



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

April 22, 2017

<u>Net Control</u>	<u>Date</u>
1. N8FMD	April 25, 2017
2. WD8NSC	May 2, 2017
3. K8PEC	May 9, 2017
4. K8BNC	May 16, 2017

Minutes SJARA Meeting April 20, 2017

The meeting: was called to order at 7:30pm by Doug Cutlip(President) .

The Minutes: A motion was made by K8PEC and sec by KC8PNI to dispense with the reading of the minutes of the March meeting which passed unanimously.

The Treasurers report: was presented by KC8AJH in the absence of the treasurer and shows that we had expenditures of \$60 deposits of \$63.52 with a currant Bal. of \$1096.24.

Motion by WD8NSC second by N8FMD to add the YMCA to our insurance policy for an additional \$25. Passed unanimously

Motion by N8FMD second by WD8NSC that KC8AJH do some follow up on the insurance. Passed unanimously

Good of the Order: Some discussion by N8FMD about volunteering and following thru on what you have volunteered to do and if you can't, you should be contacting someone to take your place so the event doesn't totally fail.

Field Day is June 24 & 25 contact Tim WV8TIM

Mon County Amateur Radio Club Hamfest April 29, 2017

Dayton Hamfest- May 19 20 21, 2017

Members Present: Pat Chumley K8PEC, Dick Wilt K8TPH, DAVE Morris WD8NSC, Richard Skinner K8RAS, Elizabeth Ann Skinner K8EAS, David B. Anderson N8YPE, Brittany Cutlip K8BNC, Sandra Cutlip K8SAN, Tiffany Cutlip KC8PNI, Janice Fowler N8FXJ, Dick Fowler N8FMD, Doug Cutlip KC8AJH.

Meeting Adjourned.

ARRL Hamvention Forum Topics Will Encompass Makers, Youth, HamSCI

When Hamvention® opens on May 19 for the first time in Xenia, Ohio, the focus of ARRL activities will be the ARRL EXPO in Building 2 of the [Greene County Fairgrounds and Expo Center](#). ARRL will sponsor a slate of forums on all 3 days of Hamvention.

To highlight the new location, some fresh ARRL forum topics will accompany the old standards. Space is limited at some forum venues.

ARRL has reached out to the Maker movement, and "Ham Radio Makers and Hackers" will kick off the League's forum schedule on Friday at 10:30 AM (Room 4). The ham radio community has always promoted the DIY (do it yourself) approach -- what some hams call

"homebrewing." The panelists at this hour-long session will share experiences about how ham radio is finding kinship with the new generation of creators, makers, hackers, and innovators. Panelists will include ARRL author Glen Popiel, KW5GP, and ARRL Education & Technology Program instructor Tommy Gober, N5DUX. Also on the panel is Cara Kouse, Innovation and Makerspace Manager at the Xenia Community Library, who will talk about the new Makerspace opened at the library early this year.

Also new at Hamvention 2017 will be the "[HamSCI](#), the **Ham Radio Science Citizen Investigation**" forum, Saturday at 9:15 AM (Room 4). Nathaniel Frissell, W2NAF, will answer the question, "What is HamSCI?" A group of panelists will share information about professional research programs supported by radio amateurs. Presentations also will address investigations related to the total solar eclipse in August, and Frissell will discuss "The [Solar Eclipse QSO Party](#): Ionospheric Sounding Using Ham Radio QSOs."

One popular forum at the Orlando HamCation focused on the **ARRL Collegiate Amateur Radio Initiative (CARI)**. Andy Milluzzi, KK4LWR, will bring the discussion to Hamvention on Saturday at 12:30 PM (Room 4). A growing number of campus radio clubs and student radio amateurs have begun to share ideas and suggestions on the CARI Facebook page to rekindle interest in ham radio on college and university campuses, bringing students together, and developing career connections. Students, alumni, and faculty will

present at the forum. The ARRL Collegiate Amateur Radio Initiative is sponsored in part by the W1YSM Snyder Family Collegiate Amateur Radio Endowment.

