



The Spectrum

Issue 2

February 2008

Words from the President

Even in the winter doldrums, we have a lot of activity going on.

SPRINGFEST is now definitely scheduled for Sunday, April 6. Start planning to dig out that ham gear / parts you can turn into money at your Springfest table. Each individual's ticket entitles them to a flea market table. And since this is CARS' one and only annual fundraiser, please volunteer to help with manning the event. Our Springfest Chairman, Keith KG4Z XK will be soliciting help in the near future.

Richmond is on the horizon for Frostfest, Saturday February 2 at their new location a few miles up Mechanicsville Pike at the Richmond Raceway. CARS will have a table, and at least three club members will also have their own tables nearby – Sonny K4WYS, Bill WF4R, and Barry W3AFH. Be sure to visit all those tables. See www.Frostfest.com for details. If you buy something at Frostfest, be sure to mention you are a CARS member and you hope to see them at Springfest in Chesapeake on April 6!

See the article elsewhere in the newsletter about the Virginia QSO Party contest. That is a great operating opportunity for CARS!

At our January 7 club meeting, fourteen of the nineteen members present signed up to indicate their interest in CARS' public service / emergency communications activities. If you weren't able to attend the meeting but

have a similar interest in supporting the needs of the City which provides us our clubhouse and repeater locations / very valuable tower space, please let me know by emailing W4CAR@yahoo.com.

Interested in upgrading your license to General or Extra class? We are still in the planning stages for those classes, and we need to know there is going to be enough participation to make it worth the effort. If you would like to participate, email W4CAR@yahoo.com.

73,
Paul K4PRB



Links of Interest

[Virginia Beach Amateur Radio Club](#)

[Portsmouth Amateur Radio Club](#)

[Home - KG4Z XK.COM - IRLP and much more!](#)

[South Hampton Roads Sky warn Net](#)

[ARRLWeb: New US Amateur Bands Chart](#)

[ARRLWeb: FCC ULS Modifies Customer Support Hotline Hours](#)

[QRP Amateur Radio Club International - Home](#)

[QRZ Ham Radio](#)

[FrostFest 2008](#)

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Upcoming Events

Board Meeting

Wednesday, Jan. 30th at 7:30 pm

CARS Public Bus. Meeting

Monday, Feb. 4th at 7:30
116 Reservation Rd.
Chesapeake, VA 23322

Shack Day

Saturday, Feb. 16th at 10:00 to ??

Frost Fest 2008

Saturday, February 2, 2008, from 8:30AM until 3:30PM
The Richmond Raceway Complex
<http://www.frostfest.com/>

Chesapeake Springfest

Sunday April 6th, 2008

Virginia QSO Party Contest

March 15 & 16
<http://www.qsl.net/sterling>

VIRGINIA QSO PARTY CONTEST

Let's start planning for our participation in this year's Virginia QSO party contest. The Sterling Park Amateur Radio Club has announced the date and details for this year's QSO Party. Dates will be March 15 & 16. See details at <http://www.qsl.net/sterling>. This is an excellent opportunity to begin participating in contesting if you haven't done so. It is also a very satisfying contest for old hands. It is very friendly, has very simple rules, and understandable scoring. W4CAR will be participating from the clubhouse, and club members may also participate from their home stations and pool their scores with the club. This is a fine opportunity for Technicians to get into very positive, high contact rate HF operation with our higher class control operators. It is also a good opportunity for Generals and Extras that can't operate from their homes to get on HF at the CARS shack. And it is a fine opportunity for those operating from home to add to the club's score in the contest. In fact you can work at the club and then go home and make some more contacts from home that will support the club's score.

Mark your calendar for March 15 – 16 and plan on having a really good operating experience.

