

SPARKS

Monthly Newsletter of the Tri-State Amateur Radio Society

Serving the Tri-State for 75 years

January 2022 - Issue No. 1



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.

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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.

Presidents Corner

Happy New Year!! As we say goodbye to 2021 (or perhaps good riddance) I am optimistic and hopeful that 2022 will be an awesome year. As bad as 2021 was for almost everyone I can still look back on the past year and be thankful for so much. I hope you can too. Lets make 2022 a great year!

We have a lot happening in our club. I hope you have joined the TARS@groups.io group. That is a great way to communicate with one another, and share files and information. I am looking forward to growing closer as a club with tools like this that will get us talking and sharing ideas. This in addition to getting back to meeting together has me very hopeful that the 75th year of TARS will be one of the best!

This month I would like to share some thoughts about the ARRL, The National Association for Amateur Radio. I have been a member of ARRL for many years, and have enjoyed the ARRL website as well as publications such as QST magazine. Are these resources worth the cost of membership? Arguably perhaps not. But there is much more value in supporting the ARRL- primarily in helping to ensure that amateur radio has a voice at the FCC and in the US Congress.

“Its too political.” I have heard that from many Hams who do not wish to join. I certainly respect that and any other opinions regarding ARRL membership. But the reality is everything we do is political, especially amateur radio. The frequencies we use are granted to us by the FCC and Congress. The rules, the testing requirements, all determined by the FCC and Congress. Amateur radio must have a seat at the table at the FCC, and we have that with the ARRL.

Additionally, many of the frequencies we are granted are highly sought after by all kinds of private industry stakeholders. Requests to re-allocate our frequencies, auction frequencies for private or public use, are common. The ARRL is part of those deliberations and is a major voice for Amateur Radio in protecting and preserving the band allocations we enjoy.

Whether or not you choose to be a member of ARRL, I encourage you to research and know what the organization does and take advantage of the resources on the website. ARRL exists for all hams, and for the past 100 years has been the voice for Amateur Radio.

See you at the club meeting and then at Winter Field Day at Wesselman Park!!
73!

John, N9oL

REMINDER CLUB DUES ARE NOW DUE!!

January TARS Meeting 1/13/22 7pm

The meeting will be held at the West side EMA Training Center (WEMA) [1430 Harmony Way](#).

The meeting program will be on GO Kits and portable operation. If you have a GO Kit or portable setup that you would like to show off, this is your opportunity to let others see what you have.

This is going to be an informal meeting so everyone can see and talk to the Op's that bring their gear.

For those attending, masks are optional but recommended along with distancing as much as possible. As always, if you have or recently had any covid symptoms, not feeling well or have been in contact with anyone with covid or covid symptoms, PLEASE DO NOT ATTEND.

2022 Winter Field Day

What is winter field day? Winter Field Day is a chance to enhance those already important skills of those that who generously volunteer their time and equipment to these organizations. This is why WFD is open to all licensed amateur radio operators worldwide. Disasters are unpredictable by nature and can strike when you least expect them. This is just one part of being prepared for giving assistance when needed.



So, coming up in January 29 & 30 2022 is Winter Field Day. I know a lot of members have heard of our summer Field Day. So to get amateur to participate both field days have been made into a contest. This year we will be operating at Wesselman Park Shelter house. We will have 1 CW station and 1 SSB station. Chris KE9YK will be making his almost famous chili, coffee and sodas will be available, will have a fire going in the fireplace. The setup time will be starting **10 am on Saturday, Jan 29th**. Note this is a 24 hour event but we will tear down sometimes on Saturday evening at Wesselman Park.

Everyone is invited to come and operate. It doesn't matter what class of license you have. As long as there is an Extra Class operator. So, if you have tech class and have never been on HF here is the time you can get on and operate. I hope to see all of that want to operate.

Jerry - wb9onu

email: wb9onu@hotmail.com

If you want to participate in WFD but can't come out to Wesselman Park, you may participate in the Club/Group score.

Check the rules on Winter Field Day at:

<https://www.winterfieldday.com/>

Use the Club/Group Name "TARS W9OG"

EMERGENCY COMMUNICATIONS, PUBLIC SERVICE, OR OUR OWN ENJOYMENT?

