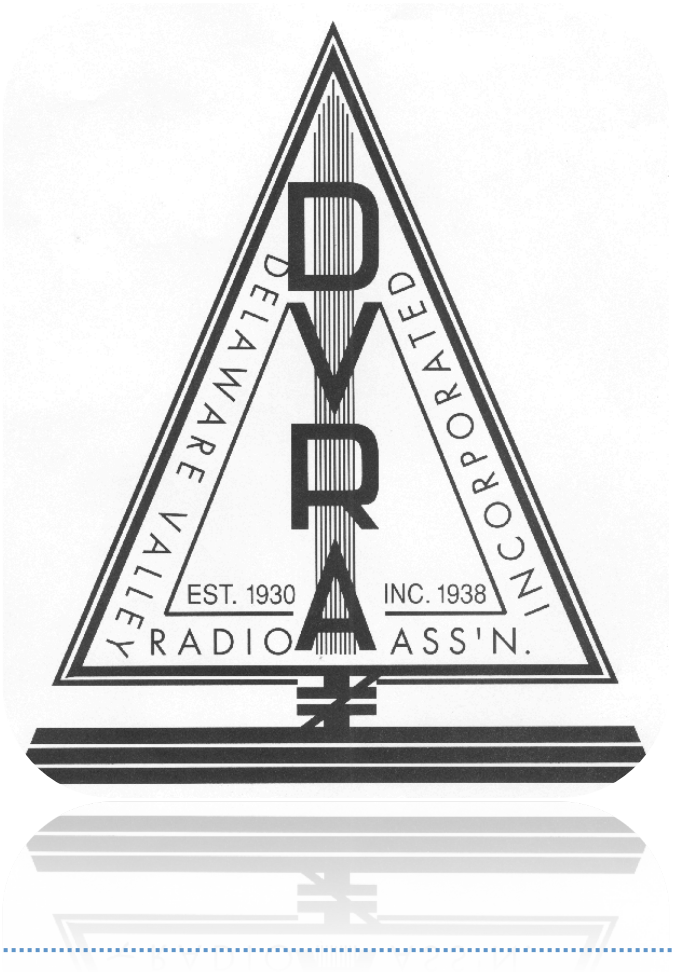
WIRELESS HILL BEACON

Delaware Valley Radio Association



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Meeting – December 11th 2013

The regular monthly meeting will be held at 7:30 PM on Wednesday, January 8th, at Our Lady of Good Counsel Church, on Upper Ferry Road at Wilburtha Road in West Trenton. The site is easy to reach from I-95 or NJ-29. Talk-in is available on the 146.67 (PL 131.8) and 442.65 repeaters.

BALANCED LINES 2014 Installment 1
by Bob Schroeder, N2HX

THE AMATEUR'S CODE

Every so often I'll transcribe the ARRL's so-called "Amateur's Code" and put it in my column. It serves a reminder to those who have read it before, and a new lesson for those who have never seen it. The version below is borrowed from the 1942 edition of the ARRL's "The Radio Amateur's Handbook". Don't be offended by the characterization that all Radio Amateurs are male. These words were written in the 1940s, don't forget. There weren't a whole lot operators who were YLs back then.

The Amateur's Code

1. *The Amateur is Gentlemanly*. He never knowingly uses the air for his own amusement in such a way as to lessen the pleasure of others. He abides by the pledges given by the A.R.R.L. in his behalf to the public and the Government.
2. *The Amateur is Loyal*. He owes his amateur radio to the American Radio Relay League, and he offers it his unswerving loyalty.
3. *The Amateur is Progressive*. He keeps his station abreast of science. It is built well and efficiently. His operating practice is clean and regular.
4. *The Amateur is Friendly*. Slow and patient sending when requested, friendly advice and counsel to the beginner, kindly assistance and cooperation for the broadcast listener; these are marks of the amateur spirit.
5. *The Amateur is Balanced*. Radio is his hobby. He never allows it to interfere with any of his duties he owes to his home, his job, his school, or his community.
6. *The Amateur is Patriotic*. His knowledge and his station are always ready for the service of his country and his community.

WHITHER RADIO?

