



Presidents Message

Where does the time go? Here we are, already at the end of another year. I think 2011 was a pretty good year for the GCARC. We came in first in our category for Field Day with an all time high score of 12438, and we also had another successful Hamfest in spite of the lackluster economy. Remember, it takes members who are willing to give of their time and their talents to keep the GCARC running smoothly.

As my two years as Club President comes to an end, I want to sincerely thank the Club Officers and Committee Chairmen for all of their support. The GCARC is lucky to have such a fine group of gentlemen on board. I hope to find more time next year to finish the work at the GCARC Clubsite and to tackle the interference issues with the W2MMD repeater. I will need volunteers to help with these projects.

Below is the slate of nominees for Club Officers for 2012. If there are no contested positions, they will be declared elected at the December meeting. Everyone please show your support for your Officers as they guide the Club in the coming year. If you have any suggestions about what you would like to see the Club get involved in, just contact one of the incoming Officers.

Nominees for GCARC Officers for 2012:

Officers:		Board of Directors:	
President	Tom (KE2ES)	3 yr. Director	Dave (WB3JOY)
Vice President	Jim (N2GXJ)	3 yr. Director	Chuck (WA2TML)
Treasurer	Lou (KC2FXK)	2 yr. Director	Gary (WA3SVW)
Recording Sec.	Sheldon (K2MEN)	Board of Trustees:	
Corresponding Sec.	Cory (WA3UVV)	4 yr. Trustee	Al (KB2AYU)

Finally, let me wish everyone a happy and healthy holiday season.

73, Al KB2AYU

December Club Meeting Program

At this meeting the Club will elect new officers for the coming year. Nominations will be open one last time before the final vote so if you are interested in becoming an officer please attend this meeting and throw your hat in the ring.

Also at the meeting a few Club members will talk about how they became hams.

Down Jersey DXing

By Bill Grim, W0MHK

Get'em while they're hot! With the recent upsurge in solar flux and multiple band openings to distant places we haven't heard sometimes in years, it seems like we have been given a propagation "gift"! With all the doom and gloom predictions and scientific observations thrown at us since the beginning of this solar cycle it is sure nice to hear 10 Meters open to Europe now just about every morning. The scientific "jury" is still out on how intense and how long these superior conditions will be around.

Did you also notice the statistics in last month's "Crosstalk" about our ham population in the US growing very impressively since the 1970's? Competition for DX on the bands has NOT waned. CW pile-ups are still large and fierce even with the no-code Extra Class in effect for a few years now. This ham radio stuff must even be an interesting hobby to a wide variety of people including computer geeks! So, it boils down to better high band conditions and increased competition. If that is the case, I highly recommend (especially to the Golden OT's like myself) to.... Get'em while they're hot!

Sometime we wonder why we missed a rare DXCC country activated during a DXpedition. There are many factors determining why your signal gets logged by a rare operation. Time differentials should be one of your considerations. If you are trying to work new DX, be aware of the sun's presence or absence at both yours and the DX's QTH. With the sun up here and down there (or vice-versa depending on the band or time of year) your chances of working that station might be limited or impossible!

The recent 9N7MD DXpedition to Nepal might be a good example. For the most part, when their high bands were open, it was dark here. When their low bands were open, it was daylight here. Depending upon the band(s) you were trying to work them on, you had to hope for an opening to Central Asia with daylight and darkness closely synchronized to East Coast times. With the advent of winter and shorter days, the chances of working them on the higher bands also was diminishing a bit each day.

It is no coincidence that this factor may be keeping you from working a number of DXCC new ones. International sunrise and sunset tables are available on the net and incorporated into many logging programs, one of which you might already have. Check out the tables if you are really keen on working that new one. It might make the difference.

