



# THE WATT



CALVERT AMATEUR RADIO ASSOCIATION  
NEWSLETTER  
May 2012

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## **ASSOCIATION QSO – Field Day - QSO Party meeting topics**

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May 3<sup>rd</sup> 2012 was the Association's 5<sup>th</sup> meeting of the year. Nineteen (19) members attended and welcomed new member N3IPN Steve Hempling. Association President Dave Weaver – W3PQS reported that the Mt Hope Community Center in Sunderland Maryland is currently being re-modeled. Construction is scheduled to be completed by June. When the construction is complete Dave would like to set up a CARA station at Mt Hope for association members to use. Charlie AB3LE has already donated an antenna for the station. "If everything goes well, CARA could host the Maryland QSO party on August 11<sup>th</sup> and 12<sup>th</sup> at Mt Hope" said Weaver. In the meantime the association's focus remains on the June 23<sup>rd</sup> and 24<sup>th</sup> Field Day even. See the "Field Day" section in this newsletter for the latest information.

On Monday May 7<sup>th</sup> the association's repeater coverage area was severely reduced. The coax connecting the association's repeater and antenna was removed from the 300 foot tower in Sunderland. Unfortunately the amateur radio operator who owned the coax and several other items on Calvert County towers was ordered by Calvert County to remove his equipment from County towers. RACES officer Bill Hackett – N3XMZ has been in contact with Calvert County Officials and is working on a solution. So far there has been no word about replacing the coax. Sources say not to expect any decision until sometime in late June. For now the repeater is operational on an antenna mounted on the much lower Mt Hope Community Center's building. Since its coverage is very limited CARA Monday night nets are being held on 28.350mhz USB. If you

do not hear net control on this frequency be sure to tune up or down from that frequency to find the net. May 21<sup>st</sup> net was held on 28.355 due to a station already using 28.350.

Be sure to check out the CARA website at [www.k3cal.org](http://www.k3cal.org) or keep an eye on the newsletter and an ear on the 146.985 repeater for more information.

73 – KB3WFV

## **CQ CQ CQ** – CARA news and announcements

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- Want to become a member of the Calvert Amateur Radio Association? You can find the membership application forms and more information about a CARA membership on the CARA web site or click on the link provided for you here: [K3CAL Join CARA](#)
- Be sure to join the CARA net every Monday night @ 7:00 pm on the 146.985 repeater, negative offset with a 156.7 PL.
- Saturday June 9<sup>th</sup> 2012 9am – 3pm. Show your support and join the **Prince Fredrick Volunteer Fire Department** as they host there 4<sup>th</sup> annual Car Truck and Bike Show. It all takes place at the Fox Run Shopping Center in Prince Fredrick
- CARA breakfast meetings are held every third Saturday of the month. This month the breakfast will be at Dream Weavers on June 16<sup>th</sup> @ 9:00 am.
- The next Association meeting will be held June 7<sup>th</sup>, 2012 @ 7:30 pm at The County Services Building 158 Main Street Prince Frederick, Md. 20678.
- A Field Day planning meeting will be held May 29<sup>th</sup> at 7:00 pm local time at the Broomes Island Community Center in Broomes Island.

- Field Day 2012 will be held June 23<sup>rd</sup> and 24<sup>th</sup>. Field Day Coordinator Dave Moore N3TZO can be contacted at [nutzo488@comcast.net](mailto:nutzo488@comcast.net)
- International Light House and Lightship Weekend (ILLW) will be held August 18<sup>th</sup> and 19<sup>th</sup> 2012. At Cove Point Lighthouse.

## On The Air – AMATEUR DIGITAL COMMUNICATION

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There are quite a few Digital modes available. One of the first and most popular is PSK 31 . PSK stands for Phase Shift Keying.

In the late 1990's it was realized that computer technology could be used to modulate a PSK signal using the soundcard at an audio IF which then could be up converted to RF and transmitted using a SSB transmitter. The receive process is reversed, the SSB receiver down converts the incoming SSB signal to an audio IF and the soundcard demodulates it.

