

# T H E S I G N A L



## Upcoming Events...

Our long break is nearing an end as September gets closer. While we have not had any events this month, our activities committee has been very busy.

### DAM JAM

**Dam Jam 2011** - this will be the 20th anniversary for this awesome event found in the heartland of Pryor, Oklahoma. The date is **September 10th**, and we will need to be at the command post at 6am that morning. They will need Sags, Sweeps and support. Probably looking at 500 + Bike riders in the 75 mile ride. Mobiles will be the equipment of choice for the day, but handhelds could be useful as well. I figure this event to close somewhere around 4pm. Fuel reimbursement, meal in the park, and volunteer shirts available for those who commit in advance. Contact Jim Beach ([damjamjim@gmail.com](mailto:damjamjim@gmail.com)) or myself

([kd5oph@tulsahamradio.org](mailto:kd5oph@tulsahamradio.org)) for questions and to volunteer for Dam Jam 2011.

### BOY SCOUTS FALL FESTIVAL

The **Boy Scouts** will have their **Fall Festival** this year on **September the 17th**. We are looking for a team that would like to attend this event and represent ham radio to the scouts. They will need to arrive early, around 6am, and stay till 3pm that afternoon. Call if interested and we will set you up.

Continued on Page 3

### ANNOUNCEMENTS

#### Next TRO Meeting:

Tuesday, August 23, 7:30 p.m. at Ryan's Steakhouse, 10934 E. 21st St., Tulsa, OK.

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

## Inside This Issue

Upcoming Events Announcements	1
The PREZ Says	
Treasurer's Report	2
Upcoming Events	3
VP Corner	
Testing Dates	3
TRO Minutes	4
Report on 146.88	6
Green Country Ham Fest Report	7
VE Test Report	
Fox Hunting Ideas	9
What is OES?	10
Ham Quiz	12

#### Upcoming TRO Events:

[www.tulsahamradio.org/troevents.htm](http://www.tulsahamradio.org/troevents.htm)

#### TRO on Facebook:

[www.facebook.com/home.php?sk=group\\_189314365941](http://www.facebook.com/home.php?sk=group_189314365941)



THE PREZ SAYS . . .

What can I say? Well in one word....HOT!!! 'Nuf said.

We have been busy this past month with meetings. September looks too be a busy month but hopefully cooler.

We are at the point where we need your commitment on the MS 150. We need to know who is going to work this event, whether it's 1 or both days. If you work both days you will be entered twice in the Xmas drawing, plus we will have a drawing on Saturday night for a dinner at Ryan's. Upon arriving at the MS Ride, be sure to sign the Sign-In sheet to get credit for the event.

As of right now, we have nobody saying that they are going to work the Boy Scout event. I hope that someone will step up to bat on this event. You said to take on both events! Again if

you work this event you will be entered in the Christmas bonus drawing.

We are in negotiations with Post Oak for an endowment gift. More on that as it develops.

Stanley Callahan, KE5HPB  
TRO President



TRO TREASURY REPORT - JULY 2011

Treasury Report 8-15- 2011 For July 2011

<b>TRO Accounts Balance Beginning:</b>		<b>\$ 3629.90</b>
<b>Checking beginning balance:</b>	<b>\$ 1434.39</b>	
<b>Checking ending balance:</b>		<b>\$ 1434.39</b>
<b>Savings beginning balance:</b>	<b>\$ 1905.04</b>	
7-29-11 Interest	+.48	
<b>Ending savings balance:</b>		<b>\$ 1905.52</b>
<b>PayPal account beginning:</b>	<b>\$ 290.47</b>	
<b>PayPal account ending:</b>		<b>\$ 290.47</b>
<b>TRO Ending Accounts Balance:</b>		<b>\$ 3630.38</b>



