

T H E S I G N A L



Field Day Report

TRO will partner with TARC for Field Day at Chandler Park this year. However, there are a few changes.

WE CANNOT set up on Friday night because of a concert that night. Set-up can begin after 7:30 a.m. on Saturday morning.

We will have supper together on Saturday night, as well as breakfast on Sunday morning. You will be responsible for your own for lunch.

We may have a 1 x 1 call sign for this event for both clubs to use. More on that later.

What you may need to bring that weekend: tables, chairs, fans, bug spray and sunscreen, plus whatever you will camp in if you stay the night.

Please let Stan or Steve know if you are bringing a generator, as

well as what kind of radio and antenna you may have there.

There will be ice water and lemonade there to drink. If you want any pop or anything different to drink, you will need to bring that. Saturday supper will be a BBQ dinner and Sunday breakfast is scrambled eggs w/bacon, coffee and sweet rolls.

Stan Callahan, KE5HPB
ke5hpb@tulsahamradio.org

Steve: steve@aa5v.com

ANNOUNCEMENTS

Next TRO Meeting:
 Tuesday, May 24, 7:30 p.m. at
 Ryan's Steakhouse,
 10934 E. 21st St., Tulsa, OK.

TRO Signal Bulletin: <http://groups.yahoo.com/group/WA5LVT/>

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Upcoming TRO Events:
www.tulsahamradio.org/troevents.htm

TRO on Facebook:
www.facebook.com/home.php?sk=group_189314365941

THE PREZ SAYS . . .

Well, I'm starting to settle into my office role as Prez now. A big thank you to Mark N7XYO for filling in for Joe, last month, with our presentation on ARES.

Ray Young, Paul Young, and myself worked at the Scout Council Camporee with Charlie Hoy. We showed just how important communications are to the Council. We had one misplaced boy and one injury on the repelling area across the lake. He was transported by boat to me for assessment of injuries, then I transported him to base camp where he was again assessed before going for x-rays.

Meanwhile, we had the search on the the father and Scoutmaster. Not easy in a sea of a thousand people on over 200 acres! This proved to them how critical Ham radio is.

The four of us worked gate security, shoreline/medical safety communications, and the command and ham shack for the boys to participate. AMAZING!

We are working on a couple of locations for the 94 repeater and getting close to a new home for it!

Our next TRO event is the Maple Ridge Run on May 30, Memorial Day. Let's prove again how vital communications are to the public. This will be in the 21st and Peoria area, west of Woodward Park.

We will have a drawing for a dinner (maybe El Chico) from those that work this event, and your name goes in for the year-end drawing, too!

Field Day is just around the corner! We'll be partnering with TARC again this year according to your vote at the last meeting. Looks like Chandler Park again, and we will have the concert on Friday night. More details as Joe and myself will have a meeting with them this month.

Joyce has been working hard to get restaurants to donate for our drawings that I have been talking about. More info as this develops. You will not be disappointed!



Stanley Callahan, KE5HPB
TRO President

ARES NOMINATIONS

ARES Oklahoma is seeking nominations for a key leadership position within Oklahoma.

A candidate is needed for Zone 3 - Oklahoma (OKC Metro Area & surrounding counties)

The Zone Emergency Coordinator (ZEC) is the assistant to the Section Emergency Coordinator (SEC) for emergency preparedness. (See Roles and Responsibilities of the ZEC on www.ARESOK.org)

Do you know a fellow amateur operator who would be a good choice for ZEC OR would you like to be a candidate for this appointment?

Please send your nominations, or put your name in the hat, via e-mail n7xyo@arrl.net.

I would appreciate your help and feed back with the selection for this key leadership position.

