, 7, 8 Thacher's Island Activation weekend

Sunday August 8th, Gloucester Triathalon- Public service event

Wednesday September 15th, CAARA's Annual Meeting

Sunday October 24th, CAARA clubhouse and property fall clean-up day

Saturday November 20th CAARA fall hamfest and amateur radio fleamarket club fundraising event

Saturday December 4th, CAARA Christmas party

As always visit the clubs website, read the clubs monthly newsletter and check into the weekly sunday night net often for more up to date details on all of the clubs events.

73's Dean Burgess KB1PGH CAARA Clerk

# Amateur Radio satellite avoids collision

The United States Joint Space Operations Center (JSpOC) had predicted a close approach on Friday between the Amateur Radio satellite **Compass 1** and the Ukraine satellite Sich 1. Fortunately, Compass 1 survived.

On the AMSAT bulletin board **Armando N8IGJ** reported that the closing velocity of the two satellites was 15,000 meters/second or 34,000 MPH, more than enough to have destroyed both if they'd made contact, fortunately they didn't.

**Matt N8MS** made good educational use of the near collision with his school pupils, he posted:

14:32 utc on Jan 22, 2010 we copied the beacon from Sister Lakes Elementary school in Southwest Michigan (EN62). We had a maximum elevation of 10.5°.

My third grade students were excited to listen today to see if Compass-1 survived. The boys and girls let out a cheer when we heard the beacon!



What is inside a Hustler vertical antenna? This was a repeater antenna in NH that did not make it through the last wind and snow storm....courtesy K1JEK repeater



#### Aerial of Hiram Percy Maxim at his home in Hartford, Conn.

Two aerials are arranged, one for sending on 200 meter wave length for distances less than ten miles, and one for sending on 495 meter wave length for distances in excess of ten miles. Five plates of the condenser are used for the 200-meter wavelength and ten plates added to this five for the 425-meter wavelength. The outdoor equipment consists of a 60-ft. mast at one end and a 50-ft. mast at the other, 100 ft. apart. The spreaders are 18 ft. long and have 11 wire of stranded copper between them. The ground connection is carefully soldered and connected to ground at three places. This station can work points in southern New Jersey, northern Massachusets and can receive Colon, Panama and ships at sea, when two or three days out of New York. The station holds a special license for the purpose of relay work in the American Radio Relay League. The call letters are IZM.

### HAMS ATTACKED IN HAITI

Hams trying to bring communications back to Port au Prince Haiti were forced to flea for their lives. This after the convoy they were a part of was attacked by what was likely a roving band of looters.

Radio amateurs from Radio Club Dominicano who were to be in Haiti under the callsign HI8RCD/HH have had to abort their operations. This, after the convoy they were travelling in was fired on.

The RCD initially reported that on Friday, January 15<sup>th</sup>, that their team had crossed the Haitian border and headed toward the Dominican Embassy in Port au Prince. Once there they then began installing ham radio equipment but had to abort and flee the area when gunfire erupted.

Within a few hours the RCD Facebook page reported on a telephone conversation between Hugo Ramón HI8VRS and Ramon Sanyoyo, XE1KK. There it was confirmed that all 8 members of the HI8RCD team were back in the border town of Jimani in the Dominican Republic. None of the hams had been injured but decided to leave the Port au Prince for their own safety and returned across the border unescorted.

Later they were able to establish two repeaters near the Haiti and Dominican Republic border. One is at Jimaní on 146.880 MHz covering Dominican Republic Border and most of Haiti including Port-Au-Prince. This system is linked with 146.970 MHz covering 85% of the Dominican Republic and the west of Puerto Rico. Other reports say that a third repeater near the Dominican Republic border with Haiti is now operational on 145.350 MHz. All machines require a -600 kHz transmit offset and 100 hertz tone for access.

