# **i** Propagator

Garden State Amateur Radio Association

8 Donner St.,

Holmdel, NJ 07733

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September 2017



# From the Editor Bob Buus, W2OD

he month of August flew by much too fast for me. I had hoped to get to the Sea Girt Lighthouse on the 19<sup>th</sup> but family issues kept me away. I did manage to sneak down to the shack twice to give a quick listen to see if I could work W2GSA at the lighthouse but in

both instances, I was unable to do so. Forty meters was dead both times that I listened. Twenty was a little better but certainly not what it usually is. In the afternoon, I heard stations in the North American QSO party but even they didn't fill the band. So, hats off to the members who participated and managed to eke out 25 contacts under less than ideal conditions.

For the solar eclipse on the 21<sup>st</sup>, my two daughters came to visit along with two grandsons who were about to go back to college. Before they came, I made a pinhole camera by punching a hole in a large piece of cardboard and then taping a piece of aluminum foil with a pinhole over the larger hole in the cardboard. On my first try, I drilled a small hole in the foil by clamping it between two scraps of wood and using a #80 drill (.014") which is the smallest drill bit I

#### **GSARA MEETINGS & PROGRAMS**

The next GSARA meeting will be on Wednesday, September 6 at 7:30 PM at the Red Cross. The program will be presented by Art Olson, N2AJO who will talk about JT65 and other digital modes. Don't miss it! Light refreshments will be served and guests are welcome.

The second meeting in September will be held on Wednesday, September 20 at 7:30 PM at the Red Cross. This will be a regular business meeting. Refreshments will be served.

# **VE SESSION 9/23 11 AM**

The GSARA monthly test session will be held at the Red Cross on Saturday, September 23 at 11 am. The fee is \$15 and you should bring the original and a copy of any amateur license presently held and the original and one copy of any credit (CSCE) forms that you have (copies will be sent in with your test results). Also bring 2 forms of ID with one being a photo ID. For more information, contact Rich Bilon, N3RB at 732-972-1397 or n3rb@arrl.net.

have. When I tried it outside, I got a nice sharp image of the disk of the sun but as I projected over a longer distance to get a larger image, the image was quite dim if it exceeded ¼ inch in diameter.

I then went back into the shop and drilled another piece of aluminum foil with a #71 drill and the resulting .026" hole gave a brighter image that could be projected up to ½" or so. With that apparatus, we all viewed the eclipse. I'm not sure the grandsons were particularly impressed as they noted that it looked like a crescent moon that they have seen several times. There were no questions about how the pinhole camera worked or how we might improve the image. Nor did they think there was any problem in drilling a clean, small hole in aluminum foil. Kids nowadays just don't seem to care how things work and are hard to impress.

I changed tactics this month in the "Now You Know" column so instead of focusing on a single radio pioneer, I thought it more appropriate to cover the development of receivers with contributions from many creative experimenters. I hope you find it interesting.

As always, I appreciate feedback or material for The Propagator. The deadline for the October issue is September 15.

73 de Bob, w2od@arrl.net

# **GSARA NET 8:30 PM TUESDAYS**

GSARA members meet on the Asbury Park repeater every Tuesday at 8:30 pm. In the 5 sessions in August we had 49 check-ins for an average of 9.8 per session. The following 18 members checked into this net (number of check-ins in parenthesis):

W2MJP (5), N2BMK (4), KA2F (4), N2HGI (4), W2NAZ (4), K2NPT (4), W2OD (4), WB2RPW (4), KC2YNL (4), W2LAF (3), W2ZIM (2) K2CYS (1), N2GT (1), AD7I (1), KD2KOA (1), AC2MB (1), KD2MGE (1) and KC2NAD (1).



Mark your calendar so you remember to participate. The more participation, the more fun!

# **GSARA Lighthouse Weekend**

GSARA participated in the Lighthouse on the Air Weekend at the Sea Girt Lighthouse.

We had 9 members show up to operate.

Art N2AOJ

John KA2F

John KC2YWL

Denis K2NPT

Marty N2BMK

Jeff N2JFL

Diana KD2NAD

Jim K2EI

Howard W2HTS

Hunter helped Thursday to put up the ropes.

We made 25 contacts mostly in the morning. We setup at 7 was on the air by 7:30 and we started breaking down around 3:30. A fun time was had by all and it was a great GSARA club event!