KEN, K9KDJ

As I teach college courses both in Philosophy and in Rhetoric, I try to help students learn how to argue. Of course, in academia, when we argue, we do not think about the sort of arguments we might find in some local bars (or school board meetings! 😊) where people try to shout out each other, often resulting in physical altercations and injuries. In academic arguing, we try to look diligently both at what we believe in addition to what others believe and arrive at agreement, usually somewhere in the middle, that allows both sides to work together.

When we think about emergency communications and public service, I suggest that they can become the same thing, but, generally, they are not the same things. I also suggest that what we do we mainly do simply for our own enjoyment, and that is OK.

I do understand the hue and cry about the value of amateur radio residing in our abilities to respond to emergencies whether in our communities or in far-away places. Certainly, this perceived possibility fuels the expenditure of a lot of money shelled out by good people of good intent who believe they will respond to "the call" when disaster strikes. In practice, we more likely find ourselves in fluorescent vests manning tables at races or parking cars for events as part of our public service. And, even more than that, we mostly find ourselves talking to each other just because we enjoy it or handling non-essential traffic just because we can and because we enjoy it. Thus, I ask the question: Do we prepare for Emergency Communications, do we really perform Public Service (since they may not be the same things), or is our grand purpose lodged inside our simple enjoyment of communicating?

As I look around my own office, I find multiple HF radios, VHF/UHF radios, DMR radios, C4FM radios, DStar radios, computers running VARA with Pactor modems attached, with all, in some way and for some purpose, connected to my 10 computers. All that spills over to my vehicle with nearly the same capabilities. All for what? Initially, for emergency communications, but as I face the reality of living in our modern world, I realize all this gear I use for my enjoyment—the pleasure I receive communicating both in voice and in digital modes. Simply, the probability of amateur radio operators receiving a call to respond to emergencies with all our capabilities drops precipitously with every passing year. In most places, even the need for public service nosedived with the advent of cell phones and texting. We find the enjoyment of communicating as the last bastion of Amateur Radio.

I believe the tragedy of tornados ravaging communities just a few miles to our south reveals the truth of what I'm saying. With almost everything destroyed in some areas of communities,

Amateur Radio provided little assistance. Yes, a few pockets of traffic movement (with very few actual messages passed) existed, and a few hearty amateurs positioned themselves to help direct traffic. Generally, however, phone companies responded quickly with portable towers and restored communication to cell phones with lightning speed. Police and Fire Officials quickly moved to other frequencies where tower capabilities still existed until their primaries were restored. Offers for help from Amateur Operators poured in, but in the final analysis, they needed little help from us—and that's OK! We stood prepared, we offered, and those few who accepted the offers benefitted from it. In the end, however, we just were not relevant, and the probability of future relevance diminishes every year.

If the above rings true, then I suggest we stop waving the no-longer-valid cry of "We are the heart of disaster communication." Simply, that is a fallacious argument. Even claiming the mission of public service must work hard to find support. We just provide very little of that. The real argument for our beloved hobby may simply find strength in the claim that we do really cool stuff with radios, computers, the internet, and the air waves. While doing that, we bring a capability of assisting *should* needs arise and stand ready to help our communities in all ways we can.

Meanwhile, I encourage you to explore all the new(ish) and developing modes in amateur radio. Instead of bemoaning "that's not real radio", jump into as much as you can handle and find new ways of enjoying our multi-faceted hobby of communicating. Certainly, we can remain vigilant, practice responding to potential disasters, helping with races, etc. In the end, however, we can all, hopefully, find new and developing ways of enjoying our hobby without stating claims that no longer stand under scrutiny.

Dave Angermeier N9JWV SK



It is with a heavy heart to announce that Dave Angermeier N9JWV passed away on January 7th. Dave had been a TARS member on and off over the years and was always a kind voice on the radio.

[Obituary Link:](#)

TARS @ Groups.IO



Have you heard about the new TARS Groups.io email list?

You can subscribe at <https://groups.io/g/TARS> or by sending an email to TARS+subscribe@groups.io directly.

The mail list is an area where you can ask questions or get the latest information on club happenings.

For HELP on the Groups.IO site, send an email to:

TARS+help@groups.io

Special Election

We will hold a special election in Feb at the regular club meeting to fill the vacant Board Member spot left by Scott KD4SIR as he moved into the Vice President position.

This will be to fill the remaining term of 2022.

