

THE Propagator

Garden State Amateur Radio Association



W2GSA
SEPTEMBER
2019

8 Donner St.,
Holmdel, NJ 07733



Propagator Editor:
Bob Buus, W2OD

Propagator Design &
Production:
Cy Stanway, K2CYS

www.gsara.club
www.w2gsa.org

Please visit the club website
and feel free to use our open
repeater.

(Analog FM) 147.045 +.600 -
(C4FM) Node 43360 PL 67 Hz



If there is one truth about ham radio clubs, it's that energy feeds off of energy. When we come together as a group of interested and interesting hams, it attracts others to the club, to the meetings, to the events and makes us the kind of club we are building. Energy feeds off of energy.

GSARA must be doing something right. Our meetings are full (except in the middle of a thunderstorm! - Sorry, Blair!), we have wonderful participant turnout for our events such as the Hamfest, Field Day, special events stations, etc., and we are getting new members almost every single month.

Our presence is known online, through the Propagator and, of course, through the fantastic repeater we all use.

And there is another aspect of the club that goes beyond ham radio. In the past few years we have supported each other during times of illness and family deaths and even the deaths of our members from time to time. This is the surest sign of a healthy club.

In the coming months, as the weather gets a bit cooler and downright cold, there is always warmth to be found with friends at the meetings, on the air and, of course, as we opera in our own homes and share the stories.

If you are not a member of the GSARA, go the gsara.club website and fill in an application. We can all build off of each other's energy and make GSARA even better and more fun. And, after all, that is what ham radio is....fun!





GARDEN STATE AMATEUR RADIO ASSOCIATION



HAMFEST

Saturday September 28, 2019

8 a.m. to 12 p.m.

**MOESC Parking Lot
100 Tornillo Way (off Shafto Road)
Tinton Falls, NJ 07712**

ADMISSION:

VENDORS 7 a.m.

\$5 admission fee

**first parking space FREE with admission
\$10.00 each additional space**

BUYERS 8 a.m.

\$5.00 admission fee per person



- VE session starts at 11:00AM
- QSL card checking
- Food and hot and cold beverages
- Door prizes
- Talk-in—W2GSA REPEATER: 147.045 + PL 67

GSARA HamFest Sponsors:



Email to: HMFEST@GardenStateARA.org
<http://www.gsara.club>



FROM THE VICE PRESIDENT

DENIS COMETTE, K2NPT

Labor

this time of year; sorry to see the summer end but then I welcome this extraordinary fall season that we enjoy at the Jersey Shore and the surrounding area.

Day is upon us and you can already start to feel the change in the weather and our bio rhythms as well. Hurricane Dorian is moving on the windward Islands and a typical fall season begins, I always have mixed emotions at

September is an active month for the Club. Our annual HamFest will be held at the end of the month and is an all member affair. Other than the annual dues, it is the major revenue generating activity of the Club and we need your support to make this a successful event. Please consult the sign up sheet and event details that are posted on the club web page.

Lighthouse weekend was held on August 17 and we enjoyed the participation of 10 members, some really nice weather and a beautiful view of the ocean. This was a fun, low key event and a great opportunity to put the spirit of the club on display. Also, please don't forget the Twin Lights bike tour. We have been very active in past with our support of this event and as an appreciation of our participation, we receive a donation from the organizers.

It may be a little early to look to the year in review but, as a club, one thing we can be proud of is the level of participation and the enthusiasm shown by the members in club events as well as the feeling of excitement and comradery on display in the meetings. The presentations have been very well done and well received by the members. We have been video taping these and posting them on the website and it is nice to see the level of support by the number of views they receive.

This past week marked a milestone in our plans for the radio shack. The Red Cross ITT department reconfigured our internet access so that we are now able to take advantage of the full capability of our equipment. For those of you active on the Tuesday net, you have noticed participation of some members remotely via the EchoLink system of communication. This system has been fine tuned to produce a clear signal and this a great asset to allow members to join in while traveling or on extended vacations. Also, the revamped system can now be accessed by your smart phone. The wires-x system has been relocated to the radio room and is available for you to enjoy the full capability of the Yaesu C4FM system. APRS and the Winlink systems have also been tuned and all the fixed services have been relocated to one central location. Although there is still work to be done in the room, the focus will soon shift to analyzing and upgrading of the antenna farm. The club engineer and his team have spent a great deal of their personal time upgrading our facility and they should be recognized.

Give them a pat on the back the next time you see them.

So, as we look ahead what is in store. Well the traditional activities for sure, but what about breaking the paradigm with some new ideas and activities. The 13 colonies contest is a case in point which resulted from a suggestion from one of our members. A strong club revolves around the members and we would like to encourage suggestions from the membership on activities you would feel might fun for the club. Let's hear from you.

FROM THE EDITOR

BOB BUUS, W2OD



The GSARA Hamfest is coming up on Saturday, September 28. We can still use more help. We have a sign-up sheet on our website. Visit it and decide where you would like to help. It is only through the efforts of many members that our Hamfest can be a success.

The operation at the Sea Girt Lighthouse on August 17 was a lot of fun. Band conditions were not great but we enjoyed sitting out on the lighthouse porch and enjoying the weather and the views. I'm looking forward to doing it again next year!

Sadly, we have three obituaries in this month's Propagator. Two of them were former members of GSARA and were very active amateurs at that time. Roy Edwards, AB2RE showed up at the Blue Swan a year or so ago and I enjoyed chatting with him. Sadly, it was the last time that I saw him. May these outstanding hams rest in peace.