LOCAL NETS

SKYWARN NET Wednesday 2000 Hours.	146.820 MHz
CARS 2M Net Sundays 2000 Hours	146.820 MHz
CARS 10 Meter Net 2000 hours on Mondays CARS doesn't meet	28.400 MHz
Hampton Roads Public Service Net Mon-Sat 2100 hours	146.970 MHz
VBARC 10 Meter Net 2000 hours on Thursdays VBARC doesn't meet	28.400 MHz
Portsmouth "RagChew" Net Monday & Wednesday 1930 hours	146.850 MHz
Southeastern Virginia Traffic Net Sun, Tues, Thurs @ 2000 hours	146.850 MHz
Portsmouth Amateur Radio Emergency Services Net Fridays 2000 hours	146.850 MHz
Tidewater Radio Association WT4RA net Thursday 1930 hours (code drill follows net)	147.195 MHz

ARISS: Amateur Radio on the International Space Station

With the help of Amateur Radio clubs and ham radio operators, space shuttle astronauts have been speaking over the ham airwaves while in orbit. They are talking directly with large groups of the general public, showing teachers, students, parents and communities how Amateur Radio energizes youngsters about science, technology, and learning. The program was called SAREX, the Space Amateur Radio Experiment and is now called ARISS, Amateur Radio on the International Space Station.

ARISS is sponsored by the [American Radio Relay League](#) (ARRL), the [Radio Amateur Satellite Corporation](#) (AMSAT), and the [National Aeronautics and Space Administration](#) (NASA).





Satellite Serves as Voice Repeater -- Uplinks on FM, Downlinks on Sideband

Launched in January 1990, AMSAT-OSCAR 16 ([AO-16](#)) -- a digital satellite -- has been unavailable for use while the command team dealt with a serious computer problem. The satellite has since been recovered, and is now a voice repeater, at least for an unspecified "test period" using FM voice on the uplink, but SSB voice on the downlink.

Since AO-16 was recovered approximately six months ago, the command team -- Bruce Rahn, WB9ANQ, Jim White, WD0E, and Mark Hammond, N8MH -- attempted to reload the satellite software almost a dozen times without success. The team performed a series of memory tests that pointed toward a hardware failure that prevented the spacecraft software from restarting successfully.

AMSAT Vice President of Operations Drew Glasbrenner, KO4MA, said, "After concluding that the spacecraft computer system was damaged, and as discussions about decommissioning were taking place, Jim recalled a series of low-level commands that Tom Clark, K3IO, included in the spacecraft design during construction. One of these commands allows an uplink receiver to be directly tied to a downlink transmitter. The twist is that the uplink is regular FM, but the downlink via the BPSK transmitter is DSB (Double Sideband). Mark placed the satellite in this mode early this week and did some testing."

Glasbrenner said the satellite hears very well; the reduced bandwidth by using either USB or LSB on the ground station receiver "allows for a very robust downlink. Tuning the downlink is just like on a linear transponder, meaning it is tight and with fast Doppler. Uplink tuning is not required, just as with the FM mode V/U satellites. My personal observations include being able to access and hear the satellite within one degree of the horizon, much lower than any other current bird for my location [in Florida]. This should be an easy satellite with omni antennas and a 70 cm preamp."

Glasbrenner said that he would like to open the satellite to general use for a test period. The uplink is 145.920 FM, and the downlink is 437.026 SSB +/- Doppler shift. He asks that users restrict their uplink power to a reasonable power level, and do not transmit without being able to hear the downlink; all general single-channel guidelines apply. Please submit reports via [e-mail](#). "Enjoy this bird's new life!" Glasbrenner said.

Surfin': Finding DX

By Stan Horzepa, WA1LOU

Contributing Editor

January 24, 2008

My first job after obtaining my higher education was in the Communications Department at ARRL headquarters. Going in, I was a VHF-UHF guy, messing around with FM repeaters and occasionally chasing DX and working contests on 144 MHz.

HF DXers populated the Communications Department staff and included W1YL, W3AZD, K1KI, K1XA, W1XX, and the late K1WJ. They influenced me to start chasing DX on the low bands.