#### **WELCOME TO GSARA**

Please welcome the following members to GSARA:

Richard Krohn, N2SMV from Manalapan holds a General class license and has been licensed since 1992. He is active on 80, 40, 2 and 1.25 meters with a Yaesu FT-890 and lots of VHF and UHF gear. Richard is a refrigeration mechanic and is interested in digital and emergency communications. He also likes fishing and is a member of the ARRL. Please add to your Roster:

Richard Krohn, N2SMV 23 Sweetmans Lane Manalapan, NJ 07726 732-462-5689 n2smv.ec@gmail.com

Steve Goldwasser, N2BCS from Manalapan holds an Advanced class license and has been licensed since 1980. He is active on 20, 15, 10 and 2 meters with a Kenwood TS-940. Steve is a Physician interested in rag chewing and 10X. An ARRL member, he also is interested in photography and computers. Please add to your Roster:

Steve Goldwasser, N2BCS 11 Royal Court Manalapan, NJ 07726 732-547-0963 steve547@aol.com

.Welcome to GSARA. Richard and Steve!

# **GSARA Officers**

President W2HTS, Howard Suffill 732-460-1885 **w2hts@arrl.net** 

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Secretary W2OD, Bob Buus 732-946-8615 w2od@arrl.net

Treasurer KA2F, John King 732-542-1822 ka2fwb2hdj@gmail.com

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Webmaster & Propogator Publisher K2CYS, Cy Stanway 732-768-7773 k2cys@arrl.net

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\* \* \*

Richard Bilon, N3RB, VE Coordinator 732-972-1397**4332lee@gmail.com** 

\* \* \*

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www.gsara.club www.w2gsa.org

# MINUTES OF THE MEETINGS

By Bob Buus, W2OD, Secretary

President Howard Suffill, W2HTS called the meeting to order at 7:30 pm. There were 16 members and one guest present. The guest was former member Rich Krohn, N2SMV from Manalapan. After the pledge to the flag, all present introduced themselves and some summarized their recent amateur radio activities.

John, KA2F continues to increase his grid square count on 6 meters. Art, N2AJO continues to make improvements and modifications to his BitX40 transceiver. Gary, WB2RPW took net control of the GSARA Net the previous Tuesday since Bob, W2OD was unavailable. Denis, K2NPT is still waiting for delivery of his antenna from England. Matthew, N2UG asked about how we are integrating the Yaesu FT-400XDR in our system but nothing has been done so far. Bob, W2OD dug up his old Garmin GPS receiver and found that it will give 6-character grid squares. John, KA2F pointed out that it is easier to just simply check you call on QRZ.com which gives the grid square.

#### **Old Business**

Howard, W2HTS announced that the ILLW lighthouse event is the weekend of August 19-20. GSARA plans to set up a station at the Sea Girt Lighthouse on Saturday from about 7 am to 5 pm. Howard would like to have a rough idea as to how many GSARA members will come out to operate the station. You are free to operate in whatever mode you like and if we have enough operators, we will consider oper-

ating two stations. Set-up will be on Thursday or Friday since we have no access to the building on Saturday. A motion was made by Art, N2AJO and seconded by Ted, N2KPS to authorize up to \$100 to cover expenses for this event. The motion passed unanimously.

#### **New Member**

An application for membership was received from Rich Krohn, N2SMV with payment of \$10. Rich is the former Section Manager for NNJ and is currently the DEC for the Hudson Division. Licensed since 1992, he holds a General class license and is active on 40, 80, 220 and 2 meters. He is a refrigeration mechanic and interested in digital and emergency communications. An ARRL member, he is also interested in fishing. A motion was made by Ted, N2KPS and seconded by Ralph, KC2YNL to accept Rich as an active member of the GSARA. The motion passed unanimously.

#### **Announcement**

The radio room at the Red Cross needs a good clean-up. It will be open on Saturday from 11 am to 1 pm. Anyone who could come at that



time and help with the cleanup would be appreciated.

#### **Programs**

Blair, KD2EPA presented us with two programs. The first was about the upcoming solar eclipse on Monday, August 21. Blair encouraged us all to get on the air. Even if you just call CQ with no answer, there is a vast Reverse Beacon Network that will pick up the signals and note their strengths. You are also encouraged to get on the WSPR network or operated PSK31. All will provide data that will be analyzed to discover any subtle effects of the eclipse. Blair emphasized that we not look at the sun as it will cause permanent eye damage. He showed a cheap set of opaque glasses available at Lowes that will provide proper protection. Best results for viewing the eclipse is to make a pinhole at the end of a mailing tube and project the image of the sun on a piece of paper.