I'm looking forward to the program meeting on September 4 where our new NNJ Section Manager, Steve Ostrove, K2SO will bring us up to date on what is going on at the ARRL. Steve was Section Manager a few years ago so he has experience with the position. I'm sure he will be glad to

take back feedback and suggestions from us and act on them.

Our Chief Engineer, Phil Festa, N2EDX has a committee working on the details of operating the club's IC-7300 HF rig remotely through the internet. The necessary internet connections are now available in our radio room and Phil's committee is working out the details of letting GSARA members operate the rig from their home or any remote location with internet access. This should be a boon to those living in restricted communities who can't put up a decent outdoor antenna. As soon as everything is ready, members will be notified as to how to participate in this remote operation.

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

A BRIEF HISTORY OF TELEVISION

By Bob Buus, W2OD

Shortly after the invention of the telegraph, inventors were devising ways of sending a facsimile of a printed page or picture on the telegraph lines. All methods broke down the page or picture into a set of pixels which were sent to the distant end in a pre-arranged sequence with a dark pixel being sent as a "dot" and a light pixel sent as a "space". The system was slow and there was no gray scale (which would have slowed things down much further), but the systems worked and were practical if the resolution was not too high.

After Edison invented the motion picture, attempts were made to transmit a motion picture over wires. Obviously, to prevent flicker many pictures would have to be sent every second. To obtain such fast scanning, Paul Julius Gottlieb Nipkow in 1884 invented a spinning disc with holes in it that would scan a picture through a series of arcs once every revolution of the disc. In

Paris in 1909 a Nipkow disc was used with selenium photocells to transmit 8 lines of 8 pixels several times per second. In 1911, Russian professor Boris Rosing and his student Vladimir Zworykin demonstrated a TV system using a mirrored drum scanner and selenium photocells to produce a picture that could be received on a CRT receiver. The system was slow because of the response time of the selenium photocell.

The ultimate mechanically scanned television was demonstrated by Bell Laboratories on April 27, 1927. The direct view display on a CRT was 2 inches wide by 2.5 inches tall (portrait mode) but they also showed a large projection display that was 24 inches wide and 30 inches tall. The picture had 50 lines and was repeated 18 times per second. Sound was sent on a separate telephone channel.



Philo Farnsworth was a young Mormon boy whose family moved to a farm outside Rigby, Idaho in 1918 when Philo was 12 years old. The idea for electronic television came to Philo while he was plowing his father's field. He thought of a photo-sensitive plate being "plowed" (or scanned) by an electron beam to read the light-intensity level pixel by pixel. He called this camera tube an "image dissector" because it would dissect the image into a series of pixels. He described his ideas in detail with the only person he knew who might understand it – his high school chemistry teacher, Justin Tolman. Tolman was so impressed that he copied the diagrams that Farnsworth had drawn on the blackboard onto sheets of paper which he kept.

In 1923, the Farnsworth family moved to Provo, Utah where Philo completed his high school education at Brigham Young High School in the class of 1924. Unfortunately, Philo's father died in January, 1924 so Philo, the oldest son, became the breadwinner of the family.

Philo applied for and was admitted to the U.S. Naval Academy but when he learned that all patents obtained while in the Navy would be the property of the U.S. government, his mother successfully petitioned to have Philo honorably dismissed from the Academy because he was the oldest son of a widow and was needed at home as the breadwinner. Back home, he managed to attend Brigham Young University for his freshman year but had a falling out with the faculty because they would not let him, as a freshman, use their laboratory facilities to fabricate image dissectors and CRT picture tubes.

He met and fell in love with Elma "Pem" Gardner in 1924 and they were married on May 27, 1926. Two California investors, George Everson and Leslie Gorrell heard of Farnsworth's television idea and thought it had great potential. They invested \$6000 to have Philo start a research lab to further develop television. So, shortly after they were married, the Farnsworths moved to California and set up a lab to implement Philo's TV ideas.



On September 7, 1927 Farnsworth made a public demonstration of the first live electronic TV. Philo had just turned 21 years old. His lab continued to improve the TV system and Pam was the first person televised (with her eyes closed because the lights were so bright due to the insensitivity of the image dissector).

Meanwhile, Vladimir Zworykin left Russia during the revolution and ended up in the United States. After a few short-lived jobs, Zworykin landed a job with Westinghouse in 1923 to develop an electronic TV system. After working several years with no results, Westinghouse asked him to stop work on TV and pursue another field. Sarnoff at RCA (which was cozy with Westinghouse at the time) asked Westinghouse to continue the TV work and RCA would subsidize the expense. Finally, in April 1930, RCA agreed to buy out Westinghouse's TV work and transfer Zworykin from Westinghouse to RCA. However, before the deal was made public, Sarnoff asked Zworykin to go out to California as a private citizen and see what this guy Farnsworth was up to.