One of the early bugaboos was that most programs required you to tune your radio very carefully, DIGIPAN was designed to solve this problem. The PAN in DIGIPAN stands for Panoramic .DIGIPAN acts like an audio spectrum analyzer, sweeping the audio from 100 to 3000 hz. therefore it is possible to monitor multiple signals simultaneously. If you want to see Digipan in action, a fellow Ham Randy K7AGE has made a YouTube video <http://youtu.be/jQpBGh9RMEQ>.

PSK 31 tells us the modulation method used is Phase Shift Keying and the the bit rate is 31.(almost, it's really 31.25).The Phase is shifted 180 degrees in sync with the31.25 bit per second data stream. Therefore the resulting RF signal is only 31.25hz wide, which is narrower than the average CW signal.

There are different variants of PSK ie BPSK(Binary), QPSK (Quadrature),BPSK31(31bit) BPSK63(63bit) BPSK125(125bit). There are also quite a few different modes for digital communication Contestia, Domino, Hellscreiber and Thor are just a few. MT63 used by MARS and Olivia used by Emergency Groups, as well as others. Many have heard of RTTY this is now also possible with a sound card interface.

Although it can be done without one(not well, unless direct usb) it is

advisable to get an suitable interface between the radio and the computer ie Rigblaster ,Signalink or others.

PSK because of its narrow band width, efficient DSP algorithm and synchronized sampling, very low signal levels can be received ( some not audible).Most operators use less than 50 watts. The low power and proper setting of gains etc, help keep the signal clean and helps prevent interfering with other signals. The mode has a high duty cycle so save your transmitter.

There are several good programs that can be downloaded that have all the bells and whistles ie HRD, FLDIGI, AIRLINK and many more, some are free some are not, A good easy one to start with is Digipan. There are some good Clubs online, one of which is the 070 club by PODXS of which CARA and both authors are members.

The Frequencies most used are 1.807 3.580 7.035 10.140 14.070 18.100 21.070 24.920 28120..

So fire up the rig hook up the computer and have fun.

Bob KF3AA  
Bob N3PPH

## **ARES REPORT** – Dennis Bowling - N3QHC

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***The Amateur Radio Emergency Service® (ARES) consists of licensed amateurs who have voluntarily registered their qualifications and equipment, with their local ARES leadership, for communications duty in the public service when disaster strikes.***

**The Amateur Radio Emergency Services Coordinator (EC)  
for Calvert County is:  
Dennis Bowling - N3QHC**

***SUBJECT: STAY IN PRACTICE***

***Even though it looks like emergency communications is very seldom used or needed, you should keep your communication skills tuned up. The day will come, when you least expect it, emergency communications will be***

***needed. It doesn't have to be a war or a terrorist attack when primary communications can be disabled, or disrupted completely.***

***There are a number of other natural or manmade events that can disrupt communications. In the last twenty years alone there have been several events that have disrupted communications in different areas less than 30 miles from Calvert County.***

***To name a few events that disrupted communications is the tropical storm of 2011 which downed many trees, breaking Comcast and Verizon cables from Chesapeake Beach to Solomons Island, and isolating parts of Calvert County from the rest of the world.***

***There have been tornados in Chesapeake Beach in June 2008 tearing down telephone wire and isolating the parts of the Town of Chesapeake Beach from the rest of the world. There was the Calvert/Charles Counties tornado of April 2002 that went through Calvert County causing the commercial power to go off and severely disruption of electrical power and communication's in LaPlata.***

***As you can see, normal telephone communications can be disrupted somewhere else and your local communications can be affected. These are just a few reasons that we need to keep our communication abilities fine-tuned and ready to be called upon.***

***Calvert ARES and RACES are dedicated in providing Health & Welfare communications for its citizens. Wayne/N1WR, AEC, finished months of updating ARES/RACES Strategic and Operations Plan for Calvert County. We now have secured the Philips House for the THIRD Tuesday monthly to teach this plan starting at 1930-Hours (L). We are starting off fresh since there are so many new CALV ARES members. It is very important for all members to learn and develop skills necessary to provide the communications that will be required again to assist our neighbors.***