Respectfully submitted by Gary Parham, KC5ZQP  
TRO Treasurer

## UPCOMING EVENTS (CONTINUED FROM PAGE 1)

**MS150**

Next up on **September 17th and 18th**, we will be working **Bike MS 150**. We attended a committee meeting on Monday the 8th, with Stan Callahan, Ben Joplin, Joe Gorkus and myself at the meeting. Looks like the route will be quite similar to last year with a few modifications. We will meet at 5am at the Crown Hotel in downtown Tulsa to get ready for this event. Like last year, I suspect the command post will be mobile, although not confirmed at this time. Our assignments will be for Safety, Sag and Sweep operations. I will try to cover the logistical needs at rest stops by Radio phone. Same as last year, we will stay overnight in Chandler and pick up the trail early Sunday morning, ending in Oklahoma City that afternoon. Fuel reimbursement, food and drinks will be provided along the route, as well as breakfast, lunch and dinner on Saturday and Sunday. Looks like 800 bikes for this hop, so plenty of work to be done by all. I think you will have a great time working this event.

Most of the communications will be on repeater so mobile units will be the choice of the day. Remember we have 150 miles to cover. And not only do we have to pick up the rider but we also need to pick up the bike. Bike racks would be a plus if you are not in a pick-up truck. Hope to see you out there. On Bike MS 150. Call today and say I'll do it!

**WILLIAMS ROUTE 66 MARATHON**

In other meetings this month, I chaired the **Williams Route 66 Marathon** Safety Committee meeting on the 8th before the Bike MS meeting. We talked about invisible bracelet and touched on some communication issues. The first event will be in **October** with two more events in **November**. Sign up online or call me to volunteer for this event. The October event will be the Quarter marathon with five thousand in attendance. The Williams Committee is stepping out and renting a private repeater and private band radios to cover some of the more or less prevailing issues of the day. And this will be a training day for the big event coming up in the last week of November. So sign up today for this great event coming this November.

**POST OAK CHALLENGE**

Last up, Stan and I attended the **Post Oak Challenge** committee meeting on the 11th. Post Oak is looking into private band Radios to man the stationary locations. And I have suggested that they take the NIMS 100b course online, so Stan and I will be looking to see how we can utilize this new tool into our communication network. This will move our operators to Sag and Sweep operations. Post Oak Challenge comes up in **February of 2012**, so clear a spot on the old calendar for this one.

**In closing, we can plan all the events we want, but we need warm hands on cold mikes to make it work.**

**Thank You For your Support ...**

Activities Chair, Tom Stroud KD5OPH

Phone: 918-695-3735

Email: [kd5oph@tulsahamradio.org](mailto:kd5oph@tulsahamradio.org)

## VP CORNER

**Fox hunting.....RF radio waves transmission and detection.**

Did a little research on the Internet on "fox hunting," and it left me overloaded with tons of information. More than I can to share in this short article.

There are many types of hidden transmitter contest including up to International level competition. What type of "fox hunting" are we talking about here locally? The kind where one Ham (the Fox) goes somewhere within Tulsa county limits, remains stationary and transmits on the input frequency of the designated repeater with the lowest (most times) signal possible to allow the repeater to capture the signal and be repeated. The trick on the hunter's side is to seek out the location of that very low input signal capturing the repeater and thus finding the fox. The fox can transmit the low level signal so it bounces off a building

creating multiple paths for the signal to take back to the repeater or covers the signal up with a direct path and a low angle of radiation.

What is required for fox hunting? Just your skills and equipment to track down the fox's signal. Typically, we award the first three hunters to find the fox with tickets to be used at the Christmas party.

At this month's meeting (August 23), bring your favorite antenna and devices to find the fox's signal and share your expertise with the group. This will be an open discussion.

See you there.

Joe N5TEX 73's  
TRO Vice President



## AMATEUR RADIO AREA TESTING DATES

**Third Thursday of odd numbered months.** Next Session: 15 Sept 2011, 7:00 p.m. at the Red Cross building, 11th & 169. Contact Merlin Griffin. Phone 520-7668 or e-mail [wb5osm@hotmail.com](mailto:wb5osm@hotmail.com).