The screenshot shows the DX Central website interface. At the top, there's a navigation bar with links like 'Home', 'About', 'Support', 'Contact Us', 'Privacy', and 'Copyright'. Below that, there's a search bar and a 'Log In' button. The main content area is divided into several sections:

- SOFTWARE DOWNLOADED:** A section for downloading software, with a link to 'DOWNLOAD SOFTWARE'.
- NEWS:** A section for news, with a link to 'NEWS'.
- RECENT SPOTS:** A table listing recent spots with columns for 'CALL', 'TIME', 'MODE', 'FREQ', and 'RST'. The table contains several rows of spot data.
- SHORTS:** A section for short news items, with a link to 'SHORTS'.
- RECEIVE DX SPOTS VIA EMAIL:** A section for receiving DX spots via email, with a link to 'RECEIVE DX SPOTS VIA EMAIL'.
- LATEST WWW INFO:** A section for the latest website information, with a link to 'LATEST WWW INFO'.
- CONCEPTS OF A SHORT MESSAGE:** A section for concepts of a short message, with a link to 'CONCEPTS OF A SHORT MESSAGE'.
- VILLA DESERT POINT:** A section for Villa Desert Point, with a link to 'VILLA DESERT POINT'.

Working in the Communications Department at ARRL Headquarters gave me an advantage because the DXCC Branch was part of that department and it always had the latest and greatest news regarding DX. It always was among the first to know when who was going to be on from where.

The information came in many forms: phone calls, letters and even over the air, but my favorite source of DX information was the various DX newsletters that showed up in the DXCC in-box. I would pore over each new arrival and hone new strategies on how to work what was up and coming rare country-wise.

Back then, there were also a handful of FM repeaters dedicated to announcing DX spots in real time, enabling listeners to pounce on DX as it showed up on the air. I wish to thank the folks at the Long Island DX Association ([LIDXA](#)), whose 2 meter repeater provided the means for me to work some rare -- and not so rare ones -- way back when.

Times changed. When packet radio took off, the international packet radio network was a natural conduit for DX alerts. Similar to the real-time alerts that I monitored over the LIDXA repeater, the packet alerts had the advantage of using the packet network and thus, were disseminated further than any 2 meter voice repeater could be heard. The packet cluster software refined the system and attracted a vast audience. That extended audience fed more information back into the system, making the disseminated data even more comprehensive.

Times changed again and the Internet begat Web sites that provided the same function as the old voice repeaters and the packet cluster network. The big difference was that you did not need a voice or packet repeater to receive the DX data; instead, you could receive it on the computer sitting next to the HF transceiver in your radio shack.

The bands may be dead, but here is a sample of what you can find on the Internet to find today's DX:

- Recent Spots appear on the home page of [DX-Central DotCom](#).
- The home page of [DX Summit](#) has links to its selection of "DX-Spots," such as the last 250 spots, HF/Phone spots, the last 50 VHF spots and so on.
- [Announced DX Operations](#) page of the NG3K Amateur Radio Contest/DX Page.

Online DX bulletins include the [W1AW ARRL DX Bulletins](#), the [OPDX](#) (Ohio-Penn DX) Bulletin and the [425 DX News Bulletin](#).

Until next time, good DX -- and keep on surfen' safely!

W4CAR REPEATER NEWS

CARS continues to improve our three repeaters. As you may know, work in progress caused us to turn off the new .82 repeater near Chesapeake City Park and shift back to our standby .82 repeater on the WFOS tower for a few days in January. We are now back on our primary, higher .82 repeater at City Park.

We have a new controller on the .61 repeater at Bowers Hill, and it's PL tone has changed from 100.0 Hz to 162.2 Hz. Work is ongoing to link Keith Ainsley's IRLP and Echolink nodes into this repeater in the future.

The 444.000 repeater at Bowers Hill has been moved to the City Park location and will be back on the air very shortly. When it becomes operational, it will also be using a 162.2 Hz PL tone instead of the previous 100.0 Hz PL tone.

Thanks for your patience as we make these improvements.