In other Haiti relief news, YV5AMH has e-mailed Newsline to say that two Venezuelan hams identified as YV5JF and YV5VE, were to be operating from a base located 5 Km west of Port au Prince after January 20<sup>th</sup>. This operation is coordinated between the Radio Club of Venezola and the Office of Communications of the Bolivarian Army. It is strictly in support of Venezuelan humanitarian aid to Haiti. The Venezuelan hams plan to use SSB, BPSK-31 and SSTV on several frequencies in the 80, 40 and 20 meter bands but the exact nature of the communications services that they will be providing was not spelled out in the news release from YV5AMH. And looking down the pike as it were, as time goes on the need for ham radio High Frequency communications is fast declining. This as satellites are repositioned to quickly restore both international telephone and Internet service to Haiti for aid workers to use.

What is expected to emerge ham radio-wise is a need for more bi-lingual emergency communications operators using 2 meter FM and possibly D-Star for on-island communications as the overall infrastructure of Haiti is rebuilt. Its believed that one group is already in route to Port au Prince to install a 2 meter D-Star machine that could become operational this week.

Also, to those foreign nationals inquiring about obtaining permission to operate ham radio in Haiti. The building that housed the Haitian Telecommunications Ministry was destroyed by the quake and a number of staff members lost their lives. So at this moment in time there is no way to get a Haitian license or operating permit. Those who might eventually be asked to come should coordinate licensing through the organization making the request.

While several amateur radio groups report that they are ready to send trained operators and communications gear into Haiti, as we go to air there has been no call for hams from the United States, Canada nor any European nation has yet been asked to make the trek. First is the question of language. In recent days it has been reported that any relief workers that are brought to Haiti will have to be fluent in Creole French as that's the language of the indigenous population.

More important is what you are seeing daily on your TV screen. With the chaos in the street, the looting and random violence, Haiti is not a safe place to be without a military escort. And the military is not about to spend its times babysitting hams. Even those hams tasked with rescue radio operations. The bottom line. Haiti remains a very dangerous place and its best not to encourage anyone to even think about a selfdeployment scheme. This is not a time nor a place for want-to-be heroes, no matter how important that they think their assistance might be. Going there on your own might mean that you will never be seen or heard from again

#### A quick review of the Heil Traveler single side combo headset/boom microphone system by Dean Burgess KB1PGH

Well I thought I would make life a little easier on myself while operating my Yaesu FT 857 D HF rig and I went ahead and bought the Traveler single side combo headset/boom microphone system from Heil sound. Since I am deaf as a haddock anyway and the built in speaker on th FT 857 D is pretty much useless I knew that the in line audio is the way to go while operating. The caveat to buying the Heil Traveler but I had heard rumors that the Heil Traveler Microphone was "Hot" and that proved to be true. I had to turn the mic gain way down to get a correct audio level while talking on the club repeater and I had to to the same thing on the HF side of things as well. I do have to say that the Heil Traveler does a gret job of driving the Mic audio compared to the stock mic that came with my Yaesu FT 857 D once the correct level is set. The Traveler headset has an easy way of being adjusted to fit any head size and the PTT button to work the microphone has a good build quality and feel to it as well as having a clip on it so you can clip it to



your shirt for ease of reach. I also bought another mic cord adapter to fit my Yaesu FT 60 Dual band handheld. The Heil Traveler is built for field use and I think it will be able to handle the job of being tossed around in a field envioronment. So the bottom line is so far I give a thumbs up to the Heil Traveler headset. It helps me monitor and talk while not having to disturb the wife with the sounds of static coming thru a regular speaker. The Heil Single Side Traveler Headset costs about \$ 76.00 from Ham radio Outlet and the adapter cables to fit the Traveler to your specific mic plug on your radio costs about \$ 24.00

headset is that the cord terminates in a 8 Pin plug which then you can purchase the correct mike cord that connects to that 8 Pin plug to go with whatever radio you have and you have to buy those seperately. I would have to say that after a few weeks of use that I am quite pleased with the performance of the Heil headset. While it certainly isn't made as heavy duty as a Heil Proset the construction quality is still up to specs. You can either buy a headset that has a one sided headphone with a thick foam pad on the other side or a headset that uses two headphones. I purchased the one sided model as I plan to use the headset while operating during Caara's many Public service events. I was pleased with the nice crisp audio coming from the headphones while operating on HF

