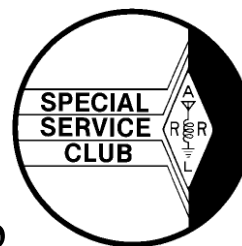




Squaw Island Amateur Radio Club

Since October 7, 1953



Smoke Signal

March 2021

www.siarc.us

Welcome to March. It has started with a couple of sunny days; hope it lasts. It is good for maple syrup production.

Remember to stay 1 wavelength at 144 MHz apart and wear a mask when outside of your home around others and when you cannot social distance. You are protecting others around you and slowing the community spread. Even when you get fully vaccinated, this will still be the recommendation for a while. Stay safe.

The face to face meeting for March 10 has been CANCELLED due to virus concerns. I anticipate that we should do this through March and see where we are in April with the virus. We will be holding a **Meeting over the Air** on the K2BWK 146.820 repeater at 7:30pm on March 10. At this time, the March VE testing at 6:30pm is still scheduled, but that may change.

We continue to hold the Health and Welfare net on the K2BWK 146.820- (110.9) repeater at 8pm, Monday through Friday, (not on the 10th) so there is ample opportunity to check on your friends in a safe way. I hope you all can check in.

Past Events

The February meeting was cancelled due to virus concerns and was held on the 146.820 repeater.

I have heard that some of us have been participating in the Parks on the Air events being held. Any reports?

Any interesting or unusual contacts made? What have you been doing with amateur radio? Build anything interesting? Let me know and I can publicize it.

Upcoming Events

Our **next VE Session** is scheduled for March 10, 2021 at 6:30. Pre-registration is **REQUIRED** because of the corona virus guidelines. Contact Russ N2IZV at rcharris@msn.com if you would like to be on his list of examinees. Masks and social distancing are required. He will also need VEs.

Upcoming Contests and Special Events this month include: Worldwide Sideband Activity Contest (Tuesday evenings of the month), QSO parties Oklahoma, Idaho, Wisconsin, Virginia, the South America 10meter contest, VHF-UHF FT8 activity contest, Tesla Memorial HF CW contest, North America RTTY Sprint, ARRL International SSB DX Contest, and many others. See the March QST pages 72 and 92 and the WA7BNM website. www.contestcalendar.com for more information. These events are a great way to build up your DXCC, WAS and other scores for stations worked. And they are fun!

ARRL Field Day is still held the last weekend in June and will again this year. It appears that the rules have held from last year and will encourage and allow more participation from home and stand alone stations. There will be more information coming out in the weeks ahead so check out www.arrl.org and the Smoke Signal as we move forward.

I was told last night that the **Wild Water Derby** in Shortsville is being organized for the last Saturday in April. Our club has been part of the event for many years and we look forward to supporting it again this year. Let's start thinking about it!!

RACES and ARES

We have begun small group training sessions with the RACES group to increase our familiarity with all of the equipment and resources at our disposal. These are voluntary and will be occurring on an ad hoc basis. When you are invited to participate, I hope you will avail yourself of this opportunity. This is another good reason to keep your contact information up to date.

I encourage all of you to check into our weekly RACES/ARES nets, which are on Sundays at 8pm (except around holidays) (you are invited to check into any other net also) and practice those skills that someday you may be called upon to use. They are held on the

W2ONT 145.450- (pl 110.9) repeater. We are also looking for additional stations to practice being Net Control and Assistant Net Control. In the event we are called out, having experience as Net Control will be very beneficial. We will be migrating to a more digital usage for the nets. Use of FLDIGI and MT63 will be very important for our mission to assist the Emergency Management Office, but we will be discontinuing the use of FLMSG for our nets and drills, due to the difficulty of keeping everyone on the same version. It appears that the use of different versions of FLMSG makes receiving the transmission very spotty. If you have ANY questions, feel free to contact me at kb2nci@arrl.net or 585-924-0752 or Scott N2UMH at ldfask@yahoo.com . If you are not a member and would like to become one, please see or contact me. And please let me know if you have a change in contact information. We need to keep it as current as possible.

Monitor the W2ONT 145.450 repeater in times of severe weather or area wide power outages. And if you do not hear anyone, start up an informal net.

Odd and Ends

Remember that we **change the clocks on Sunday March 14**. We lose an hour by turning the clocks ahead and this officially occurs at 2am Sunday.