**Second Saturday of even numbered months,** Next Session: October 8, 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](mailto: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:

- September 10
- November 5

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

**W5YI-VEC Test Sessions**

Test sessions held the last Saturday of every third month. Next Session: 29 October 2011 then January 28, 2012. Martin East Regional Library, 2601 S. Garnett Road, Tulsa, OK. **BY APPOINTMENT ONLY!** Contact John, K5ENA, [K5ENA@cox.net](mailto:K5ENA@cox.net) or 918-346-8284.

**Ham Test Online.** A very effective online study course for hams. [www.hamtestonline.com](http://www.hamtestonline.com)



**TRO MEETING MINUTES FOR JULY 26 2011**

Meeting called to order at 19:30 hrs by Pres. Stan Callahan ke5hpb.

Minutes of last meeting were read by Sec. Ed Compos k5crq and motion made by Mark Conklin n7xyo and seconded by Bill Downes kf5vkb to accept and passed on vote.

Treasurer's report was read by Gary Parham kc5zqp and motion made by Ed k5crq and seconded by Mark n7xyo to accept and passed on vote.

Joe Gorkos n5tex presented a bill for \$70.64 for food at the field day and a check for half the amount was issued. TARC has not presented a bill for our half of the food bill from them.

Stan reported that the APRS units work well at the Tulsa Tough race.

Steve Miller aa5v reported that the uplink receiver on the 146.88 repeater has messed up and was causing the problems on it but it has been taken out of the system and repeater is working at this time. Ed k5crq is looking for another receiver to replace the bad one.

When it is cooler it was suggest that we clean up the site at Mid Con.

Cindy Downes k5ced our newest extra upgrade reported the Signal is up with a lot of good articles and information.

There was no old business. Under new business Steve aa5v requested the Form section of the website be turned off. No one uses it. Motion made by Brian Gnad kb5tsi and seconded by Mark n7xyo to shut it down and motion passed on vote.

Meeting closed at 20:49 hrs

After the meeting, Ms. Linda Tucker from the American Red Cross gave an interesting talk on their activities and classes they have available for the citizen's in the area. Excellent presentation.

Ed Compos K5CRQ  
TRO Secretary

**HEATHKIT IS BACK IN THE KIT BUSINESS!**

In late August, Heathkit will debut their new line of Do-it-Yourself kits for common around-the-house items. The first kit will be a Garage Parking Assistant (GPA). The Garage Parking assistant kit lets you build your own system that uses ultrasonic sound waves to locate your car as it enters the garage. The system signals to the driver using LED lights mounted on the wall when the car is detected and in the perfect spot for parking. The kit will include everything you need to complete the project except a soldering iron and hand tools.

Heathkit provides electronics education from entry-level courses to master level. This is a fun way to learn about electronics for all age levels.

For more information, see the Heathkit website: [www.heathkit.com](http://www.heathkit.com).



## REPORT ON 146.88



Problem with 146.88: Stan KE5HPB, Steve AA5V, and I (WB5OSM) took a little time on a Saturday morning,

accessed the 146.88 transmitter site at Cityplex. We traced the problem causing the repeater to lock up to a failed Motorola Radius being used as a down link receiver. It was no longer receiving the signal from the receiver site at Mid-Continent tower in downtown Tulsa, and quit producing the pull up voltage that tells the repeater controller, no signal coming in, squelch closed. So the controller thinks there is an incoming signal, and turns on the repeater transmitter which then would time-out after three minutes as required by the FCC. We flipped a switch that takes that receiver out of the circuit, and the repeater started functioning normally. We switched another Motorola Radius that was listening to the Liberty Fire Station Site to the Mid-Continent frequency since that is a more useful receiver. These Motorola Radius units seem to be a little problematic. We tried another that is up there for a third remote receiver, should a good site ever be acquired, perhaps something out east. Providing improved coverage for like Owasso and Broken Arrow. When we tried to use that one, we found it was mostly deaf. I have another one of the Radius radios that I planned on using to link 444.1 to 444.725, and it lost receiver audio. Steve thinks he has another one that quit transmitting. Now before we completely bash these things I must say we got a real pleasant surprise. The Liberty site equipment package is identical to the Mid-Con site. A Motorola VHF Maxtrac receiving on two meters, and a UHF Motorola Radius transmitting