#### 73's Dean Burgess KB1PGH

## New ARRL Web Site Coming Soon!

After more than two years of planning, designing and writing, the ARRL is anxiously awaiting the launch of the new ARRL Web site. We've been able to make the online experience easier for our members — from the online store, to registering for a class, to finding a club — plus we've created a new, enhanced member profile with many more options available. We've made improvements with you in mind, making sure that we've created the easiest, most enjoyable online experience possible. The new Web site will be available sometime in February.

### HAM-MAG has changed !

As we have not found any business collaboration we have decided to change Ham-Mag. Since january, 21st 2010 Ham-Mag is an association. So, to continue to receive your issue you have to become an active member. As a member of Ham-Mag, for as little as \$15.00 per year, you will enjoy: A free PDF monthly magazine. The Publication of your manifestations for free. The member subscription is made online by credit card (secure payment) or by money bank transfer (IBAN/ BIC). Have a look here: http://www.ham-mag.com And click on "join us"

After the payment, you'll receive you membership card via E-mail and you issue (PDF file) every month.

If you have made a donation (2008 -2009 - 2010), contact us to become an active member and remind us the amount of your donation (for instance, if you have made a donation of \$30, you can be a member for 2 years).

Every OM who will send an article for a publication in Ham-Mag will be active member for free (for 6 months / 6 issues).

This is the only way we have found in order to continue this magazine...

Best 73's Vincent F5SLD

# **CAARA Events Calendar for 2010**

The CAARA Board of Directors has set the event calendar for the club for 2010 so everyone can start to plan accordingly. This list only mentions the major club events and as the dates to these events gets closer the membership will be made aware of any changes thru Caaramail. Here is the list:

Wednesday, February 3, Regular members meeting, AF1T Antenna and Transmission line Demo at Lanesville community Center and this starts at 7 PM.

Saturday, March 20, CAARA Spring hamfest and flea market. This starts at 9 AM at the Pigeon Cove Circle center on 6 Breakwater Ave in Rockport.

Sunday, April 18, Spring Club Dinner. This is planned to be at the Fortune Palace in Essex and the time is to be determined.

Saturday, May 15, CAARA clubhouse property spring clean-up. Start time to be announced.

Saturday, June 26 thru Sunday June 27-A.R.R.L. Field Day- Location is Babson Cooperage Museum Field on RT 127 on the Gloucester/Rockport line.

Saturday, July 3, Lanesville Roadrace in AM and Horribles Parade in PM. Both public service events for CAARA.

Sunday, July 4, Manchester Parade in the AM. Public service event for CAARA.

Sunday, August 8, Gloucester Triathalon in the AM. Public service event for CAARA

Friday, August 6 thru Sunday August 8. Probable weekend for Thatchers Island Activation.

Wednesday, September 15, CAARA Annual Meeting at 8 PM

Sunday, October 24, CAARA clubhouse property Fall Clean-up Day. Start time TBD

Saturday, November 20, CAARA Fall Hamfest and Flea market. Probable location at the Pigeon Cove Circle Center and start time 9 AM

Saturday, December 4, CAARA Club Christmas Party. Probable location at the Pigeon Cove Circle Center.