Article from Paul AA2AV:

The “Extreme Ham Radio Sport” of County Hunting

**By Paul Scipione, AA2AV
USA-CA Award #770**

If you think that chasing 50 states, 40 worldwide CQ zones or 340 countries is challenging, why don't you try the coveted USA-CA (All County Award), which has been sponsored by *CQ Magazine* for more than three decades. There are 3,077 counties in the United States and almost 300 of those counties do not have a single resident ham!

To make things even more difficult (and interesting), the USA-CA Award requires that you get verification for every one of those 3,077 counties from the ham radio operator who gave you that county. Now in the “old days,” when I earned the USA-CA, you needed a signed, printed QSL card from each. Because that was an

expensive and time consuming process, MARAC, the Mobile Amateur Radio Award Club, provides a special QSL-Bureau for MRC (multi-contact) cards. All you have to do is pay MARAC's annual membership fee.

How do you operate to get the USA-CA? You can just scan the bands manor and pick up counties as they come – one per QSO. But there are at least 300 counties without a single fixed operator. You can try different bands and frequencies – not just HF, but also VHF and UHF. You can also win the award in any of three modes – all SSB; all CW; or mixed. Most hams choose mixed. I greatly prefer CW (much better during weak conditions), but there were then four or five SSB operators for every CW operator, even when the ARRL and FCC insisted that you pass CW code tests at three of the then five license class levels – 5wpm for Novice; 13wpm for General; and a daunting 20wpm for Extra. So earning the award was much easier and faster mixed, even if you loved CW.

MARAC and CQ make it a lot easier by sponsoring daily county hunting nets on specific bands and frequencies, most providing both regional and coast-to-coast bounce. Dedicated county hunters usually serve as Net Controls on the CH frequencies (many are retirees who remember how difficult it was for them to win the USA-CA). The two key (home) frequencies are:

14.336 on 20 meters for SSB & 14.056.5 on 20 meters for CW

If those frequencies have poor propagation, you can instead monitor frequencies on other HF bands, although you usually don't flip bands until the CH Net Controls on 20 tell you that additional contacts are available elsewhere. These include:

SSB: 3.901; 21.338; 28.336

CW: 3.556.5; 21.056.6; 28.056.5; 10.1225

When you exchange signal scores with the mobile station, the four most common ones are: 5x5; 4x5; 3x3 or 2x2. When it comes to an especially weak CW signal, you are allowed to shout 2x2 minimum minimum. The Net Control can help you further by shouting "over" between you and the mobile station. The signal report becomes part of the virtual (digital) QSL card.

Here are other ways that help a ham win this arguably most difficult DX award. When the Net Control station first goes on the air in the AM, he/she usually announces what counties a/the mobile ham will be traveling

through. Then you can monitor where he/she is while they come closer to the county you need. You can also visit one of the CH websites where mobile stations will post their upcoming destinations. Still another big help is the fact that a lot of mobile hams stop on borders, thus giving you two needed counties on one QSO. And at least half of the most frequent mobile operators are long-haul truckers. MARAC first started to encourage emergency frequencies the truckers could use to get help. BTW, the very first USA-CA winner was a 15 year old boy with polio who operated from his iron lung!

Keep in mind that there are nearly five million licensed hams in the world but only 1,200 who hold the USA-CA! We have annual and quarterly conventions that give you even more chances to work counties. There are even more specialized CH awards for home based hams who work them all a second, third or even more times. And for mobile operators who give out the most last counties for state or for the entire United States (called for the whole ball of wax). So have some fun, make new friends and learn more about our fascinating national geography!!!

73 AA2AV

Post script—Paul tells us that recently a ham on the island of CUBA earned the award!

From Rich WB2JLR:

After spending considerable time studying them, I recently I put up an End-Fed Half-Wave (EFHW) antenna for 160 meters. When I first heard about these antennas, I immediately dismissed the notion. Hams were claiming they worked without radials or a ground, and I knew that was impossible. It turns out that it does need a ground or counterpoise, but the requirements for those items are minimal. Here's why. The impedance at the feed-point is extremely high, about 4000 ohms compared the usual 50 ohms for a dipole or 35 ohms for a vertical. That makes the current is very small, and with such small current the antenna works fine even with a poor ground or minimal counterpoise.

My antenna consists of an insulated #14 wire, 240 feet long. It starts 1 foot above the earth, goes straight up for 50 feet, over the top of a large oak tree, then out horizontally. Each end is secured with an egg insulator connected to double-braided Dacron rope. The EFHW would work with wire going up diagonally too, and the horizontal section need not be perfectly level. The last 10 feet or so could even come back downward.