Thank you,

Mark Conklin, N7XYO
Oklahoma Section Emergency Coordinator

Amateur Radio Emergency Service

918.232.8346;

Email: n7xyo@arrl.net

Follow me on Twitter [@N7XYO](https://twitter.com/N7XYO)

Website: www.ARESOK.org

TREASURY REPORT

Treasury Report 4-14-2011 For March 2011

TRO Accounts Balance Beginning:		\$2369.85
Checking beginning balance:	\$ 276.83	
3-29 Ck 3177 (insurance)	- 320.00	
3-30 Paypal transfer	+ 120.00	
3-29 Bank fee	- 35.00	
Checking ending balance:		\$ 41.83
Savings beginning balance:	1903.14	
3-31-11 Interest	+ .48	
Ending savings balance:		\$1903.62
PayPal account beginning:	189.88	
2 - Renewals (Family & Reg)	+55.00	
Service Charge	- 2.20	
Transfer to checking	+120.00	
PayPal account ending:		\$122.68
TRO Ending Accounts Balance:		\$2068.13



Treasury Report 5-16-2011 For April 2011

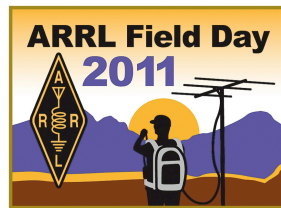
TRO Accounts Balance Beginning:		\$2068.13
Checking beginning balance:	\$ 41.83	
Checking ending balance:		\$ 41.83
Savings beginning balance:	1903.62	
4-29-11 Interest	+ .47	
Ending savings balance:		\$1904.09
PayPal account beginning:	122.68	
2 - Renewals (Reg)	+50.00	
Service Charge	- 2.06	
PayPal account ending:		\$170.62
TRO Ending Accounts Balance:		\$2116.54

Respectfully submitted by Gary Parham, KC5ZQP

THE VP CORNER

Field Day

To work as many stations as possible on any and all amateur bands (excluding the 60, 30, 17, and 12-meter bands) and to learn to operate in abnormal situations in less than optimal conditions.



www.arrl.org

Field Day is open to all amateurs in the areas covered by the ARRL/RAC Field Organizations and countries within IARU Region 2. DX stations residing in other regions may be contacted for credit, but are not eligible to submit entries.

Field Day is always the fourth full weekend of June, beginning at 1800 UTC Saturday and running through 2059 UTC Sunday. Field Day 2011 will be held June 25-26, 2011.

(The above information was taken directly from the ARRL website.)

Are you planning to come to Field Day?

Well, start planning now to join us at TRO's next monthly meeting at 7:30 p.m., Ryan's Family Steakhouse, on Tuesday, May 24th.

We plan to discuss what modes of operation, bands, and types of gear (including antennas), time, location and who can bring what. It takes plenty of enthusiasm, coordination, cooperation, and help to make this a successful event.

We're looking for your ideas on what can be done and how to go about it. So join the fun and give us your input for Field Day.

One final note: If you made the roll-up J Pole, bring it to the next meeting so we can see it. I'm going to have several to show.

[73's Joe Gorkos N5TEX](#)
TRO Vice President

AMATEUR RADIO AREA TESTING DATES

Third Thursday of odd numbered months. 7:00 p.m. at the Red Cross building, 11th & 169. Contact Merlin Griffin. Phone 520-7668 or e-mail wb5osm@hotmail.com.

Second Saturday of even numbered months, 9:30 a.m. at the Church of Christ, 505 E. Kenosha Street, Broken Arrow. Walk-ins welcome. Contact: Don Doyle—AC5II at ac5II@arrl.net or 379-0962.

First or Second Saturday of odd numbered months, 9:30 a.m. at Hardesty Regional Library, 8316 E 93rd Street, Tulsa, OK 74133.

2011 Schedule:

- July 9
- September 10
- November 5

Walk-ins welcome. Contact Tom K5EHX. E-mail: tom@k5ehx.net or phone: (918)835-7889 and leave message. Talk-in on 146.55 simplex.

Last Saturday of each month 10:00 A.M. at the Martin East Regional Library, 2601 S Garnett Road, Tulsa, OK. All testing by appointment ONLY. Please contact Pete KF5RD at mann.p@cox.net or 918.437.4846. Always check with Pete. This group changes schedules regularly.

