Sinewaves

STONEWALL JACKSON AMATEUR RADIO ASSOCIATION
Meetings: 3rd Thursday of each month, 1930 hrs at Saint Marks Lutheran Church RT19/98 Clarksburg
SJARA Tuesday Night Net
This net meets each Tuesday evening at 2100 hours utilizing the N8FMD Repeater on 147.210 MHz with PL Tone of 103.5
15/June/2014

	Net Control	Date
1.	K8TPH	May 20, 2014
2.	K8WWW	May 27, 2014
3.	K8TPH	June 3, 2014
4.	K8WWW	June 10, 2014
5.	K8TPH	June 17, 2014

SJARA Meeting

May 15, 2014

Minutes

Meeting called to order by President KA5NYN at 7:40PM with 5 members in attendance.

Minutes of April meeting read by Secretary K8TPH, errors in minutes printed in May Sinewaves were noted and corrected. Motion to accept by KD8TRA and seconded by N8YPE.

Treasurer's Report made by KD8IZC with bank balance of $1605.97. Treasurer's Report accepted by acclimation.

Old Business:

K8TPH reported that he had called and confirmed the use of the WMCA property for Field Day on June 28, 29, 2014.

K8TPH recommended that the club equipment remain at his residence until Field Day and then be stored at St. Marks Lutheran Church basement after Field Day.

Recommended by K8RAS that the Secretary contact TV, and other news media to advertise Field Day. Possible request to be included in Firehouse Friday by WDTV.

New Business:

The invoice for SJARA Liability Insurance for $125.69 presented to Treasurer for payment. Motion to authorize payment made by K8TPH seconded by N8YPE, vote unanimous .

Treasurer, KD8IZC will call and confirm order of Porti Poti for Field Day.

K8TPH orders were taken for Field Day articles from members in attendance.

Motion made to adjourn at 8:40PM

Joke

You Look Familiar

A serious drunk walked into a bar and, after staring for some time at the only woman seated at the bar, walked over to her and kissed her. She jumped up and slapped him silly. He immediately apologized and explained, "I'm sorry. I thought you were my wife. You look exactly like her."

"Why you worthless, insufferable, wretched, no good drunk!" she screamed.

"Funny," he muttered, "you even sound exactly like her."

FOX

Fox News

Thanks to WD8NSC I received an email that Ham Radio had been featured on National Fox News. I do not watch FOX so I did not see the interview on FOX. I read the article and it is an impressive article showing just how Amateur Radio can help in times of emergency.

We all know this but it is great when we get recognition from a National News Network.

If you would like to see the interview you may go to FOX NEWS and view it.

NPR

The History and Science of Ham Radio

NPR (formerly National Public Radio) broadcast a radio show about the

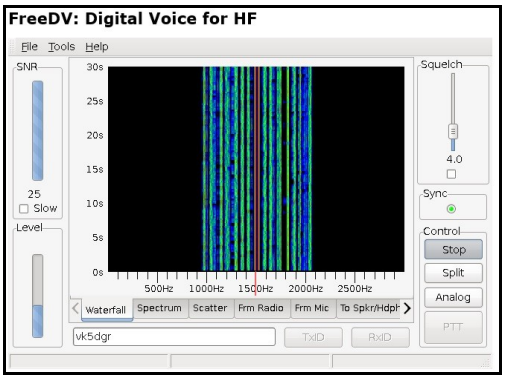
history and science of amateur radio which is now on the web

On May 18, the American Radio Relay League celebrated its 100th anniversary. It's the largest association of ham radio hobbyists in the United States, headquartered in Newington.

WNPR's Patrick Skahill has been covering the anniversary for NPR, and joined Where We Live to talk a bit about Hartford's connection to ham radio history.

Listen to and read the NPR story at http://wnpr.org/post/history-and-science-ham-radio

Digital Voice



Is there a new kid on the block? It seems that there are new modes of operation popping up every day. Digital written communications has been around for years in many different types, both hardware and software driven. Digital voice has been around also but has just never seemed to catch on. Commercially it is in used especially in the area of police and emergency agencies but not in the HAM world.

First we have Amateur hardware that is expensive and just not that attractive to most hams. D-Star and Yeasu FT1DR. These two work fine with VHF/UHF. Both operate direct or via repeaters but can not talk to each other. With hams this just doesn't work. No one wants to buy two different pieces of equipment that can't work with each other.

Now we have something new that has been introduced. It is computer based and is also being developed to be installed in a small unit as a replacement unit to your mic.

FREEDV is a GUI application for Windows, Linux and MacOS (BSD and Android in development that allows any SSB radio to be used for low bit rate digital voice.

Most hams have computers in their shack and with an interface (approximately $40) can download FREEDV and with little technical knowhow can have a digital voice signal on the air.

I have watched several videos put out by some of our collegues and it seems to work well.

Demostrations are available showing how it works with SSB on HF and FM on VHF/UHF.

I wish I had the time and the inclination to experiment with it but that is something else.

Information can be found at: www.freedv.org and for video demostrations you can search using a search engine, such as GOOGLE or you can go to one of the following youtube sites:

http://www.youtube.com/watch?v=iRoETPOjq7Y

http://www.youtube.com/watch?v=ovAJBkOWKZ4

http://www.youtube.com/watch?v=fFCRwXMJ5K4

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Us old Geezers

OOK <On and Off keying> (normally used for Morse Code, Hellschreiber, and some Baud Based signals)

AM <Amplitude Modulation> (normally used for voice communications on HF)

FM <Frequency Modulation> (normally used for voice communications on VHF/UHF)

FSK <Frequency Shift Keying> (normally used for baud based systems on HF)

Transmissions were generated normally with mechanical devices.