Zworykin was welcomed by Farnsworth and spent 3 days learning all of the details of the image dissector and improvements that Farnsworth was planning for it. When Zworykin got back east, RCA announced the change and said that RCA planned to develop TV to be received in the home. A year later, Zworykin invented a new camera tube that RCA called the Iconoscope but the invention was kept secret until 1933. The Iconoscope was essentially Farnsworth's image dissector with a new name (which RCA copyrighted). It could not be manufactured without paying royalties to Farnsworth. To solve that problem, Sarnoff went out to California to the Farnsworth lab in 1931 and offered Pam \$100,000 for the Farnsworth patents and offered Philo a job at RCA that would pay a regular, decent salary. At the time, Philo was on the east coast at Bell Labs investigating a new Cesium compound that was more sensitive to light. There is suspicion that Sarnoff knew that Philo would be out of town and that Pam would be more reasonable about considering his offer. He was wrong. Pam turned down the offer and Sarnoff went back east empty handed.

It appears at this point that Sarnoff declared war on Farnsworth. RCA filed suit against Farnsworth claiming that Zworykin had the idea for the Iconoscope in 1923 when he started working for Westinghouse. Farnsworth's high school science teacher showed up in court with the diagram he drew of Farnsworth's blackboard sketch of the image dissector in 1922. RCA lost the case. RCA next filed suit that the claims on the Farnsworth patent were too broad and prevented others from inventing different camera tubes. Again, RCA lost when the court ruled that the claims were not too broad. In the 1920s, frivolous lawsuits by RCA against small radio companies effectively drove many out of business. It didn't work with Farnsworth.

In 1938, Farnsworth and AT&T reached a cross-licensing agreement. RCA realized that Farnsworth-AT&T had the patent coverage to introduce a complete electronic TV system and could freeze RCA out of the game completely. Sarnoff ordered the RCA lawyers to negotiate a deal – even if expensive. In September 1939, a secret deal was reached whereby RCA would pay Farnsworth a million dollars spread over 10 years as well as pay royalties on all Farnsworth TV patents. This allowed RCA to present a big TV demonstration at the 1939 World's Fair in New York. RCA's extravagant claims to have invented the Iconoscope camera tube (Farnsworth's image dissector) and the Kinescope picture tube (Farnsworth's Iatron) went unchallenged because of the secret agreement.

With a little prodding from the FCC, all the TV developers agreed to form a National Television System Committee (NTSC) which in 1941 adopted a TV standard for the United States consisting of 525 interlaced lines per frame and 30 frames per second.

And then World War II broke out. The War Production Board banned the manufacture of TV and radio for civilian use starting April 22, 1942. The ban wasn't lifted until August 20, 1945. The history of television after the war will continue next month.

So now you know!



From Phil, N2EDX comes this wonderful email:

"I received my special event QSL card today commemorating the 50th anniversary of Apollo 11. The contact was made via the XW-2C satellite, (SSB)."

Congratulations, Phil!

OMARC HAMFEST SATURDAY, SEPT 7

The OMARC Hamfest is Saturday, September 7 at the Spring Lake Heights Firehouse at 700 Sixth Avenue in Spring Lake Heights. Doors open for vendors at 7 am and buyers start at 7:30 until about noon. Admission is only \$5 with kids 12 and under free. There is a VE test session at 10 am. Food and Drinks will be available as are door prizes. For more information, contact Joe Kruszewski, KC2SVS at 732-618-5328 or joekru1@hotmail.com.

CONTEST INFO ON THE WEB

By Gary Metzger, WA2RPW

Bruce Horn, WA7BNM has a very extensive website listing all radio contests. You can get listings for various time intervals and can filter to get only CW or only QRP, etc. Clicking on any particular contest brings up additional information such as the exchange expected, where to submit logs, submission deadlines, etc. Check it out at:

<https://www.contestcalendar.com>

You'll find it interesting.

73, Gary Metzger, WA2RPW

NEW GSARA MEMBERS

Please welcome these newest member to GSARA.

George Wilner, K2ONP has been a guest at many meetings brought by his friend Paul Newland, AD7I. George is an Old Timer with many years of amateur radio activity under his belt. Please add to your Roster:

George Wilner, K2ONP

2613 Hurley Pond Road

Wall, NJ 07716

518-428-4252

wilnergeorge1@gmail.com

Pat Noble, who is not licensed, is the husband of member Diana Noble, KD2NAD had joined as a family member. Pat has a long history of short wave listening and has an interesting collection of QSL cards from short wave stations around the world. He is an environmentalist and bird watcher. Please add to your Roster:

Pat Noble, no call

66 West Concourse

Cliffwood Beach, NJ 07735

732-241-4102

patnoble@aol.com

Welcome to the GSARA, George and Pat!

MEETING TIMES

The next GSARA meeting will be on Wednesday, September 4 at 7:30 pm at the Red Cross. This will be a program meeting featuring our new NNJ Section Manager, Steve Ostrove, K2SO who will fill us in about ARRL activities and take any comments or suggestion we might have regarding the League. Guests are welcome and light refreshments will be served.

The next meeting in September will be held on Wednesday, September 18 at 7:30 PM at the Red Cross. This will be a regular business meeting and will include our preparations for the September 28 Hamfest. Be there! Guests are always welcome and refreshments will be served.

VE SESSION

The GSARA monthly test session will be held at the GSARA Hamfest at the MOESC building in Tinton Falls on Saturday, September 28 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 732-567-4396 or n3rb@arrl.net.

FROM THE CHIEF ENGINEER

By Phil Festa, N2EDX

Hello Operators,

I wish to provide the GSARA Membership with a summary of what's been happening in the Radio Room.

Since the beginning of the year, much effort had been placed into the installation of the 19 inch equipment rack which some of you may remember had been resting outside the RR door for an indefinite period of time. That rack has now been installed and equipped with a Motorola DC power supply as well as a 2200VA UPS providing us with a hardened central location for our current services i.e., Winlink, and Echolink. In the future it is planned to accommodate WiRES-X and RemoteHams services as well.

