



# CAARA Newsletter



AN ARRL AFFILIATED CLUB

DECEMBER ISSUE- 2011



## President's Corner

by Stan-W4HIX

November has been a very quiet month for me on the ham radio front. My wife and I spent two weeks touring Egypt, so that takes a lot of time out of a month. I did take my VX-3R handheld with me knowing that I wouldn't be able to transmit. I actually did pick up some shortwave broadcasts from Spain and Italy, but unfortunately I don't speak either language.

One item of club business that was attended to during November was the lease on 6 Stanwood. We have hammered out a new agreement that will return the \$1,000/year we are currently paying to be used for building maintenance. Hank has negotiated the details, but we will have a maintenance schedule that will be inspected and approved by the City. I really like this agreement—we now have the incentive to take care of the maintenance items that have been “on the list”, but haven't gotten done. We have funds because this has been in our budget as lease payments for the last several years. This is a win-win situation for CAARA and the City.

Another aspect of these negotiations has been the recognition by city councilors of CAARA's value and contributions to Gloucester and Cape Ann. It is a good feeling to have that kind of support and a result of our members' efforts in community service and emergency communications. If you haven't heard it from me recently—thank you.

December has a couple of items coming up, including the Christmas party on December 3<sup>rd</sup>, and a scholarship breakfast on December 11<sup>th</sup>. I'm thinking we might schedule another in-house flea market early next year to help move some more gear. And then there is Field Day 2012...

Again, I'd like to thank everyone who's been putting effort into the operation of the club; we have a good group of folks and I'm proud to be able to work with you.

**Hello to all CAARA Members,  
CAARA Christmas Party !!!**

The club will hold its Christmas Party on Saturday December 3<sup>rd</sup>. The party will be held at St. John's Episcopal Church on 48 Middle Street in Gloucester. The doors will open at 5 PM for set up and the party will start at 6 PM. We will follow the same theme as in the past. We will have a Pot Luck Covered Dish dinner then we will hold a Yankee Gift Swap with a \$10.00 gift purchase limit. Then at the end we will hold a door prize raffle so bring a few bucks for the raffle tickets. This party is open to all CAARA members and their families.

If you are unable to bring a covered dish dinner we kindly ask for a \$5.00 donation to cover the cost of the hall. To find the hall please take the first exit off of the RT 128 Grant Circle Rotary which you'll see



Friendly's on your right. You will now be on Washington Street. Follow along Washington Street about a mile and you'll see a long parking lot on your left near Tedeschi's market. That lot is for the Parish hall and the hall is at the end of that parking lot. This is another reminder that now is the time for membership dues collection for 2012. If you have not yet paid your dues we kindly ask that you think about doing so so we can keep our membership list up to date. You can either pay by Paypal or credit card on [www.caara.net](http://www.caara.net) or you can pay by check by sending your dues to the CAARA Clubhouse, 6 Stanwood Street Gloucester, Ma 01930. You can also drop off your dues at the clubhouse during a Sunday morning or at the upcoming club Christmas Party on Saturday December 3<sup>rd</sup>. The Board of Directors thanks everyone in advance for paying thier dues promptly so we can better plan our budget for the year. Once again, if any member is financially unable to pay thier dues because of fiscal hardship, the Board of Directors can find a sponsor for you as no one should be left out of the fun in amateur radio due to their inability to pay.

**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.

All material published in the CAARA Newsletter may be reproduced for noncommercial use provided such use credits both the CAARA and the author of the article. Copyrighted material will not be accepted without accompanying written permission to publish.

The opinions expressed in the CAARA Newsletter are solely those of the editor or other contributors and do not necessarily reflect the opinions of either the Board of Directors or membership of CAARA.

Jon Cunningham-Editor  
K1TP

**Board of Directors- 2011-12**

President: Stan W4HIX  
Vice Pres: Dick WB1W  
Treasurer: Hank McCarl W4RIG  
Clerk: Dean Burgess KB1PGH

Directors:  
Paul Anderson, KA1GIJ  
Jon Cunningham, K1TP  
Charles Downey, N1OCT  
Joseph Perry, KB1VQF  
Dick Ober, K1VRA  
Don Swenson, N1UVV

## Welcome to CAARA:

CAARA, an ARRL affiliated club, operates the 2 meter W1GLO repeater on 145.130 MHz with antennas located on the Cingular tower in the Blackburn Industrial Complex in Gloucester Massachusetts. It has an average effective radius of 60 miles, and serves Eastern Massachusetts, Cape Cod, Rhode Island, Southern New Hampshire, and maritime mobile stations. CAARA also operates the W1GLO repeater on 224.900. The former W1RK 443.700 repeater with antennas located in Magnolia is now located at the CAARA clubhouse and has a very limited range.

The Association is one of the few amateur radio clubs that has its own clubhouse. Located at 6 Stanwood Street in Gloucester, it includes a permanent HF station with rotating beam and vertical antenna along with a 2 meter packet station and 2 meter voice and 220 MHz transceivers.

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

Monthly member meetings are held on the first wednesday of each month at 7:30 PM except for July and August.