When computers were introduced into the communications world, nearly all of the digital signals on the air used OOK or FSK. These were the very early computers and did not have the capabilities that modern day computers have, such coding, decoding data and sound cards. Some of the earlier computers were also used to generate **PSK <phase shift keying>** Now, with computers PSK has again become popular.

AM originally was double side band with a carrier. Later AM (DSB) was modified and SSB, either upper or lower sideband, with a suppressed carrier was introduced. When DSB is on the air a signal can be heard even though modulation is not present since there is a carrier wave which is detectable by use of a BFO (beat frequency oscillator) When SSB with a suppressed carrier is used a signal is not detectable unless an audible signal is introduced.

Some of the earliest narrow band frequency shift signals were generated using SSB with an external audio generator that could produce either two adjacent audio tones or a single audio frequency being shifted between two set audio frequency. This system could be used to generate as many as 28 adjacent shifting tones transmitted over a single SSB transmission thus creating multi frequency modulation passing many independent streams of baud based communications simultaneously.

Some of the earliest Baud Based systems used by Ham Radio, such as

TTY and Packet used either a mechanical device or a unit called a TNC (terminal node controller) The mechanical devices would shift the radio frequency by a few cycles (170 Hz) up to as much a thousand cycles (1 Khz). A TNC was used with SSB by generating two adjacent audio tones a few cycles apart (170 Hz up to 2.5 Khz depending on the transmitter radio frequency).

After the modern computer with a sound card came along then nearly all of the digit or baud based systems are generated with the sound card and transmitted utilizing SSB thus today your will find very few true OOK or FSK signals on the air. Since no carrier wave is generated the signal being transmitter appears to be a OOK or FSK signal. Utilizing this type of transmission a good signal can be transmitted with less power. Using some sort of automatic error correction communications can be sustained with very low power through moderate interference.

Since digital signals are generated before the transmitter digital communications can also be passed via FM VHF/UHF transmitters in the same manner as SSB on the HF bands since it is strictly "audio in audio out".

Since computers have been introduced into Ham Radio it has become mind boggling to number of different modes of operations but remember, to the "Old Geezers" it is still just AM and FM nothing has really changed.

If you like to watch videos about Amateur Radio then here is a good one to watch. http://arvideonews.com/hrn/

Electronic Radiation

Plants grow faster and stronger under plasma lamps.

Is electromagnetic compatibility a concern for plasma lighting systems? Yes, Plasma lighting systems operate at high frequencies electromagnetic interference (EMI) If the luminaire containing the plasma lighting system is not shielded, the luminaire can cause interference with other electronic equipment. Controlling a device's EMI so that it can operate satisfactorily alongside other electronic devices is known as electromagnetic compatibility (EMC)

Information:

You my have a neighbor growing a Hydroponic Garden. It may be for herbs for cooking or it may be for something a little more exotic (legal or illegal). One thing you must have is light and that is where the interference comes from. Plasma Lamps and Magnetic Induction Lamps are relatively new to horticulture.

JULY 4, 2014
13 Colony Special Event

Amateur radio stations operating from the 13 original U.S. colonies will be joined by members of several Philadelphia area amateur radio clubs to celebrate Independence Day from the city where independence was declared, Philadelphia, PA.

The six day event, July 1-6, allows amateur radio operators around the world to learn about the original 13 colonies and the city where Independence began. This will be the fourth year members of the Holmesburg Amateur Radio Club (HARC) will be participating. Also participating will be members of the Philmont Mobile, Drexel University, and University of Pennsylvania Amateur Radio Clubs. Joining for the first time will be members of the Philadelphia Digital Radio Association.

The theme for the 2014 event is the Colonial Currency. Each of the original 13 colonies will be represented by a special event amateur radio station, K2A-K2M. The Philadelphia group, using the call WM3PEN, will offer a special QSL card featuring the First Bank of the United States. Also this year W3FT will be on from Baltimore, MD celebrating the 100th anniversary of the writing of the Star Spangled Banner. In all you can collect 15 QSL cards during the 6 day event and earn a nice certificate.

There will be several new aspects to this year's event. QRP or low power stations will be operating from each of the 13 Colonies. Thanks to members of the Philadelphia Digital Radio Association, WM3PEN will be on D-STAR. They will be on the air from 7PM – 11PM EDT. In the Philadelphia area they will be on the K3PDR repeater. Those out of the area can connect to REF 063 D. Both operators must use a radio for the contact to be valid for the event.

For more information on the event checkout the website, www.13colonies.info.

Hamfest
MCARC
Morgantown Hamfest
Saturday June 21, 2014
Star City, Morgantown, WV
St. Mary's Church Picnic Pavilion

GENERAL ADMIISION $5.00 - Tailgating $10.00 - TABLES $10.00
FREE Parking
Refreshment - Serving Our Famous PULL PORK BBQ !!!
*Talk In & Direction Provided on 147.075MHz (+) Tone 103.5
VE testing beginning at 10:00AM

http://www.qsl.net/k8mcr/downloads/MCARC_Poster.pdf

www.qsl.net/k8mcr/hamfest.html