

SPARKS

Monthly Newsletter of the Tri-State Amateur Radio Society

Serving the Tri-State for over 70 years

March 2021 - Issue No. 3



The SPARKS Newsletter is published monthly by the Tri-State Amateur Radio Society as a source of information about Club activities, and general news items of interest to the Amateur Radio community.

Material in this newsletter may be reproduced provided that TARS and the article author is properly credited. Complimentary issues of the SPARKS Newsletter are available to amateur radio clubs on a newsletter exchange by e-mailing your request to sparks@w9og.net.

E-mail subscriptions are provided to all regular TARS members.

News contributions and letters/emails to the editor are always welcome.

TARS regular membership is open to all licensed Amateur Radio operators for \$25.00 a year. An Associate membership is also available to those who are interested in Amateur Radio but do not currently hold a license. Associate membership is \$25.00 a year. Student memberships are also available for \$12.50 a year.

Membership information is available at www.w9og.net

The Tri-State Amateur Radio Society meets the second Thursday of each month at the Red Cross, 29 Stockwell Rd, Evansville IN, at 7:00 p.m.

Family and visitors are always welcome to attend.

For more information, please contact one of the TARS officers listed in this newsletter or email info@w9og.net.

Amazon Smile

To set up your Amazon Smile account to donate to TARS with every Amazon purchase you make, click our unique link: <https://smile.amazon.com/ch/35-6042852>.

Now when making an Amazon purchase from your browser online, login via

smile.amazon.com

[this is important as it's only via smile we will receive a donation] then make your purchases as usual and TARS will get a donation. If you use your mobile app, just turn on AmazonSmile and it will connect you automatically.

Turn on AmazonSmile in your mobile app.

Open the app and find 'Settings' in the main menu (☰). Tap on 'AmazonSmile' and follow the on-screen instructions to turn on AmazonSmile on your phone.

IT IS THAT EASY!

Reminder

It's that time of year again; time to renew your TARS membership! Thank you for your past membership. If you have already renewed for 2021, thank you so much and you may disregard this reminder. By renewing today, we can continue to have the impact in Amateur Radio you've come to expect from TARS. Renewing now will also insure you continue to receive the monthly newsletter SPARKS.

2020 was a challenging year for TARS as well as for each of us individually. But one of the great strengths of radio amateurs is our ability to adapt and TARS has done just that. We continue to have both board and regular meetings using Zoom, including program presentations. Working with the ARRL and other sponsors we continue to participate in contest activities such as Field Days and INQP using modified rules to permit safe, individual operation that include club aggregate scoring. Many are still involved in ARES and RACES activities to ensure preparedness for supporting served agencies.

2021 is getting off to a rough start but we are looking forward to resuming more activities. TARS is still planning to hold the annual auction, banquet, picnic and Hamtober Fest at the Lynnville Community Center as soon as it is safe.

Attached is the 2021 membership renewal form. Please be sure to update your information on the form, especially your email address, operating modes and program preferences as this information changes frequently. During the pandemic the preferred method of payment is check or money order mailed to the post office box indicated on the form. If your preference is to pay by cash, please feel free to contact me at the email address below and we can make arrangements to meet. Do not mail cash. We look forward to hearing from you soon!

73,
Jeff Holt AA9WJ
2021 TARS Treasurer

Beyond the Baofeng

Chris Lantaff, KE9YK

ANTENNAS

One of the questions I see all the time on social media is “What’s the best _____ antenna?”, and then everyone chimes in.....

My first question is always, what are you trying to do? There are a number of best antennas depending on your needs, but not “one” best antenna for all. Not long ago there was a guy looking for the best antenna to use on his jeep and an adapter to connect his headset to the Baofeng. Turns out he had a \$200+ racing comms headset he was wanting to connect to a \$25 baofeng. Somebody set him up with a link to comms connectors being used by paintballers, apparently, they use baofengs too. After he took a good ribbing for not using a better radio, everyone crawled out of the woodwork on which antenna he should get for the jeep he uses off-roading, finally settling on a cheap Chinese knockoff antenna. All I could do was shake my head and wonder **WHY?**

The antenna is one of the most important components of your radio system. Over the next few months we will discuss antennas along with pros and cons of certain designs.

