



Presidents Message

It is now the first week of spring, but it sure doesn't seem like it. Temperatures are in the 20's and 30's and there are even some snowflakes falling. We had one of those "teaser" weeks where temperatures got into the 70's, but it looks like it will still be awhile before the weather becomes consistently spring like.

I picked up a very informative book off the internet entitled "Mobile home repair and upgrade". The book is aimed at the "do it yourselfer" and it explains the proper way to fix just about any problem one might encounter with a mobile home. Let me tell you that roof repairs and trailer releveling are no simple tasks. They require quite a bit of manpower and some tools that would probably have to be rented. At this point I am not sure that the Club can take on all of these repairs ourselves. I still want to find someone local who is experienced in this type of work and get their professional opinion.

We have not forgotten about the W2MMD repeater problems. We are going to try moving the receiver to a different, much higher, tower in Deptford and linking it back to the transmitter in Pitman. This project is waiting on tower work which, of course, requires much better weather than we are experiencing right now. If the remote receiver works out well, we could possibly add another receiver in the south end of the County for improved coverage.

Thanks to those that have paid their Club dues for 2011. Remember, dues must be paid by the upcoming April general membership meeting in order to remain a Club member in good standing. See our Treasurer Lou, KC2FXK, at the meeting.

73, AI KB2AYU

Just Put Down the Phone and Shop

By Cory Sickles, WA3UVV

Have you been the victim of being hit by a shopping cart in the grocery store operated by some distracted individual talking on a cell phone? Perhaps you've just been forced to wait in an aisle until someone in your way finished texting their spouse to see if they needed more potato chips.

Well, apparently someone in Trenton has tired of this inconsiderate behavior and has introduced legislation that (1) seeks to make this activity illegal and (2) creates another revenue stream for our state government. While I'm all in favor of regulating another aspect of our lives that should simply be addressed by common sense and courtesy, there is a problem with the language of the bill as it covers too broad an area. In seeking to limit the activities of voice, texting and web surfing, the phrase "all electronic com- Please see "Phone" on Page 4.

Down Jersey DXing

By Bill Grim, W0MHK

Hope you enjoyed the sweet taste of Solar Flux peaking around 150 during March! My local ARRL DX Phone Contest club effort saw over 80 DXCC countries worked on 10 Meters in one weekend! Maybe some of our 10 Meter DX successes of past solar cycles won't sound like pure fiction and exaggerations to newer DX'ers on the bands now since the last solar cycle's peaks.

As solar flux trailed off to 100 and below, it became evident with the start-ups of S21YX and VU4PB, both in Southern Asia, that those operations were sunspot sensitive to being heard and worked in South Jersey. Both DXpeditions conclude at the end of March. Best DX luck to all in trying to snag these very rare and tough propagation pathed gems! At this date, both groups don't seem to be taking advantage of the "slim" propagation opportunities for contact with Eastern USA, but hopeful they will "come up to speed" on that aspect before they leave these two rarely activated locales.

While scanning the "Propagation" column in 2011 March CQ Magazine, I found a notable quote from NW7US... "An interesting observation of sunspot Cycle 24 during 2010 has been the stability and relative calm of the new sunspots emerging. Past sunspot cycles do indicate that the very beginning of a cycle presents many sunspots that are not very energetic. As a cycle progresses and sunspots drift toward the solar equator, they tend to become more complex and energetic, unleashing flares and space weather. What is nice during these calmer events is that we're not seeing total blockage on shortwave bands due to sudden ionospheric disturbances. ...Once the sunspots become more complex and energetic, the conditions will become much more variable." Hmm. And hopefully this will bring more chances to work those really distant rare ones we are not now accustomed to hearing!

While working all this new DX, on the logistics side of things, AB2E and W2YC have been confirming many DX stations from ARRL's LOTW. LOTW has been most effective in posting DX qsos very quickly especially since all the PJ activity of last October. You might consider getting on the LOTW "bandwagon" to speed confirmations for yourself and to cut down on your personal DX qsling chores! Not to mention money saved by not having to do "snail mail" qsls! Confirmations for DXCC credit are becoming available in just hours or days with this ARRL service.

