



Presidents Message

We were saddened to learn of the passing of long time Club member, Russ Glans, N2ASV. Russ was also a life time member of the Club and will be surely missed by all.

February is upon us and with it comes Groundhog Day, Super Bowl Sunday, Mardi Gras, Valentines and Presidents Day. For our February 6th meeting, Jim, N2GXJ has arranged for QRP legends, George Heron, N2APB, and Joe Everhart, N2CX, to be our guest speakers. They will both present several home-brew projects that guarantee to be of interest to all those in attendance.

The Richmond Amateur Telecommunications Society is sponsoring the Frostfest, the Mid-Atlantic's largest winter hamfest on Saturday, February 2nd. Additional information can be found at <http://www.frostfest.com> Jim, N2GXJ has also scheduled the GCARC "Winter Classic" mobile fox hunt to occur on Sunday, February 10th. The Gloucester City Amateur Radio club will host its hamfest on Saturday, February 23. Complete details can be found at <http://www.nj2gc.org>

In conjunction with Frank McLaughlin, KC2ROW and OEM Coordinator for Monroe Township, Marty, W2ILT has begun Community Emergency Response Team (CERT) classes in Gloucester County. Classes are a total of 20 hours and are being held on both Tuesday evenings and Saturdays at the Williamstown Public Library.

73,
Tom, KE2ES

Winter Classic Mobile Radio Fox Hunt

By Jim, N2GXJ

Looking to have some radio fun with your fellow club members? Please reserve 1pm on Sunday afternoon, Feb 10th, on your schedule for our first "winter classic" amateur radio hunt; our Club's first radio fox hunt of this year!

What's a radio fox hunt, you ask? Ask anyone who tried it for the first time last year – it can be a lot of fun! Take a look on our "Club archives" tab on the left of the w2mmd.org home page. There you'll find a link to the "2012 past programs and events" tab, which will bring up a page with links to the Club program we had last year on Radio Direction Finding, and to pictures and results from Fox Hunt #1 and Fox Hunt #2 from last year. More details at the February 6th Club meeting. Hope to see you there!

Down Jersey DXing

By Bill Grim, W0MHK

Let's just say that January 2013 was less than "DXciting". For all the recorded spots on the sun's surface last month (I counted 14 one day) and with high solar flux readings into and above the 150s we just did not get many long distance openings over the poles. Activity seemed to be very tepid with many DX seemingly hung-over from Christmas and New Year's "cheer" despite often good propagation numbers. A NASA bulletin proclaiming our present solar cycle to be the weakest since 1904, did not help to warm the hearts of DX'ers around the world.

The low bands did provide a few opportunities for new ones. My station managed one new band country each on 80 and 160 Meters, but the quieter winter bands were no real DX bargain either. I found a number of DXpeditions scheduled made little or no effort to exploit low frequencies despite their announcements to be active on 40M and below.

In looking at our line-up for DX in February, the picks chosen below seem to be of a better quality than last month. I took the opportunity to asterisk a number of DXpeditions below to denote large efforts (often multi-national) and IMHO better than average operators participating in some of these journeys. I'm hoping that some of the eight of 10 choices for February are a higher percentage "shot" to end up in your logbook.

A fine group of possibilities in February will be basically available in a westerly direction. Five Pacific entities (KH2, V6, A31, H44 and TX5K) should be available to you on 20 Meters and above. Check for any of these on the low bands in the early morning. In an easterly direction, 5X, 9U and XT should be pumping out qsos during their respective dates. All three should be available Down Jersey on the high bands between late morning and early afternoon.

Sandwiched between our listed DX below is the ARRL CW DX Contest on February 16-17. Remember that the world beams to the USA to work as many different states and stations as possible. Depending upon propagation and activity, this can be an excellent time to make some brief qsos with new entities on the non-WARC bands to raise your DXCC tallies.

C'mon February!