Communications from Radio Ridge de WA4BUE

For the past four years Chesapeake Amateur Radio Service and Quarter Century Wireless Association Chapter 119 have been very supportive in the Radio Ridge Project. Six towers have been erected, a 160 meter Zepp, a 160 meter Loop, a 2 meter vertical, a 2 meter Beam, a LPDA for 20-10 meters, a three trail 500 foot set of Beverage antennas with reverse features for a full 360 degree coverage, a 160 meter vertical with matching network, and let us not forget about the VHF/UHF TV antenna.

That's a lot of work. We had FW the Bull dozier guy, 4 Norfolk Firefighters, a Dinwiddie county linesman, and these hams and spouses (listed by project):

Tower # 1

W3AFH
K4WYS
Ms Harriet

160 Loop Installation

K4WYS
K4PRR
W3AFH
Ms Harriet

160 Meter Vertical

W5CDR
K5VIP
KI4RXC
W4VIC
KG4Z XK

Three Loop Towers

K4PRB
W4DNR
KG4PWC
KG4PWB
KI4FNR and Clint
W3AFH
K4WYS
KD7GJB
W4PRN
N5RAG
KG4Z XK
KC4RIC
Ms Harriet

Beam Installation

"The Bucket Truck Guy"
K4WYS
W3AFH

MISC:

K4WYS
KC4LEO
Cousin Johnny

The 160 meter Zepp

K4WYS
W3AFH

Three 160 meter Beverage Antenna Installation

K5VIP
K4WYS
WF4R
AC5ST

Maybe one day the project will be completed

Here is the WA4BUE 160 meter CW status report for 2007 for 160 meter CW:

Worked All States

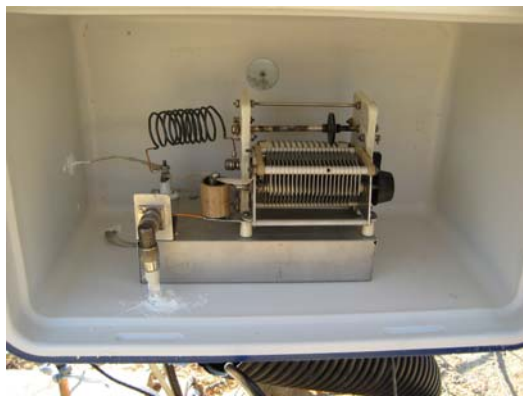
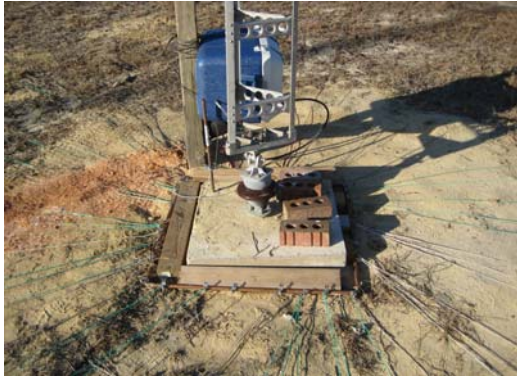
Worked 35 Countries

Last CW contest score over 80,000 Not to shabby.

Hope I did not miss anyone. Thank you every one for great ham radio support. When you all can come out to the Ridge and see your great results.

Rich WA4BUE

Close up of tower base and matching network Radio Ridge



Close ups of the Aluminum Cloud



Radio Ridge Ham Shack



Not Amateur Radio Related, But Good Information

Do you use Hotmail, Yahoo Mail, Google Mail (Gmail) for your email?

Hotmail, Yahoo Mail, Gmail and many other web email services only use encryption when you log in. Once you are logged in, all the email you read or send is in the "clear". This means anyone who is connected to your network, between you and your web email provider can read your email as you read it or send it.

Some of the places this eavesdropping commonly occurs are at wireless hot spots, public or private networks like school, work, hotels and even on your home wireless network.

Only Gmail has a non-documented feature that will encrypt ALL the email you read and send via its web interface. It makes it virtually impossible for anyone to read your email while using Google Mail's web interface.