***ARES Nets are also new. We plan to do some training and conducting Net operations utilizing the various moods available to us. ARES Nets are held five minutes following the CARA Nets every Monday. Since the Sunderland Repeater is substandard the ARES Nets will be mostly be on 10 meters unless otherwise directed. The frequency is 28.350 MHz. which is in the band for Amateur Radio operators holding a FCC Technician License to operate.***

***These are exciting times for Calvert County ARES and RACES organizations. We hope you will train and develop the needed skills to***

***STAY IN PRACTICE with us.***

***73, Dennis Bowling – N3QHC  
ARRL ARES EC CALV MD USA***

***For more information about ARES contact Dennis Bowling at <mailto:n3qhc@verizon.net> or visit <http://www.arrl.org/ares>***

## RACES Report – Bill Hackett – N3MXZ

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*The Radio Amateur Civil Emergency Service (RACES) is a standby radio service provided for in Part 97.407 of the Federal Communications Commission (FCC) rules and regulations. It consists of only those amateur radio operators who have previously registered with State and local governments to provide or supplement communications during emergencies where normal communication systems have sustained damage.*

**The Radio Amateur Civil Emergency Service Officer (RO)  
for Calvert County is Bill Hackett N3MXZ**

Passed along from Dennis – N3QHC

### **FEMA Administrator Calls Amateur Radio “The Last Line of Defense”**

From the ARRL web site 05/25/2011

In an [FCC forum](#) on earthquake communications preparedness, Federal Emergency Management Agency ([FEMA](#)) Administrator Craig Fugate described the Amateur Radio operator as “the ultimate backup, the originators of what we call social media.” The forum-- held May 3 at FCC Headquarters in Washington, DC -- brought together officials from the White House, the Department of Homeland Security ([DHS](#)), the United States Geological Survey ([USGS](#)), FEMA, the FCC and the private sector. Fugate and FCC Bureau of Public Safety and Homeland Security Chief Jamie Barnett gave the opening remarks.

Later in the forum, Fugate spoke more on Amateur Radio. “During the initial communications out of Haiti, volunteers using assigned frequencies that they are allocated, their own equipment, their own money, nobody pays them, were the first ones oftentimes getting word out in the critical first hours and first days as the rest of the systems came back up,” he told the forum. “I think that there is a tendency because we have done so much to build infrastructure and resiliency in all our other systems, we have tended to dismiss that



role 'When Everything Else Fails.' Amateur Radio oftentimes is our last line of defense."

Fugate said that he thinks "we get so sophisticated and we have gotten so used to the reliability and resilience in our wireless and wired and our broadcast industry and all of our public safety communications, that we can never fathom that they'll fail. They do.

They have. They will. I think a strong Amateur Radio community [needs to be] plugged into these plans. Yes, most of the time they're going to be bored, because a lot of the time, there's not a lot they're going to be doing that other people aren't doing with Twitter and Facebook and everything else. But when you need Amateur Radio, you really need them."

You can watch a [video of the forum](#) on YouTube. Fugate's remarks begin at 18:55

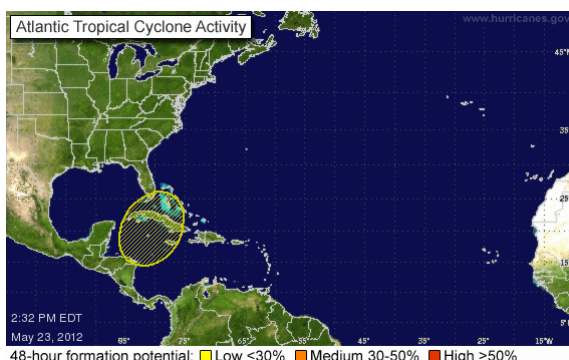
For more information about RACES contact Bill Hackett at [n3xmz.md@gmail.com](mailto:n3xmz.md@gmail.com) or visit <http://www.usraces.org/>