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

CAARA members Rick Maybury- WZ1B and Dean Burgess- KB1PGH worked about 40 stations and worked half the zones on behalf of the club callsign- W1GLO in the **2011 ARRL Worldwide Single Sideband Contest** on Saturday October 30th on the second floor radio room at the CAARA clubhouse from 8 PM to 10:30 PM. They used the Icom 740 HF rig donated by CAARA member Bill Canty- W1OKD





## Monthly CAARA Scholarship Benefit Breakfast at Clubhouse!!

Here is club President Stan Stone- W4HIX working hard cooking pancakes in the clubhouse kitchen during the monthly CAARA Scholarship benefit Breakfast on Sunday, October 30th. In the other picture Dick- KR1G and Hank- W4RIG enjoy their breakfast. *Dean- KB1PGH*



## CAARA Club November Members Meeting

Here CAARA Club President Stan Stone- W4HIX reads an introductory letter to the other club members which was sent from club member Gus Macfeely- NH7J in Hawaii about a cold war antenna historical video that he sent for the club to watch. During the November CAARA member meeting the club members also watched a DVD about the amateur radio station W6RO which is aboard the ship the Queen Mary in California. They also watched a video of the "ARRL goes to Washington" which was narrated by past amateur radio operator Walter Cronkite which if you look close you can see his face on the screen.



## CAARA Club Members Meeting topics needed !!!

The Board of Directors are asking the membership to please help us out with presentations for our monthly members meetings. We are looking for members to help us find speakers for topics or to make a presentation on their own if they wish. Here are the future dates of the meetings which are all on wednesdays- Jan 4, Feb 1, Mar 7, Apr 4, and May 2. Please e-mail club clerk Dean Burgess KB1PGH at [dburg101@aol.com](mailto:dburg101@aol.com) with your ideas.

## Changes to 5 MHz in USA

On November 18 the FCC announced changes for Amateur Radio operation at 5 MHz.

The key changes are:

Replace 5368 kHz with a channel 5358.5 kHz

Increase the power limit to 100 W PEP

Permit three additional emission designators CW emission 150HA1A, which is Morse telegraphy by means of on-off keying, and data emissions 2K80J2D (PACTOR-III) and 60H0J2B (PSK31).

Read the FCC document at

<http://www.fcc.gov/document/amateur-radio-service-5-mhz>



## CAARA November ARRL VE Test Session review

The club held its monthly ARRL VE FCC Amateur Radio License Test Session on Sunday November 13th at 10 AM at the clubhouse on 6 Stanwood Street in Gloucester, Mass. During this session we had two who took the Technician Class License Exam and both candidates past their exams

Here is Robert Claypool proudly holding up his new FCC Technician Class License receipt. Robert also became a new member of CAARA right after he passed his exam and only had to pay half of his yearly membership dues. If anyone comes in and tests with CAARA and they pass their FCC Technician Class exam they are offered half off their yearly club membership dues for their first year which comes out to \$15.00. Not a bad deal for a new ham!



Club Treasurer Hank McCarl-W4RIG holds up a 1990 ARRL Field day T shirt which was found in a donation of the late Tom Andrews ham radio equipment estate. The T-Shirt was provided to the club members compliments of club member Mike Burke- K1MB





**Club Volunteers Ruth- WW1N and Rick-WZ1B spent time installing and testing a vertical antenna in the rear of the clubhouse so we now have capability to get on 40-80 meters.....Thanks for the effort!**



**A beautiful Icom HF transceiver donated to the club by Bill- W1OKD and already used in a recent SSB contest at the clubhouse.....Thanks!**





Rick WZ1B proudly displays the club's new MFJ 462B Multimode Multireader made possible from the grant that Rick applied for and received from the ARRL.

Rick will use this reader to assist those who plan to take his upcoming CW course coming on Saturday mornings in the second half of January 2012.

## **MFJ-462B**

Ever wonder what those mysterious chirps, whistles, and buzzing sounds are on the shortwave bands? Much of it is RTTY, ASCII, CW, and AMTOR (FEC) signals passing commercial, military, diplomatic, weather, aeronautical, maritime, amateur and other traffic. Tap into these "secret" signals. Plug this self-contained MFJ MultiReader into your shortwave receiver's earphone jack. Then watch these mysterious signals turn into exciting text messages as they scroll across an easy to read LCD display. No computer, interface, special cables or other equipment is needed. Eavesdrop on the world! Eavesdrop on the latest breaking news as press agencies from all over the world relay them on RTTY — it's like having a private wire service in your home. Copy RTTY weather stations from Antarctica, Mali, Congo and many others. Listen to military traffic passing from Panama, Cyprus, Peru, etc. Catch diplomatic, research, commercial and maritime traffic. Listen to maritime users, diplomats and amateurs send and receive error free messages using various forms of TOR (Telex-Over-Radio). Monitor Morse code communications from hams, military, commercial, aeronautical, diplomatic and maritime coastal stations from all over the world. There's plenty of exciting non-voice traffic on shortwave that'll keep you fascinated . . . traffic you can't read unless you have a decoder. Printer monitors 24 hours a day by printing their transmissions. Plug your Epson compatible printer into the MFJ-462B printer port and you're ready to print. MFJ MessageSaver Save several pages of text in 8 K of memory for later review or re-reading. High Performance Modem Consistently get solid copy from MFJ's high performance PLL (phaselock loop) modem technology. Digs out weak signals buried in noise and even tracks slightly drifting signals. Mark and space tones are copied to give you greatly improved decoding under adverse conditions. Easy to use, tune and read Just push a button to select modes and features from a menu. A precision tuning indicator makes tuning your receiver for best copy on all modes quick and easy. The 2 line 16 character LCD display has contrast adjustment. One line comes in at speed of signal, second line is delayed so you catch every exciting word! Copies standard shifts and speeds Copy most standard shifts and speed in all modes. MFJ's AutoTrak automatic Morse Code speed tracking helps MFJ-462B to track and decode high speed CW.



