



# THE SIGNAL



Official Newsletter of the  
Tulsa Repeater Organization



Vol. 57 Issue 6

June, 2024

“Covering Tulsa through the air”

## PREZ SAYS:

I hope this finds everyone well. Just a reminder that there is NO meeting this month. I wish everyone gets to go to Field day. This year we are with TARC. No events coming up in the next month. We got a break from bike events. I would like to thank the ones that helped with the bike events this year. We could not do it without your help. A big thank you to Merlin WB5OSM and a few others I can't think of right now for getting the 146.88 repeater back on the air. The next TRO meeting is Tuesday July 23 at 7:00 at Freeway Cafe 5849 S 49<sup>th</sup> W Ave Tulsa. Come early if you want to eat with us. Stay cool and I hope to see you at the next meeting.

TRO President  
Paul Young - KE5EHM

## NO TRO REGULAR MEETING FOR JUNE:

Next regular meeting will be Tuesday, July 23<sup>rd</sup> at Freeway Cafe 5849 S 49<sup>th</sup> W Avenue, Tulsa.

## Make one of the Field Day Sites this weekend:

**TARC will be at** Haikey Creek Park Shelter #2.

Check the TARC website [www.w5ias.com](http://www.w5ias.com) for more information.

## ARRL's COMPUTER NETWORK HIT BY HACKERS:

By Merlin Griffin – WB5OSM

Normally it takes about three-four days for the data from a VE testing session to get processed and the applicants get their new or upgraded licenses issued. I also requested some testing supplies from the VEC office. A full week went by and the applicants from the May test session had not heard from the FCC. All I got on my email for supplies was the "sounds of silence." Another week went by, and still just crickets chirping. OK, this is weird, the whole process is usually very efficient, and the staff at the VEC office very courteous. I

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finally saw on the ARRL website that they had been attacked by hackers and their entire computer system including their VoIP phone system was taken down. They didn't say what the nature of the attack was, but I expect it was ransom ware. ARRL seems to have mostly recovered now and back to business as usual. I think it took them about three weeks to get things back on track. The VEC office had to work down a backlog of testing data. This may have affected the test sessions from the Hamvention. I know how big the test sessions at Green Country are, I imagine that pales in comparison to the ones they hold at the Hamvention. Then all the others held around the country and US military bases around the world. ARRL joins a long list of people hit by Hack attacks. City of Tulsa was hit by a ransomware attack about three years ago, shut us down for at least a month. Hillcrest health care and other hospitals operated by Ardent Health Services, were attacked, one of the major health insurance providers was hit, then the most recent was Ascension Health Care, that operates the St. John affiliated Hospitals and doctor's offices here in Tulsa. The ARRL, is kind of small potatoes compared to major health care providers and local governments, so I'm not sure why they were targeted, may have been a random thing where a hacker group just sent out some malware, seeing if they can get any money at all from anybody. This is almost a business these days. Some companies, now just budget for ransomware attacks. The hacker asks for say a million dollars, the company negotiates them down to \$250,000, the hacker gives them the keys back to their system and life goes on. Why, do they pay? Purely, a business decision, look if we go around disinfecting all our computers and servers, we have to buy new hardware, possibly license new software, plus we are out a lot of overtime for an already stressed out IT staff, and we may have to vet and hire more IT people or bring in contractors. Then there is lost productivity from the computers being down, so it may be cheaper to pay. Now, government entities tend not to pay, because the hack attack may be political in nature, and the hackers would take the money, say "screw you" and you still have to rebuild your system anyway. On the other hand, major insurance companies and health care providers in this country can be viewed as big cash cows. Plus, insurance companies spend a lot time irritating a lot of people. So, I'm not surprised they get attacked. But again, ARRL doesn't really bother anybody. So, hackers please leave ham radio associated entities alone.

## **MINUTES OF 05/28/2024 TRO MEETING:**

TRO Secretary Report  
General Meeting - 5/28/24

Paul Young, Presiding

16 members present, 1 guest: Rebecca Helt - KI5RFT

General Business:

Treasurer Report as published in The Signal: moved for approval by Don, seconded by Bob - APPROVED

Secretary Report as published in The Signal: moved for approval by Remell, second by Joe - APPROVED

Engineering/Repeater report: 146.88 back on the air with another antenna and improvements to the controller programming. Remote receiver at Keetonville appears to be online, Skiatook will be checked. Bob B. Suggested adding a 1/4-wave shorted stub for lightning protection at City Plex site.

Activities: Reminders for the upcoming bike ride support opportunities with Ride to Remember and Tulsa Tough. TRO will join the TARC for Field Day in late June - a motion to support their evening meal for TRO members in the amount of \$100 was made by Don, seconded by Ben – APPROVED.

Bart presented information on club growth strategies from a forum at the Dayton Hamvention he attended. Club growth ideas include shirts to build identification & camaraderie, classes for new hams, build days and membership incentives for those passing the VE test administered by TRO. The new ham membership idea was moved by Don and seconded by Ben - APPROVED.