Concurrent with the rack installation, three bench power supplies had been repaired and placed into service on the operator workstations. A low inductance bussed ground system had been installed, eliminating station ground loops. The two FT-450's have had their firmware updated and the IC-7300, which had been purchased for remote operation, had its firmware updated as well, as it is being

prepared for its intended role.

The YSF FT-400XDR radio, also with newly updated firmware, serves as Radio Room communications. Additionally it also provides GSARA with an APRS beacon, itself pointing to the club web site.

<http://aprs.fi/w2gsa>

As an additional benefit, the rack has allowed us to reduce the clutter on the remaining workstations, improving the overall appearance of the Radio Room and operating positions.

With these initial steps now largely complete, a solid foundation has been established to build upon and go forward with our club's plans to add new services.

I hope you enjoyed this summary and I wish to thank the following operators for their time, effort, and support:

Art, N2AJO

Denis, K2NPT

Matt, N2UG

Jim, WA2JZQ

Pete, NA2J

Sal, KD2OXR

73 de Phil, N2EDX

SILENT KEYS



AL RANDO, W2NCH - SK

Al Rando, a musical legend of the Jersey Shore, passed away at his home in Wall Township, NJ on July 28th, 2019 at the age of 93.

Al, despite becoming blind at the age of 6 months due to the measles, missed beauty through sight but had an abundance of joy from the beauty of sound.

He attended the NY School for the Blind in the Bronx. He was able to play tunes on the piano as a child and took accordion lessons later on. At Curtis High School he took radio courses and later built his own short wave radio station. He became an amateur radio operator, his call being W2NCH. Amateur radio became a wonderful life-long hobby with worldwide contacts.

Yet music was his first love and career. He succeeded in developing his sound with his keyboards, at times surrounded by 4 keyboards until he achieved the sound of an orchestra or big band.

He began playing in Staten Island as a teenager, and later in NY City including the Dixie Hotel. But the major part of his career took place on the Jersey Shore at several locations, notably at the Beacon Manor Hotel, PJ Ruggles and Brennen's Steakhouse, where he played the piano

from 2004 until 2018.

Al leaves to cherish his memory one son Albert J. Rando Jr. of Kingston, NY, one grandson Alex Rando of Las Vegas, NV; two brothers, Rudolph Rando and Robert Rando Sr., both of Montauk, NY; and many nieces, nephews and cousins.

His special niece Laurie Kenny and dear friend Carol Myron have been wonderful caregivers to Al in his later years. He will be sorely missed by them and many others, especially Diane who was a great help to Al for the better part of a 50 year caring relationship.

In 2017 a short documentary of his life was filmed after he had a heart valve replacement. It can be accessed at new-heartvalve.com.

In respecting Al's wishes, there were no services. There will be a celebration of his life for family and friends at Brennen's Steakhouse in Neptune, NJ on Monday September 16th at 8pm.

If you would like to leave an online tribute, please visit Horizonfuneralservices.com

MARV BERNSTEIN, W2PAT - SK

Former GSARA member Marv Bernstein, W2PAT died on August 4, 2019 in Saluda, South Carolina.



He was 104. Marv was born on June 6, 1915 in Buffalo, New York. Marv's father, knowing that his son was interested in electricity and electrical gadgets, gave Marv a crystal set kit for his

10th birthday. Marv was thrilled with the gift and soon was listening to two Buffalo stations, WGR on 550 and WKBW on 1480. Now hooked on radio, Marv went to the local li-

brary and read all the books he could find about early radio. By the time Marv was 15, he had established a reputation for knowing a lot about radio. A ham friend of his fathers opened a radio store as a sideline to his regular job and hired Marv to open the store when he got out of school and staff it until the man got there after work. For his pay, Marv acquired a large collection of parts for battery operated radios which had become obsolete with the introduction of AC power. From these parts, he built his first regenerative receiver with two tubes – a regenerative detector and an audio amplifier. With this receiver, he listened to 80 meters and learned the Morse code. A particular strong station heard was W8GFP who lived on the next street and became Marv's Elmer.

Marv got his amateur radio license in 1932 and was issued the call W8DLU. His first transmitter was a home-brew pair of 201As running push-pull. For the 180 volt plate supply, he used four 45-volt rechargeable lead acid batteries.

In 1933, the Colonial Radio Corporation opened a factory in Buffalo to manufacture Silvertone radios for Sears-Roebuck. They placed an ad in the paper for radio amateurs to work in the factory. Marv applied for a job (along with many others – some not hams) and after taking a test about radio, was hired as a circuit checker. Because of his troubleshooting skills, he was transferred to the trouble-shooting unit and soon was Supervisor of that unit.

Hoping to expand his job opportunities, in 1936 Marv obtained his First-Class Commercial Radiotelephone and Second-Class Radiotelegraph licenses. Jobs were hard to come by during the depression so Marv stayed on at the Silvertone factory. On August 12, 1939, he married Alma "Sunny" Scharmach and in their 67 years of marriage, had four children, six grandchildren, and four great-grandchildren. By 1940, with war clouds on the horizon, a secure section of the factory was building radio transmitters for the British RAF through a sub-contract from Bendix.