Winlink HF and VARA HF

Ken Johnson, K9KDJ

If you use Winlink on HF, you know how great VARA HF is when increasing throughput speed. As I watch connections come into my HF Gateway, I see almost all VARA HF connections complete their connections and pass traffic while many on ARDOP make the connection but cannot complete sending traffic. The propagation is too tough, but VARA HF deals with weak signals better.

Recently, a SYSOP discovered an issue in VARA HF that “could” allow getting the wrong call. (This is a 1 in 6553 error rate, but it could happen due to using a 16-bit hash to resolve call signs). So, while unlikely, it is possible.

The author of VARA HF (and VARA FM) is changing to a 32-bit representation that should virtually eliminate the possibility. While that is the good news, the bad news is that it will not be backwards compatible with the current VARA HF release. Never fear, however, as a plan is in the works.

Moving to the new version of VARA HF will come about in 2 stages. The 1st stage consists of getting SYSOPS up and running on

an interim version that will work with either size representation, and SYSOPS will probably run that version for about 2 months. Some are slow to change. 😊 The SYSOP 1st stage version will work with both representations.

During Stage 2, VARA HF would initiate 32-bit calls and continue working with the 1st stage release but would cease working with earlier versions using the 16-bit call. Obviously, the rollout of State 2 is critical and requires that HF Gateway SYSOPS run the State 1 version. Once that is complete and working well, users can start migrating to Stage 2 without issues.

The new VARA HF also includes some compression. Overall, that should provide better throughput for all of us on HF. As a sidenote, the compression is fully documented so that we may all remain legal.

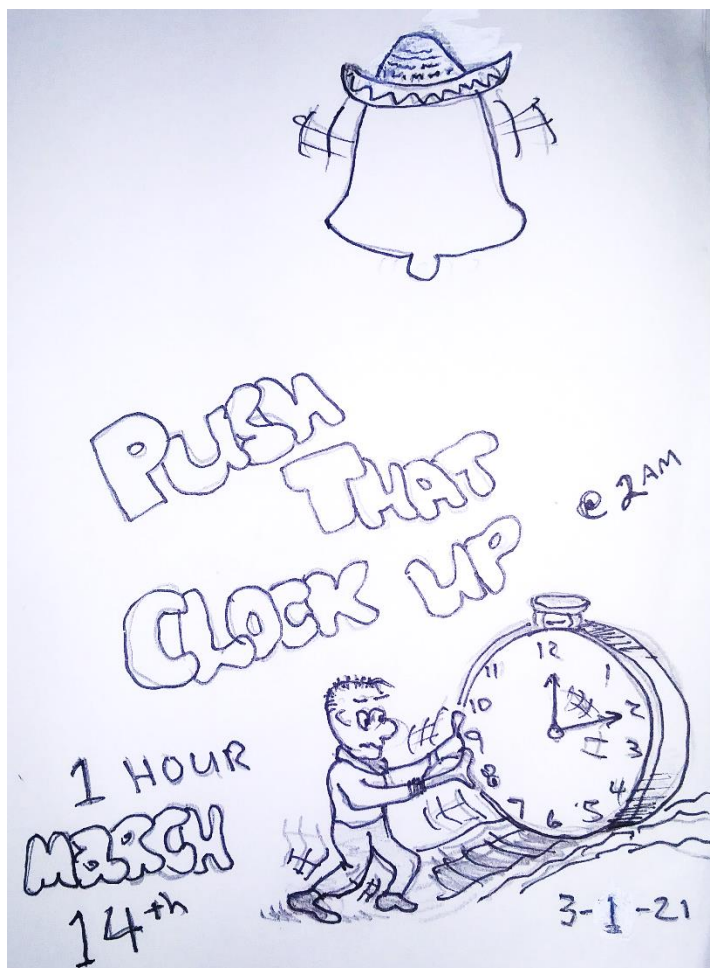
So, you do not need to do anything right now. Whew! Right? This is just a heads up that some good changes are coming to VARA HF all focused on better traffic handling in less-than-ideal conditions while correcting an error that “could” cause a problem.