How about making contact with some of the following to add to your DXCC totals:

STATION	DATES	HIGHLIGHTS	RARITY	ENTITY
P29	4/2-4/27	VARIOUS CALLS/IOTAS	3	PAPUA
XV2LC	4/10-4/15	20 CW/SSB	4	VIETNAM
9N7DX	4/13-5/1	20,15,10M - FB OP!	4	NEPAL
A25FC	4/14-4/18	160-10M, ALL MODES, TEAM	2	BOTSWANA
FJ	4/15-4/27	LOTW	1	ST. BARTS
5V7CC	4/15-4/28	160-10M, ALL MODES, TEAM	2	TOGO
T31A	4/17-4/28	160-10M, ALL MODES, TEAM	2	CENT. KIRIBATI
TO2FH	4/18-4/25	160-10M, ALL MODES, 3 STNS	3	MAYOTTE
A52	4/19-4/26	160-6M, ALL MODES, JA TEAM	4	BHUTAN
9G5LK	4/28-5/6	80-10M, SSB, DIGITAL	2	GHANA

CREDITS: ADXO NG3K + "Propagation" NW7US, March 2011 CQ Magazine

April Club Meeting Program

At the April General Membership Meeting John Zaruba Jr., K2ZA, will give a presentation entitled “Digital Technologies for Emergency Communications, Part 2.” John will finish the presentation that he started at last months meeting.

Volunteers Needed

By Tom Gorman, KE2ES

Volunteers are needed to support amateur radio VHF communications at the upcoming Multiple Sclerosis Walks 2011 on both Sunday, April 17th and Sunday, May 1st. All walks begin in the morning and end around lunch time. The Communications Coordinator for each walk is listed below:

<u>Sunday, April 17, 2011</u>	<u>Coordinator</u>	<u>email address</u>
Moorestown H.S., Moorestown	Steve, KB2RTZ	kb2rtz@comcast.net
Washington Lake Park, Wash Twp	Joe, KC2SFB	tsc_jdms_ms150c2s@juno.com
<u>Sunday, May 1, 2011</u>	<u>Coordinator</u>	<u>email address</u>
Eastern H.S., Voorhees	Steve, KB2RTZ	kb2rtz@comcast.net
Parvin State Park, Vineland	Andrew, KC2PMW	kc2pmw@yahoo.com

Please forward the completed application indicating shirt size to one of the above coordinators who will then get back to you with details. For application, please go to www.phil-mont.org/mswalk If you have any questions, please contact one of the above coordinators or me, KE2ES at tom.gorman2178@gmail.com.

Tour de Pitman Returns

By Cory Sickles, WA3UVV

Last year, the Greater Pitman Chamber of Commerce hosted its first pro-level bike race. Running a multi-lap course throughout the streets of Pitman, the racers sustained speeds well in excess of the posted 25 MPH speed limits. Considered a huge success, the event returns this year.

Included in the glowing reports from the organizers was the impressive communications support from members of GCARC. About a dozen showed up and kept track of the racers as they moved swiftly around town. This helped with safety and was a nice exercise for the ARES-minded hams in our midst.

This June, the 2nd Annual Bob Riccio Memorial “Tour de Pitman” is a larger event, with an Amateur Level race and short Kid’s Race in addition to the folks who can do 50 miles without panting...

Immediately after the morning races, the Arts and Music festival kicks off. This is a family-friendly event with a variety of music and performers in several venues, running into the evening. The restaurants, sandwich shops, stores and the new Uptown Pitman Farm Market will be open. Plus, there will be lots of “Art in the Park” (more fun if pronounced with a New England accent) to enjoy.

Bottom line – the race is a good event for Hams to demonstrate some public service, while also a nice place to spend the rest of the day with your family. More details will be revealed at the April Meeting.

“Phone” from Page 1.
munications devices” is used.

While that excludes the operation of pacemakers and glucose meters (yes, I’ve seen that, too) it does nothing for radio amateurs. Much like the latest cell phone law, we need to do something quickly to ensure we are exempt from this new restriction and still have the freedom to talk on 2 meters or operate “shopping cart mobile” on HF whenever we choose.

Please research this important matter fully and then contact your local representative about Assembly Bill S-0401 appropriately. Perhaps in the near future they’ll take on the importance of requiring flashing amber lights on scooters and electric wheelchairs as they travel on our streets and sidewalks...

“Fasten Your Seatbelts - It’s Going to be a Bumpy Ride”

By Cory Sickles, WA3UVV

The article’s title is Bette Davis’ iconic words from “All About Eve”. They very aptly describe this year, so far. From all the snow we’ve had to deal with in our area, to odd flooding and tornados in the Mid-West, to political change and unrest in the Mid-East, to the almost unimaginable “triple whammy” in Japan, this has been a bumpy ride.

