



January 2023

# Sussex Repeater

Sussex Amateur Radio Association

## Local Weekly Nets

SARA Club Net: Tuesday 8pm  
147.090 (+) 156.7

Nanticoke Club Net: Monday 8pm  
146.715 (-) 156.7

Lewes Club Net: Wednesday 7:15pm  
147.330(+) 156.7

Delaware Traffic Net: Mon – Sat  
5:30pm Freq: 3.905

Delaware Emergency Net:  
Sunday, 5:30pm Freq: 3.904

Sussex ARES Net: 1<sup>st</sup> & 3<sup>rd</sup> Wed.  
7pm 147.090(+) 156.7

Monitor SKYWARN weather on  
147.090(+) 156.7

System Fusion repeater frequencies:  
Millsboro 449.825  
Seaford 145.210

MT Joy Repeater(fusion) Frequency  
443.200 (+ 5) 156.7 PL

County Emergency Simplex  
145.510  
144.915

[www.sussexamateurradio.com](http://www.sussexamateurradio.com)

<https://www.facebook.com/SARAHamRadio>

Email: [SussexAmateurRadio@gmail.com](mailto:SussexAmateurRadio@gmail.com)

President: Butch Wlaschin (WAØCIE)  
Vice Pres: Deb Libertore (AJ3L)  
Treasurer: Stuart Banta (KC3MAL)  
Secretary: Donna Spencer (KC3IHV)

## January local events

Our January meeting will be on Thursday, January 19, 2023. FCC testing begins at 6:00 pm. You can purchase dinner beginning at 6:00 pm and the meeting will begin at 7:00pm.



Our speaker this month, KC3OO – Tim, asks: “Are you overloaded on ham radio information? Is it organized and quickly and easily accessible from anywhere? Is digital storage useful for portable and EMCOMMS work, even with no power or internet?” He will help us learn about the devices, apps, principles, and organizational techniques to keep ham radio information quickly and easily accessible no matter where you are, whether you're in the shack or in the field.



## Breakfast Meet and Greet

At Pizza King in Millsboro on Thursday mornings at 8 am. Join an ever-changing group of ‘hams’ to have coffee and/or breakfast and talk all things ham.



## Winter Field Day

. All Amateur Radio operators are welcome to join us for Winter Field Day, January 28, 2023 to practice our craft of communicating when all else fails. We will set up in a location that is easily accessed by the public and demonstrate some of the positive aspects of our hobby.



## From the desk of **Butch WAØCIE** **SARA PRESIDENT**

I hope everyone had a Merry Christmas / Holiday and that you have started working on your New Year's Resolutions. No White Christmas, but I am not complaining about the great 70 degree days we had this past week. We will probably end up paying for it with 12-15 inches of that white stuff come mid-March. With that in mind, it might be a great time to sign up to help AUXCOMM and ARES. The ham community out west is getting blasted with feet of snow, feet of rain, and 70-80mph winds. They have activated numerous storm nets and various AUXCOMM and ARES groups. Our turn might be next. Let's follow that old Boy Scout saying about being prepared.

Speaking of being prepared, I warmed up my CW key during the holidays and am currently pounding out CQ's promoting the Straight Key Month. In area 3, we currently have 14 operators. I am the only Delaware station. I have handed out 200 of the 1062 contacts. SKCC would welcome a few more DE stations. An hour here or there might be fun. The activity runs through the end of the month. I also have been putting in an hour or two doing POTA. Did I mention that last year I logged more than 7000 contacts. over 400 just on 10mtrs.

Are you overloaded with ham radio information on paper or in files? Is it organized and easily accessible? Can

digital storage be useful even with no power or internet? Learn about the devices, apps, principles, and organizational techniques to keep all your ham radio information quickly and easily accessible no matter where you are. Tim, KC3OO, has the answers for you. Join us at Mulligan's Point for our January Meeting - January 19th.

Winter Field Day is January 28-29. Come spend an hour with us.

**Butch WAØCIE**



### **More Amateur Radio Astronauts Head for the International Space Station**



Three of the four new astronauts on February's planned launch of the SpaceX Crew-6 mission to the International Space Station (ISS) are amateur radio operators.

The four crew members that comprise the SpaceX Crew-6 mission pose for a photo during a training session on the crew access arm at the Kennedy Space Center's Launch Pad 39A in Florida. From left are, Mission Specialist Andrey Fedyaev, Pilot Warren "Woody" Hoburg, Mission Specialist Sultan Al Nedayi, and Commander Stephen Bowen. Photo Courtesy of SpaceX.



