

The Printed Circuit

The Monthly Publication of the
Tallahassee Amateur Radio Society

July, 2021



TALLAHASSEE
AMATEUR
RADIO
SOCIETY



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.NET

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P.O. Box 37127
Tallahassee, FL 32315

MINUTES of the July 2021 TARS Meeting

TARS Meeting, Thursday, July 1, 2021

Members Present:

KK4SIH, Don

KN4FCC, Todd

K4TB, Tom

N4JEL, Michael

N4KGT, Allen

K4KRV, Keith

KC4EMS, Jack

KN4WOW, Ed

WA6POZ, Gerry

KB2NIU, David

WA4TEO, Richard

KQ3O, Justin

N4JL, Jerry

AI4AI, Brian

KO4DN, Chris

N4IPH, Phil

KA5USN, Phil

KN4UXJ, Larry

K4JGC, Jim

NT4B, Bob (late check-in)

Gerry, net control, turned the meeting over to Don, KK4SIH at 7:05. Don welcomed everyone to the meeting and stated that there would be a Zoom presentation on RF Exposure Rules at about 7:30PM

Don requested Doug provide the Treasurer's report. Nothing was heard. There were no questions on the report which had been sent out earlier.

Don also requested if there were any corrections to the meeting minutes from last month. Nothing heard, the meeting minutes were approved.

Education, Phil, N4IPH: Nothing heard.

Testing: Norm, K4GFD: Not checked in. Gerry, WA6POZ, reported that there were 5 test takers and 4 passed. Effective today (July 1), new licenses will be \$35. Now, the FCC will respond to the applicant and must receive payment in order for those who pass the test to receive their license. July 10, 2021 will be the next testing session at the American Red Cross. Test takers must register to be able to take the test.

Repeaters: No committee members present on the radio tonight. Everything seems to be working fine. The 6m repeater is also working well.

OLD BUSINESS

Spaghetti 100, Todd provided an update on the event and asked people to hold the date on October 16. Volunteers will be signed up starting next month.

The club is still looking for a newsletter editor and to fill the PIO position. If you're interested, let Don know. The club is what you put into it. Lots of people to help, but we need volunteers to take the lead.

NEW BUSINESS

Red Cross Building Opening: Gerry, WA6POZ, said Red Cross will open up on Tuesday, September 7. Not sure if there will be restrictions for folks who are not fully vaccinated. Those not vaccinated may need to wear a mask. Gerry stated that we may want to move the meeting to September 9. Don will propose this to the TARS Board. Don stated that it would be nice to get back to an in-person meeting. The meeting would move from September 2 to September 9. K4TB and KN5USN were both in favor of moving the meeting to September 9. No one at the meeting tonight object; Don stated that we will move the meeting to September 9, 2021.

Field Day report: Jerry, N4JL, reported that it was his pleasure to act as technical lead, many other people helped out. Many others helped with set up and logistics including Randy and Norm with RVs and Doug with the porta-potty, Nic and Robert provided the tower and a generator, the tower up to about 40 feet. Jerry apologized to his wife who baked cookies that he forgot to bring! 😊 Planning for 2021 was haphazard, but we did have an application into TBP and even into May we were not sure what the plans were and if we could gather due to the pandemic. We did plan and had a technical lead; we had an emphasis on learning and developing operator skill. Many operators came out for the first time. We had multi-mode station that could be used for either phone or CW. The operator got to select the mode for operation during his shift. Bill Jordan constructed the phone station. We had good equipment and good antennas, including a beam from Ted (who was in California, but provided the antenna). We had Doug and Norm with a digital station. We had two operations; the phone/CW and the digital

station, so we had a 2A station for the club. Don can give additional information on results. 481 CW, 943 total contacts. Phone and CW = 860. With separate operations, CW had 900 to 1000 and phone was variable. Together, with 860 contacts, which was very good especially with a 20 minute late start and the CW bulletin at 2000 hrs (local) from ARRL. Thanks to good antennas, good equipment, and good weather, we did well. Next year we should have a technical lead and station captains. Assign others to logistics and maybe a cookout planned for Saturday evening. Any questions? K4TB, Tom, stated that the satellite station had a good time putting the station together but did not have the satellite data downloaded correctly, so the station did not hear the satellites as they made their passes. Tom did download some new data on Sunday and determined that there was a time difference between the data he had the actual times for the satellite passes.

Don also thanked everyone who came out to set up, tear down, and visited. We had good participation and the event was not stressful and good conversations. Don also thanked Norm, Randy, Nick and Bob from FDLE, Tom for satellite station, Ryan for electrical work, Jerry for the technical lead, Chief for permits and sodas and water, Doug for the porta-potty. Final score with bonus points: 3,564 which compared to 2019 was only slightly less. Not bad for an event that was more of a training event for new operators.