Ham Test Online. A very effective online study course for hams. www.hamtestonline.com

ENGINEERING REPORT, 5/18/2012 - STEVE MILLER AA5V

146.88: Saturday, April 23, I made trip to CityPlex and found the audio problem was the VR on the main audio control of the voter card. I cleaned and readjusted audio on all inputs and output. The audio is equal from the input of the three UHF receivers now. The variable resistors on the voter card all need replaced. I bought resistors to replace these in the past but have misplaced them. Whatever, it seems cleaning them makes them hold in there for a couple years.

146.94: Still making progress getting this repeater built.

146.805: Mark Thrash - WB5MBK will be heading to the Dayton Hamfest and is expecting to buy the connectors and possibly antennas needed to finish the maintenance on this repeater.

145.010: (digi-peater) not installed

444.1: Ben Joplin - WB5VST visited the Skyline East Building to see if our space there for the 444.1 repeater was still available. He was asked, "Where have you all been?". Anyway, our space is still available there and our antennas are still installed. Merlin Griffin - WB5OSM has the repeater ready to go. Now it is a matter of scheduling the installation. That last floor is the one that's hard to get equipment to without any damage. Two flights of stairs. We'll get it done.

444.95: This repeater is still in need of a controller. If you use this repeater not only use your callsign, but, also give the callsign "WA5LVT" to identify the repeater. I am trying to acquire a controller that Bud Blust - WA5QDZ could install on the machine.

444.725: 444.725 is just setting there working great in Skiatook. Thanks everyone for all your help to keep these repeaters working.

[Steve Miller - AA5V](#)

TRUSTEE NEWS

We have recently learned that our 444.1 machine is ready to go back to its site up at Tulsa Technologies Conference center near 41st and Sheridan. I just need to batten a few things down now and it's ready to go. We will need a crew of two or three guys to move it. A pick truck or a large SUV is needed to haul it. If I completely cleaned out my Honda CR-V and laid the back seats down, I could probably get it in there, but it would be a tight fit.

[73 DE WB5OSM](#)

[Merlin Griffin WB5OSM](#)
wb5osm@hotmail.com

ACTIVITIES REPORT

Time to start thinking about event communication for 2011. Still needing operators for Maple Ridge on May 30th, and Tour de Cure on June 4th. Thank you for your time and support for TRO 2011 events.

Contact me with questions or to volunteer.
kd5oph@tulsahamradio.org

[Tom Stroud KD5OPH](#)



MEMBERSHIP REPORT

We are asking local restaurants for free dinners for our organization to use as an incentive to participate in our events.

Every time a member participates in one of our events his or her name will go into a drawing. Several times during the year we will hold the drawing and if your name is selected, you will receive the free dinner. So the more you participate in our events, the more times your name will be in the drawing.

So far we have two dinners from Ryans and two from El Chicos in Broken Arrow. I haven't

picked up the ones from El Chicos on 71st yet, so I don't know if they are donating one or two dinners. I still have several phone calls to make to other restaurants, but as I have found out by doing this for a function at our church, most of them are pretty charitable.

If you have any ideas for specific restaurants that you would like for me to call, please send an email to: joyce@tulsahomradio.org.

Joyce Callahan
Membership Chairperson

TRO MINUTES - 4/26/2011

TRO held its monthly meeting at Ryan's Steak House. It was opened at 19:30 hrs. by club President Stan Callahan KE5HPB.

Stan KE5HPB spoke about silent key Jim Frey KD5KNB who passed away 3-21-2011 and was a member of TRO. May he rest in peace.

Tom Stroud KD5OPH talked about Tour De Cure. We will need 20+ operators for this 75-mile event. Contact Tom Stroud to help.

May 30, 2011, Monday is the maple Ridge Run. We will need 12 operators so if you can help, contact Tom Stroud KD5POH.

A check was received from Tulsa Route 66 Marathon for \$728.57 to finish the club's APRS project (initiated by Ben Joplin WB5VST) that tracks people and vehicles in TRO-supported events. APRS is a very useful tool and has decreased the medical assistance response time for many events.

Cindy Downes KF5JFM, our PR person, presented for review two new forms: a Volunteer Form and an Event Request Form. These forms will be reviewed and discussion at the next meeting on May 25, 2011.

Field Day was discussed and a motion was made by Mark Conklin N7XYO and seconded by Ben

WB5VST to discuss having field day with TARC at Chandler Park. Motion passed. Side note information has been received. TARC agreed that it's a good idea and it's a go.

