



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

13 October 2014

<u>Net Control</u>	<u>Date</u>
1. K8WWW.....	October 7, 2014
2. K8TPH.....	October 14, 2014
3. K8WWW.....	October 21, 2014
4. K8TPH.....	October 28, 2014
5. K8WWW.....	November 4, 2014

Minutes

SJARA Meeting

September 18, 2014

The SJARA September 18, 2014 meeting was called to order by President KA5NYN in the basement of St. Marks Lutheran Church at 7:30PM

A motion by N8YPE was made to accept the August minutes as listed in the September Sinewaves and seconded by KD8IZC.

Treasurer's report was given by Treasurer KD8IZC . Balance of \$1370.04 unchanged since last meeting. Motion to accept and seconded by N8YPE.

No Old Business.

New Business.

KA5NYN informed members that he had attended the LPC meeting and the 911 director told him that there was some sort of interference was occurring at the 911 transmitter site but he believed that he did not believe that it was coming from the Amateur Repeaters but wanted all local Hams to report any problems or interference

that was detected over the local Repeater or Link system.

KA5NYN reported that since local CERT director who also represented Amateur Radio with the LPC was retiring and dropping out of the LPC. KA5NYN asked if there could be a local amateur interested in becoming a member of the LPC. A suggesting was made that possibly WV8CC may be interested and he is also a member of both local Amateur Radio clubs, SJARA and CWVWA. KA5NYN was given WV8CC's telephone number and KA5NYN said he would contact him to see if he is interested.

K8TPH announced that the national SET (Simulated Emergency Test) is scheduled for October 3/4, 2014. There has been not notification that the WVARC will hold a SET on those dates. Normally WVARC holds SET for just West Virginia at a date other than the one recognized nationally.

K8TPH gave a report that he had been contacted by Bridgeport Emergency Coordinator expressing her disappointment that SJARA did not participate in the Bridgeport 2014 EXPO.

Christmas Dinner for 2014 was discussed and it was suggested that KD8IZC would check and make arrangements for possible 2nd or 3rd Thursday or Friday of December.

There was no further business and a motion by N8YPE and seconded by WD8NSC was made and the meeting was adjourned by K85NYN at 8:45PM

Members Present at meeting were:

Cecilia KD8IZC

Dave WD8NSC

Gordon WV3G

Dick K8TPH

Bill KD8TRA

David N8YPE

Bill KA5NYN

Harold KD5ZZF

Ham falls

James G. Linstedt W9ZUC of Eau Clair, Wisconsin died Tuesday evening from injuries he sustained when he fell 95 feet from a ham tower in Eagle Point, just outside of Chippewa Falls, Wisconsin.

Linstedt, age 59, is reported to have had extensive experience climbing and working on towers. He also was reported to have been wearing an over the shoulder safety harness, but was not tied off while working on the 100 ft. tower at the home of Ronald Anderson W9RMA, located on the shore of Lake Wissota. Linstedt was a member of the Chippewa Valley Amateur Radio Club

WSJT-X v1.4

A public beta release of the weak signal datamodes software **WSJT-X**, version 1.4, is now planned for October 1, 2014

WSJT-X v1.4 cooperates with Ham Radio Deluxe much more reliably than v1.3. However, the good behavior can break down when HRD Logbook or DM780 are also running in parallel. You may see delays up to 20 seconds or so in frequency changes or other radio commands, due to a bug in HRD. HRD folks are aware of the problem, and are working to resolve it.

It has not been possible to initially provide support for all radios via HRD. We have built-in diagnostics that allow quick identification of the extra support needed to support untested rigs via HRD. We urge HRD users to try this new version and report back results. We will then add any missing support based on feedback from users as soon as possible. About 25 amateurs, including all of the most active members of the Development Team, have been regular users of WSJT-X built from recent code revisions. We find version 1.4 to be a pleasure to use, and we think you will, too.

We look forward to user feedback on the latest version following its formal announcement in about two weeks.

WSJT

<http://physics.princeton.edu/pulsar/K1JT/wsjt.html>

Moon-Bound Ham Radio Payload

The Amateur Radio payload on the lunar-orbiting 4M-LXS spacecraft is set to carry up to 2500 brief digital messages into space for retransmission via JT65B mode on 145.990 MHz. China recently announced http://news.xinhuanet.com/english/china/2014-08/10/c_133546027.htm plans to launch the orbiter carrying the 14 kg battery-powered payload, developed by LUXspace <http://www.luxspace.lu/> in Luxembourg. The International Amateur Radio Union (IARU <http://www.iau.org>) is a partner in the experiment. Getting a message into space required registering and uploading one via the 4M website. A "73 de W1AW" message was among those uploaded before the message collection site closed on September 17. While the window was open, the site gathered messages of up to 13 characters -- the maximum for JT65 transmissions -- to transmit "from the moon," the 4M Manfred Memorial Moon Mission website said.