So while you are still eating left-over Thanksgiving turkey sandwiches in December, here are some potential DX Christmas gifts for your holiday DX pleasure:

CALL	DATES	HIGHLIGHTS	5=MOST RARE	ENTITY
5X	11/23-12/14	FOCUS ON LOW BANDS	3	UGANDA
GJ6UW	12/2-12/7	FOCUS ON LOW BANDS	1	JERSEY
XV2LC	12/2-12/8	20,17,12 CW/SSB	4	VIETNAM
ET3AA	12/8-12/13	HF/5 TOP USA OPS	4	ETHIOPIA
E44PM	12/14?-12/31?	HF/WARC FOCUS	4	PALESTINE
V5/DL'S	12/26-1/16	HF/GERMAN OPS	2	NAMIBIA
9U3TMM	12/28-1/4	HF/SSB+RTTY	3	BURUNDI
CY0	12/29-1/6	HF/5 USA OPS	1	SABLE IS.
JD1	12/30-1/7	160-6M/CW,SSB,RTTY	3	OGASAWARA
T88OW	12/30-1/8	HF/RA0FF	3	PALAU

Credits: NG3K ADXO

Welcome New Members

This month the Club welcomes one new member and welcomes back one previous member. The new member is Robert Kurtz, Jr., AC2HG, and the returning member is Jim Clark, KA2OSV. Robert Kurtz, Jr. is from Mullica Hill and holds an Extra Class Licence while Jim Clark is from Woodlyne and holds an Advanced Class License. Please make Robert and Jim welcome when you meet them at Club meetings and functions.

Congratulations

Congratulations to Vinnie Sallustio, N4NYY, for getting his ARRL DXCC Award on QRP Phone this month. Making contact with 100 DXCC entities is a challenge in itself but doing it with QRP Phone makes it so much more of a challenge even more so than on CW. So congratulations to Vinnie for persevering and reaching this goal. It's time to start working on the next 100 Vinnie.

New Rules

By Cory Sickles, WA3UVV

On November 18th, the FCC released rule changes to our 60 Meter "band". The band actually is comprised of 5 channels, which we share on a secondary basis. The new rules reflect the results of a positive experience for the NTIA in realizing that Hams can make good neighbors.

In brief:

- (1) One of the 5 channels is being swapped out for another, less active one
- (2) ERP has been raised 3dB to 100 watts
- (3) CW, RTTY, PSK and PACTOR-III are now allowed along with USB

Unfortunately, CW must be on the center frequency of each channel. We are not allowed to use the 2.8 KHz "voice bandwidth" as a "band" for multiple conversations, using the reduced bandwidth advantage of this mode. Also, the assignment of the center frequency, instead of the USB carrier frequency means we can't coexist in the same way a sub-audible CW signal would appear.

Part of the decision making is for the Feds to be able to get us to vacate the channels ASAP in case they need them. I'm still not sure how well that's going to work if we're using narrow filters on CW, but there it is. (Of course they could always text us...)

Still, it's good news as long as everyone continues to keep their noses clean. Details and seriously suggested reading before the changes take effect are on <http://www.arrl.org> and I encourage you to learn more, so we can continue to be good neighbors.

Will we see some new QRP CW kits on the market? How about a PSK kit, akin to the Small Wonder Labs "Warbler"? Or maybe a 60 Meter mod for Tony Parks' SDR transceiver, the RX/TX Ensemble? With the limited resources available, PSK seems to be the big winner, here. I think that QRP or Near-QRP power levels should still be encouraged. That will allow us to reuse the spectrum available as many times as possible. I've worked several states and the UK on 60 with my FT-817ND, so you don't need a lot of power, just a decent antenna and good manners.

Looking Back – Looking Forward

By Cory Sickles, WA3UVV

It's not over just yet, but it may be safe to look back on 2011 as an interesting year and one where GCARC members put a good public face on Ham Radio. While nature ran its course with a snow-laden winter that hung on to the bitter end, flooding, a hurricane and even an earthquake. At one point, I was sure locusts were coming next.

Events such as parades, walks, public demos, bike races and some positive press boosted our visibility in valuable ways. Factor in some license classes and exam sessions and I think that many of us did our part to promote Ham Radio and ensure its growth.