Hamtober Fest

TARS Hamtober Fest is a go for 2021

October 23rd 2021 at the Lynnvile community center.

Watch for more information soon!



Herb Alvey KB9MZH

Indiana QSO Party--2021

It's that time of the year to be planning club activities for the year. And we hope that the INQP is on your radar.

TARS is planning to hold a group event at Interlake State Recreation area east of Lynnville off of Highway 68, on Saturday MAY 1st. There is a \$7.00 gate fee to enter.

The 2021 dates are May 1-2 and updated rules are [here](#). Revisions mainly concern returning to pre-covid practices for multi-op, rovers, and portable stations with the hope that things will be "(mostly) normal" by then. See the rules for more info. There was lots of activity with club competition in 2020 and we encourage clubs again to participate in this fun aspect of the QSO party. It can do a lot to strengthen club teamwork.

Club Competition:

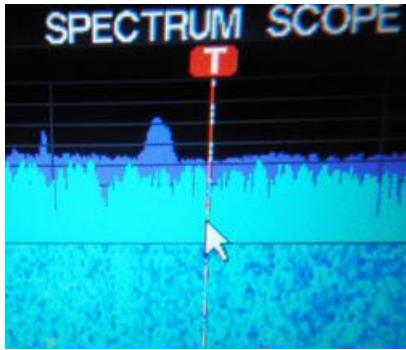
In addition to individual awards, there is an award for the Indiana Amateur Radio Club whose members turn in the highest total aggregate score.

Watch for more details next month.

Approaches to Tackle Noise Problems Vary, Remedies Elusive

The ARRL Letter for March 4, 2021

RF noise is a frequent discussion topic among radio amateurs. A proliferation of electronics has cluttered and complicated the noise environment; it's not just power lines anymore. Unless isolated from civilization, most hams experience RF interference (RFI) and spectrum scopes on modern transceivers can make it much more apparent. Various approaches to address the apparently worsening noise



floor have been taken around the world, some addressing lax regulation.

"We all want to enhance our ability to copy the weak ones by increasing our signal-to-noise ratio," Alan Higbie, KOAV, said in his March/April *NCJ* article, "Tracking RFI with an SDR One Source at a Time." He suggests practical methods for individual radio amateurs to improve their own noise environment. "We can do that by reducing the noise on each band that we operate. Lowering the noise floor increases the relative strength of weak signals. Those who live in typical residential environments find that locating and eliminating RFI sources is a never-ending process. It is much like weeding a garden."

The International Amateur Radio Union ([IARU](#)) warns against complacency. "Radio amateurs cannot sit back, because even if

the desired noise limits are agreed, there are many rogue manufacturers and dealers who will happily sell noise-generating devices, leaving out filter circuits to cut costs," IARU said. The IARU has urged member-societies to get involved.



Small household "wall warts" are typically noisy switching power supplies.

The FCC Technological Advisory Council ([TAC](#)) -- a Commission advisory group -- [initiated an inquiry](#) in 2016 looking into changes and trends to the radio spectrum noise floor to determine whether noise is increasing and, if so, by how much. The TAC had encouraged the FCC to undertake a comprehensive noise study in 1998, and cautioned the FCC against implementing new spectrum management techniques or initiatives without first concluding one. In 2017, the FCC Office of Engineering and Technology (OET) invited comments on a series of (TAC) spectrum-management questions. ARRL, in its comments, took the opportunity to strongly urge the FCC to reinstate the 2016 TAC noise floor study, which, ARRL asserted, was terminated before it even got started. ARRL urged the FCC to "depart from the traditional regulatory model" that placed limits only on transmitters and called for "a 'holistic' approach to transmitter and receiver performance."

- ARRL offers a wide range of [information on RFI](#) on its website.
- Paul Giancolo, W1VLF, will offer "Finding and Fixing RFI" as part of the [ARRL Learning Network](#) webinar series, on Tuesday, April 20, at 1700 UTC.
- ARRL Northwestern Division Director Mike Ritz, W7VO, will offer "HF Noise Mitigation" as part of the [ARRL Learning Network](#) webinar series, on Thursday, April 22, at 1930 UTC.