on 70 CM. When Stan tried to hit it with his HT from City-Plex it came right up. We wondered if it was even working. Steve and I live so far from that site to access it. You probably have to be South of I-44 to key it even from a mobile rig. Now this is the interesting part of this. We have done absolutely no maintenance to this site for probably 18-24 months. All we did then was purchase two new deep cycle marine batteries that serve as the power source for both us and Liberty Fires radio. They did not realize that those batteries were not maintenance free and had never checked the fluid level in them. They understand this now, and it's on a routine equipment check list for Liberty FD. The other thing is our equipment is located in a non-temperature controlled environment. It's up in that attic down there. With the weather we've had lately, it probably gets up to 150 degrees in there, and that little box just keeps on a truckin'. So it's a little bit go figure. The ones up at City-Plex have all the air circulation in the world, and all they do it receive and the one I had at the house has been setting in a closet all this time. They failed, and the one that is used in the repeater site from Hell is reliable. So I have no idea what is with these things. Now one thing about City-Plex there is a lot of vibration up there, and the place is kind of dirty. Our equipment is located in an air handling room, so all the air on the 59th floor gets sucked through there. Furthermore, some of the plumbing from the HVAC system either leaks or has condensate dripping off it. Used to, in the fall, it got infested with Yellow Jackets too. They are doing a better job of keeping them out and keeping the place a little cleaner since the law firm Winters and King has occupied the 59th floor.

I have investigated some alternatives to the Radius/Maxtrac setup: The local receiver up at

## REPORT ON 146.88 (CONTINUED)

City-Plex is a MR4-C, it was made by a company called Micro-Control Specialties. They are still around under another name. It seems the original company has been acquired by other companies a couple of times. They still market this equipment. The price is up around \$500 each. I also priced Hamtronics units and they are around \$250 each. They are really promoting their synthesized field programmable units these days. I tried one of them several years ago, and it was quite frankly a piece of junk. On the other hand, their crystal controlled counterpart worked quite well until it got hit by lightning. Steve is exploring the idea of using one of the Wouxon handhelds that recently hit the market. They work, are very reasonably priced, and so far seem to be reliable; but, for repeater use as receivers, we need to find a way to get discriminator level audio out and a carrier operated signal. I am also going to check with some of my contacts through repeater coordination to see if we can find a two-way shop that would repair the Maxtracs and Radiuses at a reasonable price. These things are quite modular inside and use surface mount technology. Neither Steve or I can work on anything like that at home. Another alternative for link receivers is the old Motorola Micor receivers we used to use for this. Something in the power wiring got shorted and knocked them out. However I suspect that the basic units are fine. We used a VHF version of the Micor as a receiver for 146.94 out on the old channel six tower. That receiver worked like a champ up in that environment for 25 years; and it itself is at least 30 now. 94 we think went off the air due to a problem with the transmitter package. The Micor receiver may still be setting up there at 500' faithfully detecting signals on 146.34.

[Merlin Griffin, WB5OSM](#)

## Green Country Hamfest Report



The **Green Country Hamfest Committee** held our first meeting of our fiscal year August 11, at Andolini's Pizza in Owasso. Some of the things discussed

- Financially we ended up about the same as last year, maybe slightly ahead.
- Last year best attendance we've had yet.
- Most likely dates for 2012 will be March 9-10.

