Vol. 56 Issue 6 June, 2023 **"Covering Tulsa through the air"**

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Prez Sayz:

Just a reminder that TRO will not have a regular club meeting this month. I hope everyone gets a chance to attend field day this year. If you have never been this is a chance for you to make a contact on HF. Check with local clubs to see where their Field Day event is being held. A chance to meet other hams and if you have any questions, please ask. I will be at TARC Field Day at Chandler Park. Drop by and say hello if you get a chance. The next Club meeting will be July 25 at Freeway Cafe at 7:00. Come early if you want to eat with us (6:00).

TRO President
Paul Young - KE5EHM

No Meeting For TRO In June:

There will be no TRO meeting for June. See you July 25th at **Freeway Cafe, 5849 S 49th West Avenue in Tulsa** at 1900. Come 30 minutes to an hour early if you plan to eat.

ARRL Elected to Serve on SAFECOM:

Submitted for republication by Mark Conklin – N7XYO
06/02/2023
ARRL The National Association for Amateur Radio® has been elected to serve on SAFECOM®. SAFECOM is a group of national thought leaders and officials within the emergency communications and response space that works to set standards used at every level. The program is managed by the Cybersecurity and Infrastructure Security Agency (CISA), an agency of the US Department of Homeland Security.
SAFECOM sets the standards of interoperability procedures, and ARRL being a part of the group solidifies the Amateur Radio Service as a robust resource before and during times of crisis.

In a letter from SAFECOM Chair, Chief Gerald R Reardon said "On behalf of the SAFECOM Executive Board, it is with great pleasure that I inform you of our offer to join SAFECOM as a member association. SAFECOM aims to improve multi-jurisdictional and intergovernmental communications interoperability through collaboration with emergency responders and

policymakers across federal, state, local, tribal, territorial, and international partners. SAFECOM recognizes the organization's dedication to emergency communications and interoperability, and therefore is pleased to extend a membership offer."

ARRL Director of Emergency Management Josh Johnston, KE5MHV, said "Gaining a seat at the table is a major step in strengthening the role and capability of Amateur Radio with emergency communication agencies. This will give us the sounding board and resources we need to set standards and create training for our Amateur Radio Emergency Service® (ARES®) volunteers that will better suit AHJ's (Agencies Having Jurisdiction) and partner organizations." The opportunity for ARRL to provide a more comprehensive Emergency Communications program is part of the goal the Board and ARRL leadership has begun to emphasize over the past few years, and this is one more example of the commitment to do so. ARRL will provide premier resources for the served agencies to support them in all phases of Emergency Management.

Johnston will serve as the Representative for ARRL on SAFECOM and will be meeting with that leadership over the coming days to begin the process of better understanding all the roles and responsibilities that come with being a member association. "I look forward to working with the SAFECOM leadership as we move forward and with the ARRL Leadership to better serve the Ham community and our Served Agencies and Partners." Johnston said.

For more information about ARES and other ARRL Emergency Programs and training visit our web page at: http://arrl.org/public-service

For more information about SAFECOM go to: https://www.cisa.gov/safecom

About ARRL

ARRL The National Association for Amateur Radio® was founded in 1914 as The American Radio Relay League, and is a noncommercial organization of radio amateurs. ARRL numbers within its ranks the vast majority of active radio amateurs (or "hams") in the US and has a proud history of achievement as the standard-bearer in promoting and protecting amateur radio. For more information about ARRL and amateur radio, visit www.arrl.org.

About ARES®

Amateur Radio Operators, or "hams," have a long history of serving their communities when storms or other disasters damage critical communication infrastructure, such as cell phone towers and fiber optic networks. Amateur radio functions completely independently of the internet and phone systems, and a ham radio station can be set up almost anywhere in minutes. Amateurs can quickly raise a wire antenna in a tree or on a mast, connect it to a radio and power source, and communicate effectively with others.

The ARRL Amateur Radio Emergency Service® (ARES® www.arrl.org/ares) consists of hams who have voluntarily registered their qualifications and equipment with their local ARES leadership for communications duty in the public service when disaster strikes. They use their training, skills, and equipment to prepare for and provide communications during emergencies When All Else Fails®.