Note that while this has the same shape as an inverted-L, it's distinctly different than that antenna. The inverted-L is a quarter-wavelength antenna, a quarter-wave vertical with the top but bent over to keep the height practical. Like a quarter-wave vertical, the inverted-L needs an excellent ground with dozens of radials to perform well. After erecting my EFHW I measured the impedance with and without a few radials. There was absolutely no difference in the impedance with or without radials, indicating that my one ground rod alone is sufficient.

At the feed-point I've got an 8-foot ground rod, driven 7 feet into the ground. Mounted on the ground rod is a weatherproof plastic box which encloses an impedance matching transformer. An SO239 connector on the box connects to a coax from the house, and a pair of 1/4-20 studs with wing-nuts provides connection to the antenna and the ground rod.

Inside the box is a transformer wound on a stack of three toroid cores, each 2.5 inches in diameter and 1/2 inch thick. Fewer cores could be used for 100 watts on 80 meters and above, but I wanted something that could handle 1 kW on 160 meters. Measurements made with a nanoVNA showed the antenna impedance to be 4300 ohms at 1.9 MHz and 2900 ohms at 3.8 MHz. I wound the transformer with an 8:1 turns ratio, providing a 64:1 impedance ratio. That's a good compromise, making the impedance at the SO-239 67 ohms at 1.9 MHz and 45 ohms at 3.8 MHz, an SWR of less than 1.3:1.

How it performs

- On 160 meters the EFHW is far superior to the 80meter dipole that I had tried using on that band with an antenna tuner.
- VLF and AM broadcast band signals are much stronger on the EFHW than on my 80meter dipole
- Stations over 3000 miles away on 80 meters are 1 to 2 s-units stronger on the EFHW
- But stations within 500 miles on 80 meters are 1 to 2 s-units weaker on the EFHW than they are on my 80meter dipole,
- It also works on 60 meters. The SWR is 4:1 but my antenna tuner deals with that.

Other considerations

- For 160, 80, and 40 meters a regular half-wave dipole is hard to beat, but there are a few challenges. For example, my house is close to the road which would put the feed point of a 160meter dipole 100 feet behind the house. Instead, the EFHW can be fed near the house and then extend backwards into the woods.
 - Coax and balun weight will cause a dipole to sag, but the EFHW is fed next to the ground.
 - Some lots are too small for a half-wave dipole, but making the first 40 or 50 feet vertical will make a half-wave antenna more compact.
 - Half-wave dipoles resonate only on odd harmonics, but the EFHW resonates on all harmonics. For example, a 7 MHz dipole works on 21 MHz but a 3.5 MHz dipole doesn't work on any other ham band. An EFHW cut for 1.8 MHz also resonates on 3.6, 5.4, and 7.2 MHz. Unfortunately, if you cut the EFHW for the phone band, 1.9 MHz, by the time you get to the fourth multiple you're at 7.6 MHz, above the band
- 73 WB2JLR

I wanted to inform all of you that there has begun a 10 meter net on Saturday nights at 7:30pm. The frequency is 28.405MHz USB and all are welcome. The net control is Eric, K2ENF, in Gates, NY and this the perfect place for technicians to get some HF experience and for all to use a band that can give some very interesting propagation.

A new benefit of ARRL membership:

Schedule of Upcoming Webinars

Welcome to ARRL's Learning Network! Members should use the registration links below to save your seat in an upcoming webinar. This schedule is subject to change and unintended cancellations. Do you have questions? Email ARRL [Lifelong Learning](#). Have an interesting topic you want to share? Submit your presentation idea through our [Call for Speakers form](#).

Need help? Before the webinar we encourage you to review the [system requirements](#) and [check your computer system](#) to ensure the best viewing experience. For technical assistance before or during the session please visit [GoToWebinar online support](#) or call toll-free 833-851-8340 in the U.S.

Recordings: Presentations are recorded for later viewing (barring any unforeseen technical difficulties). See the list of [previously recorded webinars](#)

UPCOMING SCHEDULE:

Schedule:

The ARRL **Learning Network** webinar series was introduced as a new membership benefit in July. Presentations are by members, for members, as part of ARRL's Lifelong Learning initiative. Topics cover three primary interest areas among radio amateurs, including electronics and technology, personal communications and operating, and emergency communications and public service.

All webinars are recorded, so members and radio clubs can view previous presentations. **Join** ARRL to take advantage of this new member benefit.

- ARRL members may register for an upcoming presentation and view previously recorded webinars by [clicking here](#) to access our registration page.