## SKYWARN



***Many Americans feel the effects of severe weather every year. To obtain critical weather information, NOAA's National Weather Service (NWS), part of the U.S. Department of Commerce, established SKYWARN***

***SKYWARN is a volunteer program with nearly 290,000 trained severe weather spotters. These volunteers help keep their local communities safe by providing timely and accurate reports of severe weather to the National Weather Service.***



The summer storm season is here, and it looks like it might be a busy one. The Atlantic has already had a named storm, [Tropical Storm ALBERTO](#) and two in the Pacific [Tropical Storm](#)

[ALETTA](#) and [Tropical Storm BUD](#) . The National Weather Service maintains a web site for the National Hurricane Center. <http://www.nhc.noaa.gov/> is packed full of tropical weather information, Track storms from beginning to end including forecast data and weather service bulletins. Truly a useful website

73 – KB3WFV

*For more information about SKYWARN visit*  
<http://www.nws.noaa.gov/skywarn/> or <http://skywarn.org/>

## **The Amateur Behind The Microphone – Memorial Day**

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**In honor of those who have served our country, this month's amateur behind the mic is dedicated to all of America's fallen heroes. There are several special event stations operating throughout America this weekend all with their own dedication to their particular cause.**

**28 May 2012, 1500-2200Z, W0FSB – Commemorating Memorial Day**, the Five Sullivan Brothers Amateur Radio Club. They'll be operating near 21.240, 14.240, and 7.240. Certificate or QSL to Vernon Mc Nulty, 4015 Independence Ave, Waterloo, IA 50703.

There are two 75th Anniversary Station for the Golden Gate Bridge in San Francisco that will be operating on 26-27 May. From 0000-2359Z, N6G will be operating near 21.265, 14.265, and 7.265. QSL to Will Pattullo, 161 Presidential Cir, Healdsburg, CA 95448. Website: [ae6yb.tripod.com/n6g](http://ae6yb.tripod.com/n6g) W6G will be operating from 2000-2200Z near 28.375, 24.975, 21.275, 18.125, 14.275, 7.175, and 3.750. Certificate or QSL to Tony Dowler, PO Box 1749, Pacifica, CA 94044. Certificate available for working 5 Bands. Website: [www.sfarc.org](http://www.sfarc.org)

**10 May-9 June 2012, 0700-1900Z – VE3A – Diamond Jubilee of HM The Queen of Canada:** Special Event Station VE3A is celebrating the Diamond Jubilee of HM The Queen of Canada. They'll be operating around 28.490, 21.290, 14.290, and 7.143. See VE3A on QRZ.com for updates. Website: <http://www.ve3a.tk/> (includes on air/frequency information)



**21-27 May 2012, 2200-2000Z, W9IMS – Indianapolis 500:** The Indianapolis Motor Speedway Amateur Radio Club will be on the air celebrating the 2012 Indianapolis 500. They'll be operating around 21.350, 14.240, 7.240, and 3.840. Certificate & QSL to Indianapolis Motor Speedway Amateur Radio Club, PO Box 30954, Indianapolis, IN 46230. *It isn't unusual for W9IMS to be operated outside of the scheduled hours.* Website: <http://w9ims.org/>

**26-27 May 2012, 1300-1600Z, W4JUP – Peanut Island:** The Jupiter Tequesta Repeater Group will be operating from an underground in a bunker built as an atomic shelter and command center on Peanut Island for President J. F. Kennedy during the Cold War. They'll be operating near 18.130, 14.240, 14.072.70, and 7.180. QSL to QSL Manager, PO Box 7751, Jupiter, FL 33469. Website: [PeanutIsland.JTRG.Org](http://PeanutIsland.JTRG.Org)

**28 May 2012, 1300-0100Z, W5LEX – USS Lexington:** The 20th Anniversary of the USS Lexington museum ship. They'll be operating near 14.325. QSL to Larry Boudreau, 910 Stromen, Corpus Christi, TX 78411. Website: [www.n5crp.org](http://www.n5crp.org)