If you are interested in filling this position,

Contact: [Tom Hilgeman KD9PFH](mailto:Tom.Hilgeman@KD9PFH)

New Technician Question Pool effective July 1

The National Conference of Volunteer Examiner Coordinators (NCVEC) Question Pool Committee (QPC) has released the [2022 - 2026 Technician Class FCC Element 2 NCVEC Question Pool Syllabus & Question Pool](#) into the public domain. It's available as a Word document or PDF. The three graphics required for the new Technician question pool are available within the documents, or separately as PDF or JPG files. The new pool incorporates some significant changes compared to the 2018 - 2022 pool. Its 257 questions were modified slightly to improve wording or to replace distractors; 51 new questions were generated, and 62 questions were eliminated. This resulted in a reduction of 11 questions, bringing the total number of questions in the pool from 423 to 412. The difficulty level of the questions is now more balanced, and the techniques and practices addressed have been updated. The new 2022 - 2026 question pool is effective July 1, 2022 - June 30, 2026, and *must* be used for Technician-class license exams administered on or after July 1, 2022. -- Thanks to NCVEC Question Pool Committee

World's Smallest Moon Lander from Japan will Put Ham Radio Transmitter on the Moon

ARRL Letter for December 9, 2021

Japan's [OMOTENASHI](#), the world's smallest moon lander, will have an X-band and UHF communication system, although it will not carry an amateur band transponder. OMOTENASHI is a 6U CubeSat set for launch via a NASA SLS rocket as early as February 2022. It will have a mission period of from 4 to 5 days. The name is an acronym for Outstanding Moon Exploration Technologies demonstrated by Nano Semi-Hard Impactor.

Wataru Torii of the Japan Aerospace Exploration Agency (JAXA) Ham Radio Club, JQ1ZVI, said radio amateurs can play a role in gathering data from the spacecraft.

The spacecraft is made up of two separable components, both having independent

communication systems -

- an orbiting module and

a surface probe. The orbiting module will take the surface probe

to the moon. It will transmit beacon or digital telemetry data on



UHF (437.31 MHz). The surface probe -- the moon lander -- will transmit digital telemetry or three-axis acceleration analog-wave with FM modulation on UHF (437.41 MHz). Transmitter power will be 1 W in both cases.

"If we succeed in receiving the UHF signal from the surface probe, we could know the acceleration data on the impact on the moon and the success of the landing sequence," Torii explained.

"We already have a station for uplink and downlink at Wakayama in Japan -- used as an EME [moonbounce] station. However, if the satellite is invisible from Japan, we cannot receive the downlink signal. So, we need a lot of help from ham radio stations worldwide."

The orbiting module beacon will transmit on 437.31 MHz using PSK31. The surface probe beacon will transmit on 437.41 MHz using FM, PSK31, and PCM-PSK/PM.

[Contact](#) Torii for more information.

ARRL Surveying Field Day Participants

The ARRL Letter for January 6, 2022

The ARRL Programs and Services Committee is seeking input from stations and groups that participated in [ARRL Field Day](#) 2020 and 2021 and has posted a survey. The committee said the survey results may help shape the development of Field Day rules for 2022 and beyond. The survey has already been sent via email to some 13,000 Field Day participants, more than 2,400 Affiliated Clubs, and to the CQ-Contest and VHF-Contesting Reflectors.

"Specifically, as we look toward 2022 Field Day, health and social-distancing concerns may continue in June 2022 during the ongoing world pandemic," said ARRL Radiosport Manager Bart Jahnke, W9JJ. "For 2023 and beyond, the assumption is made that the pandemic will be over, and COVID-related restrictions will be relaxed."

Jahnke said the Programs and Services Committee invites participants' insights, in advance of its January meeting, regarding what they consider appropriate for operating ARRL Field Day 2022 during the ongoing pandemic. The committee hopes to learn if participants prefer to continue Field Day under the pandemic accommodations afforded in 2020 and 2021, which included limiting home stations to the Low Power multiplier (150 W PEP), and whether stations in some classes or all other classes should be limited to 150 W PEP as well. Field Day stations operating at high power became the topic of some discussion in the wake of Field Day 2021, when some stations were reported to be running the legal limit on FT8 on crowded bands.