Of course, there's more to be done. The community events and fund raisers continue into 2012 and I'd like to see us embrace some more. That will require more of you to step forward. No one is saying you need to be a part of each and every thing that goes on. But if each member of our club would offer to help out with just one event per year, we increase our presence and assist in additional ways.

Our membership has been growing, but we are still below (ever so slightly) 100 members. Many of us can remember when that number was closer to 200. While that's a noble goal, I'd like to see us hit and exceed the 100 mark by the middle of 2012. With more active members, our Club becomes stronger and we will be able to do more, without having to go back to the same set of folks, over and over.

What can you do to increase membership? Do you know anyone who used to be a member that may want to rejoin? Do you know any new Hams that aren't aware of our Club and may be interested? Do you take time once in a while to reach out and talk to existing members, continuing to make them feel welcome? Do you have other ideas to increase publicity and give us a membership bump? If so, I'd like to know. It may help us achieve these goals!

Now That's Fast!

By Cory Sickles, WA3UVV

The first computer I ever built was comprised of an Intel 8008 microprocessor, some support chips and had a whopping 256 bytes of memory. It was programmed through toggle switches and had only red LED's for the display. Eventually, I ran the memory up to 1K, but even then, it didn't do all that much. Still, it was fun at the time to say you had a computer at home. Not as much fun when someone would ask "What can you do with it?"

From a Ham Radio standpoint, it could be programmed to bark out a 5x3 "CQ" or generate "RY" and other RTTY test patterns.

That microcomputer ran at a clock speed of 250 KHz, a laughable frequency by today's standards. In fact, it was laughable by standards that would quickly eclipse it in just a few years. With micros that ran at 1, 2.5 or even 4 MHz, you could actually see what was going on "in there" by carefully watching the lights on the front panel. Anyone who has seen pictures of Altair, IMSAI and similar systems from the 70s, knows what the technology of the day looked like. Computational speed was often measured in the hundreds of thousands of instructions per second. Well, it seemed fast then.

Please see "Fast" on Page 5.

“Fast” from Page 4.

By the time the Apple II, TRS-80 and PET hit the market - front panels were disappearing from computer systems, even kits. Now, the focus was on software, peripherals and having useful systems that could do useful things. Oh yeah, play games too, lots of games...

Today, we don't even think about what's going on inside. Processors are rated in the GHz range and having just 1 GB of memory seems small. For mass storage on early micros, we had paper tape and audio cassettes. Today, I edit on systems with nearly 20 TB of shared disk space and it seems like I'm buying more storage all the time.

There have always been the “Big Iron” systems as well. In the early 70s, such systems filled temperature and humidity-controlled rooms, used jukebox-sized disk drives and huge 9-track tapes. Such large-scale systems exist today, though what's inside the racks is vastly different.

Today, we refer to these warehouses filled with electronics as supercomputers. They are comprised of extremely high-speed networks of processors, memory arrays and incredible amounts of storage.

The number one system today is known as “K”. It gets its name from the Japanese word “kei”, which translates to 10 quadrillion. (That's a one and a lot of zeroes, my friends.) This references its capabilities of performing over 10 quadrillion calculations every second.

As you might suspect, it resides in Japan. More precisely, it's at the Riken Institute for Physical and Chemical Research (I translated more Japanese for you) in Kobe – famous for their beef. At over 800 silicon-filled racks, it is the most energy efficient of the top 3 supercomputers, but it only comes in red.

Ranked at Number 2 is the Tianhe-1A, located in Tianjin, China at the National Supercomputer Center. Painted a lovely cold-war gray, it isn't even a close 2nd with a capability of just over 2 and a half quadrillion calculations per second. As I type this, the Chinese are successfully docking spacecraft in orbital tests – along the path of establishing their own space station in 2020. With the resources they have, as evidenced by the “spare no expense” display during the Olympics, you can be sure they are working on enhancing the speed of their supercomputers to achieve #1 status.