Signals from the Amateur Radio payload can be decoded using the free WSJT

<http://physics.princeton.edu/pulsar/K1JT/> software by Joe Taylor, K1JT. The Manfred Memorial Moon Mission memorializes

<http://moon.luxspace.lu/memorial/> Manfred Fuchs, the late founder and chairman of LUXspace parent company OHB of Bremen. He died in April. The 4M mission is expected to launch sometime after 1800 UTC on October 23.

According to LUXspace, the 4M spacecraft will transmit continuously on 145.980 MHz (± 2.9 kHz) at 1.5 W into a simple quarter-wave monopole antenna. "This will give S/N

comparable to EME signals at Earth's surface," LUXspace said. "The transmission is based on a 1-minute sequence and a 5-minute cycle. The transmission will start 4670 seconds (77.8 minutes) after launch."

The 4M mission was detailed during a presentation

<https://cloud.luxspace.lu/public.php?service=files&t=542e4e0b2750e938e5309f02b77582fc> the EME 2014 conference held recently in France. A paper

<https://cloud.luxspace.lu/public.php?service=files&t=82c6c3c3b7d9e851323d9e0e865d99dc>,

"4M Mission: A Lunar Flyby Experiment" also is available. During the lunar flyby, the spacecraft will be about nearly 248,000 miles from Earth and between 7440 and 14,480 miles from the Moon. The spacecraft will be part of the last stage of the lunar mission. The planned trajectory calls for a lunar flyby and return to Earth, with a 90 percent chance that the spacecraft will re-enter Earth's atmosphere. LUXspace has provided a tracking tool <http://moon.luxspace.lu/tracking/> on its website. Read more <http://www.arrl.org/news/moon-bound-ham-radio-payload-will-transmit-your-message-from-space-but-hurry>

Hand held gun

Text Detectors

After viewing the story of ComSonic's new Anti-Texting RADAR for police I can see where this is going to be highly objected to by lawfully licensed ham radio operators across the nation.

Many Ham Radio operators and those volunteer radio operators who are also members of the U.S. Army, Air Force, Navy and Marine Corp MARS programs (Military Affiliated Radio Service) who use the cellular 3G and 4G texting technology for the ARPS

(Amateur Radio Positioning system). This system is independent from typical Satellite GPS tracking systems and uses mobile Cellular and Amateur Radio repeaters to provide fully automatic location reporting of persons and vehicles carrying phones equipped with this application on newer smart cellular phone technology.

Radar Gun-like Device Will Catch Texting Drivers

By using the Android ARPS software the cellphone is programmed to send it's latitude and longitude via the embedded text application built in to these phones.

This technology has already been FCC approved and has been in service for some time now. There would be no way that Comsoni's new radar could differentiate between this and regular text messaging as it uses the same subroutines to transmit location data automatically.

The driver of any vehicle whose cell phone was equipped with this application could be pulled over and given a ticket for texting while driving even if he did not do so.

Many of the well known Apps that have been developed for 3G & 4G Android and iPhones have come from those who are also Ham radio operators.

This system works in conjunction with some MARS stations as well in the even of a natural disaster or major technology breakdown as an alternative for civil and military authorities to retain location and positioning ability.

This is very much like the early days of AX.25 Packet Radio (which used to be used by our military) and preceded the major internet explosion of the 80s and 90s. Ham radios operators, who are all volunteers, experimented with,

and advanced and perfected it over many years.

Most people are totally unaware of the many advances Ham radio operators have given our society today, from the 1900s right up to today, including: AM radio, FM radio in the late 40s, both black and white and color TV, two-way FM, digital trunked radio, digital transmission of heart monitoring from ambulances to hospitals – and so much more, including portable cordless and cellular telephones.

Many of the well known Apps that have been developed for 3G and 4G Android and iPhones have also come from those who are also Ham radio operators.

Comsonic's new radar technology may be pre-production but it's going to meet a lot of resistance from the Ham Radio community, and the chief organization for Ham radio operators, the Amateur Radio Relay League, which works closely with the Federal Communications Commission.