Blair's next program was a test to see if we are smarter than a 5<sup>th</sup> grader. Blair had prepared 20 questions from a 5<sup>th</sup> grade geography book. As a group, we got 18 out of the 20 questions correct so scored a respectable 90%.

Finally, Rich, N2SMV brought us all up to date on the status of emergency communications in Monmouth County. The county emergency center has moved to the Police Academy Tower on Kosloski Road in Freehold. There are antennas on the tower for 144, 440, and 220 MHz. Rich is looking for some sort of NVIS antenna for HF. He is looking for ARES/RACES volunteers and if anyone is interested, please contact him at n2smv.ec@gmail.com. There is an ARES/RACES net on the W2GSA repeater at 8 pm on the 1st the 3rd Mondays of each month. All are welcome to check in.

#### Close

The door prize of \$15 was won by Denis, K2NPT. There being no further business, a motion was made by Ted, N2KPS and seconded by Alan, W2NIR to adjourn the meeting which was closed at 8:51 pm.

# MINUTES OF AUGUST 16 MEETING

By Bob Buus, W2OD, Secretary

The meeting was called to order by President Howard Suffill, W2HTS at 7:30 pm. There were 19 members and one guest present. The guest was Mike Tortorella, W2IY from Middletown. After the pledge to the flag, all present introduced themselves.

#### **Health and Welfare**

Bob, W2OD reported the passing of OMARC member Bob Witham, WD2U on August 8. He was 81 and lived in Spring Lake. Bob served his country in the U.S. Army and as an electrical engineer at Fort Monmouth, retiring in 1988. He was a member of the Spring Lake First Aid Squad and served as squad captain. He also was a member of the Spring Lake Fire Department and served as

deputy chief and chief of the department. Bob was a member of OMARC and belonged to MARS. He was also a member of the Coast Guard Auxiliary for over 43 years and enjoyed boating. Bob was a member of St. Andrew's Church in Spring Lake where he sang in the choir and was a member of the Men's Club. He is survived by his wife of 58 years, Patricia, a son and a daughter, five grand-children and a great grandchild. May Bob Witham, WD2U rest in peace.

#### **New Member Application**

An application for membership with payment of \$15 was received from Steve Goldwasser, N2BCS from Manalapan. Steve is a Physician who was first licensed in 1980 and holds an advanced class license. An ARRL member, he likes to rag chew and work DX. He is also interested in Photography and computers. A motion was made by Jeff, N2JFL and seconded by Hunter to accept Steve as an active member of GSARA. The motion passed unanimously.

#### Secretary's Report

A motion was made by Hunter and seconded by Jeff, N2JFL to accept the minutes of the August 2 meeting as they will be published in the September Propagator. The motion passed unanimously.

#### Treasurer's Report

Treasurer John, KA2F reported a closing balance of \$6873.17 which does not include the latest dues payments from new members.

#### **Old Business**

John, KA2F reported that he would like to see some more suggestions for GSARA Member of the Year for 2017.

Howard, W2HTS is looking for more operators to operate at the Sea Girt lighthouse on Saturday, August 19 from 7 am to about 5 pm. He is looking for antennas. Jeff, N2JFL has a 20 meter dipole that he can lend to the cause. If we could also get a 40 meter dipole, which would probably be sufficient.

The SEQP will run on Monday from 10 am to 4 pm. We are requested to get on the air during the eclipse.

#### **New Business**

Since our computers in the Red Cross radio room are rather old and have the unsupported Windows XP, Howard, W2HTS suggested that we buy two more laptops similar to the one purchased for Field Day. That one cost \$300. A motions was made by Diana, KD2NAD and seconded by Ralph, KC2YNL to authorize \$600 to make such a purchase. The motion passed unanimously.

#### **Announcements**

John, KC2YWL found a dual band antenna in his car left over from the Hamfest. It belongs to

GSARA and will be returned to our storage bin.

#### Close

The door prize of \$16 was won by Jeff, N2JFL. There being no further business, a motion was made by Joe, W2KQ and seconded by Hunter, to adjourn the meeting which was closed at 8:05 pm.

#### **OBITUARY FOR BOB WITHAM, WD2U - SK**



Robert G. Witham, WD2U, of Spring Lake passed away on August 8, 2017. He was 81. Bob was born in Indianapolis, Indiana and, for the past fifty-eight years, has been a resident of Spring Lake.