Very often a popular and commonly recognized product can morph from its intended purpose into something different and spectacular. One example is the DSLR or digital single lens reflex camera. Digital capture being what it is, it wasn't long before some innovative company figured out a way to take a DSLR (which takes still pictures and stores them on a flash memory card) and turn it into a video camera. And indeed this is what's happened. Canon's upper tier EOS 5D DSLR not only takes still photos, but also shoots HD video. The same goes for the Nikon D4 camera. It shoots video as well as still images. While this evolution does have something of a "wow factor", it shouldn't be that surprising that a still camera would morph into an on-demand movie camera. Some of the movies filmed on the Canon EOS are available to view on YouTube.

If you think outside the box and let your imagination run rampant, what sorts of cool things can a ham radio evolve into? Some already have APRS and GPS capability. Slow scan video adaptors have been available for more than a decade. All this is so 20th century. What's really new and different? Will the next "big thing" in ham equipment be clever and useful, or will it be just a sales gimmick? If advantages in technology can turn a still camera into a dual use movie camera, what will the next generation ham rig be able to do?

Probably the most logical enhancement will be a USB computer interface. The Icom 756 Pro III already has this, so it's not that new. But what about adding more flexibility interfacing with your computer or smartphone? Perhaps there could be an iPhone app that would allow you to operate your HF rig right from your phone. The old Kachina HF radios were controllable via landline, so why not an iPhone app?

I think the sky is the limit (no propagational pun intended) as long as the FCC and the equipment manufacturers get on board. As an inventor, I can tell you that it can be very frustrating getting new ideas to market. Some companies are willing to take a chance; others are too wimpish to take a chance.

DRONING ON AND ON

By now you probably know that the FAA has selected New Jersey, along with nine other states, to participate in testing of non-military domestic drones. Rutgers University has been selected as the home base for New Jersey's experimental operations. The fact that the FAA has an R&D facility at Pomona may have tilted the scales in our favor. In order to make up for the weak demand for military projects, Picatinny Arsenal in Rockaway, NJ has already invested in civilian applications for their military technology. All in all, there should be some interesting goings on in the state once Rutgers begins their unmanned aircraft testing. Considering how busy our airspace is, the drones will get quite a workout.

Primarily, commercial drones will have to meet several FAA requirements in order to be considered safe. Several “fail safe” criteria must be met. For instance, the drone must be able to use its GPS to return “home” in the event that it loses RF control from the base station. If it cannot, it will simply land itself straight down. If It is within RF range but does not receive any flight commands within a certain period of time, it will hover in place. And of course, they have to display the ability to avoid collision with other aircraft and stationary objects.

So-called “quad copters” have been available for civilian use for some time now. The DJI Corporation offers its Phantom 2 Vision for $1,200.00. This is not your usual RC toy. The Phantom 2 comes fitted to take HD video and high-resolution still images. Aerial photography is not new; however, this drone’s photography package can be used for a number of beneficial purposes. One could use it to inspect the tops of buildings, water towers, or run surveillance on parcels of land where trespassers are not allowed. As a former wedding photographer, I can see the Phantom 2 being used to enhance wedding assignments. What high-end client wouldn’t want some aerial photos of a beach wedding or some other exotic location? (It sounds silly, but let me tell you that moneyed customers will buy darn near anything if it makes their wedding experience unique!) Real estate agents have already been using drones to do aerial photography to enhance their sales brochures.

I would be remiss if I didn’t mention some ham radio applications of a drone quad copter. Suppose you want to put up a longwire or dipole antenna in an area that is partly wooded. Instead of using a slingshot or a bow and arrow to get your pull line over the trees, you could attach your pulling line to the quad copter and fly it over the trees or any other obstacles thereby eliminating entanglement. Or how about using a quad copter drone to raise a lightweight vertical antenna for Field Day or perhaps at some remote location? The army used to use helium filled “Kite-toons” to hoist up a temporary vertical. At one particular Field Day at the Howell Farm, the DVRA used a “Kite-toon” that was provided by Robbie, K3MNX (SK) that he “borrowed” from his employer. I can see many ham radio uses for a Phantom 2 or other brand of quad copter. All it takes is money.