CALL	DATES	HIGHLIGHTS	5 = RAREST	ENTITY
*5R8C	2/8-2/25	20 OPS/6 STATIONS	3	UGANDA
*KH2	2/9-2/13	80-10M/HI POWER	3	GUAM
*V63	2/13-2/23	80-10m/HI POWER	3	MICRONESIA
A31WH	2/13-3/04	80-10M/OC-049&OC-064	3	TONGA
*9U4U	2/13-2/23	160-10M/CW,SSB,RTTY	3	BURUNDI
*XV2DLH	2/15-2/26	DL TEAM/80-10M(LONG PATH?)	4	VIETNAM
*H44KW	2/18-2/28	BRIT. EFFORT/80-10M	3	SOLOMAN IS.
V47JA	2/18-2/28	160-60-6M, SSB	1	ST. KITTS
*XT1T	2/22-3/2	ITAL. TEAM/80-10M/SB,CW,DIG	2	BURKINA FASO
*TX5K	2/28-3/10	ITERNL. TEAM/ALL BANDS/MODES	4	CLIPPERTON IS.

SOURCES: NG3K ADXO

Silent Key-Russel Glans, N2ASV

I am sad to report that Russel Glans, N2ASV, passed away on January 2 2013. Russel was a past President and Life Member of the Gloucester County Amateur Radio Club. Our condolences go out to Russel's family.

Upcoming Club Programs / Events

By Jim, N2GXJ

Please mark your calendars and reserve the dates! Come on out, have some fun, and show support for your club at these upcoming club events and activities, including our (new) GCARC family picnic, planned for June 8! Hope to see you there!

Feb 6: "Fun and Easy", Club meeting with special guest speakers George Heron (N2APB) and Joe Everhart (N2CX)

Feb 10: 1pm, GCARC "winter classic" mobile radio foxhunt

March 6: "Lightning Protection", Club meeting with special guest speaker Ron Block (NR2B)

April 3: "Down Jersey DXing", Club meeting with our own Bill Grim (W0MHK) as guest speaker

April 21: GCARC as guest radio operators on board the Battleship NJ

May 1: "GPS and Geocaching", Club meeting with our own Adan Maskery (KC2YJX) as guest speaker

June 2: Hand-held 2M "tape measure" fox hunt antenna, group build

June 5: "DX-Expedition!" Club meeting with our own Darrell Neron (AB2E) as guest speaker

June 8: (new) GCARC family picnic!

June 22-23: Field day

As always, check with our Club website, w2mmd.org, for any last minute additions/updates.

Thanks!

How Low Can You Go?

By Cory Sickles, WA3UVV

While US Hams enjoy HF with wider bands than some in other countries, there are bands that others may have that are currently "off limits" to us. For some, 60M (5 MHz) is a band, not just a handful of channels. Others are allowed on 4M (70 MHz) where we have "other stuff" allocated there.

Quite a while ago, the 2200M band (136 KHz) opened up to the world, except here. Our friends in Canada are able to experiment with it, but not us. Why? Because the nattering nabobs of negativity at the power utilities whined about the (almost non-existent) potential for us to interfere with their PLC systems.

Yes, the same folks that couldn't care less about the very significant interference they were causing us with their attempts to push Broadband over Power Lines (BPL) down everyone's throat. In both cases, voodoo stats and made-up studies were mixed with unsubstantiated pseudo-facts. Eventually, BPL died a slow death, taking some taxpayer money with it and the utilities were finally admonished for their non-data.

Please see "Low" on Page 4.

Radio Callsign Hunt

By Jim, N2GXJ

So, I've been curious. Who are the most attentive readers of Crosstalk in our Club? Here's a rewarding test to find out. I'll give you \$1 at our next Club meeting, Feb 6, just for handing me a printed copy of the following "radio callsign hunt" puzzle at the meeting, with your callsign found and circled in RED ink. Yup, that's all there is to it! See, it pays to read Crosstalk and come out to the club meetings!