Bob served his country in the United States Army and, in civilian life, was an electrical engineer at Fort Monmouth, retiring in 1988. Bob was the consummate community volunteer serving his community in the Spring Lake First Aid Squad, serving terms as squad captain, a member of Spring Lake Fire Company #1, serving two years each as deputy chief and

chief of the Spring Lake Fire Department, and remained active in the fire service as a member of the fire police in both Spring Lake and Spring Lake Heights and in fire preventions initiatives.

Bob was a licensed radio amateur and was a member of the Ocean Monmouth Radio Club and Military Affiliated Radio Systems. He was also a member of the U.S. Coast Guard Auxiliary for over 43 years and enjoyed boating with family and friends on his boat, the Chalet.

Cremation was private. In lieu of flowers, please consider donations to St. Andrew's Church, Spring Lake.



# JIM GRIFFITHS, K2EI -GSARA MEMBER OF THE YEAR

GSARA members have voted Jim Griffiths, K2EI as member of the year for 2017. Jim made a major effort this year in erecting his large loop antenna for Field Day but also for encouraging newcomers to participate in Field Day operations. And it's not just this year. Jim has a long history of assisting GSARA at many past Field Days with his very effective large loop antennas.

A luncheon honoring Jim, K2EI as 2017 Member of the Year will be held on Saturday, October 28 at Zachary's Restaurant from 1:30 to 4

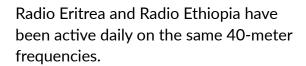
pm. Cost is \$25 per person and should be paid in advance to John King, KA2F (18 Carmel Way, Eatontown, NJ 07724). Members, Spouses, Family and Friends are all invited to attend this Gala event. Zachary's Restaurant is located at 71 Oceanport Ave, West Long Branch (on the corner of Oceanport Ave. and Highway 36).

LUNCHEON MENU
Assortment of appetizers
Soup or Salad
Chicken Marsala or
Tilapia Francaise or
Grilled Prime Rib
Side Dish of Pasta, Rice or Potato
Coffee, Tea, Soda, Iced Tea
Ice Cream

Let's have a large turnout to honor Jim, K2EI for this well-deserved award.

# **Eritrea and Ethiopia Vie for the Same Frequency!**

It was a now-familiar story in the July edition of the International Amateur Radio Union Region 1 (IARU R1) Monitoring System (IARUMS) newsletter, which reports that Radio Eritrea and Radio Ethiopia are still slugging it out within the 40-meter amateur band. IARU Region 1 includes Europe, Africa, the Middle East, and northern Asia.





"The hostile brothers were daily active on 7,150 and 7,175 kHz," said IARUMS Coordinator Wolf Hadel, DK2OM. "Earlier complaints were not regarded. No change." Radio Ethiopia has been deliberately interfering with Radio Eritrea on both frequencies by transmitting white noise, Hadel said.

Elsewhere on 40 meters, Radio Hargaysa in Somalia has been transmitting on 7,120 kHz, and is audible daily in Australia and Japan. On 7,200 kHz, the "Firedrake Jammer" in the People's Republic of China has been transmitting on top of a broadcaster in the Republic of China (Taiwan). The PRC considers Taiwan a province. The Firedrake (or Fire Dragon) jammer, which has been interfering with Amateur Radio signals on 40 and 20 meters over the past decade or longer, also disrupts broadcasts from the Voice of America, Radio Free Asia, and the BBC. The jammer's designation derives from the name of a lengthy Chinese folk tune that the jammer transmits.

So-called "cluster beacons" from Russia have become another issue reported on the 80- and 40-meter CW/digital segments. These CW signals are showing up on several frequencies above 3,590 kHz and in the vicinity of 7,039 kHz and identify with three-letter, R-prefix call signs. They're operated by the Russian Navy, according to IARUMS.

Over the Horizon (OTH) radar signals also continue to intrude on the exclusive Amateur Radio 40-, 20-, 15-, and 10-meter allocations.

# **SO, NOW YOU KNOW**

### A HISTORY OF RADIO RECEIVERS By Bob Buus, W2OD

We saw from the March 2017 Propagator that Thomas Edison built the first detector of electromagnetic waves (which he called an "etheric force" by connecting wires (antenna) to a microscopic spark gap and observing the small spark with a microscope when electromagnetic waves were picked up by the antenna. This was done in 1875.

When Heinrich Hertz started examining electromagnetic waves predicted by Maxwell he used a similar apparatus to what Edison had used but made the antenna a resonant half-wavelength and had the microscopic gap between the ends of the antenna formed in a loop. The sensitivity of these "spark gap" receivers was dependent on how small the spark gap could be made. By today's standards, such receivers were quite insensitive.