On December 14, 1941 (a week after Pearl Harbor), Marv received a telegram from Fort Monmouth asking him to report for work at the Fort at 0900 on December 22. After processing some paper work, Marv reported to the quartz crystal section where he met Jerry Havel, W2RRX who had started work at the Fort about a year earlier. They remained

good friends until Jerry (also a GSARA member) became a silent key in 2004. Throughout the war, Marv worked with quartz crystals including designs to withstand very high "g" forces which were later used in the Explorer I satellite and ABM missiles. In 1962, he was the American delegate for the NATO Standardization Group.

After moving to New Jersey, Marv had to change his amateur call to W2PAT. In 1948, Marv acquired a used Model 12 Teletype machine and soon was on the air on 2-meters using AFSK and 850 Hz shift. In 1951, he joined Air Force MARS (AFA4DA) where he could continue experimenting with RTTY. He subsequently designed a sophisticated RTTY Tuning Unit with crystal filters for the mark and space frequencies.

In 1972, Marv retired from Fort Monmouth. For about six months, he played with amateur radio full-time and upgraded to Extra class. He missed the work environment however, so decided to go back to work and landed a job as an engineer with HECON Corporation. By 1976, he was promoted to Laboratory Supervisor at HECON. He bought his first personal computer in 1978 from Ohio Scientific and jumped on the digital bandwagon. On the amateur radio front, Marv designed an ASCII to Baudot (and Baudot to ASCII) converter using an 8085 processor. He sold many of these to other radio amateurs for his cost of \$12.50. This allowed hams fortunate enough to have an ASCII machine to get on the air with Baudot. After 1980, when ASCII was allowed on the ham bands, the converter allowed those with Baudot machines to get on the air with ASCII. In 1984, Marv retired from HECON.

After his second retirement, Marv got involved with packet radio and installed packet nodes for both Army and Air Force MARS on the commercial 500 foot tower located near UPS in Tinton Falls. When he moved to South Carolina, he donated these repeaters to GSARA and his son, Ralph, KC2WAD continues to maintain the repeaters for the National Traffic System.

Throughout all of the past 87 years, amateur radio has been a vehicle for Marv to learn new things while having a lot of fun doing it. May he now rest in peace after so many years of enjoying life with amateur radio.

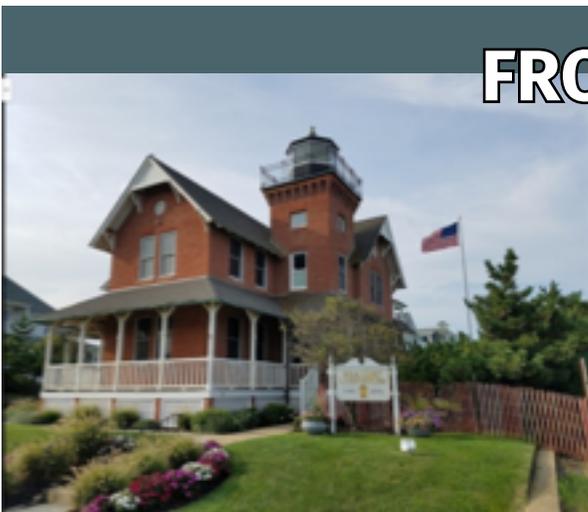


ROY EDWARDS, AB2RE - SK

Former GSARA member LeRoy H. Edwards, Sr., of Neptune, died Thursday, August 15 at Jersey Shore University Medical Center, Neptune surrounded by his loving family. Mr. Edwards was an Auto Technology Teacher at Raritan High School before retiring in 2006. He was an avid fisherman, a member of the Bass Anglers Association, and an amateur radio operator with the call sign AB2RE. He was a member of the NHRA, enjoyed drag racing and spent many years volunteering with the Monmouth County Office of Emergency Management. Mr. Edwards served with the United States Marine Corps during the Vietnam War. He was a member of GSARA as KB2LUO from 1992 until he changed his call to AB2RE and remained a member through 1998 with the new call.

Surviving are his devoted wife Felicia Shanley Edwards; his son, LeRoy H. Edwards, Jr. and his wife, Eleanor Glazewski; his daughters, Christina Laing, Melissa Edwards and her husband Brad Palmerio and Caitlin Edwards; his six grandchildren, Jacob, Emily, Alexandra, Zoe, Czar and Joseph; many nieces and nephews and a host of family and friends. The family wishes to thank the nurses on Brennen 6 at Jersey Shore University Medical Center for their care and compassion.

A memorial mass will be offered at the Church of the Ascension of St. Teresa of Calcutta Parish, 501 Brinley Avenue, Bradley Beach on Saturday, August 31, 2019 at 10:30 a.m. with a repast to follow. In lieu of flowers contributions to Hackensack Meridian Hospice at www.meridianathome.com would be appreciated. The Ocean Grove Memorial Home is in charge of arrangements.



FROM THE CHIEF ENGINEER

Phil Festa, N2EDX

GSARA members operated station W2GSA on Saturday, August 17 from 9 am to 1:30 pm for the International Lighthouse Lightship Weekend. This event was organized by Jeff Lambert, KZ2G and Marlo Montanaro, KA2IRQ. Participants besides Jeff and Marlo included Denis, K2NPT, Art, N2AJO, Art, W2NAZ, Diana, KD2NAD, Fritz, W2CET, Rich, K2RLF, Mike, N2MEP, and Bob, W2OD.