N	2	G	X	J	C	Q	W	N	2	B	K	2	A	W	S	K	N	2	N	R	D	T	N	2	W	R
2	A	K	E	2	E	S	2	2	K	C	2	W	C	S	K	C	2	T	H	O	Z	N	3	W	A	A
C	B	E	A	A	2	W	N	2	C	W	A	N	2	R	O	2	M	W	K	2	W	2	E	2	2	D
Q	N	2	A	B	2	E	W	K	2	S	E	W	2	R	M	P	R	K	N	2	Z	A	K	K	T	I
D	2	W	2	2	K	C	2	W	P	V	N	2	A	W	2	H	K	D	2	B	X	D	R	R	M	O
C	A	C	Y	I	K	2	Z	A	C	K	2	A	C	A	C	M	C	4	E	W	N	P	W	D	L	P
N	S	3	O	T	C	Q	W	B	Q	2	A	C	2	I	Q	W	2	U	B	A	2	W	2	E	R	P
2	V	K	2	M	X	F	A	2	K	A	D	2	B	2	Z	V	S	T	B	2	S	0	P	Z	W	3
Q	K	2	P	Q	D	W	2	Y	2	T	A	B	Y	B	W	2	G	L	3	L	R	M	D	K	A	W
E	B	M	T	3	W	2	G	G	H	X	N	K	2	D	X	O	N	2	X	E	O	H	B	W	2	K
E	2	E	O	K	C	Y	F	Z	P	K	A	2	O	S	V	W	2	K	B	T	N	K	3	2	T	2
W	A	N	M	C	Q	C	K	K	V	Z	X	O	Z	W	A	2	I	B	Z	N	2	S	S	T	R	G
2	Y	K	B	2	J	C	Q	C	Z	K	2	W	K	B	2	Z	T	L	F	4	S	K	W	D	S	Z
I	U	2	Z	Y	N	K	B	2	A	D	L	E	C	Z	W	3	N	X	W	N	V	W	2	S	D	X
L	A	Z	L	J	W	2	K	V	R	2	K	C	2	S	G	R	2	W	A	Y	N	A	/	W	R	E
T	N	2	T	X	G	J	K	E	R	A	C	Q	S	T	O	M	V	B	2	Y	A	3	U	B	A	Q
B	W	M	K	J	6	S	G	O	L	N	R	S	J	I	M	W	I	3	J	N	R	U	T	2	D	S
N	2	F	N	F	G	H	N	2	I	M	K	N	3	Q	M	J	L	J	S	J	R	V	5	O	I	L
C	N	2	W	U	P	W	2	F	J	M	T	W	A	2	V	O	Y	O	G	2	L	V	Z	Y	O	W
W	2	O	C	Y	W	2	R	A	D	W	B	2	G	S	F	V	Z	Y	W	S	W	R	F	Q	R	Z
D	W	A	3	S	V	W	F	W	B	2	N	B	J	F	O	X	H	U	N	T	2	G	C	A	R	C

“Low” from Page 3.

In 2012, a Medium Frequency (MF) international allocation – the result of much hard work – was achieved for amateur radio at 630M, from 472~479 KHz. Bolstered by R&D of a small experimental group, (www.500kc.com) the band has already been opened to many Hams in other countries. At present, the FCC is looking to create the allocation here, while we wait to see if the whiners chime in again. Hopefully, we'll have good news in the near future, although common wisdom is we'll initially be working with QRP-level ERP ratings, as a compromise. (There's even hope that we'll be able to get the 2200M allocation in time, as well.)

So, given the narrowness of the band and what would work best for us, we'll probably be looking at a mix of QRSS, “regular” CW and PSK-31, with some other narrow-bandwidth modes tossed in. Given the low-power effectiveness of PSK-31, I expect it will become the dominant mode, until something “better” comes along

While there will surely be some transverter kits available on the market, there is already one transceiver kit that could be “just the ticket” to getting on this band as soon as it's available. Genesis Radio in Australia (<http://www.genesisradio.com.au>) produces the G11 SDR 10W transceiver kit. For \$299, plus Please see “Low” on Page 5.

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shipping, you can order it from their US distributor. While it can be assembled for multi-band operation, the MF or LF (it can also cover 136 KHz) build limits it to one “band”.

Operating at frequencies this low present some challenges, but that’s part of what Ham Radio is about, isn’t it? These bands are in the range of the very frequencies that conventional wisdom thought was the most valuable a century ago – thus relegating our predecessors to the wasteland of “200 Meters and Up”.

10M HF, Try Digital!

By Jim, N2GXJ

Did you know that if you have at least a Technician class amateur radio license, you can enjoy the fun of HF on the 10 meter band? Based on the roster from last year, 85% of our club membership held above a Technician class license in 2012. For the other 15%, even without a license upgrade, it’s possible to experience the fun of ionospheric radio skip to make long distance contacts with people all over the USA, Canada, Mexico, the Caribbean, Central and South America, and (if you’re lucky) with countries across the ocean into Europe as well! That is, of course, if you have access to equipment to try it on (read on)!