"Learning. Discovery. And FUN!" on Sunday at 9:15 AM (Room 2). [ARRL Teachers Institute](#) on Wireless Technology instructor Tommy Gober, N5DUX, will introduce teachers to a variety of tools, as well as a curriculum to take back to their classrooms. Topics include an introduction to basic electronics, the science of radio, space technology, and satellite communication, as well as weather science, introduction to microcontrollers, and basic robotics. Gober will share strategies to motivate students to learn and to inspire interest in STEM (science, technology, engineering, and mathematics) fields.

ARRL Great Lakes Division Director Dale Williams, WA8EFK, will moderate the **ARRL Member Forum** on Saturday at 11:45 AM (Room 1). It's an opportunity for ARRL members and prospective members to hear from local and national ARRL officials on key areas of membership interest. Learn how ARRL supports dozens of ways to get involved, get active, and get on the air.

The wide-ranging **"Public Service Communications Panel Discussion"** on Saturday at 1:45 PM (Room 4) will offer a chance to hear from representatives of organizations active during disasters and emergencies. ARRL Emergency Preparedness Manager Mike Corey, KI1U, will moderate. There will be presentations by

representatives of the VoIP WX Net and VoIP Hurricane Net; the Military Auxiliary Radio System (MARS); the Hurricane Watch Net (HWN); the Salvation Army Team Emergency Radio Network (SATERN), and the US Department of Homeland Security's SHARES network.

At **"Ham Radio and the Law: Antenna Permits and Problems"** on Friday at 2:45 PM (Room 2), attorney Fred H. Hopengarten, K1VR -- the author of *Antenna Zoning for the Radio Amateur* -- will head a panel of Amateur Radio attorneys in a discussion of legal issues to include avoiding restrictive covenants, tower permits, and recent court rulings on the PRB-1 limited federal preemption. The forum will present the latest information on H.R. 555, the Amateur Radio Parity Act of 2017.

"ARRL National Parks on the Air Recap" on Sunday at 10:30 AM (Room 2) will review the highly successful [NPOTA](#) activity that commemorated the centennial of the US National Park Service last year, inspiring more than 1 million contacts during park activations. ARRL Radiosport Manager Norm Fusaro, W3IZ, and ARRL Media and Public Relations Manager Sean Kutzko, KX9X, will moderate.

A [complete schedule](#) of Hamvention forums is available on the Hamvention website.

FCC Proposes Levying Huge Fine on New York Police Radio Jammer

The FCC has proposed imposing a fine of more than \$400,000 on a Queens, New York, man who has admitted making unauthorized transmissions on New York City Police Department (NYPD) radio frequencies, maliciously interfering with NYPD officers' communications. Jay Peralta, 20, is alleged to have transmitted false bomb threats, false claims of criminal activities involving firearms, false distress calls from purported NYPD officers, and threats against individual NYPD officers. The unauthorized transmissions began a year ago, according to the FCC.

"Through his actions, as he described them to the NYPD, Mr. Peralta has demonstrated not only a deliberate disregard of the Commission's authority and rules, but of the safety of NYPD officers and the public that they are called to serve and protect," the FCC said in a *Notice of Apparent Liability (NAL)*, issued on April 14. "Commission action in this context is therefore essential to safeguard authorized operations on spectrum licensed for public safety uses, and, accordingly, a substantial penalty appears warranted."

The FCC said the *NAL* addresses nine unauthorized and interfering transmissions that Peralta has admitted to the NYPD that he made on its radio system. According to the FCC, Peralta's unauthorized transmissions included false

bomb threats, false claims of criminal activities involving firearms, false distress calls from purported NYPD officers, and threats against individual NYPD officers.

FCC Chairman Ajit Pai said that with the *NAL*, the FCC is making it "abundantly clear that it will not tolerate unauthorized and illegal use of the radio spectrum." The entire Commission now must sign off on such proposed fines, and Pai said he was grateful to his fellow FCC members for "agreeing to act swiftly and strongly" in the matter. "This may not be a typical pirate radio case in which an unauthorized operator inflicts damage on a radio broadcaster that is operating with a valid FCC license," Pai said, "but it does involve unauthorized interference to critical public safety communications systems."