The committee is also interested in views on the 150 W versus 100 W change in the Field Day Low Power category definition, which is being implemented across all contest platforms.

During 2020 and 2021, ARRL permitted a couple of basic accommodations in the Field Day rules during the COVID outbreak.

Participants who could not or did not want to be in a group were allowed to operate from their home stations and contribute their individual scores to their club's Field Day aggregate score. Members' scores were combined to achieve an overall final club score, which then appeared in the ARRL Field Day results summary in *QST* and on the ARRL website.

In addition, Class D (Home, commercial power) stations were allowed to contact other Class D stations for point credit.

In 2021, Class D and Class E (Home, emergency power) stations were limited to a maximum transmitter output power of 150 W PEP (Low Power). The idea here was to minimize the advantage of well-established home stations with superior antenna systems and running up to the legal 1,500 W PEP limit.

Field Day participants may use this [survey link](#) or copy this URL into a web browser: <https://www.surveymonkey.com/r/2022--ARRL-FIELD-DAY-SURVEY>.

The survey will close on January 17, 2022.

[Direct](#) any questions to the ARRL Contest Department.

SKYWARN Spotters and Nets Track Deadly Storms

The ARRL Letter for December 16, 2021

Amateur Radio activity related to the deadly spate of tornados on December 10 in Kentucky, Tennessee, Mississippi, Arkansas, Missouri, and Illinois was largely associated with the National Weather Service (NWS) SKYWARN program. Weather spotters, most of whom are radio amateurs, followed the progress of the storms, sharing that information with NWS offices and related partners.

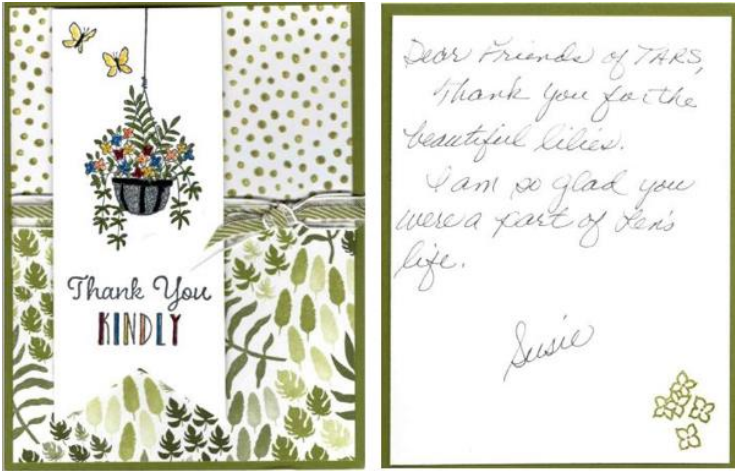
SKYWARN groups across Arkansas followed the progress of the parent storm from the formation just northeast of Little Rock until it crossed the Mississippi River. According to Gary Gibbs, KE5HKW, SKYWARN Coordinator for Craighead County, Arkansas, Emergency Management, volunteers were very active in the Jonesboro area. This area includes Monette Arkansas, where the Monette Manor -- a long term care facility -- was destroyed. - *Thanks to J.M. Rowe N5XFW, ARRL Arkansas Section Emergency Coordinator*

Similarly, SKYWARN teams out of NWS Memphis were all over this and there was a whole lot of traffic that crossed multiple states. Memphis NWS uses a linked amateur radio digital network (DMR talkgroup) for their consolidated storm-spotting efforts and it appeared to work very well, considering the extreme situation. - *Thanks to Robert Hayes, KC5IMN, ARRL Mississippi Section Emergency Coordinator*

The Red Cross is reported to have set up portable cell phone towers in areas that don't have service because of damage to the telecommunications infrastructure.



Thank You note from Susie Schmitt



Brag Rag

Congratulations to **Dennis Martin WA2USA** on a nice award.

Medal behalf of E.T. Krenkel <http://krenkelmedal.org/>

For the outstanding world contribution to the development of radio amateurs.

Dennis said, How I got nominated is a mystery to me.