Doug Lee KC5ZQM talked about the bulletin he posts and reminds everyone to pass information on to him for publication. Send to kc5zqm@cox.net.

Motion to close made at 20:18 by Stan KE5HBP and seconded by Ben WB5VST. Passed on vote.

Mark Conklin presented a talk on ARES and its activities.

Note: No Board Meeting was held due to weather issues early in the meeting.

Ed Compos, K5CRQ
TRO Secretary



ANSWER TO HAM QUIZ, APRIL 2011

Why is the F2 region mainly responsible for the longest distance radio wave propagation? The answer is "C" - because the F2 layer is highest.

Explanation:

It's really just a matter of geometry. The highest layer of the ionosphere, when it bends your signal back to the earth, has the greatest area of the earth in view. Which means your signal can come back down to earth a couple of thousand miles away. Depending on a number of other factors. There are two other layers of the ionosphere, the D layer, closest to the earth, and from the ham's perspective it's a bad guy, and acts to absorb or attenuate signals, especially on the longer wavelength bands i.e. 160 and 80 meters. It also does the same thing to the A.M. broadcast band. The D layer is strongest during daylight hours, and basically goes away after sunset. The E-layer is next and is the most fascinating to me. It's not so much of a layer as an area of ionized clouds moving around up there. The really interesting thing about the E layer of the ionosphere is that it can bend the normally line of sight VHF signals back to earth allowing long distance propagation well beyond line of sight on the six meter and two meter bands. This mode of long distance propagation on the VHF bands works best when you use horizontal polarization, and modes like SSB & CW. When you are hearing and sometimes accessing the out of town repeaters using FM, that is not E-Layer propagation, but tropospheric propagation. Which is caused a lot when we have temperature inversions in the lowest layer of the atmosphere, the troposphere, the air we breathe. When you have a temperature inversion, warm air gets trapped under cold air. The interface zone between cold and warm has the ability to refract radio signals above 30 MHz.

To summarize:

Troposphere - can cause extended range of radio signals on VHF and UHF, works well with FM.

D -Layer of the ionosphere - bad guy absorbs signals especially below about 7 MHz. D-Layer goes away after sunset.

E-Layer of the ionosphere - good guy on the VHF bands can propagate signals especially on the six and two meter bands over long distances, well beyond line of sight.

F1 & F2 (at night just F)-Layers are the highest in altitude and serve to propagate signals over long distances on our HF bands.

Other notes:

The strength of the ionosphere is affected by solar activity, especially sunspots, and the earth's geomagnetic field.

The 10 meter band is a hybrid critter, it sometimes acts like an HF band with long distance F-layer propagation, but at other times acts like a VHF band. You may have some E-layer propagation occurring, other times it's pretty much line of sight only, and maybe a little tropospheric range enhancement occurring. When we jump up to six meters the same is true, but it tends to be more of a VHF band, F-layer skip probably can happen, but would be rare. So long distance on six meters is more likely due to E- layer and troposphere.

F1 & F2 layers merge into a single layer at night.

Tropospheric propagation is mostly affected by weather, or you could say is a weather phenomenon.

According to the spell checker, I have not been able to type the word propagation right the whole time.

[73 DE Merlin Griffin WB5OSM](#)

HAM QUIZ, MAY 2011 - FROM EXTRA EXAM

What is the equivalent to the root-mean-square value of an AC voltage?

- A. The AC voltage found by taking the square root of the average AC value.
 - B. The DC voltage causing the same amount of heating in a resistor as the corresponding RMS AC voltage.
 - C. The DC voltage causing the same amount of heating in a given resistor as the corresponding peak AC voltage.
 - D. The AC voltage found by taking the square of the average value of the peak AC voltage.
-

AMATEUR (HAM) RADIO JARGON

What does "73" and "DE" mean in radio lingo?

"73" means "best regards." (So, technically, "73's" or "73s" means "best regardses," if you want to be technical, that is!)