## NOVEMBER 19-20 ACTIVITIES AT THE CLUBHOUSE



Here's in Joe, KB1VQF, Jake K1LDL and Dean, KB1PGH during Saturday night working the upstairs 20 meter station.



Here is Rick- WZ1B working 15 meters and Dirk-W1DVL working 20 meters during the Sunday morning coffee hour.

# STATION OF THE MONTH



Here it is...There are something like 130 vacuum tubes in this station. Real radios glow in the dark! On the top shelf are 3 HP-23 supply/speaker units for the Heathkit HW-32A, SB-110 and HW-101 transceivers, plus a couple of other speakers and ancillary units.

Upper row of transceivers, left to right; Yaesu FT-900AT 160 through 10 meter AM/FM/SSB/CW rig (my one solid state HF) with a Yaesu FT-2500 2 meter transceiver above it. In the middle is a Yaesu FT-101E 160 through 10 meter AM/SSB/CW rig (first transceiver I bought after I got my ticket). To it's right sits a Heathkit HW-32A Mono Bander 10 meter SSB/CW rig.

Middle row of transceivers, left to right; Heathkit SB-110 6 meter SSB/CW transceiver, with a Heathkit SB-200 80-10 meter linear amplifier on top.

I have installed the Harbach Electronics power supply, soft start and relay boards in it. Runs 600 plus watts with a pair of Cetron 572B's. In the middle are the Heathkit "Twins", the SB-301 SSB/CW/AM receiver paired with SB-401 SSB/CW transmitter. I have them operating in transceiver mode, where the receiver master oscillator controls the receiver frequency as well as the transmitter's frequency. At the right end is a Heathkit SB-100 SSB/CW transceiver, with a Heathkit HW-101 SSB/CW transceiver above it. Also, at the far left is the MFJ-259B antenna analyzer, which is very useful for adjusting the antenna tuner, and the RF selector switches to choose which radio is connected to the antenna.

Bottom row; At the left is a Hallicrafters HT-37 SSB/AM/CW 80 though 10 meter transmitter, which is paired via a Dow Key relay with the Hallicrafters SX-101A 80



through 10 meter SSB/AM/CW receiver at the far right end. The transmitter is the latest piece I have repaired and added to the set-up, and the receiver was the very first piece I picked up after I got licensed in 2007. I bought it on the FT-101E at the 2007 Fall NEARFest, both needed work, and I got them both for short money. The transmitter uses the phasing method to generate SSB, and the receiver has about the best sounding audio of any of my rigs. I love using them together. In between them is an MFJ-962C antenna tuner and antenna selector, with a Heathkit 614 RF monitor scope above it.

The antennas to radios switching is set up so that any radio or the MFJ antenna analyzer can be selected, and it's antenna connector is then fed through the linear amplifier, then through the RF monitor scope and on to the MFJ antenna tuner, which also incorporates a switch to select between several antennas or a Bird dummy load. For antennas, my workhorse is a Cobra Ultralite Senior 160-10 meter dipole. I also have a 20 meter double bazooka, an MFJ-1798 multiband vertical (80-40-20-17-15-12-10-6-2 meters), a Diamond 2 meter vertical, and a HyGain TH7-DXS 10-15-20 meter 7 element beam that I am rebuilding, plus about 6 tower sections waiting to be assembled at some point. I have to put together a 6 meter dipole or beam for the SB-110 SSB sideband rig soon, since that band should be getting more active...

Also, at the right side of the rack is a Tascam 424 8 input mixer/4 channel cassette recorder for receiver audio, feeding a 40 watt per channel stereo amplifier.

The only patching I have to do at this point is to connect the proper radio relay output to the linear amp if I wish to use it with a particular radio. Even that will soon not be required, as I am building a control panel that will allow full control of all RF, AF and linear amp switching functions.

I have converted most of the old tube transmitters to use a 4 pin mic connector, and all of my microphones have the same mating connector, so any of the mics can be used with almost any transmitter. By the way, I made the boom mic with a \$15 desk light that I removed the light assembly and modified the light mounting bracket to attach a standard microphone holder clip, and used a ball microphone that I paid \$10 for brand new with the cable. I got both the light and

the microphone at Electronics Surplus Services in Manchester, NH. The boom mic currently is only used with the HT-37 Hallicrafters, as it has a 1/4 inch mic jack. At some future time I plan to convert it to a 4 pin as well.

I am currently working on another HT-37 transmitter, which I would likely sell or trade once it is done. I would like to find an HT-32 transmitter, as it is a closer cosmetic match to the SX-101A. Of course, that means finding another Hallicrafters receiver to match the HT-37 in the rack, maybe an SX-111...Also just picked up a Heathkit DX-100 AM/CW tranny at NEARFest for \$25.00, and it works, sort of, which means it is a good candidate for a rebuild, maybe find a Hammerlund HQ series receiver to pair with it, since I don't have a Hammerlund piece in the collection yet.