Where's the United States in all this? Well, at present, we come in 3rd in the rankings. While we once had the fastest system, rated at slightly under 2 quadrillion calculations per second, things change quickly in this “race to the top”. Known as “Jaguar”, with a VERY cool paint job on the skins, this system is operated by the Department of -- uhh, wait a moment -- I know this -- oh yeah, the Department of Energy. Sitting in Tennessee at the DOE's Oak Ridge National Laboratory, Jaguar is currently being upgraded with hardware that will make it #1 again, capable of 20 quadrillion calculations per second!

USA! USA! USA!

What drives these machines? Well, in the case of Jaguar, AMD 12-core chips and Nvidia graphics processors (and you thought they were just for games) are at the heart of its performance upgrade.

Used for applications in astronomy, weather and climate change modeling, drug research, alternative fuel studies and more – it's also a system that's available to outside companies and research teams from schools.

Of course, you can take a stab at building your own supercomputer. A concept known as “Clustering” Please see “Fast” on Page 6.

“Fast” from Page 5.

will let you start to create your own computational behemoth from off-the-shelf computers. You can even do it with high-end video game consoles, the same way certain foreign governments get around high-tech exports laws.

Start simply with 4 multicore PC's, the linux operating system, gigabit Ethernet and work your way out to a 16, 64 or 256 PC array communicating via InfiniBand. That should still fit in the garage. Then create some cool software to predict propagation, how long Cycle 24 will keep peaking, as a CW Skimmer for the entire planet, etc. and lease time on it to others. If you're serious about it, make sure to give it a unique paint job. Something like racing stripes, flames on the side, alternating black and gold (go Steelers!) or some abstract art. It'll make for a great QSL card picture, plus it's cool to say you have a supercomputer at home!

Well, That Was Awkward!

By Cory Sickles, WA3UVV

On November 9th, the first nationwide EAS test was conducted with mixed results. What was supposed to happen was a simultaneous broadcast of a test message on all broadcast television, radio, cable systems, etc. What actually happened was – well – reason enough to have such tests.

Most of the TV stations broadcast the announcement properly, but some low-power outlets did not. Some radio stations missed the mark entirely or came in early/late. Cable systems seemed to have the most notable problems, with one of them reportedly airing Lady Gaga instead of the intended test message. At least it wasn't "rap" - that would have been a sure sign of the Apocalypse.

Here in Gloucester County, Comcast came in 2 minutes late, but it was the first time I can remember when the audio was clear and intelligible. Too bad they terminated the test before the message was fully sent.

More telling is the realization that most people didn't even know about the test and never saw/heard any of the messages. Times have changed since CONELRAD, EBS and all the good intentions that bring us to the communications landscape of today. Unless the federal government includes cell carriers in the mix, most of the population is never going to know what's going on.

A recent report on Radio Marti indicates that they are now using text messages to reach the Cuban people, since this is a means of broadcasting that cannot be as easily blocked or jammed as radio and TV. Perhaps our government should implement the same efforts to alert the general population when there is an actual emergency, or just a test. Beeeeeeeeeeeee...

Happiness is a Warm Soldering Iron

By Cory Sickles, WA3UVV

In case you haven't built anything lately, the period between Thanksgiving (the neglected holiday) and New Year's Day is a good time. Somewhere in between all the shopping, decorating, visiting and other "stuff" we cram into the Holidays, there's usually some time for you to invest a few hours in yourself and Ham Radio.

Please see "Happiness" on Page 7.

“Happiness” from Page 6.

Building a small station accessory, QRP transceiver or transmitter, hooking up a sound card interface for a digital mode you’ve been wanting to try out or fixing something you’ve had waiting on the shelf, is a nice way to stimulate your brain. Plus, the reward of being able to use something you worked on is priceless.

There are a number of inexpensive QRP kits available for under \$40 and the more challenging ones aren’t that much more. They make delightful stocking stuffers – treat yourself!

If you need sources or suggestions for simple projects, let me know...