Greg Lapin, N9GL, represents ARRL on the TAC and chairs the ARRL RF Safety Committee. "Perhaps the best result that we obtained was an indication that illegal devices, mainly LED lights, were in circulation, and the Enforcement Bureau agreed to look into it," he told ARRL. "We never heard what they found out, but recently, I was buying some LED bulbs over the internet from a site in Texas, and they were selling non-FCC approved lights -- and didn't seem to care." Lapin said his complaint went nowhere, and the TAC's focus has been nudged in the direction of addressing 5G issues.



The Deutscher Amateur Radio Club (DARC) has been working on developing a noise-measurement system that approximates methods used by the International

Telecommunications Union Radiocommunication Sector (ITU-R). DARC reported that 35 of these electrical noise area monitoring systems (ENAMS) have been delivered, and it's seeking another 20 locations as part of the effort to monitor noise interference on the HF bands. DARC said the ENAMS can help to make scientifically reliable statements about interference levels.

IARU sees wireless power transmission (WPT) as an impending major noise threat, especially from WPT electric vehicle (WPT-EV) charging systems. "For the amateur service, given the planned density of WPT-EV systems, it is calculated that there will be a widespread and serious impact in the vicinity of WPT systems" from spurious emissions, said a 2019 *EE Publishers* [article](#), written by "Amateur radio societies concerned about the HF noise floor." The article also said, "To ensure a low probability of harmful interference to radiocommunication services, further study is required." Read [an expanded version](#).



Tri-State Emergency Net

8:00 p.m. Wednesday nights on 146.79 pl 88.5

If you haven't checked into the Tri-State Emergency Net, please take a few minutes at 8:00 p.m. Wednesday evenings on 146.79 and get updated on what is happening, the latest club information, calendar of upcoming events, topics of general interest and from time to time good old-fashioned rag chewing.

Net Operator schedule

March

3	N9QVQ
10	KB9YWQ
17	WB9KQF
24	KE9YK
31	KC9TYA

April

7	KC9UVG
14	N9QVQ
21	KB9YWQ
28	WB9KQF

If you would like to be a Net Control Operator for the Wednesday Night Net or learn how to run a SKYWARN net.

Contact: [Chris Lantaff KE9YK](#).



Spotter Training Classes now scheduled for 2021

<https://www.weather.gov/pah/>

SPRING SPOTTER TRAINING WEBINARS: Click on date to register

Wednesday [March 17, 2021 6:00pm CDT](#)

Saturday [March 20, 2021 6:00pm CDT](#)

Thursday [March 25, 2021 6:00pm CDT](#)

Monday [March 29, 2021 6:00pm CDT](#)

Monthly TAILGATE

Bob Oberst K8RAO is selling his station. See attached pdf list and picture. He would like to sell the whole thing as a group but is willing to break apart.

His email is raoberst@gmail.com

Phone: 812-480-4066

If you have something you would like to list for sale in the Monthly TAILGATE, send an e-mail to sparks@w9og.net with all information on the item, pictures are helpful and your contact info.



Brag Rag

Do you have something you would like to submit for the Brag Rag? Send your QSLs, special event certificates, awards, interesting photos, projects etc. to sparks@w9og.net to have them included in your newsletter.

VE Testing

2021 Ham Radio VE Test Sessions

Feb 27
Apr 24
May 29
June 26
July 31
Aug 28
Sep 25
Dec 18



ATTENTION!!!

The Tri-State Amateur Radio Society VE Team is currently holding all VE test sessions at the Vanderburgh Co. EMA west side training facility, 1440 Harmony Way in Evansville. This is the building behind the old school building. Look for the tower and antennas and enter the side door by the tower.

You will need to know your FRN number. If you have a license currently you have an FRN number. If you do not yet have a license you can register with the FCC and obtain an FRN number. Go to www.fcc.gov/register.

If you need help or have questions please let me know at n9ol@arrl.net.

Examinations will start promptly at 9:00 AM Central time. We have no pre-registration, and examinations are administered on a walk-in basis.

Details can be found at: <http://w9og.net/ve-testing>

For more info contact: [John VanVorst N9OL](mailto:John.VanVorst@arrl.net) c: 812.305.4100



Vanderburgh Co. ARES/RACES

All Vanderburgh Co ARES/RACES in person meetings are canceled until this COVID-19 emergency has passed and currently using ZOOM.