One great thing about 10M is that you don’t have to worry much about having a lot of power or a big antenna to get out there and have some fun. A dipole for the low end of the 10M band, where all licensed US amateur radio operators have privileges, is small enough to easily fit in the attic of your house (e.g. like in my attic, where the antenna is just 16’ 8” wire length total, with a 1:1 ballun used to hang the wire and attach my 50 ohm coax in the middle). And with dipoles only needing to be a half wavelength or more above ground to have a DX-friendly radiation pattern, most 2nd story house attics are plenty high enough above ground for the 10M signal to get out (a half wavelength at 28.1 Mhz is just 17.5 feet).

Talking single sideband on 10M can be fun, but in my opinion, to experience what good solar conditions can do for 10M HF, you’ve really got to give the digital modes a try. With digital modes, you don’t need much power on send or receive, which is ideal for the attic dipole antenna. Over the past two years since I’ve been on the air with my attic antenna, I’ve regularly been surprised with great typing QSOs with interesting people from all over the Americas on the digital modes when the voice (SSB) portions of the band seemed otherwise dead or just full of static.

Using digital mode “PSK31”, with radio tuned to 28.120 Mhz, or using digital mode “JT65HF”, with radio tuned to 28.076 Mhz, it’s possible to decode all kinds of signals from all kinds of places, with hour by hour changes based on time of day, the calendar date, and solar conditions. And it’s easy to get them to respond to you when you answer their digital CQ! When it comes to 10M and the digital modes, you just never know what you’re going to get unless you look. So, why not look?

Interested in giving the digital modes a try on 10M? If we, as a Club, decide to do so, with our new clubhouse comes an opportunity for us to set up a 10M HF Club station for all licensed Club member’s use. If such an operating position was set up in the new clubhouse, perhaps later this year I could give demonstrations of “PSK31” and “JT65HF” on HF out there, and then let people try it for themselves on the spot live and using the Club station on their own after that. Either way, with “solar max” predicted for 2013, this could be an interesting radio year on the 10M HF band. Even before the Club station is ready, why not look into visiting the “shack” of another Club member who does have 10M HF and digital access. Perhaps you can venture together up into 28 Mhz land, to find out what’s going on these days in the digital portion of the band? Good luck, and hope to “catch you on the waterfall”!

The Cult of D-STAR

By Cory Sickles, WA3UVV

When Joe Walsh, WB6ACU, released “Analog Man” last year, the title track struck close to home for many. (His commentary on what children see on “acceptable” TV is part of what’s currently being debated throughout Facebookland) While I readily admit to embracing the digital advances and engineering marvels we quickly take for granted, there’s a part of me that still holds onto the warm glow of tubes and the occasional “pop” of playing vinyl records on my turntable.

We’ve all seen advances in digital electronics. The iPad or iTouch I hold in my hand was (except for what Grace Lee Whitney carried on Star Trek) inconceivable by most in the late 60’s and early 70’s. Even the emerging microcomputer market represented equipment that was HUGE by today’s standards. It was also slow, with limiting displays and storage options. Still, it was very “state of the art” at the time.

I still have a few touchstones to that era, in the form of a KIM-1, PDP-8 and Apple IIe. I also have a small collection of tube rigs like the Heathkit DX-60, EICO 720 and some homebrew gear. In some ways, Ham Radio in the “VHF and Up” world hasn’t changed that much since the 70’s. The vast majority of our communications is still analog. If I still owned it, I could take my first hand-held radio, a 2-channel Motorola HT-200 and use it on whatever repeater I might have crystals for. While the Yeasu VX-2R I own is fully synthesized, dual-band, with CTCSS tones and a general purpose receiver at what’s probably 1/10th the size and weight, I still have fond memories of that HT-200.

Communicating through a digital mode, vs analog, has been around for over 2 decades, in the guise of converted Project-25 (APCO-25) radios. In 2004, ICOM introduced the first D-STAR (Digital Smart Technologies for Amateur Radio) transceiver to the amateur market, (although research goes back an additional 5 years) with the IC-2200H. What D-STAR, as envisioned by the JARL, brought to the table was an embedded way of linking repeater systems and access points, as well as some other cool features.