The reason why Google doesn't actively market this encryption feature is because encrypting all this web interface data takes more processing power. More processing power means more infrastructure which means more cost. So only people in the know use this feature.

All you have to do is go to one of these URLs (<https://mail.google.com> -or- <https://gmail.com>) to access you Gmail securely. When Google sees you starting your web email session with encryption, it assumes you want the whole session to be encrypted.

But what is the difference between <https://mail.google.com> and <http://mail.google.com>? It's the "S" added to the http. The "S" signifies secure. After you log in via the https (secure) URL, you will see the "lock" icon on your browser for all your Gmail web pages.

There is a Firefox browser plug in that will always redirect your Gmail session to the secure URL. Just remember, when not using the browser with the plug in, you will need to enter the secure URL in by hand. The plug-in works on Windows and Linux versions of Firefox. I don't have a Mac, but I would assume it works there too.

If you are using Internet Explorer, Opera, Safari or don't want to use the plug in, just create a shortcut or link using the secure Gmail URL. So now you are in the know.

Secure Gmail: <https://mail.google.com> -or- <https://gmail.com>

Firefox browser plug in:
Better Gmail (for the classic version of Gmail) <https://addons.mozilla.org/en-US/firefox/addon/4866>

Better Gmail 2 (for the new version of Gmail) <https://addons.mozilla.org/en-US/firefox/addon/6076>

*Both the classic and new versions of Gmail are available at the same secure URL
73's Ken KI4RUI

One phone number to ring all your phones

I was going to write a paragraph or two about Grand Central but their About says it way better than I ever could. I would only add one thing to it's about page... its free!

Grand Central about page: <http://www.google.com/support/grandcentral/bin/answer.py?answer=79903&topic=13493>

Grand Central home page: <http://www.grandcentral.com/home/features>

I realized I just submitted three articles in a row about Google. I don't work for Google or have any stock in it. I don't even have a friend that works there. I just think they have some good stuff.

73's Ken KI4RUI

Get Amber Alerts right on your cell phone.

We all know when a child is missing or has been taken, an Amber Alert is issued. The alert goes out to all news media but when was the last time you saw or heard one? When you see or hear an Amber Alert, did you write down the information?

WirelessAmberAlert is a free service that will send you Amber Alerts directly to your cell phone. All you need to do is sign up at the web site with your cell phone number. You will also need to tell WirelessAmberAlert the five zip codes for which you want to be notified. That's it! You get no advertisements or "text spam".

When an Amber Alert is issued for any of the zip codes you identified, the Amber Alert will be sent to your cell phone as a text message. You don't have to worry about writing it down as you are driving or trying to remember the details as you look for something to write on. It will be in your cell phone so you can read it as soon as you are able to and refer to it at any time.

I identified a zip code in Chesapeake, Virginia Beach, Norfolk, Hampton and Elizabeth City. This way if an Amber Alert is issued for Hampton Roads and north eastern North Carolina, I will know about it.

When the Amber Alert is canceled, you will also get a text message saying so.

Not sure what zip codes cover what cities? I went to the US Postal Service web site. I searched for the cities and it told me what zip codes covered those cities.

This service is a must for every concerned adult with a cell phone. I get Amber Alerts that I never see on TV or hear on the radio. I don't know if it's because I can't be glued to a TV or radio all day or because the Amber Alerts are not announced. Now that doesn't matter anymore because of the WirelessAmberAlert service.

Amber Alerts do work. Here is a case in point.
<http://hamptonroads.com/2007/12/woman-charged-abducting-friend%2526%2523039%3Bs-infant-daughter-portsmouth>

WirelessAmberAlert: <https://www.wirelessamberalerts.org/>

US Postal Service Zip Code Lookup:
http://www.usps.com/ncsc/lookups/lookup_ctyzip.html

73's
Ken
KI4RUI

Use Google to search one particular web site.

Did you ever want to search a particular web site for something and ignore results from all other web sites?