We had one of the club Yaesu FT-450Ds set up on the porch. The antenna we used was an inverted vee cut for 40 and 20 meters, the apex of which was tied to the railing at the top of the lighthouse and was about 35 feet above the surrounding terrain. It worked well enough, and tuned up with the internal tuner on the Yaesu. A total of 40 contacts were made, 3 of them other lighthouses.

Everyone enjoyed a pizza lunch before breaking down the station at around 1:30 pm. The weather was nice (except the humidity was too high), the view was great and all participants had a good time.

ARES/RACES NET

Did you know that there is an ARES/RACES net on the W2GSA repeater on the first and third Mondays of each month at 8 PM local time? You don't have to be a member of ARES or RACES to check into the net. We all should be comfortable with checking into a formal net as we never know when we might be called upon to help with communications in an emergency. All are welcome. Check it out!

The GSARA Propagator is designed in InDesign CC 2019
Editor: Bob Buus, W2OD
Layout: Cy Stanway, K2CYS

You are invited to submit articles and ideas

Trying the Digital Modes

If anyone is looking for help with getting operational with digital modes (FT-8, PSK-31, Olivia, RTTY, etc.) please feel free to call on Paul, AD7I, if you would like some assistance. The best way to reach Paul is via email, ad7i@ad7i.net

BULLETIN BOARD

GSARA Swag

GSARA Patches

We have GSARA patches available at all meetings and they are \$3. Show your GSARA pride!

GSARA Hats and Shirts

Cost is \$21 for Hats and \$25 for Shirts, in your choice of Blue or Stone color. To place your order, send Art artgold@verizon.net an email with your name, call sign, size (for shirts) and color. Payment will be due when hats and shirts are delivered.

Blue Swan Lunches

A number of local radio amateurs meet each Friday at the Blue Swan Diner on Highway 35 south in Ocean Township at noon. Anyone interested in amateur radio is welcome to join us in the back left corner of the diner.



Tuesday Net Report

GSARA NET 8:30 PM TUESDAYS

In the four sessions in August, we had 67 check-ins for an average of 16.75 per session. The following 27 members checked into this net (number of check-ins in parenthesis):

KZ2G (4), N2MEP (4), K2MFS (4), W2NAZ (4), K2NPT (4), W2OD (4), WB2RPW (4), N2FSB (3), N2HGI (3), KA2IRQ (3), KD2NAD (3), KD2OXR (3), K2RLF (3), KC2YNL (3), N2AJ0 (2), NA2J (2), KD2KOA (2), KD2PYO (2), N2BCS (2), N2BMK (1), KD2EPA (1), KA2F (1), AD7I (1), WA2JOE (1), AC2MB (1), W2MJP (1) and KG2NV (1).

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



Do you have a picture of your much younger self (25+ years ago) in your shack. Send it to Cy, K2CYS at k2cys@arrl.net and share that picture with the club!

Club Benefits



W₂GSA CLUB NET

The GSARA weekly net meets each Tuesday evening at 8:30 on the GSARA repeater. Everyone is welcome to hear news of upcoming club events and activities, reports of the latest club news and everyone can share what they have been up to. Please join us. The more participation, the more fun!

QSL BUREAU

If any GSARA members wish to combine their QSL cards that are going through the outgoing ARRL Bureau, please bring them to the next GSARA meeting along with the label from a recent QST Magazine (you must be an ARRL member to participate in this program). Either John, KA2F or Len, WA1PCY will then send them on to ARRL at no charge to GSARA members. It couldn't be much easier than that to QSL. You are registered at the W₂ incoming bureau, aren't you?

GSARA.CLUB/W₂GSA.ORG

Have you seen the GSARA website lately at <https://www.gsara.club/>? Check it out often for updates, news, announcements and general club information. If you have not yet done so, send us a picture of your shack and a selfie for the Members; Shacks and Our Members page. There is a Members Only Page which will contain important links viewable by GSARA members only including the most current roster and the previous month's minutes from the meeting. Send your selfies to Cy, K2CYS at k2cys@arrl.org. Do you have any other great ideas for the site? Let Cy know.

THE LATEST EPISODE OF ARRL AUDIO NEWS IS AVAILABLE

07/26/2019

Listen to the new episode of ARRL Audio News on your iOS or Android podcast app, or online at <http://www.blubrry.com/arrl-audio-news/>. Audio News is also retransmitted on a number of FM repeaters. Click here and then scroll down to see the list.

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From the Archives

FIVE YEARS AGO

From the September 2014. Al Baccili changed his call from KD2FVE to W2UTR. Joe, W2KQ recommended a free download called “Morse Runner” for Morse code practice. Cy, K2CYS had a successful antenna raising party at his house (with free pizza). Bob, W2OD had an article about the inactive dark days of GSARA between 1964 and 1970 when no meetings were held and the W2GSARA license expired. Bill Shockley, NJ2H had a Primer about repeater operation. The Juvenile Diabetes walk and the CROP walk were on the same day in 2014 and GSARA operators were needed.

TEN YEARS AGO

From the September 2009 Propagator: A DVD of the movie “Frequency” was donated to the GSARA library. H. P. Maxim’s 140th birthday is being celebrated on the air. MFJ acquired Cushcraft. Jeff, N2LXM is conducting a one-day license class for CAP cadets at the Red Cross on September 26.