I’ve been watching the evolution and lowering prices of D-STAR gear for some time. As I also own well over a dozen VHF and/or UHF FM rigs, I didn’t really “need” another one, just because it was digital. (I don’t “need” a double-digit collection of what I already have, either)

While I’ve often questioned the proprietary CODEC chip used by ICOM, the real question was what I would do with such a radio - if I owned one - given a lack of repeater(s) available. By 2008, there was a repeater “stack” – more about that in a moment – being experimented with in Cape May County. As I normally go to Cape May about 4 times a year, that still wasn’t enough of a reason to buy such a radio.

By 2009, a Department of Health and Senior Services grant of over \$200K was secured by a progressive group of Hams (South Counties Mutual Aid Group) to build a network of 7 repeaters, one each in Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester and Salem counties, plus a mix of transceivers. At about this point, SCERN (Southern Counties Emergency Radio Network) was formalized and implementing the plan began throughout the area. (A good article and more detailed background on all this can be found at SCERN’s web site: www.scernet.org)

I’ve been somewhat aware of what was going on, updated mostly by John Zaruba, K2ZA during our occasional get-togethers. Whether it was through the “Monitoring Times” article or in talking with other Please see “Cult” on Page 7.

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folks associated with SCERN, the impression I got initially (which, it turns out, many others have and is one of the reasons for this article) was that the network was only for ARES/RACES members and is there to facilitate the kind of communications support which initially funded the project. Thus, the whole thing still had a low amount of interest from me, even though the price of nicely-featured gear was becoming less.

However, at our January meeting, John gave us an update on the D-STAR repeater in Glassboro, mentioning the gateway’s status – after considerable effort, it’s finally connected to the greater world. John also mentioned something that actually got me listening – the SCERN machines are OPEN to normal communications from any Ham. The resources aren’t just there for emergencies and drills.

LET ME EMPHASIZE THAT – THE D-STAR REPEATER NETWORK IN SOUTH JERSEY IS OPEN FOR ALL TO USE. ANYONE WHO THOUGHT DIFFERENTLY WAS WRONG – INCLUDING ME.

Of course, if (make that when) we have our next severe weather, earthquake, EMS communications failure or plague of locusts – the network will be used for emergency traffic - just like any other repeater or set of frequencies available to us in times of need.

Onto a bit more about D-STAR, repeaters can have groups of band modules interconnected (“stacks”) for 144, 440 or 1240 MHz. In addition to digital voice, D-STAR supports data communications of various speed ratings. While 2 meters is fully saturated in this area, the 440 and 1200 MHz bands are open enough to allow for a nice set of digital systems. For most of us, that means that a radio capable of operation on 440 MHz is enough to get started and keep us amused for some time to come.

Not so long ago, ICOM introduced the ID-31A, which is a hand held radio, capable of D-STAR and analog communications. By virtue of its built-in GPS receiver and extensive memory capabilities, it can give you a list of nearby repeaters wherever you are. So, if you travel to a new location, just turn on the rig, wait a few moments for the GPS to figure out where you are, look for local machines and you’re all set. No additional programming is required!

When John opened my eyes to the openness of our local D-STAR repeaters, my first thought was about the ID-31A. (<http://www.icomamerica.com/en/products/amateur/dstar/ID31A/default.aspx>) Checking Ham Radio Outlet’s website the next morning (<http://www.hamradio.com/detail.cfm?pid=H0-011490>) revealed that they had the ID-31A in stock, plus there’s an “Instant Savings” discount of \$45 available until March 31st! Of course you know where this is going – I bought one.

I have to say this is the first rig I’ve ever owned that made me sit down and really, really, really read the manual. I longed for the simpler, analog days of “dip the grid and load the plate” over several cups of coffee. But the radio is easy to learn and John answered all of the questions I had. He is quite the expert on this subject and is happy to share his knowledge – in true amateur tradition.

The next attractive thing about D-STAR is that repeaters can be connected via gateways and reflectors. Thus, you can “patch in” other D-STAR systems in Chicago, San Diego, Houston, Toronto or throughout Japan, Europe and Australia. Just a few button pushes and you are comfortably in contact with other Hams all over the world. C’mon, admit it, that’s cool!