73 – KB3WFV

## Field Day 2012

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Plans for Field Day are coming together. During a Field Planning meeting held on May 15<sup>th</sup> Field Day coordinator Dave Moore – N3TZO announced that CARA would be participating in Field Day as a 4 Alfa station. “There has been so much response to the Field Day sign-up sheets, that we have enough operators and equipment to support operation 4 stations at Field Day” These stations will be able to operation on HF and VHF using voice, digital and CW. In addition to the 4 station, plans have been made to also operate a VHF talk-in station and a GOTA (Get On The Air) station. The GOTA station gives non-hams a chance to get on the air and experience radio operating. Jack/KB3WUM has agreed to chair hospitality, and

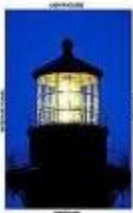
will be in charge of food, one of the most important aspects of the event. The next Field Day planning meeting will be held on May 29<sup>th</sup> 2012 7:00 pm local at the Broome's Island Community Center (Old School House).

Mark your calendars now June 23<sup>rd</sup> and 24<sup>th</sup> is just around the corner. Additional information and location instructions, etc, will be provided as Field Day draws closer.

Contact Dave Moore ([n3tzip@comcast.net](mailto:n3tzip@comcast.net)) for any additional information.

## **International Lighthouse and Lightship Weekend**

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CARA helps make history with registration for the International Lighthouse and Lightship weekend (ILLW). CARA is one of 200 registrations for the ILLW a record registration number for the event. W6A West Side Amateur Radio Club in Los Angeles California became the 200<sup>th</sup> registration bringing the number of USA stations participating in the event to 28 registrations, behind Australia with 38 and Germany 33, followed by England 16, and The Netherlands on 13 with the total countries so far involved nearing 30.

Thanks to the Calvert Marine Museum CARA will be able to operate this event from the grounds of the Cove Point Lighthouse which is listed as US140 with the ILLW.

This 48 hour HF event will be held this year on August 18<sup>th</sup> and 19<sup>th</sup> 2012. Stay tuned for more details about this event. More information about the ILLW can be found on line at <http://illw.net/>

73 – KB3WFFV

## **The Blind Side** – Stray RF and White Noise from KB3WFFV

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Drag racers and amateur radio operators are very much alike. No way you say? HA! Yeah they are. Despite what some hams may

feel regardless of their education, their employment or social status. Hams are like drag racers. Let me count the ways.

### The desire for more

- Drag racers want to go faster than any other racer
- Hams want to talk farther than any other ham

### Caviar on a beer nut budget

- Some drag racers have all the fancy gear enclosed trailers truck haulers and all the coolest tools – other racers tow some small car stuffed with a big junk yard motor to the track with a worn out tow bar using a beat up pick-up truck
- Some hams have unlimited resources. big towers big antenna's and bigger radio's - other hams have a shoe string set up used equipment with homemade solutions.

### A tenth at a time

- Drag racers are in constant search of more horsepower and to make the car run a tenth of a second quicker.
- Hams are always looking for that extra watt or the one tenth lower on the SWR
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### Costant tweaking

- A drag racer will rebuild, machine, and customize a car for a insane amount of time weeks maybe months of work just to gain the pleasure of mashing the throttle for 10 seconds.
- A Ham will spend a similar amount of time designing, building and testing a stations setup all in an effort to make that 10 second QSO with a distant station.

### Same stuff different use

- A drag race uses 30 weight oil to absorb the friction of a 1500 horsepower engine
- A Ham uses 30 weight oil in a dummy load to absorb RF from a 1500 watt amplifier

Still not convinced? Well consider this when a drag racer wins his final round he jumps for joy, much like a Ham will when that rare station buried in a pile-up comes back with his call sign. So when you are done jumping for joy after logging that rare contact, look around and realize... You just drag raced your radio!

73 – KB3WFV

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**Suggestion or comments for THE WATT**

e-mail us at [newsletter@k3cal.org](mailto:newsletter@k3cal.org)

**THE WATT**

May 2012

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