Having said that, the Clarmore Expo Center has asked us to consider moving down one week to March 16-17, 2012, in order to avoid a conflict with a group that holds a banquet there on the Thursday before the 'fest, which is when we normally begin setting up the tables and chairs. This actually would be somewhat advantageous to the Expo Center since to years in a row, they've had to comp us on table set-up due to the conflict with the Cattleman's Association. We know one thing, the steaks they cook for that banquet smell wonderful. We also found out this year that you don't have to be rancher to attend that banquet, just show up and pay money, hmm. We might not get table set up, but we would be happy. Our decision was that, one we really don't want to change dates, two it might cause scheduling problems for our major commercial vendors like Associated Radio, and

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**GREEN COUNTRY HAMFEST REPORT (CONTINUED)**

WB0W. The booth rental from WB0W alone takes care of a big chunk of the rent we pay to Expo Center. So we are going to contact our vendors and if a date change does not work for any of them, the deal is off. We stay on 3/9-10/2012.

We are still interested in purchasing a good quantity of tables and donating them to the Expo Center. In exchange we get to use them for free each year, plus they will set them up and take them down for us. Then they can rent them to other events for their normal fee. We have a verbal agreement with the Expo Center management, and we worked with them to draw up a formal agreement. They said they had to run it by the Claremore City Attorney. It may also have to have approval of the City Manager and/or council. We heard that the City Attorney had no objections to this, but as of this date, we do not have a signed contract. Once we get this then we need to find some tables.

We received a price quote on tables last year, and it sounded very reasonable. However, it turned out that a new salesperson provided the quote, and we think she gave us the price for six foot tables when we needed eight foot. When we tried to confirm the price, it had nearly doubled. We backed off at that time and just rented tables from Expo and a third party company too. We are exploring some options on this. We may even go to a local Claremore business to see if we could get it to supply tables at its cost or even donate some in exchange for tax considerations.

We had a conflict last year among embroidery vendors, ended up with one getting very angry and walking out. It turns out that none of the three had preregistered as commercial dealer. One of them had talked to me on the phone, but they all just basically showed up at the door. We

will make it clear, that if you want commercial booth space, and some degree of exclusivity, you must register in advance as a commercial dealer. Then we will guarantee your space, and may limit competition. Although the two that stayed seemed to actually be either happy or neutral about having a competitor there. One such outfit in previous years actually preferred to have competition, because he knew he could not meet the demand by himself.

Finally we are looking for another host for our web-site. Getting customer service out of our present host is almost impossible. However, <http://www.greencountryhamfest.org> is written in an older version of ASP, and Steve AA5V, our chief webmaster, is not real sure he can move it to a new host and keep it working. It was decided we would contact our former web head Ray WA5RAY who is also the developer. He would probably know what to do and be willing to do it.

[Merlin Griffin, WB5OSM](#)





## VE TESTING REPORT

### Report on TRO/Red Cross Sponsored VE-Testing Session July 21, 2011

This was another successful exam session, at least as far as the candidates were concerned. We had a total of seven folks take at least one exam element, and all seven walked out with a CSCE in hand. We produced six new Technician class licensees, and one Amateur Extra class upgrade.

They were as follows:

- Stephen Clark of Ramona, OK, Technician
- Cindy Downes K5CED of Broken Arrow, Amateur Extra
- Michael Gerow of Tulsa, Technician
- Brockton Calhoun of Owasso, Technician
- Ron Ross of Tulsa, Technician
- Mary Calhoun of Owasso, Technician

- Blake Calhoun of Owasso, Technician

Charlie Calhoun K5TTT was there to serve as family banker for his wife and two sons.