In 1890, Edouard Branly, Physics Professor at the Catholic University of Paris, found that an electromagnetic field would lower the resistance of a thin layer of platinum deposited on glass. The effect was even more striking if the metal was filed into a powder and placed in a glass tube with electrodes at each end lightly touching the metal filings. He called such a device a "radio conductor" since its resistance dropped when exposed to a Hertzian wave. After being exposed to the radio wave, the radio conductor continued to exhibit low resistance even after the radio wave disappeared. Branley found that if he tapped the radio conductor with his finger, it would revert back to high resistance until again exposed to a radio wave.

Sir Oliver Joseph Lodge of London further experimented with Branly's radio conductor and theorized that the electromagnetic wave caused the metal filings to stick together or cohere and that caused the resistance to drop. He called this device a coherer and the name stuck. In 1893, Lodge also added an automatic decoherer consisting of an energized doorbell with the clapper hitting the coherer tube rather than a bell.

Young Guglielmo Marconi experimented with various mixtures of different metal filings as well as different electrodes at the ends of the glass tube and had significantly increased the sensitivity of the coherer by 1894. By the following year, he had developed a decoherer circuit using relays and solenoids that tapped the coherer tube only when it went into the low resistance state. This coherer-decoherer combination became the receiver of choice for most experimenters for the following 10 years.

Near the end of the 19th century, an Indian scientist named Sir Jagadish Chandra Bose was



experimenting with what he called autocoherers. He presented a paper before the Royal Institution in London in 1899 describing a mercury-carbon and mercury-iron autocoherer which, when properly adjusted, was more sensitive than the classic coherer. This is the detector used by Marconi for his first successful transatlantic test of December, 1901 although Marconi called it an "Italian Navy self-restoring coherer." It did not gain wide use because adjustment

was very critical and difficult to optimize.

In 1904, Bose went on to patent an autocoherer using a sharpened wire pressing against a crystal of lead sulfide (Galena). This simple receiver was widely adopted by experimenters and came to be called a "crystal radio set." Note that all of these autocoherers were really solid state diodes but that was not understood at the time.

None of the coherers described above were very practical aboard ships because of the rocking of the ship and the vibration of the engines. To solve this problem, Marconi invented a magnetic detector, or "Maggie" in 1902. This consisted of a motor-driven loop of iron wire passing through a magnetic field of a permanent magnet and an rf electromagnetic field. Maggies were the receiver of choice on ships until the end of World War I but they were too complicated and expensive for experimenters and amateurs.

In the interest of inventing a better radio receiver, Ambrose Fleming of England invented the Fleming Valve in 1904 which was a vacuum tube diode. It lacked the sensitivity of the coherer, the Maggie or the crystal set so it was not widely used. Lee Deforest of the United States placed a metal grid between the two elements of the Fleming valve and invented the Audion which was a triode vacuum tube capable of amplifying electrical signals. Deforest couldn't get it to operate reliably but a Columbia University student named Edwin Howard Armstrong analyzed the triode and invented the regenerative detector in 1912. This regenerative detector was much more sensitive than anything else at the time and could detect radio signals almost down to the noise floor.

While serving in the U.S. Army in France during World War I, Armstrong invented the superheterodyne receiver in 1919. Although more complicated than the regenerative receiver, the superhet was capable of being as sensitive as the regenerative receiver but could also be made very selective. Although the superhet has seen minor improvements over the years (a discriminator for FM in the 1930s and a product detector for SSB in the 1950s) it has remained the receiver of choice for nearly 100 years. New developments in digital processing and software defined radios may eventually displace the superhet, but it hasn't happened yet. So now you know.

# **OMARC FALL HAMFEST**



732-618-5328.

The Ocean-Monmouth Amateur Radio Club will be hold its Fall Hamfest on Saturday, September 23 at the Spring Lake Heights Fire Company No. 1, 700 Sxth Avenue, Spring Lake Heights, NJ (1 block from Spring Lake railroad station on the Bay Head NJ line).

The event opens at 7:30 am and runs until noon. Admission Fee is \$5 with Kids 12 years and under FREE. Food and Drinks will be available and there are lots of door prizes.