FIFTEEN YEARS AGO

From the September 2004 Propagator: BPL trials in Iowa and New York were terminated early due to unmitigated interference to radio amateurs. Jeff, N2LXM had his first grandchild born in July. Bruce, K2QXW wrote an article about the amateur radio equipment at the Forestburg Boy Scout reservation and how to access it through 2-meter repeaters.

TWENTY YEARS AGO

From the September 1999 Propagator: The GSARA Hamfest will be on October 2 at Croydon Hall. QCWA, OMARC and GSARA will take turns operating a Marconi special event station at twin lights to commemorate the 100th anniversary of Marconi’s first radio transmissions in America. The September 1 meeting will be at Fort Monmouth instead of Bicentennial Hall due to the Fireman’s Fair. An article about Morse code was reprinted from the NY Times.

TWENTY-FIVE YEARS AGO

From the September, 1994 Propagator: Guest speakers in September are Tony Colaguori, W2GUM (SK) on QRP at the first meeting and Joe Wilkes, WA2SFF on propagation at the second meeting. There are 4 public service events needing amateur communications in October.

THIRTY YEARS AGO

From the September 1989 Propagator. This was the first Propagator published since June. Marty Torbert, N2BMK joined GSARA. We had 126 members! The Shore Area Hamfest is coming on October 15 at Allaire Airport.

THIRTY-FIVE YEARS AGO

From the September 1984 Propagator: Guest speaker at the August 21 meeting was Steve Mendelsohn, WA2DHF (later W2ML- now SK) talking about his experiences covering President Reagan’s travels. He pointed out that Walter Cronkite recently got his license and that Dan Rather is studying for his. Vince Rosati, KE2V was looking for electronics-related software for the Commodore 64.

SAFETY DURING EMERGENCY OPERATIONS

By Marlo Montanaro, KA2IRQ

AS I write this, tropical storm Barry is lashing the Louisiana and Mississippi coasts in the Gulf of Mexico. If this column appears in the September issue of The Propagator, you will be reading it just as the peak of the hurricane season approaches. Are you ready? Can you operate your station safely during a disaster situation, or emergency callout if you are an ARES/RACES member? I also remember several times as an ARES/RACES officer in Monmouth County when our group was activated during a real emergency. We spend so much time training on what we should do during an emergency, do we stop to think about our own safety? Often, no.

There are several areas of concern during emergency operations. First, the “normal” station safety concerns- antenna, power source, and ground. Then there is your operating location, or, even before that, getting to your operating location! Many emergency groups do their best to pre-position operators where they will be needed. It is no fun attempting to drive in a blizzard or early stages of a tropical storm... let alone being a safe activity. If there is an evacuation going on, you may not even be able to get where you need to go. Which brings up a good point. If evacuated by authorities-GO! Amateur radio operations take a back seat during an evacuation. But also evaluate your potential assignments prior to an emergency. You should never have to travel long distances or over difficult terrain to arrive at your operating location. Whenever possible, local people should be used during an emergency operation.

Then there is the emergency itself... does it affect you? Operating ham radio becomes secondary if you are directly af-

ected by the emergency. Evaluate your situation carefully.

Assuming you will be operating during the emergency, you need to re-evaluate your antenna, power source, and ground.

Has your antenna system been compromised? Operating into a dead short or open transmission line certainly will not be good for your equipment, but can also induce high voltages that can cause problems.



What about your power source? If AC mains is offline, will you be operating on batteries or generator? Batteries need to be operated within their design parameters for current and temperature. Pushing them too hard can result in explosion, leakage, fire, or the expulsion of toxic

fumes. This may all happen indoors at your operating position if you are hunkered down during a storm. Make sure your batteries are in a well ventilated area and are operated within their limits.

If you are running on generator, what is your fuel source? And where is it stored? Fuel should be kept away from the generator and all ignition sources. When refueling, allow the generator to cool down for ten minutes before approaching with gasoline. Never refuel by yourself. There should always be someone nearby with a fire extinguisher who knows how to use it. 5-10 gallons of gasoline makes a big fire! And most importantly, a generator should NEVER be operated indoors. They need to be operated in a well ventilated location outdoors. Carbon monoxide will kill you!

What about ground? Remember, there are three types of

ground for ham radio use... electrical safety ground, lightning ground, and RF ground. The most important is your electrical safety ground. Has this been compromised by the emergency situation? If you are running on a generator, have you installed a safety ground per the generator manufacturer's instructions? ALL chassis grounds need to be connected and all of your equipment should be using 3-wire electrical cords. There are several types of wiring associated with portable generators and it is

vital, and cannot be emphasized enough that you must follow the grounding instructions for your particular generator in use at the time. Remember that if you are operating portable, you may not know for sure how the generator is wired. Proceed with caution.

A lightning ground may or may not be as important during your emergency operation, depending on the time of year and situation. If you are not able to install an effective lightning ground during a thunderstorm, do not be a hero-disconnect your equipment and cease operations until the danger passes.

An RF ground could be important during portable operation because you may be using compromised antennas, you may have an antenna only a few feet away from the operating position causing high common mode currents on transmission lines and interconnecting cables, etc. This is especially troublesome if operating below 30 MHz where these currents can cause erratic equipment operation and RF burns to the operators. If you have a portable station, having an artificial RF ground device could solve a lot of problems, along with common mode chokes for all transmission lines and ferrite beads for interconnecting cables.