Peralta was arrested last fall, along with two other men suspected of committing several robberies. According to news accounts, police found a cache of scanners and radios in one of the suspects' homes. Read [more](#).

ARRL Gains Visibility at National Science Teachers Association Conference

The Amateur Radio on the International Space Station ([ARRL](#)) program gained some valuable visibility at the 2017 National Science Teachers Association ([NSTA](#)) national

conference, March 27-April 2, in Los Angeles. ARRL Education Services Manager Debra Johnson, K1DMJ, represented ARISS and ARRL at the annual gathering. The ARISS Team shared a booth with a few other educational programs under the Center for Advancement of Science in Space ([CASIS](#)) [Space Station Explorers](#) umbrella. CASIS is an important sponsor of the ARISS program and the sole manager of the ISS US National Laboratory.

An estimated 4,000 educators visited the CASIS booth, learning what is available to engage students in ISS research and activities.

"The Space Station Explorers program includes a number of educational activities available to teachers that are appropriate for various grade levels: *Story Time in Space*, *Zero Gravity*, and *Orion's Quest*, to name a few," Johnson said. "While at the NSTA, I had opportunities to speak with several curriculum developers, pointing up the importance of including radio and wireless communications in their physical science curricula," she added. "Curriculum material about the electromagnetic spectrum and for using sensor technologies abounded, but radio was hard to find."

Johnson said the NSTA conference also allowed an opportunity to engage in some team building with other program representatives, discussing ideas for future collaboration.

The NSTA convention came on the heels of the Council of State Science Supervisors ([CSSS](#)) conference in Los Angeles. "CASIS also laid the groundwork

for the ARISS program to participate in that conference by conducting a scheduled interview between ISS Expedition 50 Commander Shane Kimbrough, KE5HOD, and students in the LA School District for the attending professionals to experience," Johnson recounted. "The contact and interview went extraordinarily well and resulted in many inquiries about the program from those attendees who subsequently visited us at the NSTA."

Johnson also promoted ARISS to individual educators visiting the booth, explaining the program and the proposal process and handing out more than 400 flyers. "I also discussed the ARRL's [Teachers Institutes](#) with some attendees and encouraged them to consider applying," she said.

ISS Packet System Returns to VHF

The Amateur Radio on the International Space Station ([ARISS](#)) packet digipeater system is again operating on VHF -- 145.825 MHz. The failure of an Ericsson handheld VHF transceiver on board the ISS last fall had caused ARISS to shift packet operation to 70 centimeters. In February, a cargo resupply mission delivered a new Ericsson 2-meter handheld to replace the one that had failed, which had been used in the *Columbus* module for school group contacts and for Amateur Radio packet.

While the VHF transceiver was offline, ARISS shifted school contacts from NA1SS to the Kenwood TM-D710 transceiver

in the Russian *Service Module*. NASA ISS Ham Project Coordinator Kenneth Ransom, N5VHO, said the VHF capability now back in *Columbus* can be used in conjunction with passes involving the HamTV digital amateur television (DATV) system, which operates on 2.4 GHz.

ARISS International Chair Frank Bauer, KA3HDO, said recently that ARISS continues to make progress on the development of the new interoperable radio system on the ISS "that we hope to use to replace our aging radio infrastructure in the *Columbus* module and the *Service* module."

Packets digipeated in a valid APRS format via the ISS system and picked up by an internet gateway station are documented on the "[Amateur Radio Stations heard via ISS](#)" page. -- Thanks to *Kenneth Ransom, N5VHO, ISS Ham Project Coordinator*

Ham Radio Club in India Reunites Lost, Injured Pilgrims and Travelers with Families

For the past 24 years, members of India's West Bengal Radio Club ([WBRC](#)) have helped to reunite lost or injured individuals, many of them pilgrims attending the Ganga Sagar Mela festival each January. The Ganga Sagar fair and pilgrimage, held on Sagar Island's southern tip in the Ganges Delta on the Bay of Bengal, attracts a huge number of people, and the club typically fields a special event station for the occasion. But each year, a

number of visitors simply lose their way. This year, the Chief Medical Officer of Health for the region once again reached out to the club for its help.