There will be club officer elections in November. People should start thinking about the offices that will be available. Nominations will be October. Would be nice not to get nominations at the last minute. Please make your desires known if you interested in running for an office. Chief said that he also wants to run for member at large.

Don also let folks know that KN4LIK has some equipment for sale and is asking \$750 or best offer.

Any other new business? Chief sent Don the certificate of appreciation so that we can thank those who sponsored our Field Day event this year.

Paul provided an email and website posting for the link to the Zoom meeting for this evening.

With no other business, Don closed the business portion of the meeting at 7:43 local and Gerry, K4TLH closed the meeting. Gerry also mentioned the special event for the 13 colonies. Chief reminded folks about the Friday lunch at 1130 at Golden Corral.

ZOOM MEETING

Tom, K4TB started the meeting at approximately 7:45. Paul provided information on how to share the screen. We will post the link to the video rather than record the Zoom meeting this evening on the TARS website. Ria Jairam, N2RJ, from New Jersey is the presenter on the video tonight. She has a BSEE and responsible for computer operations in Trinidad. Also built her own tower. Tom said that exposure evaluations rules came up for review in 2019. FCC bulletin was also posted and the rule set a date, May 3, 2021, by which HAM operators had to conduct an evaluation of their RF exposure and keep that on file at their station. You may be called to show your evaluation. How to do the analysis with duty cycle, frequencies, times of use, SAR (specific absorption rate), Near Field – how far away from the antenna do you have to be to not be part of the antenna, Max Permissible Exposure. Some details are dense, but there are some websites that make the evaluation very easy, one endorsed by the ARRL. Tom showed the video.

Video stated that HAMS had to comply with the rules, but now has to do an RF evaluation of their stations. RF can heat up body tissue. According to ACS, have not shown any conclusive links between cell phones and brain cancer. RF radiation is NOT ionizing radiation. No submissions to the FCC are required. But you do have to show your evaluation if asked by the FCC. Do the evaluation and keep the evaluation results on paper or electronically. Must do the evaluation for new stations or for changes to existing stations. We can calculate Max Permissible Exposure. Differences between general and controlled exposure levels.

Can use "Calculate Radio Frequency Exposure" provided by W4/VP9KF. See http://hintlink.com/power_density.htm

Average power may vary by mode. Duty factors help estimate this. RTTY is 100% duty cycle, while CW is 40%. Then calculate exposure for 6 minute and 30 minute time periods for an operator.

Also, this site recommended by ARRL:

<http://www.lakewashingtonhamclub.org/resources/rf-exposure-calculator/>

Also technical assistance from ARRL.

Tom also went over some of the calculations he had performed with his stations.

Meeting ended at about 8:25pm.

TARS Treasurer's Report

Submitted by Doug Ferrell, KD4MOJ, Treasurer

		<u>for period</u>	<u>year-to-date</u>
		28-Jul-21	1-Jan-21
<u>Beginning Balances:</u>			
	Cash on hand	\$ -	\$ -
	Checking Account:	\$ 4,626.37	\$ 3,876.41
	Savings Account:	\$ 3,103.46	\$ 3,102.68
	Total:	\$ 7,729.83	\$ 6,979.09
<u>Summary of Month's Activity:</u>			
	Total Receipts:	\$ 80.00	\$ 1,525.19
	Total Expenditures:	\$ -	\$ 694.45
<u>Receipts Derived From:</u>			
	Members Dues:	\$ 80.00	\$ 1,291.70
	Fifty/Fifty	\$ -	\$ -
	Donation	\$ -	\$ 170.00
	Veteran's Radio Fund	\$ -	\$ -
	Field Day Radio Fund	\$ -	\$ -
	Interest (Savings)	\$ 0.38	\$ 1.16
	smile.amazon.com	\$ -	\$ 62.71
	Total	\$ 80.38	\$ 1,525.57
<u>Expenditures:</u>			
	American Red Cross:	\$ -	\$ -
	Fifty-Fifty	\$ -	\$ -
	ARRL Insurance	\$ -	\$ -
	Spagetti 100 - TARC	\$ -	\$ -
	TARS & Feathers Plaque	\$ -	\$ -
	Storage & Supplies	\$ -	\$ 284.57
	Field Day	\$ -	\$ 100.00
	VE Expenses	\$ -	\$ -
	Tower/Repeater Maintenance AG4UU	\$ -	\$ 80.63
	Florida Dept of State	\$ -	\$ 61.25
	Post Office Box:	\$ -	\$ 168.00
	Total:	\$ -	\$ 694.45
Transfer Checking -> Savings:			
<u>Ending Balances - July 28, 2021:</u>			
	Cash on hand	\$ -	\$ -
	Checking Account	\$ 4,706.37	\$ 4,706.37
	Savings Account	\$ 3,103.84	\$ 3,103.84
	Total	\$ 7,810.21	\$ 7,810.21
	*Veteran's Radio Fund		\$ 500.00
	*Field Day Radio Fund		\$ 697.00