Some Thoughts On EMP & AM:

By Merlin Griffin – WB5OSM

A couple of meetings ago our VP Don N5DGF made a quick presentation about Electro Magnetic Pulse or EMP. FEMA and DOD along with other government agencies are concerned about an enemy, such as Russia may explode a nuclear weapon at high altitude not to exactly blow up a city, but to generate a very strong impulse of RF energy that will disable much of our electronic devices. We all realize that our fascination with all manners of electronic devices that use large scale integration. In other words, packing more and more circuitry on a tiny integrated circuit. Smart phones are the perfect example, but it includes amateur gear too. Look at the modern SDR rigs. Even 20 years ago, I opened up a two-meter transceiver and found most of the receiver was one chip, most of the transmitter was one chip, and the final amp was one monolithic module attached to a heat sink. They pack even more into a smaller package these days. So, a lot of vulnerable stuff out there these days. As a matter of fact, it doesn't even take a nuke bomb to mess some things up, either power surges, or nearby lightning strikes scramble the brains of the SCOM controller on the 88 repeater. Getting to the point, here is where things get interesting, I've been searching You Tube lately and ran into some interesting broadcast engineering videos. Many of which are tours of radio stations, AM and FM, large and small. I happened upon one that was a 50 KW AM station on the West Coast, I do not remember the call letters. First thing that impressed me was that their transmitter was all solid-state, no tubes in it, near it, or on it. Still a sizeable unit, probably about like a three-door fridge you would encounter in a restaurant, or lab like I worked in. Much smaller though than its tube-type predecessors and water cooling is not required. However, back to EMP, the really interesting thing here is that the chief engineer for the station also showed a building near their tower. It strongly resembled one holding cell phone tower equipment. You know, mounted on a concrete pad, a couple of air-conditioners mounted on one end, and appears to be made from metal with either a masonry veneer or a fake masonry veneer to make the building blend in a little better. He said that the building was placed there by FEMA, and it contained an AM transmitter. He wasn't told much about it. He didn't know how much power it ran or what frequency it was on. Likewise, how it would get its programming. It was not connected to their tower. It had a generator and its own fuel supply. It was set up to be connected to the tower in short order, but otherwise totally independent of his station. He also didn't know who would put it on the air, he thought it would more than likely be a National Guard unit. He did say that FEMA's people stated they were doing this at other stations throughout the country. Other than that, not really forthcoming with information about the setup. Now here is another kicker. AM radio, is really losing its place in American society. The FCC has been trying to save it, digital AM, that gives AM stations FM sound quality, and allowing AM stations to license FM translators. It's not working, a number of AM stations have gone dark. Many are running totally automated, just a box setting on a shelf of a sister FM or TV station and the programming is coming in by satellite. I also know that Tesla has announced that they will not be putting AM capability in their cars infotainment systems, and I think another automaker has stated likewise. I don't see where it saves them anything since the whole radio is on few chips. The concern here though is if AM radio dies, how will FEMA get emergency information to the people, in the event that EMP is used as a weapon. In fact, the next generation is kind of showing disdain for broadcast radio period. My grandkids prefer to stream music over their smart phones instead of listening to radio. Is anybody, thinking about what if the vast majority of our smart phones, tablets, laptops, etc. are turned into small inert silicon blocks? FEMA may be already

behind. Wouldn't be the first time. Maybe the thing to do, is encourage people to include in their family emergency kits a small radio AM only or AM-FM, and someone should market a cell-phone that could be powered by dry cell batteries. Probably just a basic phone that does talk and text only, and toss them, a couple of LED flashlights and packs of dry cell batteries into a metal box. Checking the batteries occasionally to make sure they aren't leaking. Duracell says theirs are good for 10 years sealed in an unopened package, however there are now reports that Duracell is making some of the batteries in China and the quality is slipping. So, it might be better to go to Batteries Plus or Interstate batteries than trust batteries from the normal retailers.

In fact, Tesla, is no longer including AM Radio in their late model cars, and some other automakers say they are going to follow suit. I don't know what their deal is, but including an AM receiver on a car radio is probably just another IC or some additional circuitry and a little bit of firmware in the existing one. AM broadcasting on medium wave in the UK is being shut down or phased out by their version of the FCC. They had long wave broadcasting using amplitude modulation and it's already all gone. So, if we deploy this new version of the Conelrad Alert system on the AM broadcast band, will anybody be able to listen? Well, hold on, congress may be coming to a rescue. A bill was introduced, a few weeks ago to require AM radio receivers be included at least in cars. I don't know if they plan to require portable radios to include AM too. I don't know the status of the bill. I don't know if they want to talk about some of our encomm plans that much in public. So, things to think about and wait and see.