"Some people are admitted [to the hospital] at the time of Sagar Mela, and after the end of mela, many patients are waiting to return to their homes," WBRC founder and secretary Ambarish Nag "Raju" Biswas, VU2JFA, told ARRL. "But some patients are not able to reach their destination on their own, and no family members have claimed them."

WBRC members contact other radio amateurs in the home states of those who have become separated or, in some cases, just become lost, to reconnect them with their families and help them on their way.

Recently, a 25-year-old man -- a Tamil speaker not in town for the fair -- became hurt and lost and was hospitalized. Biswas, who does not speak Tamil, enlisted the assistance of another club member, T. Gopinath, VU3ZHC, who was able to translate. Armed with some information from the man and a photo, the club members, working for more than a month through ham radio and social media, were able to get in touch with the man's family in the Vellore district.

"When we met him, he could hardly speak. He had head injuries," Biswas said. They were able to determine that the young man, who was headed for Gujarat state for work, had ended up in Kolkata by mistake and had lost all his belongings on a train.

The young man's father and brother came to West Bengal with documents to prove his identity, and the hospital and local authorities reunited him with his family.

Subrata Dey, VU3YGE (left), a physician, the once-displaced 60-year-old man in wheelchair, and the man's son.

Another patient in his early 70s has only been able to provide his name and state but nothing else, and after searching via ham radio, the club has been unable to repatriate him. He remains in the hospital in West Bengal. "We are trying our best," Biswas said. "We found 563 persons this Sagar Mela." He said others also remain in the hospital and in limbo.

A man in his 60s who had attended the mela awoke in the hospital after becoming separated from his family, which had returned home to Bihar state without him, assuming he was lost. Authorities turned to the radio amateurs at the club, who were able to reunite him with his family within a couple of days. -- *Thanks to Raju Biswas, VU2JFA, and to Greg Lee, KI6GIG/HS0ZHM*

Canada May be the Best Place for Hams to Experience the Solar Eclipse, Says VE7DXW

Alex Schwarz, VE7DXW, who developed the online [Scanning RF Seismograph](#) to determine which bands are open, is among the many looking forward to the solar eclipse on August 21, 2017. Although the path of totality will

move over Oregon then southeastward toward South Carolina, he believes radio amateurs north of the border can take advantage of this "very exciting celestial event," as those in the US will be doing, and may have an edge of sorts. Members of the Ham Radio Science Citizen Investigation ([HamSCI](#)) in the US will sponsor a Solar Eclipse QSO Party ([SEQP](#)) to



The projected path of totality for the August 2017 solar eclipse. The arrows indicate possible HF paths for Canadian radio amateurs.

conduct their own research.

"This will be spectacular when viewed with our eyes," Schwarz said. "The effects of the solar radiation on the propagation of radio waves will be equally or more exciting." Schwarz said it may appear that Canada won't be a part of the solar eclipse, but British Columbia (BC) will have up to 95% coverage, he pointed out.

"As the solar eclipse is moving over the planet, it is leaving a canyon of de-ionized gas on the ionosphere in altitudes of about 100 to 300 kilometers," Schwarz said. "This puts Canada -- and especially Ontario -- in a very good position to get really long signal paths to the horizon toward the south. Southern Ontario will be in the best location to make contacts into the southern and western US

and Central America. In southern BC, we can aim our antennas right down the length of the propagation anomaly and reach the Caribbean and southeastern US." Schwarz said timing is important, because the gas will ionize again after the solar shadow has passed. The entire passage across North America will be approximately 90 minutes.

Schwarz said that during the 1999 solar eclipse in Europe, radio amateurs recorded long-distance contacts on 160 and 80 meters. "We want to inform all amateurs about the opportunity of experiencing the solar eclipse on a totally different level by operating radios in their shacks," he said.

Schwarz encouraged all ham radio clubs to participate in the opportunity, not only to view the eclipse but to experience its effects on radio propagation.