There will be a VE Session at 10 am. For more information contact Joe Kruszewski, KC2SVS, joekru1@hotmail.com or

## **ART COLLINS BOOK REVIEW**

By Bob Buus, W2OD

I recently finished reading the book "Arthur Collins Radio Wizard" by Ben W. Stearns and found it rather interesting. Born in 1909, by the time he was 9 years old, Art showed an interest in communications and electricity. He received his amateur license at the age of 14 with the call 9CXX (changed to W9CXX in 1928 and W0CXX after World War II). In his first year of operating his amateur station, Art made contacts with countries throughout the world. He conducted some propagation tests with John Reinartz, 1QP in 1924. Captain MacMillian and the National Geographic Society asked Reinartz to be the radio operator on MacMillan's next Arctic expedition in 1925. Reinartz asked Art to be the base station for the expedition so throughout the expedition, Art would copy MacMillan's daily messages and bike to the Western Union office to file the dispatches to the National Geographic Society. Through this exercise, 16 year old Art Collins became known nationally for his radio prowess.

Art started his business of building amateur radios in 1931 with the company name of "Arthur Collins, Radio Laboratories, Inc." In 1933, the company name was changed to "Collins Radio Company" and the company soon expanded from only amateur transmitters to commercial radio broadcasting transmitters. The company developed a reputation for building high quality, reliable equipment. When Richard Byrd was planning his 1933-34 expedition to the Antarctic, he insisted on using Collins radio equipment.



The company continued to grow and when World War II broke out, Collins landed many contracts with the U.S. military for communications equipment. After the war, Collins expanded into avionics and SSB voice transmission. Collins loaned a KWS-1 transmitter and 75A4 receiver to Strategic Air Command (SAC) general Curt LeMay, KOGRL and Butch Griswold, KODWC so they could see for

themselves how well SSB worked. Starting in 1956, all SAC bombers were equipped with Collins SSB radios.

In the 1950s, Collins developed a high-speed (2400 bps) data system using telephone lines that they called Kineplex. In the 1960s, Art envisioned using a computer connected by data lines to a system of communication, avionic and navigation equipment to produce a very effective integrated system. This meant that Collins would design their own computer. Art called this the C-system derived from communication, computation and control. As the C-system evolved, changes were constantly being made since the technology was changing at such a rapid pace. The C-system soaked up ever increasing resources at Collins so eventually, Collins was encountering huge losses each year. Finally, at the verge of bankruptcy, Rockwell was brought in to manage a turn-around for Collins and Art suddenly found that he was no longer in control. The company did turn around under Rockwell and Rockwell took over the company offering one share of Rockwell stock for every share of Collins held by stockholders.

Art stubbornly refused to participate in the Rockwell offer and instead sold his Collins shares on the open market for about 12 million dollars (if he had taken the Rockwell offer, he would have a value of about 47 million dollars). Art then formed a new company called Arthur A. Collins, Inc. (AACI) in 1972. By the mid-19080s, AACI had run through all of the 12 million dollars and had sold practically nothing. Having smoked two-packs of cigarettes a day most of his life, Art Collins suffered a stroke early in 1987 and died on February 25, 1987 at the age of 77.

This book has been donated to the GSARA library and I would recommend it to those who would like to learn more about Art Collins and his fascinating company.



From the September 2012 Propagator: Rich Evans, KB2MUN at the age of 58 became a silent key on August 20, 2012. Heathkit declared bankruptcy and closed its doors. An analysis of old QSL cards collected by Ed Edwards, 3ABL in the 1920s was presented by Bob, W2OD.

#### **TEN YEARS AGO**

From the September 2007 Propagator: Jeff, N2LXM is arranging a bus trip to ARRL Headquarters on September 12, 2007. Middletown RACES is running a one-day Tech class at Croydon Hall on September 8, 2007. The Vintage Radio and Communications Museum of Connecticut in Windsor reopened for the first time in seven years.

#### FIFTEEN YEARS AGO

From the September 2002 Propagator: GSARA members Al Rauch, W2EYW and Joe Mount, WB2KAK became silent keys. The CD version of the Radio Amateur Callbook is discontinued after the Winter 2003 edition. The Callbook began publishing in 1920. Carol, KC2DZD and Al, N2VOJ Corbisiero rejoined GSARA.

#### **TWENTY YEARS AGO**

From the September 1997 Propagator: A bootleg pirate, using various bogus call signs, was on the Asbury Park repeater. One-by-one special event call signs are now available. To commemorate the 40<sup>th</sup> anniversary of Sputnik, a mini-Sputnik will be hand launched from the Russian Mir space station. Marv Bernstein, W2PAT reminisced about how he and Jerry Havel, W2RRX-SK set up a listening station for Sputnik in the hexagon at Fort Monmouth.