## From the Desk of the Delaware Section Manager

John Ferguson K3PFW

**Happy New Year!** And an interesting year it will be, legislation has been introduced in Congress that may finally give some relief to hams in organized communities. Congressman Bill Johnson (OH-6) introduced a bill in the U.S. House of Representatives (H.R.9670) on Thursday, December 22, 2022, to eliminate private land use restrictions that prohibit, restrict, or impair the ability of an Amateur Radio Operator from operating and installing amateur station antennas on property subject to the control of the Amateur Radio Operator. Hopefully this bill will pass without too much modification. Many hours of technical and legal work went into crafting this legislation.

By the time you read this the ARRL operating Activity, Volunteers On The Air (VOTA) will have started. See page 77 of QST for details. This will be much like the Anniversary event of 2014. This is primarily for ARRL members, and Log Book of the World (LoTW) must be used for scoring. Joe Grib, KI3B, the Assistant Section Manager, ([ki3b@arrl.net](mailto:ki3b@arrl.net)) is coordinating the schedule for volunteer operators when it's our section's turn to use the headquarters flagship call sign W1AW. The Delaware Section will be making an effort to include Technician Class licensees in the event. This is an all band all mode contest and operating activity.

If you're not an ARRL member, this would be a good reason to become a member and have some fun! The ARRL

is an advocate for Amateur Radio both here in the United States and around the world. The league's effort in developing and promoting the antenna legislation noted above is also a good reason to support this organization. And as a bonus you get one of the foremost Ham magazines, QST!

The third Saturday in January will see a Sussex Summit for representatives from the amateur radio groups in Sussex to come together and discuss mutual concerns, and work towards more interaction and activities. Details are still being worked on, and invitations will be out shortly. This will be primarily for club presidents or their representative, ARES leaders, and AUXCOMM leaders.

In this New Year we need to present the positive aspects of our hobby to the general public. They need to know that we, as Hams, are an asset and a resource, particularly when disaster strikes. We claim to be that; but, are we ready for the challenge? Only through training and practice can we be so. Take advantage of any opportunities that present themselves, public service, contests, operating activities, and the regularly scheduled local nets. Get on the traffic nets once in a while, if only to monitor and learn.

Later, 73

John K3PFW

ARRL Section Manager DE



## EMERGENCY SERVICE NEWS

### As the Calendar Turns

It was an active year for Sussex County AUXCOMM and it was good to be “back in action” after the restricted operations due to COVID the past couple of years. Some of the highlighted operations for 2022 include:

**March Madness Exercise** – This March 19<sup>th</sup> exercise brought out 11 volunteers who monitored traffic counts at various locations in Sussex and Kent counties, simulating observations that might be helpful in the event of area-wide mass evacuation. It also served to generate voice communications in order to evaluate communications quality and reliability.

**CODEL RUN** – On April 24<sup>th</sup>, a total of 21 volunteer amateurs supported the MCU in monitoring this annual running event throughout Rehoboth Beach, Lewes, and Cape Henlopen State Park. We observed, assisted, and reported several medical needs as part of our operation.

**July 4<sup>th</sup> Events** – Though not a formal activation, the MCU was staffed by one or two volunteer operators during the

fireworks events for Lewes, Millsboro, and Rehoboth. Area hams attending these events were advised that they could contact the MCU’s WS3EOC amateur operators should they observe something they deemed reportable.

**Active Shooter Presentation** – The July 14<sup>th</sup> AUXCOMM monthly meeting featured an excellent and informative presentation on this timely topic by the Delaware State Police. The meeting was well attended, probably the largest attendance of the year.

**Pops in the Park Exercise** – The August 25<sup>th</sup> “POP UP” exercise involved 21 volunteer amateurs who set up operations in various park locations throughout Sussex and Kent counties, where they established (or tried to) communications with the Sussex County EOC via multiple frequencies and modes while providing visibility to amateur radio operations in a public setting.

**Dewey Triathlon** – 15 amateur volunteers assisted with this event on September 17<sup>th</sup>. This annual event



includes a half-mile ocean swim, 15-mile bike ride, and a 3.5-mile run; all monitored by ham radio operators in support of the MCU.

**Apple Scrapple Festival** – On October 15<sup>th</sup> we had 18 volunteers covering this annual event in downtown Bridgeville. In addition to monitoring the crowd and assisting with directions and other information, we successfully aided in reuniting families that had separated from their children. All coordinated via amateur radio.

**Rehoboth Marathon** – On December 3<sup>rd</sup>, 22 amateur radio volunteers braved a cool, rainy, and windy day to support the MCU in monitoring this major annual running event through Rehoboth and Cape Henlopen State Park. We helped to treat one runner with suspected hypothermia.

As of this writing, we have recorded a total of **1,306.55 volunteer hours** for Sussex County AUXCOMM in 2022. The actual hours are probably more since not all volunteers enter their hours every time. Regardless of the true total, the important point is that these are hours devoted to either serving the public directly, or preparing for that service through drills, meetings, training, and other similar actions.