#### **CAARA Spring Flea Market**

The club will hold its spring amateur radio Flea Market and Hamfest on Saturday, March 20th at the Pigeon Cove Circle Center located on 6 Breakwater Ave in Rockport, Massachusetts. This event will open to sellers at 7 am and the doors will open to buyers at 9 am. To reserve a selling table you can contact club member Richard Copithorne at1-201-674-3485 or his e-mail at <u>dickc911@yahoo.com</u>. Tables can be reserved ahead of time for a price of \$10 in advance or \$15 the day of the event. This also gets you one admission ticket. For buyers the door admission fee will be \$5. The talk in club repeater frequency is 145.130 MHZ with no pl tone. For general directions head on RT 128 North all the way to the end and head towards Rockport. You will see one rotary after you come off the bridge, take the second exit up the hill to the other rotary. Once again take the second exit down the hill and stay on the left. At the botton of the hill take a left onto RT 127 north. Follow a couple of miles into Rockport. RT 127 ends up taking a left at an intersection so take that left and keep going. Go another mile or two and you will eventually see an old abandonded tool factory on your right. Just at the end of the building take a right. You will our club sign out there. For club members, this is an important club fundraising event so if you have any unwanted ham gear that you wish to donate for the club to sell please contact Dick as well. This flea market is a perfect opportunity to do some spring cleaning on your old ham gear. Hope to see you there. There will be refreshments served at this event.

# HT Antenna Modification For Increased Performance!

EC. Edward Harris, KE4SKY

When limited to "barefoot" operation, with a "rubber duck", HT antennas are not very efficient nor adequate for communications. They fail miserably as an effective radiator due to their design! They are nothing more than an extended dummy load acting as an antenna!

The following modification will help you to make the most of your HT by increasing the factory antenna's efficiency and the cost is

just a piece of wire!

# FACTS ABOUT HT ANTENNAS

The National Bureau of Standards tests of Public Safety high band and amateur 2meter antennas indicate that a "rubber duck" has -5db, "negative gain" compared to a quarter wave held at face level. In terms of effective radiated power (ERP), this means that a 5 watt HT with rubber duck, radiates only 1 watt. Operating an HT on your belt results in another -20db attenuation, reducing ERP to 50 milliwatts! That's 1/20 of one watt!

UHF results are no better...

Due to the design of the factory installed HT antenna, you are effectively missing half of the antenna!

# MODIFY THAT HT ANTENNA FOR BETTER RESULTS Get ready to use that scrap of wire you have

in your junk box!



A simple, inexpensive and effective method to improve a "rubber duck" antenna is by adding an external counterpoise or "tiger tail" thereby adding the other "half".

It should be noted that if your HT is under warranty, the internal modification may void that warranty...you have been warned!

Adding the other missing "half":

You can easily build one from a quarterwave piece, (about 19.5" on 2m, 11.5" for 220 and 6.5" for 440), of stranded insulated wire, crimped and soldered to a battery clip or use a small spring tension clip that will fit the BNC antenna connector with the wire attached to it. Use a clip or other connection that fits tightly but can be removed if needed. It must make both a good mechanical and electrical connection.

Another method would be to attach the end of the wire by soldering it to a grounded portion of the circuit board inside the HT, although this may not be practical with some models, or any point that is at ground potential on the HT such as the "ground" side of an external speaker/headphone jack, the BNC connector at the antenna, or the Negative side of the battery terminal. The preferred location is at the factory antenna base at the BNC connector. If you have some other type of metal antenna connector the same applies.

Many of the newer models don't lend themselves to internal modifications easily. If the "rubber duck" antenna that came with the HT does not come off, then you will have to make the connection inside the HT to a grounded point. Extreme care must be taken to prevent shorting out other components!!!!!! Use insulated wire. You may have to drill a small hole in the case for the exit point of the wire and tie a knot inside to provide strain relief. Each installation will be different. Use your own judgment!

Always reinforce the soldered connection with heat shrink tubing or tape to resist flex and shorting to other components if possible.

When the counterpoise, (the other half of

the antenna), is clamped to the outer collar of the BNC connector on your HT antenna, it helps to prevent RF from coupling with your body, so your completed HT antenna "system" acts much like a center-fed dipole instead of an end-fed dummy load!