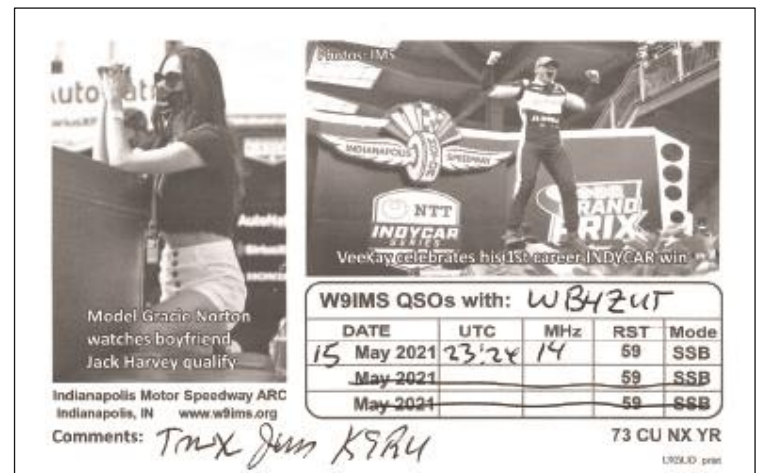
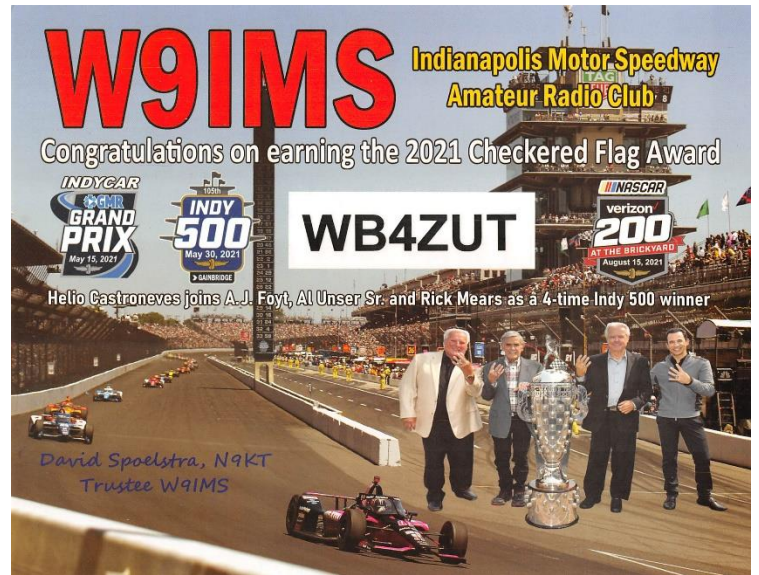
I know several of the prior recipients and was encouraged to go ahead to receive the award.

The only thing I can conjure up is my activities with POTA, SOTA, IOTA and trip to Greenland and possibly my trips to St. Lucia.



Walt EGENMAIER WB4ZUT received a nice set of QSL cards and certificate from participating in the W9IMS event.

Congratulations Walt!





Happy Birthday!

January Birthdays!!!

Rick Finical	KF0TL	18th
Kelli Land	KD9COS	8th
Betty Lantaff	KC9VDA	27th
Charlie Martin	WB8LDV	28th
Leonard Schmitt (SK)	N9QVQ	12th
Steve Wilzbacher	K4SAW	17th

Indianapolis Motor Speedway Amateur Radio Club
W9IMS
Indianapolis, IN
Marion County
www.w9ims.org

W9IMS QSOs with: WB4ZUT

DATE	UTC	MHz	RST	Mode
16 August 2021	00143	3.8	59	SSB
August 2021			59	SSB
August 2021			59	SSB

Tnx Am K9R1 73 CU NX YR

VE Testing

Watch for announcement of the dates for 2022!

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.

W9IMS
Indianapolis Motor Speedway Amateur Radio Club

Helio Castroneves celebrates joining A.J. Foyt, Al Unser Sr. and Rick Mears as only the fourth 4-time winner

INDY 500 May 20, 2021

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.

Indianapolis Motor Speedway Amateur Radio Club

W9IMS QSOs with: WB4ZUT

DATE	UTC	MHz	RST	Mode
20 May 2021	0016	7	59	SSB
May 2021			59	SSB
May 2021			59	SSB

Tnx Am K9R1 Tnx Am chemist

If you need help or have questions, please let me know at n9ol@arri.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@arri.net) c: 812.305.4100

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.



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, upcoming events, topics of general interest and from time-to-time good old-fashioned rag chewing.