Weather and geo-political issues are one thing, but it’s difficult to imagine what the devastation of an 8.9 magnitude earthquake, followed minutes later by a tsunami, followed hours later by the cooling systems failure of a 6-pack of fission reactors must be like. All of us have seen images of survivors that evoke an emotional response, but when you see the destruction of an area you’ve never been to, it’s hard to relate.

In case you haven’t realized it, New Jersey is a peninsula. If it weren’t for a connection with New York, we’d be living on an island. As with much of the east coast, our state has more than its fair share of islands, however. Towns like Atlantic City, Ocean City, Long Beach, Avalon and Wildwood are all islands. Take a look at the Google Maps (a useful tool for aiming yagi’s) of our shore resort areas. Grab a ruler and use the legend to measure out a mile. That’s a reasonable distance for a tsunami and/or general flooding. Now move your ruler up and down your computer display and see just how much real estate would be damaged. A little more research will reveal some population numbers. Factor in some tourists and you’ll begin to have some idea of the kind of loss that the people of Japan are feeling.

At least we don’t have to worry about any reactors being close to shore. Oh wait, we do. Located about 2 miles inland, in Lacey Township is the Oyster Creek facility. It went online in late 1969 and is considered to be the oldest operating site in the US. It is scheduled to be shut down in 2019. Well, at least it isn’t the same kind of containment as the facilities in Fukushima use. Oh wait, it is.

Built around a GE Mark I, it’s also the same as the Hope Creek plant, not far from Salem I and II (PSE&G hooked up with Westinghouse for those), this is the same design as what is hemorrhaging radiation, with an (as I type this) evacuation zone of 20 miles. Take a look at Google Maps again and measure out 20 miles from one of these. Is your home suddenly uninhabitable?

I’m not trying to be a “doom and gloom” guy about this, but I think we need to take a good look at our preparation if any one of these things should happen around here. I’ll even say I believe nuclear power is (overall) a “green” way of generating electricity. I just think more modern (modular) technology should be used.

Please see “Bumpy Ride” on Page 5.

“Bumpy Ride” from Page 4.

I also hold no fantasy ideas that having an all-band rig with a battery is going to save my family and me from such threats. While many of us are prepared to be without power for a day or 2, how many of us could survive for 2 – 4 weeks without electricity? How much food and water do you have stored at home? What if you couldn't cook anything? What if you couldn't go outside? What if you couldn't flush the toilet? Maybe it would be better just to “get out of Dodge” ASAP. Are you prepared for that? Do you have enough fuel? Do you have enough cash at hand? Do you already know what to take and what to leave behind – possibly forever? It's not too much fun to think about, but sometimes that's just what we need to do.

13 Colonies 2010

By Ed Champion, N2RO

In July of 2009, I heard about the 13 Colonies Special Event. This was conceived by Ken Villon, KU2US, to celebrate the 4th of July. It sounded like a challenge that I would like to take on. My modest station was a Kenwood TS-480HX and a delta loop antenna. On the 1st of July, I started to hear the 13 Colony stations on the HF bands. Over the next four days I managed to accumulate 11 of the 13 states. One station had shut down to go to the hospital for a relative and the other was too weak. When a station was first heard it was not too difficult to make contact. After the station was put on the DX cluster, it usually turned into a full blown pile up. I was competing against 1KW stations with yagies. Persistence helps and I was happy with the 11 states I contacted.

Sometime after the event was over, I received an e-mail from Ken, KE2US, asking if I would like to be a second station to represent New Jersey on the 4th of July 2010. Because of the 2009 success Ken believed there was a need for more than one operator per state. I was totally surprised when I read his e-mail. This is something I had never done before. I replied to Ken and told him that I was interested in working the event.

The first problems started a few days before the 1st of July. Both of my computers suffered major problems. To overcome this I hooked up my 10” Toshiba to my 22” monitor and a full size keyboard. Second, my wife came home from surgery a day late, the 1st of July. This put me behind from the start. The next hurdle I had to overcome came a couple days later. My wife was recuperating in the TV room next to my shack. So I would not disturb her I closed the shack door. My problem showed up when the temperature of the room and rig caused the rig to seriously reduce power. The problem was my TS-480 was mounted up under the desktop and did not have proper ventilation. This was okay for low usage, but I was in contest mode. After some thinking of how to get the rig working full power, I came up with an idea. I unmounted the rig, set it on a computer dolly and placed a laptop cooler under the rig. This worked and allowed me to finish the event with full power.