VEC Testing

Regular VEC testing sessions are scheduled for the second Thursday of the month at 7:00 PM and are held at the Franklin Township Public Library on Coles Mill Road in Franklinville. The cost of the exam is \$15. Candidates are required to have a photo ID and two copies of their current license if they have one. For further information on VEC testing or to sign-up for a session contact Gary Reed at 856-582-4365 or at glreed49@verizon.net.

For Sale

Cory Sickles, WA3UVV, has and MFJ-9020 QRP Transceiver for sale. The MFJ-9020 is a 20 meter CW rig that covers approximately 14.000 to 14.075 MHZ. The rig includes the narrow filter and keyer options and he is asking \$90 for it. Contact Cory at 856-582-9146 or at wa3uvv@arrl.net.

Happy Holidays to All

December Birthdays

Congratulations to these members celebrating birthdays in December.

Arthur Goldman, K3WIN
Tom Gorman, KE2ES
Bill Grimm, W0MHK
Charles Hosick, KJ4OMG
Jim McDonald, WB2AOL
Gary Mirkin, WA3SVW
Sheldon Parker, K2MEN
William Robinson, KD2AMN



Crosstalk Submissions

This is your Club newsletter. Make use of it. Feel free to contribute general interest articles and ideas for articles.

All submissions, queries, comments and editorials should be addressed to Gene Schoeberlein at aa2yo@arrl.net.

Submission deadline for the January issue:
12/26/2011

Club Website

<http://www.w2mmd.org>

President-Al Arrison, KB2AYU
Vice President-Tom Gorman, KE2ES
Treasurer-Lou Ranson, KC2FXX

Chuck Colabrese, WA2TML
Doug Gehring, WA2NPD
Art Strong, K2AWS

Steve Blasko, W2TDS
Cory Sickles, WA3UVV

GCARC Officers

Recording Secretary-John Zaruba, K2ZA
Corresponding Secretary-Vinnie Sallustio, N4NYY

Board of Directors

Dave MacDonald, WB3JOY
Gene Schoeberlein, AA2YO
Bob Krukowski, KR2U

Trustees

Ray Schnapp, WB2NBJ
Mike Mollet, N2SRO

Committees

ARES/RACES-John, K2ZA
Awards-Dave, W2YC
Budget-Steve, W2TDS
Clubhouse Site-Al, KB2AYU
Club License Trustee-Darrell, AB2E
Constitution-As needed
Crosstalk-Gene, AA2YO
Database-Ken, N2CQ
DX-Bill, W0MHK
Field Day-Vinnie, N4NYY
Hamfest-Al, KB2AYU
Historian-Art, K2AWS

Hospitality-Ray, WB2NBJ
Membership-Cory/Ray, WA3UVV/WB2NBJ
Nominations-Al, KB2AYU
Programs-Tom, KE2ES
Publicity-Cory, WA3UVV
Repeaters-Al, KB2AYU
4H Liaison-Cory, WA3UVV
Special Services, Darrell, AB2E
Sunshine-Ray, W2RM
Technical/TVI-Cory, WA3UVV
VEC Testing-Gary, N2QEE
Website-Art, K2AWS

The W2MMD Repeaters

147.78/18 Mhz-Pitman
(CTCSS 131.8Hz)

223.06/224.66 Mhz-Sewell

447.1/442.1 Mhz-Pitman
(CTCSS 167.9Hz)

1272.4/1284.4 MHz-Pitman

GCARC Meetings

General Membership

7:30 pm 1st Wednesday every month
Pfeiffer Community Center
Williamstown, NJ

Board of Directors

8 pm 3rd Wednesday every month
GCARC Club site
Harrison Twp. 4H Grounds
1 mile south of Mullica Hill on RT77

Nets

GCARC 2 Meter Net
Third Thursday of the Month
8:00PM
147.78/18Mhz (PL131.8Hz)

ARES/RACES
Sunday 20:00 Hrs
(147.78/18 and
223.06/224.66
repeaters)

December Meeting

Election of Officers
And
How I Became a Ham

Gloucester County Amateur Radio Club
P. O. Box 370
Pitman, NJ 08071