Repeaters Capital Area Region

Location	County	Call Sign	Backup Power	Digital Mode	Output Freq	PL	Special Configuration	Height ft.
Crawfordville	Wakulla	K4WAK	No		145.450 -	94.8		300
Crawfordville	Wakulla	KB5IKR	Yes	Fusion	444.450 +	94.8	Yaesu System Fusion C4FM WIREX Connected (Auto)	400
Crawfordville	Wakulla			Fusion	442.850 +	94.8	Yaesu System Fusion (Auto)	
Greensboro	Gadsden	NX4DN		Fusion	147.390 +	94.8	Yaesu System Fusion DCR 023 WIREX Connected (Auto)	300
Greensboro	Gadsden	NX4DN		NXDN	444.125 +	94.8	NXDN World Wide Network	300
Monticello	Jefferson	WX4JEF	No		145.430 -	94.8		270
Quincy	Gadsden	W4EAF	Yes		147.165+	94.8		250
Tallahassee	Leon	AE4S	Yes	P-25	146.655 -	94.8		550
Tallahassee	Leon	N4PG	Yes		146.610 -	203.5		200
Tallahassee	Leon	K4TLH	Yes	P-25	146.910 -	94.8	Temp TARS Talk-In	375
Tallahassee	Leon	K4TLH	Yes		147.030 +	94.8		750
Tallahassee	Leon	KA4EOC	Yes		147.285 +	94.8		350
Tallahassee	Leon	K4TLH	Yes		442.100 +	94.8	Statewide Amateur Radio Net (SARNet) See Next Page	600
Tallahassee	Leon	K4TLH	No		442.850 +	94.8		275
Tallahassee	Leon	KJ4G	Yes		443.400 +	131.8	Host of Echolink Node #3950	575
Tallahassee	Leon			Fusion	444.850 +	94.8	Yaesu System Fusion (Auto)	
Tallahassee	Leon	AE4S	Yes	P-25	443.950 +	94.8		550
Tallahassee	Leon	N4NKV	Yes		444.400 +	131.8	NXDN World Wide Network	CRMC (200)
Tallahassee	Leon	KD4MOJ	Yes		444.000 +	94.8		TMH (200)
Tallahassee	Leon	NX4DN		NXDN	444.175 +	94.8	NXDN World Wide Network	175
Tallahassee	Leon	NF4DG	Yes	D-Star	146.835 -	DV		180
Tallahassee	Leon	NF4DG	Yes	D-Star	443.450 +	DV		180
Tallahassee	Leon	NF4DG	Yes	D-Star	1293 -	DV		180
Tallahassee	Leon	NF4DG	Yes	D-Star	1253	DD		180
Wacissa	Jefferson	K4TLH	No		147.800	94.8		300
Wacissa	Jefferson			Fusion	444.950 +	94.8	Yaesu System Fusion (Auto)	
Thomasville	Thomas				145.370 -	141.3		
Thomasville	Thomas				442.600 +	141.3		
Reno	Grady	KE4URL	Yes		145.170 -	141.3		600

The most current repeater list is available on the TARS website:

www.k4tlh.net/repeaters

For *SARNet* information (Locations, Repeaters and operational status) visit:

<http://www.sarnetfl.com/>

Regional Nets

TARS News & Information Net	Thursday • 8 PM EST (not 1 st Thrs.)	147.030 MHz, K4TLH + 600, 94.8
North Florida Amateur Radio EmComm Net	Daily • 9:00 AM ET except Sunday	3950 kHz
Capital District EmComm Training Net	Sunday • 7:30 PM ET	147.030 MHz, K4TLH + 600, 94.8
Capital District ARES Net	Sunday • 8 PM ET	147.030 MHz, K4TLH + 600, 94.8
Leon County ARES Net	Tuesday • 8:15 PM ET	147.030 MHz, K4TLH + 600, 94.8
Florida Phone Traffic Net	Daily • 6:55 AM ET	3940 kHz
Florida Midday Traffic Net	Daily • Noon ET	7242 kHz
North Florida Phone Net	Daily • 7:30 PM ET	3950 kHz
North Florida Digital Net	Sunday • 7 PM ET	3590 kHz PSK-31 Mode
TARC Thursday Night Net	Thursday • 8 PM ET	147.060 MHz, + 600, 141.3
Thomas County ARES Net	Thursday • 7:30 PM ET	147.060 MHz, + 600, 141.3
Grady County ARES Net	Tuesday • 7:30 PM ET	145.170 MHz, - 600, 141.3
North Florida 6M SSB Net	Sunday • 8:30 PM ET	50.150 MHz
Morse Code Practice Net (Informal / Open) 5-15 WPM	Wednesday (or any day) 8:30 – 9:30 PM ET	28.114 MHz CW Mode
Morning Drive-Time Net (Informal)	Mon-Fri • 7:30 – 9:00 AM ET	147.030 MHz, K4TLH
Southwest Georgia HF Weather Net	Third Thursday 7:30 PM ET (or after GA SSB Net)	WX4TAE, 3975 kHz (+/-)
Southwest Georgia ARES Net	Thursday • 9 PM ET	145.170 MHz, + 600, 141.3
SKYWARN Net	First Sunday • 7:30 PM ET	WX4TAE, 3810 kHz (+/-)

Some nets have been inactive for some time, however, individuals are encouraged to re-activate these nets as guest net controls.

Have any **corrections** or **additions**? Contact Dave at davedavis1@embarqmail.com prior to the 20th of the month to make changes.



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Tallahassee Amateur Radio Society

New Membership / Renewal Form

Updated 11/3/16

This form can be used for new members or for renewals. If you have not changed any information from last year, merely complete the form with your name, indicate your member type and ARRL membership status and make payment to TARS.

Membership Status:

- **Individual:** Single member; full voting privileges.
- **Family:** Single member, plus participating family members residing at the same address; all members have full voting privileges. Complete a form for each member.
- **Student:** Free for students (elementary school through college) with ID; all rights and privileges except voting.
- **Introductory:** Free until the end of year (next year for December) for anyone who passed Amateur Licensing Exam facilitated by TARS; all rights and privileges except voting.

If no personal information has changed, current memberships can be renewed simply by making payment to TARS.

You must be a licensed Amateur Radio operator to join the Society; however, any non-licensed radio enthusiast may attend the TARS business meetings and functions. Membership dues for the Tallahassee Amateur Radio Society are only **\$20 per individual or family** (complete a form for each family member.) **Students** (with valid ID) can join for free!

Membership is per calendar year and the deadline for paying dues for renewing membership is February 20th. Individuals wishing to reinstate their expired membership status must reapply and pay full dues (\$20) for the current year. TARS is a "not-for-profit" organization and dues are used to help defray the cost of repeater maintenance and TARS events. Most of TARS's revenue is derived from donations, which are gladly accepted.

Please make your dues check payable to the **Tallahassee Amateur Radio Society** (or **TARS**) and include your telephone number on the check. Bring your check (or cash) along with the completed form provided below (including e-mail address please) to the next monthly TARS business meeting and give it to the Treasurer - or mail your check and completed form to:

Tallahassee Amateur Radio Society, C/O Treasurer, P. O. Box 37127, Tallahassee, FL, 32315



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New members pay pro-rata based on the number of months remaining in the calendar year (\$1.70 per month.) After September, they drop to \$5.00. Individuals wishing to reinstate their expired membership status must reapply and pay full dues (\$20) for the current year. TARS is a "not-for-profit" organization and dues are used to help defray the cost of repeater maintenance and TARS events. Most of TARS's revenue is derived from donations, which are gladly accepted.

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Tallahassee Amateur Radio Society, C/O Treasurer, P. O. Box 37127, Tallahassee, FL, 32315

Name:		Call Sign:	
Address:			
			Date: / / 20__
City:		State:	Zip: -
Member Type: <input type="checkbox"/> Individual <input type="checkbox"/> Family <input type="checkbox"/> Student <input type="checkbox"/> Introductory (Check One)			
Home Phone: () -		Work Phone: () -	Cell Phone: () -
E-Mail Address:			
ARRL Member: <input type="checkbox"/> Yes <input type="checkbox"/> No		"Elmer": <input type="checkbox"/> I would like a ham mentor <input type="checkbox"/> I can be a ham mentor	
Interests: <input type="checkbox"/> EmComm <input type="checkbox"/> Contest <input type="checkbox"/> Phone <input type="checkbox"/> Digital <input type="checkbox"/> CW Other: _____			