I am a regular on the 3838 Breakfast Club Net almost every morning. The net runs officially from 6:30 to 7:00, with casual checkins starting around 6. I generally use a different HF rig each morning, and get to use each of the ones that can operate on 75/80 meters about once a week. It is a great bunch of guys, they certainly made me feel welcome a year or two ago as a newbie to HF. You can find out more at [www.3838club.net](http://www.3838club.net), or just join us any morning. It is a call sign order directed net, everyone gets at least one turn to talk.

That is enough for now!

73-Mark KB1PLC  
Mark Rogers  
MES Custom Panels

**ATTENTION BOARD OF DIRECTORS AND  
EMERGENCY COMMUNICATIONS GROUP**

**Wednesday December 14, 2011:  
Emcomm Meeting at 7:00 PM  
BOD Meeting 7:30 PM  
at the CAARA Clubhouse on  
6 Stanwood Street, Gloucester**

## U.S. 60 meter changes: The U.S. Federal Communications Commission released a 'Report and Order' on November 18, 2011, with new 5 MHz rules for the Amateur Radio Service.

The effective date is 30 days after publication in the Federal Register.

Some of the FCC changes are to now allow Phone (Upper Sideband), RTTY, Data, and CW; with specific limitations on the use of these modes, as well as the maximum allowed power level is now 100 watts PEP (ERP) effective radiated power referenced to a dipole.

The FCC has deleted a channel and added a channel. The new 60 meter channel list (for General, Advanced, or Amateur Extra Class license only) is as follows (Suppressed Carrier):

VFO Dial frequency

-----  
5330.5 kHz USB (center of channel = 5332.0)  
5346.5 kHz USB (center of channel = 5348.0)  
5357.0 kHz USB (center of channel = 5358.5) New!  
5371.5 kHz USB (center of channel = 5373.0)  
5403.5 kHz USB (center of channel = 5405.0)

PLEASE NOTE: The FCC deleted the channel 5366.5 USB (center=5368.0) and "replaced it" with channel 5357.0 kHz USB (center=5358.5).

For the complete FCC 'Report and Order' release, see: <http://www.fcc.gov/document/amateur-radio-service-5-mhz>

## 30th anniversary of UK CB

November 2 marked the 30th anniversary of the introduction of legal Citizens Band radio in the United Kingdom.

Many radio amateurs were involved in the campaign to legalise CB. Perhaps the most well known was **James Bryant G4CLF**, designer of the G4CLF SSB Transceiver, and President of the Citizens Band Association from 1976 until 1985.

James wrote about CB Radio in the March 2, 1978 issue of New Scientist magazine, see <http://tinyurl.com/CBradioNewScientist>

The UK government of the day was opposed to the idea of citizens being able to communicate freely with each other using two-way radios, however, the change of Government in May, 1979 saw a shift in policy.

At the end of 1979 the Radio Regulatory Department carried out a series of tests at 900 MHz and 1300 MHz and in May 1980 Home Secretary William Whitelaw announced proposals for a service called Open Channel on 928 MHz. At the time there were estimates that 250,000 people were using 27 MHz AM in the UK.

Eventually on November 2, 1981 two CB allocations were introduced 27 MHz FM using non-standard channels and 934 MHz FM.

There are several TV news clips from the time available on the web:

July 6, 1980 - Shows 5000 CB enthusiasts demonstrating in Trafalgar Square against government delays in legalising CB radio.

<http://www.itnsource.com/shotlist/ITN/1980/07/06/VS060780008/>

August 5, 1980 - Enthusiasts using 27 MHz AM in their cars and interview with Home Office minister Timothy Raison MP

<http://www.itnsource.com/shotlist/ITN/1980/08/05/VS050880085/>

August 5, 1980 - A trucker explains the concerns of enthusiasts that the proposed system would make radio sets too expensive.

<http://www.itnsource.com/shotlist/ITN/1980/08/05/VS050880086/>

Some 30 years later, on June 24, 2011, the European Union finally paved the way for 27 MHz AM and SSB CB although the UK regulator Ofcom still seem to be dragging their feet on the matter. See ECC Decision (11)03

<http://www.erodocdb.dk/Docs/doc98/official/pdf/ECCDEC1103.PDF>





## Space station hams land safely

Three radio amateurs returned safely to Earth on Monday, having completed nearly six months in space onboard the International Space Station (ISS)

Expedition 29 Commander Mike Fossum KF5AQQ, Flight Engineers Satoshi Furukawa KE5DAW of the Japan Aerospace Exploration Agency and Sergei Volkov U4MIR of the Russian Federal Space Agency

landed their Soyuz spacecraft in frigid conditions on the central steppe of Kazakhstan at 8:26 p.m. CST Nov. 21 (8:26 a.m. Kazakhstan time, Nov. 22).

The trio arrived at the station on June 9. They spent 167 days in space and 165 days on the complex. Volkov, a two-time station

crew member, now has accumulated 366 days in space.

Before leaving the station, Fossum handed over command to NASA's Dan Burbank, KC5ZSX, who leads Expedition 30. Burbank and Flight Engineers Anatoly Ivanishin and Anton Shkaplerov of Russia will continue research and maintenance aboard the station.

The remaining Expedition 30 crew members, NASA astronaut Don Pettit KD5MDT, European Space Agency astronaut Andre Kuipers PI9ISS, and cosmonaut Oleg Kononenko RN3DX, are scheduled to launch Dec. 21 from the Baikonur Cosmodrome and dock with the station on Dec. 23.