Webinar Schedule

Technicians: Life Beyond Repeaters

Presented by Anthony Luscre, K8ZT

Maybe you just received your Technician license, or perhaps you have had it for a while and burnt out on sparse FM Repeater contacts. Take a new look at the possibilities available to you beyond repeaters. Explore Tech HF and 6 Meter privileges for SSB, CW and Digital Modes (FT8/FT4/RTTY) to expand your operating modes and the distance covered in contacts. Explore other VHF/UHF uses, including SSB, Satellite Operation, FM Simplex, Digital Modes, Contesting, and more.

Tuesday, March 9, 2021 @ 1 pm EST (1800 UTC)

The Art and Science of Operating Ultra-Portable

Presented by Mike Molina, KN6EZE

Ultra-portable operation or being able to carry your radio over distances e.g., in a backpack, is quickly growing in popularity. Whether for SOTA, POTA, backcountry survival, or just spending time in nature, learning how to operate ultra-portable is a fun and rewarding experience. In this presentation, Mike KN6EZE, will cover the basics of ultra-portable operating for both the new and experienced ham operator.

Tuesday, April 6, 2021 @ 8 pm EDT (0000 UTC on Friday, April 7)

Finding and Fixing RFI

Presented by Paul Cianciolo, W1VLF

RFI (Radio Frequency Interference) has been a problem for Ham radio operators and SWL's (Shortwave listeners) since the radio hobby began. Both from natural sources (QRN) and manmade sources (QRM). Things have changed in the last 20 years with the advent of widespread solar power, LED lightning , grow lights, digital computing devices etc. The technology boom has enhanced our daily lives, but at what price? Learn all about finding and fixing RFI in today's world.

Tuesday, April 20, 2021 @ 1 pm EDT (1700 UTC)

HF Noise Mitigation

Presented by ARRL Northwestern Division Director Mike Ritz, W7VO

An educational seminar to help both new and experienced amateurs who are on HF and finding themselves plagued with noise. We'll learn what "noise" is, about the various noise sources, and how to mitigate those noises using a variety of techniques..

Thursday April 22, 2021 @ 3:30 pm EDT (1930 UTC)

Registration & Recordings

ARRL members may register for an upcoming presentation and view previously recorded webinars by [clicking here](#) to access our registration page.

I would encourage all ARRL members to check out the new publication the League has introduced, "On The Air", aimed at new hams and those experienced hams that have some questions. The January/February issue covers many topics, including Antenna Tuners, SWR, Repeaters and many others. It is available on the website and you may choose to receive the print version or QST with your membership.

NEW REPEATERS:

Dave W2ACC reports that the KD2NOL 146.985- (82.5) repeater is up and running in Dundee and gives very good coverage for Seneca County. This is the former frequency for the N2LSJ repeater in Penn Yan.

There is a **new 6 meter repeater** on the air, from Naples. The call sign is W2WDS. It is on a tower site space provided by Dean, W2WDS, and the frequency is 53.110- (pl 82.5). The **440 repeater on the same site**, 442.500+ (82.5) is on the air as well. Many of our members have been getting on the air with 6 meters. Looks like fun. Thanks to Dave W2ACC and Dean for these upgrades.

As a reminder, the Smoke Signals and meeting minutes are posted as soon as possible on the SIARC website. This is an easy way to keep up with the group if you miss a meeting. Steve has also started posting the Minutes of the Board Meetings, which will be held at various times throughout the year. Thanks to Steve, KD2OM, for keeping the website up to date.

For local repeaters, you can go to www.rochesterham.org and click on Useful Links to find a quick reference. You can also go to www.unyrepco.org and www.wnysorc.org for repeaters in western New York. Lots of information is available, and the councils are continually trying to keep it current. I recommend becoming a member of UNYREPCO as that covers our immediate area.

If you travel, look at www.repeaterbook.com for lots of repeater information. They have an app for your phone that shows repeaters within 50 miles of where you are. And for scanner listeners, go to www.radioreference.com for nationwide information.

Dave W2ACC has repeaters up in Waterloo that can offer good coverage to our east. They are on 145.130- (pl 110.9) and 442.225+ (pl 82.5). Give them a try. Dave's 220mHz repeater (on the Stanley tower) is now up and waiting to be used. The frequency is 224.26 (-1.6mHz offset and pl of 110.9).