# You just built a directional antenna and did not know it!

In marginal conditions, extending the counterpoise horizontally and pointing your hand to steer the radiation pattern where you need it, produces a dramatically stronger signal than letting it "droop" towards the ground. Experiment with the angle of the counterpoise to get the best results. In effect, you are creating a form of "V" type center fed vertical dipole with a bit of gain compared to just the factory installed antenna.

If you want to buy another HT antenna, rather than add the counterpoise described in this article, then it is recommended that you shop around. Don't be misled by the cheaper priced antennas. Buy from a reputable dealer that will answer your questions. Try to find an antenna with published gain figures compared to a dipole or 1/4 wave vertical. Don't expect Yagi or similar performance....have fun and get better performance than you were!

# Haiti Earthquake Report

At 2153 UTC on Tuesday 12th January 2010, a magnitude 7.0Mw earthquake struck near Port-au-Prince, the capital of Haiti.

News reports soon revealed that this was a major disaster.

Shortly afterwards, **IRESC** received, miraculously via email just before connectivity failed, a message from David Farquharson HH2QCS, who had helped with communications during the series of hurricanes that devastated Haiti in 2008. He had survived the earthquake but his home, high in the mountains above Port-au-Prince, was badly damaged.

Nevertheless, he was heading into Port-au-Prince to see what he could do to help. He said he would try to set up his amateur radio station. He witnessed a two mile stretch of cliffs above nearby gravel pits collapsing and knew that many deaths were inevitable.

IRESC went to a high alert level and commenced operations on their Echolink Conference with a formal net, hoping that some communications could be established either directly using VoIP or via a radio gateway situated within reach of Haiti. Manny Arroyo, NP2KW, was particularly helpful in making his HF Gateway facility available to IRESC from his advantageous location on St. Croix in the US Virgin Islands.

The IRESC Incident Database, which can be accessed by emergency agencies and can receive submissions directly from the general public, was heavily used to manage health and welfare enquiries and eventually stored over 300 items of information relating to the disaster.

In the early phases of the activation, traffic was almost entirely inbound to Haiti. With no reliable amateur radio path, relatives' enquiries were routed to the Red Cross and Salvation Army bureaux for processing.

In the next few days, IRESC received further messages from HH2QCS and also from Jean-Robert Gaillard HH2JR; they made grim reading. HH2JR had lost several close family members. He also lost his cousin, Micha Gaillard, the Opposition Leader in Haiti. Jean Robert himself had been attacked by mobs. The two hams had not been able to communicate with each other since the earthquake.

The desperate scenes described were shocking. HH2QCS was, by now, leading the communications team for one of the major medical centres in central Port-au-Prince and was struggling with limited equipment to re-establish internet communications, but he had been able to arrange solar power.

IRESC continued to deal with the large number of hams seeking information. At one point, the IRESC Echolink conference had nearly 200 individual stations, links and repeaters connected to it. Because IRESC has members in over 50 countries, there was always a Net Control Station available who could operate during their local daylight hours, thus preventing exhaustion or overnight shifts. Members who spoke French were contacted in case this became the language necessary for traffic handling. Such members monitored the only radio station that managed to continue broadcasting on the Internet, Signal FM, and provided translations of the public message boards and news reports hosted on the station's website.

IRESC Net Control Station (NCS) operators were joined by colleagues from the National Hurricane Net, NIAR, HAMNET, ARES, RAYNET and others, to whom grateful thanks are extended. The net was streamed to the web via several outlets. HF communications were monitored in a variety of ways. In the region of 900 radio amateurs registered to become members of IRESC in a 72 hour period. All in all, this represented a truly remarkable international alliance between radio amateurs.