The VE Team was John Brudvic KC4URD, Eli Lebow W5PPD, and Merlin WB5OSM. We had Steve AA5V on standby if needed, but the three of us handled the situation just fine. As always we are very grateful to the Red Cross for providing us a place to hold our test sessions. They are always gracious hosts. One way you might say thanks them is either a financial donation, or donate blood. I know they have been extremely busy this year with the disaster relief needed for Tornado damage in the area, and in the last few weeks helping people either fighting the wild-fires or being displaced by the wild-fires. Our next TRO sponsored VE Test session will be held September 15, 2011 @ 18:45. At the Tulsa Red Cross Chapter, 11th St and Hwy 169.

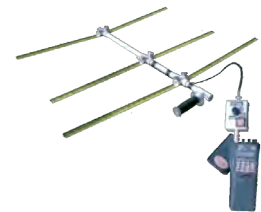
Merlin Griffin, WB5OSM

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## FOX HUNTING IDEAS AND RESOURCES

Here are some resources for learning more about Fox Hunting:

- ✓ The Art and Science of Radio Direction Finding: [www.homingin.com/](http://www.homingin.com/)
- ✓ YouTube: Ham Radio Foxhunt: [www.youtube.com/watch?v=Fzr4Dl16TvQ](http://www.youtube.com/watch?v=Fzr4Dl16TvQ)
- ✓ ARRL - Developing Radioactive Kids: <http://www.arrl.org/outreach-to-youth>
- ✓ Getting Started in Transmitter Hunting: [www.qsl.net/nzoi/equipment/equipment.htm](http://www.qsl.net/nzoi/equipment/equipment.htm)
- ✓ Tape Measure Beam Antenna Instructions: [http://theleggios.net/wb2hol/projects/rdf/tape\\_bm.htm](http://theleggios.net/wb2hol/projects/rdf/tape_bm.htm)
- ✓ Simple Adjustable Passive Attenuator, directions: [http://theleggios.net/wb2hol/projects/rdf/p\\_atten.htm](http://theleggios.net/wb2hol/projects/rdf/p_atten.htm)
- ✓ The Fox - 40 Milliwatt Transmitter, project: [http://theleggios.net/wb2hol/projects/rdf/40mw\\_tx.htm](http://theleggios.net/wb2hol/projects/rdf/40mw_tx.htm)





WHAT IS AN OES?

**What is an OES (Official Emergency Station) and how does it fit with ARES-OK?**

Within the ARES-OK State EmComm plan (under revision and should be released sometime this fall), OES will be appointed at the District and the County level.

Other applications for this role will be developed as ARES-OK grows and develops.

The primary responsibilities and focus of the OES will be as a liaison\* between local ARES-OK nets and NTS nets.

The updated OES role description from the ARRL is listed below:

[Mark Conklin, N7XYO](#)  
[Oklahoma Section Emergency Coordinator](#)

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**Official Emergency Station**

Amateur operators may be appointed as an Official Emergency Station (OES) by their Section Emergency Coordinator (SEC) or Section Manager (SM) at the recommendation of the EC, or DEC (if no EC) holding jurisdiction. The OES appointee must be an ARRL member and set high standards of emergency preparedness and operating. The OES appointee makes a deeper commitment to the ARES program in terms of functionality than does the rank-and-file ARES registrant.

The requirements and qualifications for the position include the following: Full ARRL membership; experience as an ARES registrant; regular participation in the local ARES organization including drills and tests; participation in emergency nets and actual emergency situations; regular reporting of activities.

The OES appointee is appointed to carry out specific functions and assignments designated by the appropriate EC or DEC. The OES appointee and the presiding EC or DEC, at the time of the OES appointment, will mutually develop a detailed, operational function/assignment and commitment for the new appointee. Together, they will develop a responsibility plan for the individual OES appointee that makes the best use of the individual's skills and abilities. During drills and actual emergency situations, the OES appointee will be expected to implement his/her function with professionalism and minimal supervision.