Net Operator schedule

Jan	5	WB4ZUT
	12	KB9MZH
	19	KB9YWQ
	26	KE9YK
Feb	2	KC9TYA
	9	KC9UVG
	16	WB9KQF
	23	WB4ZUT

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](mailto:Chris.Lantaff@KE9YK).



2022 Spring Spotter Training Season Classes

Questions about webinars or on-site classes can be directed to:
Christine.Wielgos@noaa.gov

SPOTTER TRAINING WEBINARS (VIRTUAL CLASSES):
Click link below to register

Thursday January 27, 2022 - 6:00 PM

<https://attendee.gotowebinar.com/register/6983892671132874253>

Tuesday February 15, 2022 - 6:00 PM

<https://attendee.gotowebinar.com/register/2291426632927344912>

Monday March 21, 2022 - 6:00 PM

<https://attendee.gotowebinar.com/register/3300815690621103630>

SPOTTER TRAINING ON SITE CLASSES:

Registration is REQUIRED to attend on site classes:

Thursday February 24, 2022 - 6:00 PM CST: Chrisney, IN
(Spencer County) Chrisney Youth & Community Center

Saturday February 26, 2022 - 10:00 AM CST: Mt. Vernon, IN
(Posey County) Posey EMA Annex 311 Mill St.

More Information, full list of classes and registration:

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

Vanderburgh Co. ARES/RACES

The next Vanderburgh county
ARES/RACES meeting January 20th,
6:30pm on ZOOM.

Anyone interested in emergency
communication in Vanderburgh County is
invited to participate.

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 Hamshack Hotline 12604



Warrick Co ARES/RACES

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

Secretary Report

Dec 9th 2021 Regular meeting

Meeting called to order with a presentation by Dr. Glen Kissel, USI Associate Professor of Engineering, on the UNITE CubeSat, USI's student-built satellite. Following the interesting presentation, we had a short business meeting with 15 people in attendance.

John N9OL discussed the clubs 75 anniversary coming up and displayed possible 75-year logos for shirts.

There will be a little more research and discussion on shirts and hope to start taking orders by Feb.

Jerry WB9ONU talked about Winter Field Day and asked for participants. WFD is Jan 29 at Wesselman Park, set-up 10 am.

Scott KD4SIR talked about developing a club Elmer/Antenna crew, and also discussed some of the club history he was compiling for our 75th anniversary.

Discussion on possible banquet in Feb.

Discussed a May club picnic to coincide with the Indiana QSO Party.

The January meeting will be a Go Kit/Portable operation show and tell.

Chris Lantaff KE9YK – Secretary elect.

Treasurer Report

Budget:

November 2021 (prepared 12/1/2021)

Opening Balance: \$6,449.56

Receipts:

Memberships plus donations \$34.50

Amazon donation \$34.96

Total Receipts --->> \$69.46

Expenditures:

Indiana Farmer's Mutual
liability insurance (\$343.00)

Refund Rick Finical KFOTL for
bad Astron power supply sold
at Hamtoberfest (\$70.00)

Total Expenditures--->> (\$413.00)

Ending Balance \$6,106.02

Red Cross fund \$1,283.82

Funds Available to TARS \$4,822.20

Jeff Holt AA9WJ

TARS Treasurer

Looking Ahead

2022

TARS AUCTION TBD once we get back into the Red Cross or find
a suitable place to hold an auction

Winter Field Day January 29 2022

TARS Banquet March

TARS PICNIC TBD

INQP 2022 May

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

Route 66 Special Event September 11-19

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

TARS 4th annual Hamtober Fest 2022

SKYWARN Recognition Day, First Saturday, December
2023

Straight Key Night January 1 from 0000 UTC through 2359 UTC

ARRL Kids Day Jan First Saturday

[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

2022 Club Officers - Board members

President [John VanVorst N9QL](#)

Vice President [Scott Hibbs KD4SIR](#)

Treasurer [Tom Hilgeman KD9PFH](#)

Secretary [Chris Lantaff KE9YK](#)

Board of Directors

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

[Charlie Martin WB8LDV](#) (2021-2022)

OPEN (2022)

[Herb Alvey KB9MZH](#) (2022-2023)

[Jerry McIntosh WB9ONU](#) (2022-2023)

[Dave Sandine KC9UVG](#) (2022-2023)

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