As the relief effort developed, IRESC collaborated with the Maritime Mobile Service net. The MMS net operates on 14.300MHz, the internationally agreed 'Centre of Activity' frequency for emergency communications. The net was in regular communication with Father John Henault HH2JH, a missionary from the Ile-a-Vache off the SW coast of Haiti, who travelled to the mainland to provide assistance and to establish a ham radio station. Father John regularly provided essential information and requests for supplies, principally fuel for his generator. These messages were relayed to the IRESC Echolink net by Bernie Farthing NP2CB for onward transmission to a variety of support agencies. As well as more traditional routes, traffic was also being received via Blackberry and SMS text, with some Haitians even managing to report via Facebook. All of this data was collated on the IRESC Incident Database and forwarded as appropriate. The Database was made an open source for any agency that found it of use.

IRESC Liaison Officer for the Eastern Caribbean, Julien Dedier 9Z4FZ, set himself up as a point of contact for radio amateurs travelling with relief teams, offering advice and assistance to smooth their passage through Trinidad & Tobago en route to Haiti.

IRESC Liaison Officer for Israel, Pinchas Aviv

4Z5RU, set the Magen David Adom network of VHF repeaters to relay the IRESC traffic so that it was heard across the whole of the country.

In conclusion, it is true to say that traffic out of Haiti was limited. The country's infrastructure was so badly damaged that only the greatest of efforts lead to limited ham radio activity. The bulk of message flow handled by IRESC was of the Health & Welfare enquiry type. However, IRESC has benefitted from this significant mobilisation of its facilities; the learning curve has been steep and the debrief will be extensive. The IT systems, hosted on IRESC's own servers, stood up well under the immense volume of activity.

NCS operators were well supported by always having several Assistant NCS members to work with them in the background, controlling the various online systems, managing the Incident Database, logging and dealing with off-net communications – not as glamorous as a net controller maybe, but the bedrock on which our organisation relies. When the next emergency comes, many more key agencies and contacts will be aware of what IRESC has to offer and will come to us earlier. Better working relationships have already been formed.

Correspondence was received from all over the world and diligently attended to. Radio amateurs worked with each other and found ways around the language and colloquial differences that will inevitably exist when the whole world meets in one place. But these radio amateurs had a shared goal – collaborating internationally is the very essence of IRESC - and the success of the operation demonstrates that it is possible to bring our diversity of cultures together in a single team.

IRESC has now dropped to a lower activation level but the net control structure has remained in place should any further help be requested. The fully activated net operated continuously around the clock for 384 hours. A slower but steady flow of requests for information on the whereabouts of individuals continues to arrive.

At 27 th January 2010, the Haitian President Rene Preval said that 170,000 bodies had been counted. 245,000 commercial and residential buildings had either collapsed or were too badly damaged to repair. Father John HH2JH, Jean-Robert HH2JR and others have continued to report in to the Maritime Mobile Service and SATERN nets.

#### DX

In D-X, word that a group of radio amateurs across Spain will activate the special callsign AO1ANT between February 22<sup>nd</sup> and the 28<sup>th</sup> to celebrate the 'Seventh Antarctic Week' international event. Their reference number will be WAP-180 and their activity will be on SSB, CW, PSK31 and RTTY modes, using all the amateur bands from 160 through 10 meters. QSL via EA1GHT, either direct or by the Bureau.

And lastly, XR9JA will be the callsign of the upcoming Greenwich Island operation by XQ5CIE, CE6UFF, F6DXE and CE5COX. The operators will be there from February 1<sup>st</sup> to the 28<sup>th</sup> using CW, SSB, and PSK-31 on 160 through 6 meters. They also plan satellite operation using AO-51. QSL via CE5JA either direct or via the bureau.

#### HAM RADIO IN SPACE: NEW AO-7 AMERICAS QSO DISTANCE RECORD

A new distance record has been set within the Americas over an aging ham radio satellite. On Sunday January 24<sup>th</sup> at 22:52 UTC Joe Spandler, K3SZH in Harrisburg, Pennsylvania, held a short contact with Francisco Ramires, PY2OV in Sao Paulo, Brazil using the 70 cm to 2 meter transponder on the 35 year old AO-7 ham-sat. The distance between the two stations was 7738 km and is believed to be the furthest contact within the Americas, but falls just short of the ZS6BB to EA6SA international contact at a distance of 7766 km. ZS6BB to EA6SA stands as the record for the AO-7 bird which was launched on November 15, 1974 on board a Delta rocket from Vandenberg Air Force Base in California.