73 DE WB5OSM

TRO Treasury Report Of 06/22/23:

Treasury Report of June 22, 2023

Total TRO Accounts Beginning Balance		**$6842.67**
Checking Beginning Balance		**$3205.48**
05/03 Deposit Amazon Smile donation	+5.00	
05/19 Deposit Amazon Smile donation	+25.86	
Checking Balance		**$3236.34**
PayPal Beginning Balance		**$41.82**
No activity		
PayPal Ending Balance		**$41.82**
Cash Beginning Balance		**$100.00**
Cash Ending Balance		**$100.00**
Savings Beginning Balance		**$3495.37**
05/09 Service Charge	+2.00	
05/31 Interest Earned	+0.59	
Ending Savings Account Balance		**$3493.96**
Total TRO Account Balance		**$6872.12**

Respectfully Submitted by Steve Miller – AA5V 06/22/2023

Engineering Report:
No changes to any of the repeaters.

REPEATER STATUS

146.805 (-) PL 88.5 ? ? ? ? – Down
146.880 (-) PL 88.5 (CityPlex), 82.5 (Skiatook) or 141.3 (Keetonville receiver) 81st & Lewis – Working
146.940 (-) PL 88.5 Sun Building, 9th & Detroit – Working
927.700 (-25 MHz) (902.7) CityPlex - Working

Metro Link:
444.1 (+) PL 88.5 Skyline East 41st & Skelly Drive – Working
444.725 (+) PL 88.5 GRDA tower NW of Skiatook – Working
444.950 (+) PL 88.5 ? ? ? ? – Down

Activities:

Field Day is June24 and 25. The TRO will not be having a Field Day sight this year.
Ham Holiday is July 28 and 29. Check www.hamholiday.org for more information.

ARES Net
Thursday evenings at 8:00 PM
1st, 2nd and 3rd Thursdays on the 147.39 MHz repeater
4th and if there is a 5th Thursday use the
TARC Super Link System 443.850 MHz PL 88.5 Hz

CLUB MEETINGS

Tulsa Repeater Organization
Fourth Tuesday of the month at 1900 (7PM) except June (Field Day) and December (Christmas).
Meetings are held at Freeway Cafe at 5849 South 49th West Avenue in Tulsa.
If you plan on eating be there 30 minutes to an hour early.

Tulsa Amateur Radio Club
Third Tuesday of the month 1900 (7PM)
Meetings are held at Tulsa University Keplinger Hall Room 3140 (west of Harvard & 5th Street)

Broken Arrow Amateur Radio Club
First Monday of the month (except for holidays) 1900 (7 PM)
Community Recreation Center, 1500 South Main, Broken Arrow

Rogers County Wireless Association
Second Saturday of every month at 0800 (8 AM)
Check the RCWA website at www.rcwa.org for meeting information. I couldn't find it.

VE TEST SESSIONS
WALK-INS ARE WELCOME AT ALL SESSIONS!

Check with the contact for each testing session for their plans.

Tulsa Repeater Organization
Third Thursday of odd-numbered months, 1900 (7 PM)
American Red Cross 10151 E 11th (11th & US 169) Tulsa, Oklahoma 74128
Contact: Merlin Griffin WB5OSM at WB5OSM@hotmail.com or (918)520-7668 - leave message

Broken Arrow Emergency Management
First Saturday of odd-numbered months - 0900 to 1100 (9:00 to 11 AM)
Broken Arrow Public Service Complex 1001 N 6th Street Broken Arrow OK 74012
Contact: Loyd Beeson, AE5MM at ae5mm@arrl.net or (918)638-2393 (text msg or voice)

Broken Arrow Amateur Radio Club
Second Saturday of even-numbered months at 0930 (9:30 AM)
Broken Arrow Public Service Complex 1001 N 6th Street Broken Arrow OK 74012
Contact: Don Doyle AC5II at AC5II@arrl.net or (918)379-0962

Rogers County Wireless Association (New session in Owasso)
First Saturday of each quarter at 0900 (9:00 AM)
Trinity House, 9210 N Garnett, Owasso OK 74055
Contact: Dustin Dye, AB5C at contact@rcwa.org or (918)734-0869

ARRL VEC SESSION
Last Saturday of even-numbered months, 1000 to 1130 AM
Broken Arrow Public Service Complex 1001 N 6th Street Broken Arrow OK 74012
Walkins welcome until 1030
Contact: Skipper Smith, NQ2J at: **nq2j@cox.net** or (918)853-8118

MAKING CONTACT – How To Find Out More About The Tulsa Repeater Organization

Our Website: www.tulsahamradio.org
Our Facebook: https://www.facebook.com/groups/TulsaRepeaterOrganization/
Our Twitter: https://twitter.com/TulsaRepeaters

TRO OFFICER CONTACT INFORMATION

President	Paul Young	KE5EHM	918.637.8414	ke5ehm@tulsaahamradio.org
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Public Relations	OPEN			
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Want more information about the Tulsa Repeater Organization or have questions about articles in the newsletter? Contact us at email address wa5lvt@tulsahamradio.org or write to:

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