"DE" means "from" in CW-speak. More Hamspeak: www.qrz.com/i/hamspeak.html



RESOURCES FOR HAMS

HAM Tool Bar:

You'll love this! A tool bar for your Ham activities. Get the latest up to date DX news, articles, cluster spots, propagation predictions, as well as quick access to ITU, Zone and several other maps. Works on Safari, IE, Firefox. <http://www.haminfo.com>

Interested in Old Radios?

Check out this site of old photos, newspapers, sound bytes and more from old radios: <http://www.fyrbotlz.com/index.html>

Download ARRL Podcasts: <http://itunes.apple.com/us/podcast/ares-e-letter-audio-version/id429901721>

QRZ.com Practice Tests - Version 2.0 for 2011 available. FREE! <http://www.qrz.com/exams>

Do you use Twitter? Follow your favorite Ham on Twitter using HamTwits: <http://hamtwits.com/>

The Gateway to Amateur Radio. All kinds of resources here! <http://ac6v.com/index2.htm>

CommCat Mobile app: Work DX from anywhere: <http://itunes.apple.com/us/app/commcat-mobile/id386497080?mt=8>

DX Hunter. Another app for DXers. <http://itunes.apple.com/us/app/dx-hunter/id397877790?mt=8>

Like to read Ham Magazines?

- Nuts and Volts: www.nutsvolts.com/
 - CQ Amateur Radio: www.cq-amateur-radio.com/
 - Monitoring Times: www.monitoringtimes.com
 - Popular Communications: www.popular-communications.com
 - CQ VHF: www.cq-vhf.com
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WHAT HAMS DO

Whether you would like to chat with your friends on the way to work or school, check into a net to discuss topics of a mutual interest, or volunteer for emergency services, amateur radio is first and foremost about communication. With hams that means two way communication by radio.

Radios can be hand-held transceivers similar to a walkie talkie, a mobile unit for use in a car or other vehicle, or a base station with an outdoor antenna used for local or distance communication. Regardless of the type of equipment radio amateurs have a wide range of activities they can pursue. Some of these are:



- Talking with friends within the local community using a hand-held transceiver (HT) on VHF (2 meters) or UHF (70 cm.). You can extend your HT range up to 50 miles or more by transmitting through a local repeater.
- DXing. DX means distance communication and with the right equipment worldwide communication on the HF bands (10 through 160 meters) is a regular possibility. See the section Amateur Radio Bands for a more complete description of the band plans.
- Assisting with emergency and disaster communication. Organizations in the amateur community such as the Amateur Radio Emergency Service (ARES) and the National Traffic System (NTS) prepare amateurs with the training needed to assist in emergency situations.
- Technical experimenting. Hams come from all walks of life ranging from technicians to engineers, teachers to scientists, and students to retirees. For many of them the attraction to the hobby is to build their own equipment whether it is just a simple antenna, something as complex as a transmitter, or an interface between their radio and a computer.
- Contesting. Contesting is often called the "sport" of ham radio. Almost every weekend there is some form of amateur radio contest. Hams get on the air and compete to see who can make the most contacts in a limited period of time.
- Talk to an astronaut. Yes, it is really possible. Space stations do have ham radio equipment and licensed ham astronauts take the time to make contacts with amateurs on earth. Hams also have satellites where you can bounce a signal to communicate with other hams on earth.
- Use digital communication. Connect a computer to your radio and install some software and you can be communicating digitally over the air. Some of these digital modes can be more effective in marginal transmission conditions and some even sport error free transmission.
- Internet communication. Using some of the latest technologies hams can supplement a modest station with Internet connections. Using features such as URL or IRLP on a local repeater a ham in Toronto can talk to one in Vancouver or even Australia using a simple hand-held transceiver.

73 Mike N2MG

Thanks for permission to use this article from Mike Gilmer of eHam.net: <http://www.eham.net>



For more information about TRO, visit www.tulсахamradio.org

If you would like more information about the **Tulсах Repeater Organization** or have questions about articles in the newsletter, please contact us by e-mail at wa5lvt@tulсахamradio.net or write to:

Tulсах Repeater Organization

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Past Pres. Mark Conklin, N7XYO, 918-366-2007 n7xyo@arrl.net



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