# CAARA FIELD DAY JUNE, 1981 AT BOND HILL, GLOUCESTER



John-K1LOU (SK)



Al Hamilton-AG1F, Ed-AK1U, Bob-WA1UCG, and Joe Enos (SK)



We had several trailers and a tribander on a ladder and a two meter beam, not to mention the wire antenenas for 40-80.



JOE-WB1CHJ and Sylvia-KA1BTM (SK)



Paul-KA1BTN (SK)



Sean Burke- N1CMQ



Milt- K1MSS (SK) in the red shirt



Fran Vidal -WU1S and Ralph Karcher-W1RK



Dave Robinson



Bob-WA1UCG

With all of the old QST magazines online for ARRL members, why not take a tour through radio history and see if you can find the answers to these questions in the articles and advertising sections!

1) A flying animal graced the cover of this popular shack reference — name the animal and the reference!

2) Which Amateur Radio vendor was owned by "Uncle Leo?"

- 3) Match the electronic "jobber" with the city.
- a. Burstein-Applebee e. Syosset
- b. Lafayette Electronics f. Kansas City
- c. Butler Radio g. Chicago
- d. Cortland Radio h. Los Angeles
- 4) Match the slang with the manufacturer:
- a. Squawk Boxes e. Drake
- b. Hot Water f. Heath
- c. Twins g. Gotham
- d. Flash! h. Gonset

5) Who manufactured the Super-Pro receiver? Hammarlund or Hallicrafters?

6) What was one of antenna manufacturer Mosley Electronics' first products?

- a. receiver
- b. transmitter
- c. keyer
- d. amplifier

7) Radio Row and the World Trade Center had what in common?

8) Name the manufacturer of the "Trans-Oceanic" and its most famous advertising slogan.

- 9) What type of equipment would have been manufactured by Brown Brothers?
- a. headphones
- b. keying paddle
- c. microphone
- d. SWR meter

10) What was the name of the E. F. Johnson amplifier based on the 4-400 tube?

- a. Ultra
- b. Thunderbolt
- c. Bandsweeper
- d. Annihilator

11) What were vacuum tubes called in RCA's classic design manual?

- a. Radiotrons
- b. Valves
- c. Thyristors
- d. Quasars

12) What type of components are these?

- a. Brown Devil
- b. Orange Drop
- c. Nuvistor
- d. Breadslicer

e. Dog bone

f. Nixie

13) The most widely modified surplus transmitter after World War was the ARC-\_\_\_\_.

- a. 3
- b. 5
- c. 9
- d. 11

14. Match the product names and types:

- a. MICRO-TO f. Receiver
- b. Navigator g. Transmitter
- c. Cherokee h. Amplifier
- d. 75A4 i. Transmitter
- e. Warrior j. Keyer

15. What word added before "Ranger" would change it from a transmitter to a receiver?

Bonus : Where were Heathkits made?

## Answers

1. c and g — The "Flying Horse" is still the symbol for *Callbook* publications.

2. World Radio Labs and Leo Myerson, W0GFQ, were famous for the Globe series of transmitters.

3. a-f, b-g, c-h, d-e — These companies were the source of parts for the amateur homebrewer.

- 4. a-h, b-f, c-e, d-g
- 5. Hammarlund
- 6. a the CM-1 was manufactured in the early 1960s.
- 7. Cortlandt Street in New York City

8. Zenith — "Where the quality goes in before the name goes on."

9. b — Their attractive paddles and keys featured chrome hardware, distinctive red paddles and knobs, as well as a crinkle-finish black base.