EARTH’S MAGNETIC MYSTERIES

The European Space Agency launched a cluster of three earth-orbiting satellites on November 22. Named “Swarm”, the mission is to map the Earth’s magnetic field in enhanced detail. As we know, the magnetosphere envelopes the Earth and keeps is safe from the constant impacts of radiation from the Sun. As the solar wind bombards the Earth, the magnetosphere becomes deformed and stretches out into space on the side of the Earth opposite to the Sun. Depending on the intensity of the solar wind, the Earth’s magnetic field gets blown away to such a degree that it often leaves a gap on the leeward side allowing cosmic radiation to enter. So far, the magnetosphere always resumes its normal spherical shape when the solar wind dies down. Scientists worry that someday there will be such a violent eruption from the Sun that the solar wind could

potentially “blow” the magnetosphere clean away and leave the Earth totally exposed to lethal amounts of radiation which in turn would ruin our atmosphere.

General wisdom says that the Earth’s magnetic field stems from the planet’s molten core of iron. You can find out more about the Swarm mission here.

http://online.wsj.com/article/PR-CO-20131122-906101.html?dsk=y

A FRIEND TO THE CLUB PASSES

He wasn’t a member of the DVRA, nor was he a Radio Amateur. What’s more, most club members have never heard of him, yet Dino Spanicciati was a good and unsung friend of the DVRA. Back in the day when the club held its annual hamfest at the 112th Field Artillery armory in Lawrenceville, we quite literally filled up the entire facility. We had outdoor tailgating, indoor tables, commercial vendors, Ham Radio classes and license exams all at the same venue. That included use of the mess hall and kitchen! Eventually, our hamfest became so popular that we held it there twice a year. The rising cost of the armory rental and the increase in security after the September 11 attacks put an end to our ability to use the venue.

How did all this happen? It was through the assistance and approval of Mr. Dino N. Spanicciati, the superintendent of the armory. Dino was our point of contact and chief facilitator for the entire span of years that we held our hamfest there. Not too many people knew who he was because Ed, K2ZE, SK was the hamfest chairman and only a handful of people ever needed to liaise with him. Still, if we left the armory in any other way than that in which we found it, Dino would quickly inform us about it. My friends at the armory’s militia museum agree that he was highly respected over there.

Dino died on December 29.

All for now.

Comments invited.
Bob Schroeder, N2HX
Past President, DVRA

DVRA Nets
2-meter & 70-cm nets on the club repeaters 146.670 pl 131.8, 442.650 pl 131.8
2-Meter Nets:
The Pepper Net 10:00 PM Daily
Mercer Co. Emergency Net 7:30 PM Tuesdays KB2EGI, coordinator.

Training & Upgrade Classes
Don Wright, AA2F, periodically holds Technician and General classes.
Classes are held at various locations. Call Don at 609-737-1723 to register.

Exam Schedule
For 2014 exams will be held on Jan 18, March 15, May 10, July 19, Sept 13 and Nov 15. All Exams will be at 12:15 on the listed Saturdays at the Hopewell (Twp) Branch of the Mercer County Library, 245 Pennington-Titusville Road, next door to the Hopewell Valley Central High School. Bring $15, cash or check, and 2 forms of identification, at least one being a photo ID. For further information, contact Don/AA2F at 609-737-1723 or aa2f@arrl.net.

Logbook of The World
Mike AB2IO reports that the current W2ZQ LOTW
5305/16555 Matched as of Dec. 23, 2013

OK1AUP	2007-11-25	13:12:42	20M	CW	14.05074 CZECH REPUBLIC
UT1UW	2007-11-25	12:39:23	20M	CW	14.05074 UKRAINE
9A2C	2007-11-25	14:11:12	15M	CW	21.07310 CROATIA
G5W	2009-03-08	06:31:54	160M	SSB	1.85900 ENGLAND

Please Visit Our Sponsor

Fame and Fortune Await
Want to become rich & famous – write an article for the DVRA Beacon. Fame among local hams almost guaranteed – fortune is up to you (and your luck in Powerball). Deadline for submission is one week before the monthly meeting (that would make the deadline the first Wednesday of the month). For details contact Alex / AB2RC – ab2rc@ab2rc.net