#### **TWENTY-FIVE YEARS AGO**

From the September 1992 Propagator: The Dinner Dance at the Town and Country Inn in Keyport on August 14 was a big success with 78 people attending. Andrea Copp, N2LAL and Ed Thomas, N2IHN joined GSARA. Radio Shack announced the 15<sup>th</sup> anniversary of the TRS-80 Model 1 introduction on August 3, 1977.

#### THIRTY YEARS AGO

From the September 1987 Propagator: Treasure Island special event operation is coming on October 10, 1987 and is coordinated by Harry, KN2B. This event started in 1980. Mike Begala, K2CTJ needs only 24 more counties for Worked All Counties. Ken Proctor, N2DQD had a one-page article on Reflected Waves.

# **Solar Eclipse QSO Party**

The 2017 Solar Eclipse QSO Party (SEQP) is history, and, while logs are still coming in, the preliminary participation numbers look good, according to Nathaniel Frissell, W2NAF, of HamSCI.

Once they submit a log, SEQP participants will get a PDF Certificate of Participation like this.

"Although the final numbers are not yet in, preliminary reports show that over 670,000 spots were detected by the Reverse Beacon Network (RBN), and over 542,000 spots were reported to PSKReporter [PSK Automatic Propagation Reporter] during the SEQP," Frissell told ARRL on August 22.



"These numbers will increase as data is processed."

Frissell said overall, the event went well, and he heard a lot of on-the-air activity during the 8 hours the SEQP was running.

"It will take some time to get a more scientific analysis of this, but we should have some results by the middle of this semester," said Frissell, who is an associate research professor at the New Jersey Institute of Technology. Frissell and others are investigating whether the sudden absence of sunlight during the eclipse -- and especially of solar ultra-violet and x-rays -- would briefly change the properties of the upper atmosphere.

HamSCI's Nathaniel Frissell, W2NAF, was in Kentucky for the eclipse. Despite more than 60 years of research, "open questions remain regarding eclipse-induced ionospheric impacts," Frissell explained in a paper, "HamSCI and the 2017 Total Solar Eclipse," that he'll deliver this year at the ARRL-TAPR Digital Communications Conference (DCC).

He is encouraging anyone who took part in the SEQP to submit a log by September 30. Once their logs are submitted, SEQP participants will get a PDF Certificate of Participation. Frissell, who was in Gilbertsville, Kentucky, to observe the eclipse, said, "Totality was beautiful."

From Aug 24 ARRL Letter

# **Amateur Radio Parity Act Update**



The Amateur Radio Parity Act of 2017 is now in the US Senate (S. 1534). ARRL has developed and posted a list of frequently asked questions (FAQs), "The Amateur Radio Parity Act: Setting the Record Straight," to explain and to clarify what the passage of the legislation would accomplish -- as well as what it would not.

"There has been so much misinformation floating around on forums, blogs, podcasts, etc. regarding the Amateur Radio Parity Act, that we realized a listing of facts as to what the bill is and what it does was long overdue," said ARRL Hudson Division Director Mike Lisenco, N2YBB, who chairs the ARRL Board's ad hoc Legislative

Advocacy Committee.

ARRL General Counsel Chris Imlay, W3KD, prepared the FAQ on behalf of the Board of Directors and its ad hoc Legislative Advocacy Committee.

"We trust that this will address any concerns you may have had about the legislation," Lisenco said. "Let's buckle down and get this bill passed. We can only do this with your help."

Senators Roger Wicker (R-MS) and Richard Blumenthal (D-CT) co-sponsored S. 1534, which was introduced in the US Senate on July 12, marking another step forward for this landmark legislation. The measure will, for the first time, guarantee all radio amateurs living in deed-restricted communities governed by a homeowner's association (HOA) or subject to any private land-use regulations, the right to erect and maintain effective outdoor antennas at their homes. Senate bill S. 1534 is identical to House bill H.R. 555, which passed in January.

In a message to ARRL members this week, ARRL President Rick Roderick, K5UR, thanked all who have written their Senators in support of S. 1534. "If you have not done so, please do," Roderick said, referring to the bill's Rally Congress page.

From August 10 ARRL Letter

#### **NOTES ON CALENDAR (see next page)**

Large Call letters denote birthdays e.g. **N2AJO** September 15. All times are EDST. Contests are listed in the September QST, p. 84.