We have talked about tower safety in the past. Never is it more important than during an emergency. Maybe the antenna on top of the tower was damaged? The decision

to quickly climb the tower and fix a small problem IS VERY DANGEROUS! Are you "short circuiting" all of your safety procedures? If the antenna was damaged, what about the tower? Has it been fully inspected? How do you know the guy wires and mounting base are all intact? What if there is damage you cannot see? Resist the urge to climb a

tower by yourself in bad weather, at night, or without the proper safety equipment- even if you're only going up a few feet. NEVER climb an unfamiliar tower. Find another way around the problem. Set up a portable vertical antenna or a dipole that can be hung from ropes sling-shot into some trees. During the emergency is not a time to start tower maintenance.

In summary, when the emergency happens and you are pressed into operation, you need to remind yourself about your basic safety procedures. Remember, ham radio operators should not be "first responders." Obey evacuation orders at all times and don't be a hero. Treat your station like you are setting it up for the first time and go over antenna, grounding, and power systems to make sure they are doing the work you intend for them to do, and not acting against you making your life more difficult.

If you follow these simple tips, you will be an effective emergency communicator.

73, Marlo Montanaro, KA2IRQ



NOTES ON CALENDAR (see next page)

Large Call letters denote birthdays e.g. **KD2FZN** on September 14. All times are in EDST. Contests are listed in the September QST, p. 80.

September 2 – **Labor Day Holiday** – No ARES/RACES Net

September 3 – **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 3 – **Old Barney ARC Meeting** at 7:30 pm in Manahawkin, NJ. See <http://www.obarc.org>

September 3 and every following Tuesday – **GSARA Net** on 147.045 PL=67 at 8:30 pm.

September 3 and every following Tuesday – **QCWA News Net** on 147.045 PL=67 at 9:00 pm.

September 4 – **GSARA Program Meeting** at the Red Cross at 7:30 pm. The program will feature our new NNJ Section Manager, Steve Ostrove, K2SO who will bring us up to date on the ARRL. Don't miss this interesting talk. Light refreshments will be served.

September 5 – **Holiday City ARC Meeting** at 7 pm at Holiday City South Clubhouse in Toms River.

September 6 and every Friday – **Lunch at the Blue Swan Diner** in Ocean at noon. Table at back left.

Sept. 6-8 – **All Asian DX Contest, Phone** from 8 pm Friday to 7:59 pm Sunday. See <http://www.jarl.org/English>

September 6 - **WIAW Qualifying Run** at 10 pm (10-35 wpm). See September 2019 QST page 96 and www.arrl.org/qualifying-run-schedule

September 7 – **OMARC Hamfest** at Spring Lake Heights Firehouse from 7:30 am to noon. VE session at 10 am. \$5 admission. For more information contact joekru1@hotmail.com

September 11 – **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 12 – **JSARS meeting** in Riverwood Park Rec. Building, Rt. 527 and Riverwood Drive at 7:30 pm.

September 14 – **OMARC Meeting** at 9:00 am at the Firehouse on 600 Sixth Ave. in Spring Lake Heights. Guests are always welcome.

Sept. 14-15 – **ARRL VHF Contest**, all modes from 2 pm Saturday to 10:59 pm Sunday. See <http://www.arrl.org/september-vhf>

September 16 - **Monmouth County ARES/RACES Net** meets on 147.045 +600, PL=67.0 at 8:00 pm

September 18 – **GSARA Meeting** at 7:30 pm at the Red Cross in Tinton Falls. Regular business meeting. Refreshments will be served.

September 18 – **WIAW Qualifying Run** at 7 pm (10-35 wpm). See September 2019 QST page 96 and <http://www.arrl.org/qualifying-run-schedule>

September 19 – **JSARS VE Test Session** at 7:00 pm Riverview Park Recreation Bldg., Rt. 527 and Riverwood Drive in Toms River. Contact Ed Genoio, WA2NDA at 609-971-2792 or wa2nda@comcast.net.

Sept. 21-22 – **All Africa International DX Contest**, all modes from 8 am Saturday to 8 am Sunday. See <http://www.arrl.org/za>

September 21 – **New Jersey QSO Party**, all modes from noon to 11:59 pm. See <http://www.k2td-bcrc.org/njqp>

September 28 – **GSARA Hamfest** at MOESC in Tinton Falls.

September 28 – **GSARA VE Test Session** at 11 am at the GSARA Hamfest in Tinton Falls..

SEPTEMBER 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2 Labor Day	3 Old Barney GSARA Net 8:30 QCWA News 9 PM	4 GSARA Mtg	5 HCARC Mtg	6 Blue Swan lunch All Asian DX CW Qual. Run	7 OMARC Hamfst All Asian DX
8 All Asian DX	9	10 Old Barney GSARA Net 8:30 QCWA News 9 PM	11 Hol. City VE	12 JSARS Mtg	13 Blue Swan lunch	14 OMARC Mtg. KD2FZN ARRL VHF
15 N2AJO ARRL VHF	16 ARES/RACES 8 pm	17 Old Barney GSARA Net 8:30 QCWA News 9 PM	18 N2FSB CW Qual. Run GSARA Mtg	19 JSARS VE	20 Blue Swan lunch	21 Africa DX NJ QSO Pty
22 Africa DX	23	24 CW Qual. Run Old Barney GSARA Net 8:30 QCWA News 9 PM	25 WB2RPW	26	27 Blue Swan lunch CQ WW RTTY	28 GSARA Hamfst GSARA VE CQ WW RTTY
29 KC2YWL CQ WW RTTY	30 N2VFK					



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First Class