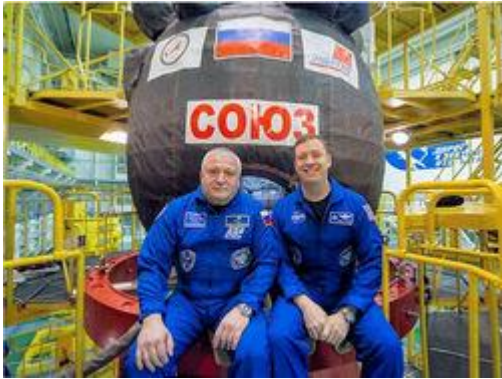
NASA offers much [more information](#) about the 2017 solar eclipse.

Ham Astronauts Swap Places on International Space Station

With US Astronaut and ISS Expedition 50 Commander Shane Kimbrough, KE5HOD, now back on Earth, two more radio amateurs headed into space this week from Kazakhstan to join the ISS crew members that Kimbrough and Russian crewmates Sergey Ryzhikov and Andrey Borisenko left behind on the ISS. The returning trio touched down safely in Kazakhstan on April 10

after spending 173 days aboard the orbiting laboratory.

"Our crew landed safely in Kazakhstan!" Kimbrough tweeted shortly after arriving in Kazakhstan. "We are looking forward to time with family and



Fyodor Yurchikhin, RN3FI (left), and Jack Fischer, KG5FYH, at the Baikonur Cosmodrome in Kazakhstan, pose in front of their Soyuz MS-04 spacecraft during pre-launch preparations. [NASA photo]

friends."

During his time on the orbital complex, Kimbrough participated in several Amateur Radio on the International Space Station ([ARRL](#)) school contacts. In addition to his scientific research activities, he also ventured outside the confines of the space station for four spacewalks.

The Expedition 51/52 crew increment of NASA astronaut Jack Fischer, KG5FYH, and veteran cosmonaut Fyodor Yurchikhin, RN3FI, launched from Baikonur, Kazakhstan, today (April 20).

The pair will travel on board a Soyuz MS-04 vehicle on a fast-track, 6-hour course to the space station and dock to the Poisk module. Welcoming them aboard will be Expedition 51 Commander Peggy Whitson, ex-

KC5ZTD, Oleg Novitskiy, and Thomas Pesquet, KG5FYG.

Fischer, a first-time space flier, and Yurchikhin, a veteran of four spaceflights, will spend more than 4 months aboard the ISS, returning to Earth in early September.

Article Links Amateur Radio Growth to Emergency Communications

An April 11 [article](#), "Emergency Communications Driving Increase in Amateur Radio Operators" in *Emergency Management* magazine links the growth in Amateur Radio numbers to interest in emergency communications.

"There has been a tremendous amount of interest in emergency preparedness since 9/11 and Katrina, and this is true for the Amateur Radio community as well," ARRL Emergency Preparedness Manager Mike Corey, KI1U, told the publication. "Emergency communications is a gateway into Amateur Radio, and many join our ranks through an interest in being better prepared themselves and as a way to serve their community."

The article cites numbers from ARRL VEC Manager Maria Somma, AB1FM, who notes that 2016 was the third year in a row that the total number of new licenses exceeded 30,000. The article also cites ARRL Colorado Section Manager Jack Ciaccia, WM0G, who agreed with the premise that the uptick in new licenses is due to Amateur Radio's emergency capabilities.

"Interest really peaks after a large-scale event where ham radio has been utilized," Ciaccia said. Read [more](#).

The K7RA Solar Update

Tad Cook, K7RA, Seattle, reports: [Spaceweather.com](#) reported that old sunspot AR2644, which returned after a 2-week trip around the sun, exploded on April 18. The resulting coronal mass ejection (CME) should miss Earth, but as this active region moves into a geo-effective position, we could see some geomagnetic disturbance in the next few days.

Average daily sunspot numbers declined from 16.6 last week to 8.6 over the April 13-19 reporting week. Average daily solar flux increased from 73.8 to 76.5.