Adjourn - Motion by Don, second by David - APPROVED

Respectfully submitted -  
Bart Pickens, N5TWB  
TRO Secretary

## TRO TREASURY REPORT OF 06/20/24:

|   |                  |
|---|------------------|
| <b>Total TRO Accounts Beginning Balance</b>             | <b>\$7195.99</b> |
| Checking Beginning Balance                              | <b>\$3294.54</b> |
| 05/28 3309 Merlin Griffin – Reimburse for Astron SS-50M | +\$294.02        |
| 05/28 3310 TARC for Field Day Expense                   | +\$100.00        |
| Checking Balance  | <b>\$2900.52</b> |
| <br>  |                  |
| PayPal Beginning Balance                                | <b>\$323.12</b>  |
| 05/31 1 Member Renewal                                  | +\$25.00         |
| PayPal fees   | -\$0.75          |
| PayPal Ending Balance                                   | <b>\$347.37</b>  |
| <br>  |                  |
| Cash Beginning Balance                                  | <b>\$100.00</b>  |
| Cash Ending Balance                                     | <b>\$100.00</b>  |
| <br>  |                  |
| Savings Beginning Balance                               | <b>\$3478.33</b> |
| 05/09 Service Charge                                    | -2.00            |
| 05/31 Interest Earned                                   | +0.59            |
| Ending Savings Account Balance                          | <b>\$3476.92</b> |
| <b>Total TRO Account Balance</b>                        | <b>\$6824.81</b> |

Respectfully Submitted by Steve Miller – AA5V 06/20/2024

## ENGINEERING REPORT:

By Merlin Griffin – WB5OSM

### REPEATER STATUS

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

#### Metro Link:

444.1 (+) PL 88.5 Skyline East 41<sup>st</sup> & Skelly Drive – Working  
444.725 (+) PL 88.5 GRDA tower NW of Skiatook – ? ?  
444.950 (+) PL 88.5 ? ? ? ? – Looking for location

More work done on the 146.88 repeater.

- 1.Observed a lack of sensitivity especially with the UHF link receivers.
  - 1.Traced problem to a blown fuse.
  - 2.Right now, I have it running on a 10 A fuse, needs smaller.
  - 3.Will take care of that on the next trip to the site.

2.Verified that not only is all the metal in the cabinet connected to the negative terminal on the power supply, everything is connected to an earth ground.

1.At least as good as you can be when you are 600' above the ground.

2.We are grounded to the electrical conduit where we get our AC power. May seek an independent some other day. There are some water pipes available in that room.

3.Compared current readings on the new power supply to an independent ammeter, and found good comparison, so we are drawing 31 A at 13.9 V.

4.Performed some software updates on the SCOM 7330 controller.

1.Upgraded the SBOOT utility.

2.Found Diagnostics utility to be most current version.

3.Upgraded 7330 operating system to latest version.

4.Found built-in speech library to be the most current version and left it alone.

5.No changes made to custom speech library.

That was it for this trip, next trip in about two weeks, we will finish getting the new power supply into rack mount format, and get the splitter/amplifier on a more appropriately sized fuse. Then make a few programming changes to the controller. That requires a bit of study. Possibly see if we can add some form of lightning protection on the antenna feedlines.

73 DE WB5OSM

-...-



### **ARES Net**

Thursday evenings at 8:00 PM

1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Thursdays on the 145.11 MHz repeater

4<sup>th</sup> and if there is a 5<sup>th</sup> 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 49<sup>th</sup> 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 & 5<sup>th</sup> 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](http://www.rcwa.org) for meeting information.

## 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](mailto: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](mailto: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](mailto: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](mailto:contact@rcwa.org) or (918)734-0869

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

**Our Website:** [www.tulsahamradio.org](http://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  | <a href="mailto:ke5ehm@tulsahamradio.org">ke5ehm@tulsahamradio.org</a> |
| Vice-President      | Don Ferry      | N5DGF  | 918.607.3292  | <a href="mailto:n5dgm@tulsahamradio.org">n5dgm@tulsahamradio.org</a>   |
| Secretary           | Bart Pickens   | N5TWB  |               | <a href="mailto:n5twb@tulsahamradio.org">n5twb@tulsahamradio.org</a>   |
| Treasurer           | Steve Miller   | AA5V   | 918.381.8574  | <a href="mailto:aa5v@tulsahamradio.org">aa5v@tulsahamradio.org</a>     |
| Trustee             | Merlin Griffin | WB5OSM | 918.520.7668  | <a href="mailto:wb5osm@tulsahamradio.org">wb5osm@tulsahamradio.org</a> |
| Activities          | Paul Young     | KE5EHM | 918.637.8414  | <a href="mailto:ke5ehm@tulsahamradio.org">ke5ehm@tulsahamradio.org</a> |
| Engineering         | OPEN           |        |               |  |
| Public Relations    | OPEN           |        |               |  |
| Membership          | Tom Stroud     | KD5OPH | 918..695.3735 | <a href="mailto:kd5oph@tulsahamradio.org">kd5oph@tulsahamradio.org</a> |
| Operating Standards | Ed Compos      | K5CRQ  | 918.231.7730  | <a href="mailto:k5crq@cox.net">k5crq@cox.net</a>                       |
| By-Laws             | Gary Parham    | KC5ZQP | 918.369.1065  | <a href="mailto:kc5zqp@aol.com">kc5zqp@aol.com</a>                     |
| Past President      | Mark Conklin   | N7XYO  | 918.232.8436  | <a href="mailto:n7xyo@tulsahamradio.org">n7xyo@tulsahamradio.org</a>   |
| Newsletter Editor   | Steve Miller   | AA5V   |               | <a href="mailto:aa5v@tulsahamradio.org">aa5v@tulsahamradio.org</a>     |

**Want more information about the Tulsa Repeater Organization or have questions about articles in the newsletter? Contact us at email address [wa5lvt@tulsahamradio.org](mailto:wa5lvt@tulsahamradio.org) or write to:**

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