## Mars Rover launch live on web

NASA's Mars Science Laboratory rover, slated to lift off Saturday 15:02 UT, has special Morse Code indentations on its wheels.

The launch of a United Launch Alliance Atlas V carrying NASA's Mars Science Laboratory (MSL) has been rescheduled for Saturday, Nov. 26 from Space Launch Complex-41 at Cape Canaveral Air Force Station, Florida. The one hour and 43 minute launch window opens at 10:02 a.m. EST.

The rover has an unusual connection with radio - it has special Morse Code indentations on its wheels that will spell out the initials JPL in Morse as it travels around Mars.

JPL stands for Jet Propulsion Laboratory, builders of the rover.

NASA TV is listing coverage of this launch on their viewing schedule.

Tune in at: <http://www.nasa.gov/ntv>

**Wednesday, December 7: Club's Monthly Member Meeting at 7:30 PM at the CAARA Clubhouse, 6 Stanwood Street, Gloucester, MA. This month's agenda: Guest Speaker Steve Tesley- N1BDA with a presentation on the National Traffic System and formal message traffic, plus a presentation on Emergency Go Kits.**

**Sunday December 11: CAARA Scholarship Benefit Breakfast at 8:30 AM at the Clubhouse-\$5.00 per person donation for breakfast. Monthly ARRL VE Test Session follows the breakfast at 10 AM.**

## Police Departments Look to Tune Out Scanner Hobbyists

Police departments around the country are moving to shield their radio communications from the public as cheap, user-friendly technology has made it easy for anyone to use handheld devices to keep tabs on officers responding to crimes.

The practice of encryption has become increasingly common from Florida to New York and west to California, with law enforcement officials saying they want to keep criminals from using officers' internal chatter to evade them. But journalists and neighborhood watchdogs say open communications ensure that the public receives information as quickly as possible that can be vital to their safety.

D.C. police became one of the latest departments to adopt the practice this fall. Police Chief Cathy Lanier said recently that a group of burglars who police believe were following radio communications on their smartphones pulled off more than a dozen crimes before ultimately being arrested and that drug dealers fled a laundromat after a sergeant used his radio to call in other officers — suggesting that they, too, might have been listening in.

“Whereas listeners used to be tied to stationary scanners, new technology has allowed people — and especially criminalsh and patrol talk groups. I don't think that's right,” he said. “I think the public has a right to monitor them and find out what's going on around them. They pay the salaries and everything.” One iPhone app, Scanner 911, offers on its website the chance to “listen in while police, fire and EMS crews work day & night.” Apple's iTunes store advertises several others. Though iPhones don't directly pick up police signals, users can listen to nearly real-time audio through Internet streaming services, said Matthew Blaze, director of the Distributed Systems Laboratory at the University of Pennsylvania.

The cost of encryption varies. The Nassau County, N.Y., police department is in the final stages of a \$50 million emergency communications upgrade that includes encryption and interoperability with other law enforcement agencies in the region, said Inspector

Edmund Horace. Once the old system is taken down, Horace said, “You would not be able to discern what's being said on the air unless you had the proper equipment.”

The Orange County, Fla., sheriff's office expects to be encrypted within months. Several police departments in the county are already encrypted, and more will

follow suit to keep officers safe, said Bryan Rintoul, director of emergency communications for the sheriff's office. In California, the Santa Monica police department has been fully encrypted for the past two years, enabling police to

communicate more freely during high-risk calls, said spokesman Sgt. Richard Lewis.

Smaller communities like Garden City, Kan. — with a population of roughly 27,000 — are also converting. “It was an unknown. There was no criminal act, but it concerns the officers when you see the same vehicle keep showing up at your scenes,” said spokesman Sgt. Michael Reagle. “What is their intent when they keep showing up?”

The shift to eto alert the public to traffic delays, said spokeswoman Gwendolyn Crump. But the chief has refused to give radios to media organizations, which continue to assail the encryption.

“What about the truly terrifying crimes?” Metlin, the news director, asked at the hearing. “What if, God forbid, there is another act of terrorism here? It is our jobs to inform the public in times of emergency.”

Rick Hansen says he's been listening to police communications since he was 13 or 14 and considers efforts to shut them off a way to make government less transparent. The Silver Spring, Md., man says they should use technology to keep sensitive information of the airwaves on a selective basis.

“Yes, it's a concern — and it's something that can be addressed through proper procedures and processes as opposed to turning out the lights on everybody,” he said.





## Things I Wish I Knew When I Was a Young Radio Artisan by K3NG

With antennas, it's not about the feet and inches (or meters), think in terms of wavelength.

Don't worry about the orientation of a dipole when it's less than a half wavelength above ground.

In multi-multi contesting and big gun DXing it's often more a battle of bank accounts than operator skill.

You're going to go through several phases in your radio artisan career. Don't spend too much money until you're sure you like the phase you're in.

Don't gauge your success by the number of awards you have on the wall.

Your money is better spent initially in antennas than amplifiers. When you have the best antenna your budget and lot will accommodate, then go for an amplifier.

There are good CBers and bad CBers. More amateurs than you think got started on CB. Don't be nervous.