HR4969

An intense effort during the few days in September that Congress was in session has resulted in 47 co-sponsors for the Amateur Radio Parity Act of 2014 (H.R. 4969). Another half-dozen or so US House Members have indicated that they will sign on when Congress returns, something they can do only while Congress is in session. Congress went into recess on September 19. ARRL President Kay Craigie, On Capitol Hill: Wind-tousled ARRL Hudson Division Director Mike Lisenco, N2YBB. [Courtesy of Kay Craigie, N3KN] N3KN, ARRL Hudson Division Director Mike Lisenco, N2YBB, Central Division Director Dick Isely, W9GIG, and ARRL General Counsel Chris Imlay, W3KD, visited dozens of

congressional offices this month. Elsewhere, other ARRL elected and appointed officials and members from across the US met with members of Congress and with their staffers, wrote letters, and made phone calls to urge co-sponsorship.

"This all-member effort is how we went from 17 co-sponsors on August 1 to 47 co-sponsors on September 18," President Craigie said this week. When Congress reconvenes in November, League representatives plan to follow up with US House members who did not have time to make their co-sponsorship official before Congress left town.

FCC Nix to 4 meters

It doesn't look like US radio amateurs will be gaining a new band at 70 MHz anytime soon. The FCC has denied a Petition for Rule Making filed earlier this year by Glen E. Zook, K9STH, of Richardson, Texas, seeking to add a 4 meter band to Amateur Radio's inventory of VHF allocations. Zook had floated the proposal in 2010, and his petition was dated January 27, 2010, but the FCC said it did not receive it until last May. Zook asked the Commission to allocate 70.0 to 70.5 MHz to Amateur Radio because, Zook's Petition asserted, "the recent migration of broadcast television stations to primarily UHF frequencies basically eliminates any probable interference to television channels 4 or 5." VHF TV channel 4 occupies 66 to 72 MHz.

Dayton 2015

[Dayton Hamvention®](#) is seeking nominations for its 2015 awards for Amateur of the Year, Special Achievement, Technical Excellence, and Club of the Year. Completed nomination forms and supporting documentation are due by January 16, 2015. All Amateur Radio operators (and clubs) are eligible. Winners will be recognized at the 2015

Hamvention®, which takes place May 15-17.

Last Man Standing

Tim Allen, the famous American actor comedian who has appeared in many popular films, has just passed his ham licence

He has the callsign KK6OTD

Tim stars in the weekly Last Man Standing show which is watched by 8 million Americans.

The show features ham radio and on the show Tim uses the fake callsign KA0XTT



ISS

There is a new poster designed for the new International Space Station and is available for download in high resolution (57 MB)

http://www.nasa.gov/sites/default/files/exp_42_sfaposternw-2014-07-007_highres.pdf

JC Bose

patents radio wave detector, September 30, 1901

James Clerk Maxwell's equations predicted the existence of electromagnetic waves of diverse wavelengths in the 1860s, and in 1888 Oliver Lodge and Heinrich Hertz

verified it, along wires and in free space. After reading about their experiments, JC Bose, a professor of physics at Presidency College in Calcutta, India, reduced the waves to about 5mm to study them.

He developed the use of galena (lead sulfide) crystals contacted by a metal point for detecting millimeter electromagnetic waves, and filed patent 755840, for a "Detector for electrical disturbances" in 1901. It was the first device to use a semiconductor junction to detect radio waves.

Bose created a portable device to study the optical properties of short waves, which incorporated the earliest waveguide and horn antenna. It would be more than 30 years before more research and analysis was done with the now widely-used horn antennas. His use of dielectric lenses, polarizers, prisms, and semiconductors at frequencies as high as 60 GHz, were also well ahead of his time.

In a 1895 demonstration, he used electromagnetic waves to ignite gunpowder and ring a bell from a distance, reported to be nearly a mile. In 1897 Bose presented his microwave experiments at the Royal Institution in London (see the photo and diagram below).

He founded the Bose Institute in 1917 in Calcutta where some of his original instruments and devices are displayed. Bose spent much of his later career studying the effects of electromagnetic radiation on plants.

Much of Bose's component technology would eventually be used to develop microwave radio transmission. For his pioneering work in quasi-optic millimeter wave research, IEEE has called him the father of radio science. According to a 1997 Microwave Symposium Digest

publication, "He developed an elegant millimeter wave spark transmitter, self recovering coherer detector, wire grid polarizer, cylindrical diffraction grating, dielectric lens and prism, rectangular waveguide, horn antenna and microwave absorber, for the studies of reflection, refraction, absorption and polarization of millimeter waves and its application to wireless remote control for firing a gun."