Google makes it easy with one command. In the Google search box, start your search with the word **site:** . Type the site's domain, arri.org for example, followed by a space and then the keywords. You must use the colon without spaces.

For example, lets say you wanted to search for beam antenna plans using the search feature on the arri.org web site but it isn't giving you the results you are looking for. Just go over to Google and type in `site:arri.org beam antenna plans` in the search box.

73's
Ken
KI4RUI

Search for only PDF, XLS, or DOC files

Google makes it easy to search for specific file type with one command. Use the command **filetype:** at the beginning of your search. Follow it by the file extension without the period, a space and then the keywords.

So let's say you wanted to search for beam antenna plans that are in PDF file format. In the Google search field type in `filetype:pdf beam antenna plans` .

73's
Ken KI4RUI

CARS BOD MEETING 1 / 2 / 08

Attendees:

Paul K4PRB Barry K5VIP Sean W5CDR
Marshall AI4CM Bill WF4R

Meeting called to order at 7:35 pm.

Treasurer's Report: Barry reported that historical financial records are complete and in place to support our application for IRS 501.c.3 tax exempt status. Barry noted that there were no stamps on hand and no record of a recent inventory of stamps on hand.

Paul K4PRB stated that the written Treasurer's Report of March 5, '07 reported \$5.36 in stamps on hand, disbursements of stamps are not journalized, and it was reasonable to assume those had been used up over the past 6 months or so mailing out newsletters etc. Therefore the present inventory of stamps on hand is determined to be zero.

Comm. Officer: Sean W5CDR reported that the club's Log Periodic beam had been lowered below the scoring on the mast and pinned with a ¼-20 stainless bolt. The mast should be replaced due to the scoring.

COMMITTEE REPORTS:

Public Service: The need for Public Service meetings was discussed and the need to redeploy some shelter radios was discussed.

Repeater: Bill WF4R reported a new CAT-400 controller & enclosure will be ordered for Bower's Hill, as previously discussed by the BOD via email, as well as an additional Comm-Spec TS-64 PL decoder. The present NHRC-6 controller will be sold at Frostfest. Barry K5VIP advised sufficient funds are currently budgeted in the newly approved budget. Bill added that work on the .82 & 444 repeaters and the .61 repeater will take place on Jan. 10 and Jan. 11 respectively.

SHACK: Paul K4PRB stated that in light of the extremely wasteful use of heat by other occupants of the building, we will keep the heating thermostat in the shack set at 64 degrees when the shack is not in use.

NEW BUSINESS:

Paul K4PRB moved that the BOD recommend the club approve the membership applications of Dewey Corbin W4DCJ, Ken Jensen KI4RUI, and Joan Gorman KI4AVJ. Seconded and approved.

Sean W5CDR moved that the club purchase two rubber stamps, one for the club's mailing address and the other for the club's bank account number "For Deposit Only". Seconded and approved.

Meeting adjourned at 9:05 pm.

Letter from the Editor

From now on the newsletters will not be emailed out, but placed on the website only. I will send out an email notifying everyone the newsletter is done and the link. I will still mail out the newsletter to those who don't have an email address. Please submit articles prior to the 15th of the month, so I can get the newsletter to the club members in a timely manner. When Submitting articles please submit in word format (.Doc), my email address is wrightwon_itt@hotmail.com
Thanks Gavin KD7GJB

The Spectrum

Monthly newsletter of the Chesapeake
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CARS : Repeaters

146.820 (PL 162.2) MHz
146.610 MHz (PL 100.0)
444.000 (PL 100.0)MHz

W4CAR Trustee: Bill Runyon WF4R

CARS OFFICERS & CHAIRPERSONS

President: Paul Buckwalter K4PRB

Vice President: Gavin Wright KD7GJB

Secretary: Marshall Denny AI4CM

Treasurer: Barry Priddy K5VIP

Communications Officer

Sean Gorman W5CDR

Past President:

Keith Ainsley KG4ZXK

Public Service Coordinator:

Jim Hardee WB4UVH

Repeater Committee Chairman:

Bill Runyon WF4R