There are jackasses in amateur radio. You cannot identify them by license class, age, years licensed, call area, operating mode, education, or income.

When the bands are open any goofy antenna will make contacts. People will think this makes a goofy little antenna a good antenna. Not so.

The perception of amateur radio that the general public holds is much different from the perception within amateur radio. We're in a strange, esoteric and sometimes archaic hobby that most of the world doesn't understand. Welcome to our secret society.

It's not that extra one or two dB that makes the difference, it's the first 50 dB that really matters.

Girls actually dig letters written in Morse code while you're dating.

Save your money and buy a crank up or tilt-down tower.

Six meters.

You can operate anywhere you live, no matter what the restrictions. About any piece of metal can be loaded up with a tuner.

You buy an HF quad only once.

Low SWR doesn't mean it's a good antenna. Dummy loads have a low SWR.

Don't get your start on 2 meter repeaters.

It's not difficult to become a proficient operator. It's listening and learning that people often find difficult. You need to listen to what others who are successful do.

Ladder line.

Homebrew it, even if you're not some master electronics designer. When building equipment, don't worry about not being a EE or building the perfect circuit. Don't bother making printed circuit boards,

you can build just about anything you want Manhattan style. Experiment. You will learn more from your building failures than your successes. Don't fall in love with one brand of radio. Don't limit yourself to one



mode.

Join a club. Do what is fun and what you want to do in the club. As soon as others tell you what you should be doing, it's time to leave. When being involved in a club feels more like a chore, get out. If the club is on life support and you can't revive it in three years, pull the plug. Move on. Don't look back.

QRP isn't difficult. It requires persistence and patience....and knowing when to go QRO or when to QSY.

Life's too short to argue with enlighten people who say life is too short for QRP.

If you are in a club you don't like and you want to leave that club to create a new or rival club, list on a piece of paper why you don't like that club. This list is why you shouldn't start a new club.

Don't do CW because you want to impress others.

Get an ARRL life membership (or whatever your national amateur radio organization is) as soon as you

**You Learn Something New Every Day** by Dan KB6NU

About a half hour ago, I fired up the 2m rig and called “KB6NU listening.” Right away, I got a response from a friend in our club. “Good morning,” he said, “How are you today”? He didn’t give his callsign, but I knew who it was from his distinctive voice. “I’m great,” I replied, “but you should give your callsign to be legal.” “I’m sorry,” my friend said, “I thought you only had to id every ten minutes and at the end of a contact. Almost immediately, a third station broke in confirming this.

Of course, I had to confirm this. I went to the ARRL website, which has the [text of Part 97](#). Sure enough, [Part 97.119, Station Identification](#) states:

(a) Each amateur station, except a space station or telecommand station, must transmit its assigned call sign on its transmitting channel at the end of each communication, and at least every ten minutes during a communication, for the purpose of clearly making the source of the transmissions from the station known to those receiving the transmissions. No station may transmit unidentified

communications or signals, or transmit as the station call sign, any call sign not authorized to the station.

Note that nowhere does it require that you identify at the start of a communication. There’s more there, and I’d suggest that you have a look. There are other station identification requirements that you probably should know. For example, when operating a special event station, you must not only identify with the special event station call, but also your own call once every hour.

You learn something new every day....which means you don’t have to ID everytime you turn it over on the repeater!



**Beautiful pictures shot by Stan-W4HIX with his wife on a recent vacation. He had a handheld radio but said little was heard.**







Heathkit is going to release a few new kits soon after many years of going in another direction. Kits are said to be antenna tuners and SWR/wattmeters.

## Wartime Radio: The Secret Listeners

This 1979 BBC TV documentary, illustrated with archival film and interviews with those involved, traces the evolution of civilian involvement in radio-based intelligence during both world wars and highlights the key role played by Radio Amateurs.

It was the tireless work of amateur radio enthusiasts during World War I, that initially convinced the Admiralty to establish a radio intercept station at Hunstanton. Playing an integral role during the war, technological advances meant that radio operators could pinpoint signals, thus uncovering the movement of German boats, leading to the decisive Battle of Jutland in 1916.

Wireless espionage was to play an even more important role during World War II, with the Secret Intelligence Service setting up the Radio Security Service, which was staffed by Voluntary Interceptors, a band of amateur radio enthusiasts scattered across Britain. The information they collected was interpreted by some of the brightest minds in the country, who also had a large hand in deceiving German forces by feeding false intelligence.

Watch Wartime Radio: The Secret Listeners <http://www.eafa.org.uk/catalogue/5108>

The "Secret Listeners" <http://www.secretlisteners.org/>

Harry Heap G5HF WW2 Activities

[http://www.southgatearc.org/news/november2010/harry\\_heap\\_g5hf.htm](http://www.southgatearc.org/news/november2010/harry_heap_g5hf.htm)

Number Stations

<http://www.southgatearc.org/enigma2000/introduction.htm>

## WB6ACU AND THE EAGLES TO CELEBRATE 40 YEARS IN 2012

Joe Walsh, WB6ACU, and The Eagles will celebrate their milestone 40th anniversary by touring in 2012. In an interview with Rolling Stone Magazine, Walsh said that this celebration is not going to be a continuation of the band's recent tours. Rather, says Walsh the band is pulling out all the stops to create a new set up that'll be more than worth the price of admission.