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“Cult” from Page 7.

Data transmission – think text and email messages – are available through a (free) software suite known as D-RATS (<http://www.d-rats.com>) that runs on Linux, OSX or Windows. You’ll need a cable to run between your computer and the radio, but for less than \$10 you can make one. (Or buy one for \$57, your choice)

If you’d like to try out D-STAR for as little as possible, then there’s an alternative to a new radio. It’s called the DV Dongle (<http://www.hamradio.com/detail.cfm?pid=H0-009318>) and is a small device that attaches to your computer. For just under \$200, you get the necessary chipset and software that allows you to use a headset and connect to the D-STAR network. Judging by the users I see listed on www.dstarusers.org I’d say these devices are pretty popular. I may eventually get one, just because...

Additionally, Northwest Digital (<http://nwdigitalradio.com>) has announced the UDR-56K-4, which is a 25W digital transceiver that can be used as a point of presence for high-speed data links, should the internet connections fail. There’s also “buzz” about a D-STAR module that attaches to the 9600 baud data port on many radios, plus a software-only solution that uses a computer’s “sound card”. (Perhaps a version for the iPad isn’t too far off?) If that isn’t enough, then do some searches for home brew projects and you’ll find some other interesting work that’s being done. I’m sure there will be some additional announcements at Dayton for such things, along with accessories and other support products.

Yes, I’ve embraced a “new” technology, first conceived of in 1999 and you can, too. Join the cult, drink the Kool-Aid and learn about the new possibilities in digital communications, while making some new friends in the United States or the United Kingdom.

Gloucester City Amateur Radio Club Hamfest

The Gloucester City Amateur Radio Club will hold their Hamfest on February 23, 2013 at the Pine Grove Fire Hall located at 827-829 Jersey Avenue in Gloucester City. For more information go to <http://www.nj2gc.org/hamfest.html> or email kb2adl@comcast.net.



Warmer Days-GCARC Hamfest September 2012

February Birthdays

Congratulations to these members celebrating birthdays in February.

Chuck Colabrese, WA2TML
Thomas Cusack, KC2THO
Matthew J Katsoris Sr, WV2O
Vinnie Sallustio, N4NYY
Herbert Schuler, K2HPV
William Szkromiuk, N2VIL



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 March issue:
2/22/13

Club Website

<http://www.w2mmd.org>

President-Tom Gorman, KE2ES
Vice President-Jim Wright, N2GXJ
Treasurer-Al Arrison, KB2AYU

Art Strong, K2AWS
Chuck Colabrese, WA2TML
Mark Townsend, W2OCY

Ray Schnapp, WB2NBJ
Bill Szkromiuk, N2VIL

GCARC Officers

Recording Secretary-Sheldon Parker, K2MEN
Corresponding Secretary-Cory Sickles, WA3UVV

Board of Directors

Gary Mirkin, WA3SVW
Dave MacDonald, WB3JOY
Jeffery Garth, KC2WCS

Trustees

Cory Sickles, WA3UVV
Martin Wilt, W2ILT

Committees

ARES/RACES-Gary, N2QEE
Awards-Kenny, W2KRD
Budget-Al, KB2AYU
Clubhouse Site-Al, KB2AYU
Club License Trustee-Darrell, AB2E
Constitution-As needed
Contests-Ken, W2KRD
Crosstalk-Gene, AA2YO
Database-Ken, N2CQ
DX-Bill, W0MHK
Field Day-Vinnie/Bill, N4NYY/NJ2S
Hamfest-Vinnie/Bill, N4NYY/NJ2S
Historian-Art, K2AWS

Hospitality-Dave, WB3JOY
Membership-Cory/Ray, WA3UVV/WB2NBJ
Nominations-Tom, KE2ES
Programs-Jim, N2GXJ
Publicity-Cory, WA3UVV
Repeaters-Tom, KE2ES
4H Liaison-Cory, WA3UVV
Special Services, Darrell, AB2E
Sunshine-Ray, W2RM
Technical/TVI-Cory, WA3UVV
VEC Testing-Gary, N2QEE
Website-Jeff, KC2WCS

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

7 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)

February Meeting

QRP and Homebrewing

George Herron, N2APB, and Joe Everhart, N2CX

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