Functions assigned may include, but are not limited to, the following four major areas of responsibility:

**OPERATIONS**--Responsible for specific, pre-determined operational assignments during drills or actual emergency situations. Examples include: Net Control Station or Net Liaison for a specific ARES net; Manage operation of a specified ARES VHF or HF digital BBS or MBO, or point-to-point link; Operate station at a specified emergency management office, Red Cross shelter or other served agency operations point.

**ADMINISTRATION**--Responsible for specific, pre-determined administrative tasks as assigned in the initial appointment commitment by the presiding ARES official. Examples include: Recruitment of ARES members; liaison with Public Information Officer to coordinate public information for the media; ARES registration data base management; victim/refugee data base management; equipment inventory; training; reporting; and post-event analysis.

**LIAISON**--Responsible for specific, pre-determined liaison responsibilities as assigned

## WHAT IS AN OES? (CONTINUED)

by the presiding EC or DEC. Examples include: Maintaining contact with assigned served agencies; Maintaining liaison with specified NTS nets; Maintaining liaison with ARES officials in adjacent jurisdictions; Liaison with mutual assistance or "jump" teams.

**LOGISTICS**--Responsible for specific, pre-determined logistical functions as assigned. Examples include: Transportation; Supplies management and procurement (food, fuel, water, etc.); Equipment maintenance and procurement--radios, computers, generators, batteries, antennas.

**MANAGEMENT ASSISTANT**--Responsible for serving as an assistant manager to the EC, DEC or SEC based on specific functional assignments or geographic areas of jurisdiction.

**CONSULTING**--Responsible for consulting to ARES officials in specific area of expertise.

OES appointees may be assigned to pre-disaster, post-disaster, and recovery functions. These functions must be specified in the OES's appointment commitment plan.

The OES appointee is expected to participate in planning meetings, and post-event evaluations. Following each drill or actual event, the EC/DEC and the OES appointee should review and update the OES assignment as required. The OES appointee must keep a detailed log of events during drills and actual events in his/her sphere of responsibility to facilitate this review.

Continuation of the appointment is at the discretion of the appointing official, based upon the OES appointee's fulfillment of the tasks he/she has agreed to perform.

Official Emergency Stations are encouraged to earn certification in Level 1 of the ARRL Emergency Communications Course.

Recruitment of new hams and ARRL members is an integral part of the job of every ARRL appointee. Appointees should take advantage of every opportunity to recruit a new ham or member to foster growth of Field Organization programs, and our abilities to serve the public.

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## PINK HAMSTERS - HAM RADIO FROM A FEMININE PERSPECTIVE



The Pink HAMsters had a great time at their first meet-up on July 28. Those of us attending enjoyed both the food and the fellowship. We talked about everything from ancestry to back-to-school shopping.

**The next Pink HAMsters meet-up is at 6:00, Thursday, August 25 at Panera Bread on Aspen, between 71st and 81st. Ladies, you're all invited, licensed or not.** This is about getting to know one another, whether you're a relative of a ham operator or a ham operator yourself.

For those of you who are licensed, check out the **Pink HAMsters Net** operating on the 146.910 repeater at 7:00 Monday nights. If you're not licensed, you can still talk 3rd party with a licensed ham. Our Net Control operator is Kim Turentine KF5LAD. She does a great job. You won't want to miss it!

For more info, see the Pink HAMsters website: [www.pinkhamsters.com](http://www.pinkhamsters.com). Find us on Facebook at [www.facebook.com/pages/Pink-HAMsters/116063998484663](https://www.facebook.com/pages/Pink-HAMsters/116063998484663).