Thanks to all who have given the time to serve with us. We look forward to more in 2023 and can very much use additional volunteer help. AUXCOMM meetings are the 2<sup>nd</sup> Thursday of each month at 7:30p

and are now (again) held at the Sussex EOC. Come see us! Get involved!

73's and Happy New Year!

Bill, N3ID  
ws3eoc@gmail.com



An excerpt from  
Message from Tom Abernathy  
ARRL Director – Atlantic Division

“...Friday, January 6, 2023, I will resign from my office as the ARRL Director of the Atlantic Division. I genuinely thank you for all of the massive support that you have given me over these many years.

Bob Famiglio, K3RF our current Atlantic Division Vice Director will ascend to the position of Director at that time. I have thoroughly discussed the transition of leadership of the Atlantic Division with Bob and I am very pleased that the division will be in Bob's capable hands. As part of a cohesive division leadership team for many years, Bob is very well prepared and will do a GREAT job for us. Please give Bob all of your support. ...

Respectfully,

Tom Abernathy, W3TOM

## Repeated from [Smithsonianmag.com](https://www.smithsonianmag.com) Looking to Ditch Twitter? Morse Code Is Back

Reviving a 200-year-old system, enthusiasts are putting the digit back in digital communication  
[Larry Kahaner](#) Larry Kahaner is an American journalist and author who resides in Bethesda, Maryland.

January/February 2023



Steve Galchutt shows off the custom-made low-wattage transmitter he uses on his treks. Chase Brush

For almost 20 years, Steve Galchutt, a retired graphic designer, has trekked up Colorado mountains accompanied by his pack of goats to contact strangers around the world using a language that is almost two centuries old, and that many people have given up for dead. On his climbs, Galchutt and his herd have scared away a bear grazing on raspberries, escaped from fast-moving forest fires, camped in subfreezing temperatures and teetered across a rickety cable bridge over a swift-moving river where one of his goats, Peanut, fell into the drink and then swam ashore and shook himself dry like a dog. “I know it sounds crazy, risking my life and my goats’ lives, but it gets in your blood,” he tells me by phone from his home in the town of Monument, Colorado. Sending Morse code from a mountaintop—altitude offers ham radios greater range—“is like being a clandestine spy and having your own secret language.”

Worldwide, Galchutt is one of fewer than three million amateur radio operators, called “hams,” who have government-issued licenses allowing them to transmit radio signals on specifically allocated frequencies. While most hams have moved on to more

advanced communications modes, like digital messages, a hard-core group is sticking with Morse code, a telecommunications language that dates back to the early 1800s—and that offers a distinct pleasure and even relief to modern devotees.

Strangely enough, while the number of ham operators is declining globally, it’s growing in the United States, as is Morse code, by all accounts. [ARRL](#) (formerly the American Radio Relay League), based in Newington, Connecticut, the largest membership association of amateur radio enthusiasts in the world, reports that a recent worldwide ham radio contest—wherein hams garner points based on how many conversations they complete over the airwaves within a tight time frame—showed Morse code participants up 10 percent in 2021 over the year before.

This jump is remarkable, given that in the early 1990s, the Federal Communications Commission, which licenses all U.S. hams, dropped its requirement that beginner operators be proficient in Morse code; it’s also no longer regularly employed by military and maritime users, who had relied on Morse code as their main communications method since the very beginning of radio. Equipment sellers have noticed this trend, too. “The majority of our sales are [equipment for] Morse code,” says Scott Robbins, owner of ham radio equipment maker Vibroplex, founded in 1905, which touts itself as the oldest continuously operating business in amateur radio. “In 2021, we had the best year we’ve ever had ... and I can’t see how the interest in Morse code tails off.”

Practitioners say they’re attracted by the simplicity of Morse code—it’s just dots and

dashes, and it recalls a low-tech era when conversations moved more slowly. For hams like Thomas Witherspoon of North Carolina, using Morse code transmissions—sometimes abbreviated as CW, for “continuous wave”—offers a rare opportunity to accomplish tasks without high-tech help, like learning a foreign language instead of using a smartphone translator. “A lot of people now look only to tools. They want to purchase their way out of a situation.”

Morse code, on the other hand, requires you to use “the filter between your ears,” Witherspoon says. “I think a lot of people these days value that.” Indeed, some hams say that sending and receiving Morse code builds up neural connections that may not have existed before, much in the way that math or music exercises do. A 2017 study led by researchers from Ruhr University in Bochum, Germany, and from University Medical Center Utrecht in the Netherlands supports the notion that studying Morse code and languages alike boosts neuroplasticity in similar ways.