During the 2009 event they totaled 12,500 Q's. Ken estimated that for 2010 we would total about 20,000Q's. Actually we ended up with 34,273 Q's. This was a huge success for us. Six of our operators made over 2000 contacts each. Three quarters of the stations made a clean sweep (all 13 states). My total was a whopping 909 contacts. My experience participating with the 13 Colonies Special Event was 100 percent exhaustion and enjoyment. I loved it. It is the best thing that I have done with amateur radio.

Ken is planning on more new surprises for 2011. I urge everyone to join us on July 1st through July 5th 2011. Information can be found at www.13colonies.info.

Weighted RF Theory

For years now, people have thought that radio waves were pure energy and would not have any measurable weight. Though no one has equipment sensitive enough to measure the weight of a radio wave, they do have weight and it is this weight that determines exactly how far and how well they will propagate. It is important to note that not every frequency range has the same weight. If they did, they would all travel the same distance. No, the lower in frequency you go, the longer the wavelength becomes, and the higher in frequency one goes, the shorter the wavelength. In people, the bigger they get, the heavier they are and the smaller one is the lighter they are. This carries over to the electromagnetic spectrum as well.

Microwave frequencies or Super High Frequency (the band that most commercial satellite dish television services work on) is the most visible example of weight of RF in action. As mentioned above, the smaller something becomes, the lighter it becomes. Microwaves are extremely short in wavelength, so they do not have much weight to them. This is evident on a rainy and windy day to the satellite TV viewer. At these frequencies the RF is so light that the signals are apt to be pushed around by any whim of Mother Nature and they can easily be blown away by the breezes and even be washed away by rain.

Ultra High Frequencies are a bit heavier, and just a wee bit more buoyant in the air than VHF, so it is more apt to fly into the upper atmosphere and it would be appropriate to use this band for satellite work. Commercial and military entities already know this and that is proven time and time again by the many terrestrial to space satellite stations on UHF. VHF on the other hand is just buoyant enough that it floats in the air, but even during fierce storms, with heavy wind, and rain, it is mostly impervious to the elements Mother Nature dishes out. VHF travels further than UHF because the elements such as wind and rain and trees are not enough to re-direct the signal to other than where the intended target was.

HF and below are very big and weighty frequencies. So, why do they bounce off the troposphere, and ionosphere? The answer is because of the antenna and radio used. Unlike UHF and VHF operations, most HF is horizontally polarized and so the RF will travel up and down from sky and ground. Also because the radio that is being used to transmit on those particular bands is so much bigger (as is necessary to contain the long wavelength signals), it throws out the signal with more force, so much so that it will literally jump off the antenna and go straight to the sky. LF and ELF are strictly ground wave propagation. By the time we get to this end of the electromagnetic spectrum, the wavelengths are extremely large, and bulky. This means that no matter how big the radio, the signal will not travel far before it hits the ground. However, it still has momentum behind it, and continues to bounce along the ground. As a freight truck is mostly impervious to the rain and wind, so is LF and ELF, for so much momentum is built up that it will force its way through any obstacle until it gets to its intended target. Because of this and because the LF and ELF signals are so heavy that they sink in water, the navy uses this band to talk to subs. These signals are so heavy that they can continue through all elements including the ocean (not even the ocean can stop the force of this wavelength because of the force behind it.) Remember, the radios that are used on this band could fill up a school gym just for one single station!

I hope that this has helped to clear up some confusion on radio propagation. I predict that some time in the not too distant future, science will vindicate my point of view, and I will be lauded as the next Einstein.

M. Patrick Mollet, PHD (Piled High and Deep), N2SRO

Editor's note: I think this was previously published in an April edition of Crosstalk and I have taken many liberties with the original version. Thanks to Cory, WA3UVV for recycling it.

April Birthdays

Irma Colabrese, N2FNF
Daniel Damiano, KC2ELC
Bob Krukowski, KR2U
Thomas Litle, AB2YG
Ray Metzger, AI2B
Mike Mollet, N2SRO
Whitney Myers, KB2ZTL



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 May issue:
4/25/2011

Club Website

<http://www.w2mmd.org>

President-Al Arrison, KB2AYU
Vice President-Tom Gorman, KE2ES
Treasurer-Open

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

Steve Blasko, W2TDS
Cory Sickles, WA3UVV

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

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Corresponding Secretary-Vinnie Sallustio, N4NYY

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Gene Schoeberlein, AA2YO
Bob Krukowski, KR2U

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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)

April Meeting

Digital Technologies for Emergency
Communications, Part 2
John Zaruba Jr., K2ZA

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