## HAM QUIZ

**Answer to Ham Quiz for August:**

*What circuit is used to combine signals from the IF amplifier and BFO and send the result to the AF amplifier in a single-sideband receiver?*

- A. RF oscillator
- B. IF filter
- C. Balanced modulator
- D. Product detector

**Answer:**

D: Product Detector

**Discussion:**

An amplitude modulated signal consists of a radio frequency carrier, an upper sideband, (sum of radio frequency and modulating audio frequency), and lower sideband (carrier frequency minus the audio frequency). The only purpose the carrier really serves is to demodulate the signal when it reaches the last stage of the receiver. When we transmit information using single side-band (SSB), we dispense with the carrier altogether, and eliminate one of the side-bands. The information contained in them is identical and therefore redundant. This cuts the band width of the signal in half. Also puts all of the transmitted power into the part carrying information. Now if you listen to a SSB signal on a standard AM receiver, you will not be able to get much out of it. What you will hear is commonly referred to as duck chatter. The product detector takes a signal from a local oscillator in receiver running at low power, and replaces the missing carrier. When you get this signal on the proper frequency then the product coming out of the detector, into the audio amplifier and out of the speaker or into the headphones, is completely intelligible and therefore useful to convey useful information, like "You are 5 9 in Hawaii!"

**73 DE WB5OSM**

**Merlin Griffin**

**Ham Quiz for September**

(From Technician Exam)

Which of the following is an example of a digital communications method?

- A. Packet
- B. PSK31
- C. MFSK
- D. All of these choices are correct.

**"FUN STUFF" FOR HAMS**

Beginner's Guide to Ham Radio:  
<http://www.eham.net/newham/>

Ham Radio Nation: Echo Link, Antennas, Contesting, CW, and other interest groups.  
[www.hamradionation.com](http://www.hamradionation.com)

Ham Radio Jargon (For Fun):  
[www.ac6v.com/jargon.htm](http://www.ac6v.com/jargon.htm)

How to Operate Your Rig:  
<http://www.hamuniverse.com/hillbilly.html>





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**For more information about TRO, visit [www.tulshamradio.org](http://www.tulshamradio.org)**

If you would like more information about the **Tulsa Repeater Organization** or have questions about articles in the newsletter, please contact us by e-mail at [wa5lvt@tulshamradio.net](mailto:wa5lvt@tulshamradio.net) or write to:

**Tulsa Repeater Organization**

P.O. Box 1422  
TULSA, OK 74101-1422

**TRO officer contact information:**

President: Stanley Callahan, KE5HPB, 918-381-9990 [ke5hpb@tulshamradio.org](mailto:ke5hpb@tulshamradio.org)  
Vice-president: Joe Gorkos, N5TEX, 918-230-8243 [n5tex@tulshamradio.org](mailto:n5tex@tulshamradio.org)  
Secretary: Ed Compos, K5CRQ, 918-231-7730 [k5crq@cox.net](mailto:k5crq@cox.net)  
Treasurer: Gary Parham, KC5ZQP, 918-369-1055 [kc5zqp@aol.com](mailto:kc5zqp@aol.com)  
Trustee: Merlin Griffin, WB5OSM, 918-520-7668 [wb5osm@hotmail.com](mailto:wb5osm@hotmail.com)

**Committee Chairperson contact information:**

Membership: Joyce Callahan, [joyce@tulshamradio.org](mailto:joyce@tulshamradio.org)  
Activities: Tom Stroud, KD5OPH, 918-695-3735 [kd5oph@tulshamradio.org](mailto:kd5oph@tulshamradio.org)  
Engineering: Steve Miller, AA5V, 918-381-8574 [steve@aa5v.com](mailto:steve@aa5v.com)  
Public Relations: Cindy Downes, K5CED, 918-630-3636 [cindy@me.com](mailto:cindy@me.com)  
Op Standards: Ben Joplin, WB5VST, 918-396-1651 [wb5vst@tulshamradio.org](mailto:wb5vst@tulshamradio.org)  
By-laws: Bud Blust, WA5QDZ, 918-747-3704 [debtfree@ionet.net](mailto:debtfree@ionet.net)  
Past Pres. Mark Conklin, N7XYO, 918-366-2007 [n7xyo@arrl.net](mailto:n7xyo@arrl.net)



**Tulsa Repeater Organization**

P.O. Box 1422  
Tulsa, OK 74101