Morse code emerged during a time of tinkering, at the start of the electrical age. In the 1830s, Samuel F.B. Morse, who had made a national name for himself as a painter with portraits of such luminaries as John Adams and the Marquis de Lafayette, began working with colleagues, including the inventor Alfred Vail, to experiment with how an electrical impulse initiated in one place and transmitted over a distance through wires could activate an electromagnet somewhere else. Operators would push down on a button attached to a small slab of brass that made an electrical connection between two wires. The connection sent electricity through these wires to a remote electromagnet, which then attracted a metal strip that made a clicking sound.

Though British inventors William Cooke and Charles Wheatstone had used an electromagnet to create the first telegraph receiver, patented in 1837, Morse’s chief innovation was the simplicity of his code: A

short press made a short click, or a dot, and a longer press, three times the length of a dot, made a dash; various combinations form the 26 letters of the alphabet. Within a few years, the utility of Morse’s new language became clear to governments and businesses around the globe. Morse formalized this language as American Morse code in 1838, and in 1851 countries standardized it into international Morse code, which has remained largely unchanged since.

After Guglielmo Marconi sent the first intercontinental Morse message by radio in 1901—a simple “S,” from England to Newfoundland—Morse code became the de facto method for critical telecommunications and maintained that standing for nearly a century, despite the emergence of voice communication, because it offered clearer and more reliable communication for the military and maritime users.

That dominance broke in the mid-20th century, when digital data sent over satellites and fiber-optic cables took hold. Most historians agree that the death knell for Morse came in 1999 when the Global Maritime Distress and Safety System, which generates an automated digital emergency signal for ships in danger, replaced Morse code’s SOS—the familiar dot-dot-dot / dash-dash-dash / dot-dot-dot. Military use disappeared except in extremely rare instances, other ship use became almost nonexistent and the last holdout users were hams who were still required to learn code for their licenses. That changed in the early to mid-2000s, when most countries no longer required hams to be proficient in Morse.

Although Morse remains the purview of hams, its presence still seeps into wider culture. The new Apple Watch can silently buzz out the time in Morse when you put two fingers on the face. Since its opening in 1956, the Capitol Records building in Los Angeles, shaped like a stack of vinyl

records, has sported a light on the roof blinking the word “Hollywood” in Morse code.



Capt. Roy F. Morse (no relation to Samuel), center, teaches Morse code to Black Air Corps cadets in Tuskegee, Alabama, in 1942. National Archives

One of the main shortcomings of Morse code identified nowadays is its slow pace in an age of instant messaging. The average English speaker talks at about 150 words per minute, while most experienced hams send and receive at only 12 to 25 words per minute (although some high-speed operators can hit 35 or 55 words), says Howard Bernstein, who teaches Morse code at the Long Island CW Club. Another drawback is the difficulty in learning the code—tantamount to learning a foreign language. It can take months or years of hard work to become proficient in a skill that offers diminishing returns for anyone but an avid hobbyist.

Part of Morse Code’s enduring appeal for hams isn’t going away soon: Its simplicity and easy detection on airwaves make it more reliable than voice communication—and allow a ham to break through atmospheric noise and other weather conditions, even at extremely low transmitting power. “When you can’t get through with your own voice, Morse code gets you through,” says Bob Inderbitzen,

director of marketing and innovation at ARRL.

Radios that send and receive Morse code are lightweight and technically simple, and they need only small batteries. These advantages have spurred several sub-hobbies within the ham community.

Thousands of hams worldwide participate in programs such as Parks on the Air and Summits on the Air, in which operators take their rigs into parks or mountaintops to see how many contacts they can make and how far they can reach.

Adam Kimmerly of Ramona, California, is a regular at these events. “This is an ideal combination of my favorite hobbies: rock climbing, mountaineering, hiking and amateur radio.” And while some might imagine Morse code to be less intimate than actually hearing someone’s voice, veteran hams can often recognize one another based on their “fist,” or the rhythm and pacing of a strip of code. “You may think of dots and dashes as not having the same personality or character as voice communication, but they actually do,” Kimmerly says. “One of the really cool things I never expected is that people have their own inflections.” One Morse code enthusiast, Anne Fanelli, even saved a fellow ham’s life when she noticed his “fist” was off; after he stopped responding entirely, she called 911, and he was taken to the hospital, where he spent three days recuperating from an adverse drug reaction.

Doug Tombaugh, a history re-enactor from Kansas City, Missouri (he plays a mid-19th-century woodcutter), is president of the [Straight Key Century Club](#), whose thousands of members use simple up-and-down keys like those used by the first Morse code operators, instead of modern keys that form dots and dashes electromechanically, or those that employ computer software.

“I just like the mechanicalness of using a brass key,” Tombaugh says. “It’s real. It’s authentic. It’s tactile.”