10. b — Even a version contained in a desk was made.

11. a — The Radiotron Design Manual was the bible of the electronics designer.

12. a — resistor, b — capacitor, c — vacuum tube, d — variable capacitor, e — insulator, f — numeric display

13. b — The ARC-5s were cheap, abundant and easily modified to work on 40-meters — they were everywhere!

14. a-j, b-g, c-i, d-f, e-h

15. Adding "Sky" would create the "Sky Ranger" — a popular receiver made by Hallicrafters.

Bonus — At home! The company was — and is! — located in Benton Harbor, Michigan.



LEFT: Ruth racking up points!

RIGHT: Saturday morning a few club members practiced soldering up new jumper cables.



# WINTER FIELD DAY- JANUARY 30-31 AT THE CLUBHOUSE











Pictures: top, Chuck-N1OCT checking out the refreshment table which was prepared by his wife and daughter, a shot of the building, Dick-KR1G and Stan-W4HIX relaxing on the second floor, bottom photo, Mark-MAW and new member John-WCZ

# **TECH IN A DAY CLASS A HUGE SUCCESS!**

On Saturday January 30th, the Cape Ann Amateur Radio Association conducted its second Tech-in-a-Day program at the Lanesville Community Center in Gloucester. Students came from as far away as South Hadley, Massachusetts and Jaffrey, New Hampshire for a highly compressed day of studying to pass the FCC Element 2 examination. Twentyfour students attended the course, ages ranging from 9 to over 60 years old. The course consisted of six one-hour sessions, each session covering approximately 60 questions in the Element 2 question pool. Students were told to read the question and only the correct answer, which was indicated in bold. Very little lecture was conducted—this was a self-study program. Any tricks or associations were encouraged to memorize the largely unfamiliar material. After 45 minutes, students were directed to get up and move around for 15 minutes and enjoy some of the snacks and beverages that were provided. The next session started on the hour and the cycle was repeated. Three sessions were held in the morning and three in the afternoon.

It was a cold day for January, so the community center was chilly inside, actually the best condition for keeping the students sharp during the long periods of study. After the sixth session in the afternoon, the Element 2 exam was conducted by the CAARA V.E.'s, Bob Quinn, WV1A; Curtis Wright, AA3JE; Bill Poulin, WZ1L; Dean Burgess, KB1PGH; Stan Stone, W4HIX; Sandy Balzarini, N1MAU; Jim Cavan, AB1IV and Dave Suuronen, KB1KR.

Twentyone of the twentyfour students passed the exam with several getting perfect scores. Of the 21 students that passed their Element 2 exam, many went on to take the Element 3 and three of those passed, earning their General license. Two of the new General's took the Element 4, and Bob Edwards, an electrical engineer from Topsfield passed, earning him an Extra—in one day. Bob and his son Allan joined CAARA on the spot—making Bob the third CAARA member in recent years to pass all three elements on one session (Briggs Longbothum, AB2NJ and Stan Stone, W4HIX were the other two).

Stan Stone developed and conducted the course from reports of similar courses that have been conducted around the country. Dean Burgess arrived early and helped coordinate the day's activities. This session passing rate was 86%, down a bit from the first session's success rate. Two students joined CAARA on the spot, and several more expressed a strong interest.

The challenge now will be to engage these new hams so that they actually get on the air. Follow-up e-mails have already gone out to congratulate them and encourage them to drop by the clubhouse on Sunday mornings for coffee, donuts and plenty of free advice.

CAARA's Tech-in-a-Day program will likely be repeated in the fall.

## **NEXT ISSUE:**

## MORE PHOTOS FROM WINTER FIELD DAY AND TECH IN A DAY CLASS

## SUMMARY OF THE ANTENNA MEETING AT THE LANESVILLE COMMUNITY CENTER

Your photos and articles!

## **DON'T FORGET TO PAY YOUR DUES!**