Sept. 1-3 – **All Asian DX contest, SSB** from 8 pm Friday to 7:59 pm Sunday. The exchange is signal report and 2-digit age.

A way to pick up some Asian countries. See http://www.jarl.org/ English/4 Library

September 1 - **W1AW Qualifying Run** at 10 pm (10-35 wpm). See September 2017 QST page 98 and www.arrl. org/qualifying-run-schedule

September 1 and every Friday – Lunch at the Blue Swan Diner in Ocean at noon. Table at back left.

September 4 – Labor Day Holiday

September 4 - Monmouth County ARES/RACES Net meets on 147.045 +600, PL=67.0 at 8:00 pm

September 5 – **Old Barney VE Test Session** at 6:30 pm in Manahawkin. Contact Urb Le Jeune, W1UL at 609-296-5856 or urb@w2dec.com

September 5 – Old Barney ARC Meeting at 7:30 pm in Manahawkin, NJ. See http://www.obarc.org

September 5 and every following Tuesday – **GSARA Net** on 147.045 PL=67 at 8:30 pm.

September 5 and every following Tuesday – **QCWA News Net** on 147.045 PL=67 at 9:00 pm.

September 6 – **GSARA Program Meeting** at 7:30 pm at the Red Cross. The program by Art, N2AJO will be about JT65 and other digital modes. Refreshments will be served.

September 7 - **HCARC Meeting** 7 pm at Holiday City South Clubhouse in Toms River.

September 9 – **OMARC Meeting** at 9:00 am at the Firehouse on 600 Sixth Ave. in Spring Lake Heights. Guests are always welcome.

Sept. 9-10 – ARRL VHF Contest, all modes from 2 pm Saturday to 11 pm Sunday. See http://www.arrl.org/

september-vhf September 13 – **W1AW Qualifying Run** at 7 pm (10-35 wpm). See September 2017 QST page 98 and http://www.arrl.org/qualifying-run-schedule

September 13- **Holiday City VE Session** at 7 pm in Toms River. Contact is Larry Puccio, K2QDY at 732-349-2950 or e-mail at lpuccio1@comcast.net

September 14 – **JSARS meeting** in Riverwood Park Rec. Building, Rt. 527 and Riverwood Drive at 7:30 pm.

Sept. 16-17 – **All Africa International DX Contest,** all modes from 8 am Saturday to 8 am Sunday. See <a href="http://www.sarl.org.za">http://www.sarl.org.za</a> Sept. 16-17 – **New Jersey QSO Party,** CW & SSB from noon Saturday to 4 pm Sunday. See <a href="http://www.k2td-bcrc.org/njqp">http://www.k2td-bcrc.org/njqp</a> September 18 - **Monmouth County ARES/RACES Net** meets on 147.045 +600, PL=67.0 at 8:00 pm

September 20 – **GSARA Meeting** at 7:30 pm at the Red Cross in Tinton Falls. Regular business meeting.

September 21 – **JSARS VE Test Session** at 7:00 pm Riverview Park Recreation Bldg., Rt. 527 and Riverwood Drive in Toms River. Contact Ed Genoino, WA2NDA at 609-971-2792 or wa2nda@comcast.net.

Sept. 22-24 – **CQ Worldwide DX Contest, RTTY** from 8 pm Friday to 7:59 pm Sunday. See http://www.cqwwrtty.com

September 23 – **GSARA VE Test Session** at 11 am at the Red Cross in Tinton Falls. See page 1.

# **SEPTEMBER 2017**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1 Blue Swan lunch Asian DX CW Qual. Run	2 Asian DX
3 Asian DX	4 Labor Day ARES/RACES 8 pm	5 Old Barney ARC GSARA Net 8:30 QCWA News 9 PM	6 GSARA Mtg	7 HCARC Mtg	8 Blue Swan lunch	9 OMARC Mtg VHF Contest
10 VHF Contest	11	GSARA Net 8:30 QCWA News 9 PM	CW Qual. Run Hol. City VE	14 KD2FZN JSARS Mtg	15 N2AJO Blue Swan lunch	16 Africa DX NJ QSO Pty
17 Africa DX NJ QSO Pty	18 ARES/RACES 8 pm	N2UUS GSARA Net 8:30 QCWA News 9 PM	GSARA Mtg	JSARS VE.	Blue Swan lunch	GSARA VE CQ WW RTTY
24 CQ WW RTTY	25 KD2HUE WB2RPW	26 GSARA Net 8:30 QCWA News 9 PM	. 27	28	29 KC2YWL	30 N2VFK



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