To accomplish this, Walsh revealed that he and his mates will take to the road for about five months during the second half of the year. According to WB6ACU, they have been archiving a lot of material from the Eagles early days, including concert footage, interviews and the like. He says that these will be the visuals to go along with the songs. WB6ACU says that they will revisit some old songs and some new material as well.

The full story of Joe's plans with both the Eagles and also the James Gang can be read on-line.

The U-R-L is [ultimateclassicrock.com/the-eagles-tour-next-year/](http://ultimateclassicrock.com/the-eagles-tour-next-year/).

# INTERESTING PHOTO'S



I talk to Kriss-KA1GJU regularly on 3864 in the afternoon but when he working, this is the radio he uses to communicate with us on 17 meters. Kriss is a commerical pilot.  
*jon-k1tp*



## Radio Amateurs receive Mars Science Laboratory

Radio Amateurs have received signals from the NASA Mars Science Laboratory using the AMSAT-DL amateur radio facility at Bochum in Germany. On November 26, 2011 at 15:02 UTC the Mars Science Laboratory (MSL) successfully launched on an Atlas V 541 from the Cape Canaveral Air Force Station Space Launch Complex 41. It is carrying Curiosity, a 900-pound rover

about the size of a small car. It is expected to arrive at the "Red Planet" in August 2012 after a nine month flight. Just over 7 hours after



launch at 21:45 UTC the X-band telemetry signal from the MSL was received using the Bochum amateur radio facility. The signal, received at a distance of 112,000 km, had a spin-modulation of +/- 3.5 Hz, 2 revolutions / minute. This is believed to be the first reception of the MSL outside the official NASA Deep Space Network (DSN). For reception of MSL James Miller G3RUH remotely reconfigured the Bochum tracking and receiving system. The MSL X-Band telemetry signal was received automatically in Bochum, no-one had to be physically on-site. This shows how flexible and reliable the system at Bochum is, ready for the planned AMSAT-DL P5-A mission to Mars. The 20m dish at Bochum is also used by AMSAT-DL to automatically receive real-time solar data from the NASA STEREO A / B satellites. The data is transmitted to a NOAA server in the USA via the Internet. Congratulations to the AMSAT-DL team on a remarkable achievement.

## Longer eclipse periods affecting AO-51 operation

**AO-51** Command Stations report that the seven year old spacecraft is now shutting down its transmitter after losing sunlight on its solar panels during eclipse periods. Two of the six battery cells are now dead. Since July 31, 2010 AO-51 has maintained continuous and stable operations due to careful tuning of its power

settings. The AO-51 Operations Team reported on November 25 that the on-board computer (IHU) crashed between 1815 and 1945Z due to low voltage. This happened after a few days of intermittent and unpredictable operation. AO-51 Control Operators Mark Hammond, N8MH and Drew Glasbrenner, KO4MA reset the satellite and started the repeater back up around ~2030Z. Satellite operation was set to the following: Uplink: 145.880, no PL tone required Downlink: 435.150 at about 300 milliwatts Drew reported that telemetry data showed the battery voltage was low, around 4.9v, with cell 1 less than 1 volt. The impending third cell failure will likely end continuing operations, particularly if it fails shorted as the others have. At present there remains little margin as the operations team has observed the transmitters cutting off around 4.7 to 4.6 volts prior to the last reset, in eclipse. Please submit your AO-51 reports to the OSCAR Status Web Page: <http://oscar.dcarr.org>. The command stations monitor this for changes in the operation. While worldwide participation is good, more reports from US operators are appreciated. Eclipse periods, which are expected to reach 30 minutes by the end of 2011, are causing AO-51 to shut itself OFF due to low voltage.

## History This Week

*Monday, 28 November, 2011*

**1621** Galileo perfects the telescope

**1783** Charles & M N Roberts ascend 2,000' in a hydrogen balloon

**1877** Thomas Edison demonstrates the hand-cranked phonograph

**1886** First commercially successful AC electric power plant opens, Buffalo

**1895** America's first auto race starts; 6 cars, 55 miles, winner averages 7 MPH

**1942** First controlled nuclear chain reaction (Enrico Fermi - University of Chicago)

**1996** NASA's first Mars rover launched from Cape Canaveral

**DON'T FORGET  
YOUR DUES!**

## Antenna Adventures by Curtis-AA3JE

I don't know why it is always winter. There is an eternity of summer days when there is no wind, its balmy and clear, and it would be so easy to do antenna work. For some strange reason, however, summer days tend to fill up with sailing, gardening, trips to the beach, house guests and similar things. It is only on the cold, windy, snow-filled days of December and January that I find myself sitting by the rig wondering if there is anything I can do to improve the miserable reception I always seem to have.

The problem is simple. I have already been divorced once and don't want to repeat the process. When I find the perfect antenna in the latest catalog, and share my find with my spouse, she always seems to ask questions I cannot answer.

Like, "Where are you going to put it?" which is followed by "and where are you going to live, then?"

It seems that the joy of having a 60 foot tower sitting in the back yard is lost on my spouse, who prefers apple trees with small birds flitting among the branches. She is also very firm on strands of copper wire draped in the trees, which she does not think lend a puckish air of informality to the garden.

So I hunt, and hunt, and buy books labeled "Stealth Antennas, Your guide to defeating zoning restrictions." and similar things.