From Dave, W2ACC

"There is a **220 net** on Tuesday night 7:00 pm and three nets on Friday night. 7:00 pm is the Syracuse world net followed by Tech net and the a swap net. My 220 is tied into all of them along with KA2NDW and KD2SL

My 900 MHZ repeater is up and running"

927.212	902.212
5	5

With an 82.5 tone

All are welcome

73

Dave

W2ACC

Check out www.dstarusers.org and www.dstarinfo.com for lots of information on D-Star.

Dues are payable in September for the next year. They are \$10 for an individual, \$14 for a family and \$100 for Life membership. Please see Stan WM3D to pay. He would love to hear from you! While we are not having meetings, you can send your renewals to me, Tom Sanders at 6310 Gillis Road, Victor, NY 14564 and I will forward to Stan.

Please be sure to inform Stan WM3D or Tom KB2NCI if you change your preferred email address and phone number, or other changes in your contact information. Having up to date information helps if we need to reach you quickly (e.g. canceling the Holiday party).

A reminder to renew your ARRL membership (you are a member aren't you?) through the club. We get a commission on each new and renewal if the club sends it in. See Tom KB2NCI for details. I encourage you to support the ARRL and become or maintain membership. They may not be perfect, but they try hard to represent all of amateur radio.

What projects are you working on or involved in? We would love to hear about them, either at the meeting or in the Smoke Signal. Let me know.

Nets

STILL GOING---Since March 17, 2020, SIARC has been hosting a Health and Welfare net on the K2BWK 146.820 repeater, nightly at 8pm, Monday through Friday. It is intended as a net for hams to keep in contact with others during the virus situation. It has been lots of fun to participate and hear from so many, and ALL are welcome. We just completed net #250 and have covered a range of topics.

145.450- (110.9) W2ONT	Sundays 8pm Ontario County RACES/ARES training net
146.685- (71.9) WA2EMO	Sundays 8:35pm Wayne County RACES net
146.610- (110.9) N2MPE	Thursdays (except 4 th) 9pm Monroe County RACES net
3993.5kHz LSB	Sundays at 9am New York State RACES net

Club/RACES Repeaters

K2BWK	146.820- (110.9) Canandaigua
K2BWK D-Star	147.375+ Honeoye
K2BWK D-Star	443.500+ Honeoye
W2ONT	145.450- (110.9) Gannett Hill
W2ONT	442.200+ (110.9) Gannett Hill—linked to 147.090
W2ONT	147.090+ (110.9) Geneva City Hall—linked to 442.200
KD2HVC D-Star	444.300+ Stanley
KD2HYJ D-Star	444.500 (no offset) Victor hot spot—very local coverage for now

President's Thoughts

First of all, thanks to Rich and Paul for submitting articles of some of the fun they are having with the hobby. They shared two different ways to enjoy and learn with amateur radio. There is room in the newsletter to showcase YOUR activities as well, so don't be shy. Send them to me and be proud of your accomplishments.

Hopefully we can feel comfortable enough to meet face to face in April. If enough of us get fully vaccinated by then, it should be possible. I have gone back to work part time to help Wegmans immunize people and there are many health care professionals that are doing the same to help get us back to a life we miss. I hope you can all do your part in that process.

Take care of yourself and each other.

Have Fun and Talk Up Ham Radio, Be Safe and I hope to catch you on the radio!

73, Tom Sanders KB2NCI

kb2nci@arrrl.net

585-924-0752

Ham Radio: Service, Science, Skill

The Amateur's Code^{[1][2]} Originally written by Paul M. Segal, W9EEA (1928)^{[1][2]} The Radio^{[1][2]} Amateur is:

^{[1][2]}CONSIDERATE Never knowingly operating in such a way as to lessen the pleasure of others.^{[1][2]}

^{[1][2]}LOYAL Offering loyalty, encouragement and support to other^{[1][2]} amateurs, local clubs and the American Radio Relay League,^{[1][2]} through which Amateur Radio in the United States is^{[1][2]} represented nationally and internationally.^{[1][2]}

^{[1][2]}PROGRESSIVE With knowledge abreast of science, a well built and efficient station and operation beyond reproach.

^{[1][2]}FRIENDLY With slow and patient operation when requested, friendly^{[1][2]} advice and counsel to the beginner, kindly assistance, cooperation and consideration for the interests of others. These^{[1][2]} are the hallmarks of the amateur spirit.

^{[1][2]}BALANCED Radio is an avocation, never interfering with duties owed to^{[1][2]} family, job, school or community.^{[1][2]}

^{[1][2]}PATRIOTIC With station and skill always ready for service to country and^{[1][2]} community.