Our meetings are the **third Thursday** of the month starting at **6:00pm**.

Watch your email for the ZOOM meeting login details.

If you would like to participate and are not currently a Vanderburgh Co. ARES/RACES member contact us for the login information.



Feel free to check in to the Vanderburgh Co ARES net **each Tuesday at 8:00pm** on the 146.790 repeater.

Vanderburgh County Auxcomm

Chris KE9YK IN82RACES@gmail.com

Vanderburgh Co RACES Officer

812.453.1972

Len N9QVQ len.n9qvq@gmail.com

Vanderburgh Co ARES EC

812-963-0027

Warrick Co ARES/RACES

Meetings...

The Warrick County ARES/RACES group meets on the second Monday of each month. The meeting begins at 6:30pm and generally is completed by 9:00pm. The meetings are held on the third floor of the Court House in the EMA Conference room. Anyone needing additional information concerning meetings or location contact: Chris L. Owen at KC9CLO@gmail.com.

February Birthdays!!!

Rob Furguson	KD9KLI	4th
Dan Kelley	N9WJ	24th
Jay King	WB9ICL	26th
Robert Pointer	N9XAW	2nd



Secretary Report

The secretary reports were attached as separate attachments with this SPARKS mailing.

Dave Sandine KC9UVG

Treasurer Report

Budget:

January 2021 (prepared 2/3/2021)

Opening Balance:	\$3,967.76
Receipts:	
Memberships (including extra donations)	\$152.50
Total Receipts --->>	\$152.50

Expenditures:	
None	\$0.00
Total Expenditures--->>	\$0.00

Ending Balance	\$4,120.26
Red Cross Fund	\$1,269.82
Funds Available to TARS	\$2,850.44

Jeff Holt AA9WJ

TARS Treasurer

Looking Ahead

2021

TARS AUCTION January TBD

TARS Banquet February TBD

INQP 2021 1600Z, May 1 to 0400Z, May 2, 2021

MUSEUM SHIPS WEEKEND June

ARRL Kids Day June Third Saturday

Field Day June 26-27

13 Colonies Special Event

National Night Out first Tuesday of August

International Lighthouse and Lightship Weekend (ILLW) third full weekend of August

Light Up 2 Meters Night August

TARS PICNIC Sep TBD

Route 66 Special Event September

Jamboree-on-the-Air third full weekend in October

TARS 3rd annual Hamtober Fest Oct 23, 2021

SKYWARN Recognition Day, Saturday, December

Straight Key Night January 1 from 0000 UTC through 2359 UTC

ARRL Kids Day Jan First Saturday

Winter Field Day January 30-31 2021

Total Solar Eclipse North America April 8, 2024

Your input is important

Sparks is **YOUR** information source for club activities and local Amateur radio information.

In each issue we ask for submissions from club members. Tell us about your station, projects you have made or are making, anything interesting the TARS membership might be interested in.

Submission deadline is the 25th of the month.

Most any document format is acceptable.

Photos or graphics of your subject are welcome.

Send your article to: sparks@w9og.net

TARS is an [ARRL](#) affiliated club

ARRL [Indiana Section](#)

Section Manager: **Jimmy Merry KC9RPX**

kc9rpx@arrl.net

TARS mailing address:

TARS

P.O. Box 4521

Evansville, IN 47724

Don't forget to check out our web page www.w9og.net

Facebook Group

<https://www.facebook.com/groups/TARSw9og>

TARS E-mail: info@w9og.net



2021 Club Officers - Board members

President [John VanVorst N9QL](#)

Vice President [Dennis Martin WA2USA](#)

Treasurer [Jeff Holt AA9WJ](#)

Secretary [Dave Sandine KC9UVG](#)

Board of Directors

[Herb Alvey KB9MZH](#) (2020-2021)

[Don Land KB9YWQ](#) (2020-2021)

OPEN (2021)

[Mike Townsend W9KXP](#) (2021-2022)

Scott Hibbs KD4SIR (2021-2022)

Charlie Martin WB8LDV (2021-2022)

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Chris Lantaff KE9YK

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