I also tend to look around the property for places I might hide an antenna, where she never goes. This never seems to work well, since her pet dog has a very acute sense of smell, and is always very interested in where I am and where I have been. The dog goes, she follows, and I am discovered holding the end of a wire leading off into the neighbor's yard.

I had pretty good performance with various kinds of loop antennas, fed by a SMARTUNER, but found that they generated a strong magnetic field that had unfortunate effects. The last try ended up setting off the carbon monoxide detector which (to my horror) had a voice chip. I had just tuned up on 80 meters when I keyed down for one last check and was interrupted by a shriek of doom from the machine.

"Danger! Hazardous carbon monoxide levels are present! Evacuate immediately."

I tried holding a towel over the thing while I pushed buttons. It only seemed to make it worse.....

"Curt? CURTIS!, What's going on? You get Beau and I'll get Daisy! meet you on the lawn!"

"It's nothing dear"

"DANGER, DANGER EVACUATE AT ONCE!"

"Nothing? NOTHING! What have you DONE?"

"Just a little technical trouble" I tried a calming voice. This was a mistake.

"I knew you'd poison us someday! I will discuss this outside. AFTER I call my lawyer."

It was a cold December evening and lights were going on in all the neighbors houses. I had just explained what had happened when the fire truck showed up. Seemed one of the neighbors had called to help us out. They were followed by a police care and a few of the stalwart souls that live by their scanners and are always hoping for (or setting) a good fire. In a few minutes we had a good crowd.

"Defective smoke detector" I lied.

"We need to go in and check it out sir."

"Ok."

After all the fuss was over, I made up the couch (I knew I'd get no sleep in the bedroom) and decided that I needed a new antenna.

This was a problem. There were a LOT of really nice antennas in the catalog, but I was not sure if my idea of "nice" would be shared by my spouse. I did not want to risk the R-7000 event again.

The R-7000 was a nice, clean, multi-band antenna that I bought when my spouse said I could have ONE antenna. I started to put it together in the garage. I soon found I ran out of room, so I opened the window in the rear and stuck one end out the back. I kept



adding sections and soon ran out of room again, so I opened the garage door, set up a new sawhorse, and kept building. I was just putting the whip on, while standing in the street, when I heard the tapping on the window.

My wife feels that it detracts from the tone to yell, so she taps discreetly to gain my attention. I have come to dread it. She saw I had noticed and gestured that I come to the door.

“Yes?”

“It’s higher than the house. Where are you going to put it?”

“Oh just in back, right up against the eaves.”

“You mean five feet from the smoke detector?”

She had a point. I disassembled it. I got \$20 for it.

I kept looking, and finally, at one hamfest, I spotted an antenna that looked perfect. It was only a three bander, but it was only about 24 feet, light, slender, and best of all it was used and cheap. I never stopped to wonder why it was for sale. I bought it on the spot, found a site on the property, sank a 4 by 4 post, and set out a web of ground radials cut to the right frequencies. I had downloaded the manual, and started assembling. It was a breeze! I had it up and then realized I had to run the feed line into the house. This caused a brief quandary. In a fit of absent mindedness I had promised my wife I would not drill holes in the house (she gets nervous when I disappear holding a cordless drill and a 1 inch bit) and none of my existing holes were nearby.

It took a while but I finally realized I could pop out the casement window and craft a panel (nice one with copper grounding) that I could drill to a fair thee well. I ran cable, affixed feed-throughs, and had it all wired in a minute. I kicked on the rig.

“SWR OVERLOAD”.

Not possible. Oh well, just needed a little tuning. Trouble was that to tune the antenna I had to go outside and dismount it, shift the tubing, and re-mount it. It was snowing. Hard.

I spent the better part of the day doing the tune-adjust-tune-adjust-tune-adjust cycle.

I finally decided to re-read the manual.

“Under no circumstances EVER try to adjust the depth of insertion of the traps in the coil. Doing so will void the warranty as trap adjustment takes special rigs and tuning equipment.”

I had been carefully de-tuning every one of the traps. By mistake.

I carefully dismounted the antenna and bundled it up, taking it to the Rockport transfer station. One word of caution. If you see a nice little tri-bander in one of the local junk shops, be a little cautious.

Me? I’m waiting for next December. I have a few ideas.

#### **NOTES FROM THE EDITOR....JON-K1TP**

I wish you all a happy and safe holiday season in the coming weeks; good health, good DX, and a prosperous and productive year.

The hobby of ham radio sure has changed a lot since I was first licensed as a novice and issued the call KN1TZL in 1961. I was crystal bound on 40 meters using a kit built Heathkiet DX40 with a Hallicrafters SX99. The thrill of making a QSO with morse code and receiving a QSL card in the mailbox is something I still remember to this day.

What still amazes me is after all these years I am still having fun with this hobby of ours. How could you get bored with the hobby of ham radio? We have amazing equipment available in price ranges for all, dozen’s of different modes and frequency choice, an easy route into the hobby thru Volunteer Examiners, Contests, Certificate programs, Public Service, Rag Chewing, etc.

The network of friends you meet on the air, at club meetings, hamfests, have greatly enhanced my life and opened doors to so many other opportunities.

I guess I am really lucky a ham operator lived on my paper route when I was a young kid. He invited me to see his station and that was it, I was hooked. He gave me the test after I studied the ARRL license manual and I was on the air within a year.

If you have not been active as of late, blow the dust of the rig and get on the AIR!