Geomagnetic indicators were lower this week. The average planetary A index declined from 10.6 to 8, while the average mid-latitude A index was 6.3, down from 9.3 during the previous 7 days.

Predicted solar flux is 85 on April 20-27; 80 on April 28-May 1; 75 on May 2-13; 83 and 88 on May 14-15; 90 on May 16-18; 85 on May 19-24; 80 on May 25-28, and 75 on May 29-June 3.

Predicted planetary A index is 15 on April 20; 8 on April 21-22; 40 and 30 on April 23-24; 20 on April 25-26; 30, 15, 10, 5, and 20 on April 27-May 1; 10 on May 2-4; 15 on May 5-6; 5 and 8 on May 7-8; 5 on May 9-13; 20 on May 14; 15 on May 15-16; 10 on May 17; 5 on May 18-19; 35, 25, 18, 20, and 25 on May 20-24; 12,

8, 5, and 18 on May 25-28, and 10 on May 29-30.

Sunspot numbers for April 13-19 were 12, 11, 11, 0, 0, 12, and 14, with a mean of 8.6. The 10.7-centimeter flux was 73.5, 72.9, 73, 74.5, 75.2, 85.6, and 80.9, with a mean of 76.5. Estimated planetary A indices were 5, 14, 7, 4, 4, 7, and 15, with a mean of 8. Estimated mid-latitude A indices were 4, 10, 5, 4, 3, 6, and 12, with a mean of 6.3.

[Send](#) me your reports or observations.

Just Ahead in Radiosport

- April 22 -- QRP to the Field (CW, phone)
- April 22-23 -- SP DX RTTY Contest
- April 22-23 -- UK/EI DX Contest (CW)
- April 22-23 -- Nebraska QSO Party (CW, phone, digital)
- April 23 -- BARTG Sprint 75 (Digital)
- April 25 -- 222 MHz Spring Sprint (CW, phone, digital)
- April 26 -- SKCC Sprint (CW)
- April 26 -- UKEICC 80-Meter Contest (CW)
- April 27 -- RSGB 80-Meter Club Championship (Digital)

See the [ARRL Contest Calendar](#) for more information. For in-depth reporting on Amateur Radio contesting, subscribe to [The ARRL Contest Update](#) via

your ARRL member profile e-mail preferences.

Upcoming ARRL Section, State, and Division Conventions

- Apr 21-23 -- [International DX Convention](#), Visalia, California
- April 21-23 -- [Eastern VHF-UHF Microwave Conference](#), Manchester, Connecticut
- April 21-23 -- [Idaho State Convention](#), Boise, Idaho
- April 22 -- [Delaware State Convention](#), Georgetown, Delaware
- April 22 -- [Aurora '17 Convention](#), White Bear Lake, Minnesota
- Apr 22-23 -- [Communications Academy XIX](#), Seattle, Washington
- April 28-29 -- [Southeastern VHF Society Conference](#), Charlotte, North Carolina
- April 29 -- [Louisiana Section Convention](#), West Monroe, Louisiana
- May 4-6 -- [Military Radio Collector's Group Convention](#), San Luis Obispo, California
- May 7 -- [Eastern Pennsylvania Section Convention](#), Bristol, Pennsylvania
- May 13 -- [Iowa Section Convention](#), Boone, Iowa

- May 19-21 -- [Ohio State Convention \(Dayton Hamvention\)](#), Xenia, Ohio
- May 27-28 -- [Rocky Mountain Division Convention](#), Cody, Wyoming
- June 2-4 -- [Northwestern Division Convention](#), Seaside, Oregon
- June 3 -- [Georgia Section Convention](#), Marietta, Georgia
- June 4 -- [Western Pennsylvania Section Convention](#), Prospect, Pennsylvania
- June 9-10 -- [West Gulf Division Convention](#), Irving, Texas
- June 16-18 -- [Utah State Convention](#), Garden City, Utah
- June 17 -- [Tennessee State Convention](#), Knoxville, Tennessee

Find conventions and hamfests [in your area](#).