



AARC COVER

**Keeping Austin Wireless
for Over 94 Years!**



Bulletin of Austin Amateur Radio Clubs

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Whistling On the Radio

By Crockett Grabbe, KF5LTT

It was World War I and the early days of radio. German engineers erected a large ground-loop antenna for intercepting enemy telephone signals. What they heard when tuning up into the kilohertz frequencies was unexpected: a whistle descending downward in frequency. They suspected these signals as Allied code. What did they mean?

However, after World War I ended with the November, 1918 Armistice, no such Allied code was revealed. When German radio engineer Birkhausen continued to study what was later named "whistlers", he concluded that was being generated from some source naturally. So begin the early detective work as to what was causing those radio emissions.

What caused these whistlers was still unknown in World War II. But the solution was finally revealed in a paper published by Swedish scientist Storey in 1946. These were radio waves generated by lightning strokes that propagated on the Earth's magnetic field line, often travelling in seconds to the opposite

(Continued on page 6)



Periodic Events

Sun	7:00 p.m.	Travis ARES net	147.36 MHz + (131.8)
Sun	8:00 p.m.	Travis ARES Packet	145.73 MHz -
Sun	8:00 p.m.	Williamson ARES net	146.64 MHz - (162.2)
Sun	9:00 p.m.	ARO Swapnet	146.94 MHz -
Sun	(After Swapnet)	Newsline	146.94 MHz -
Mon.	7:30 p.m.	STX ARES Net	3.873 MHz
Tues.	7:30 p.m.	Hays ARES net	147.100 +
Tues.	8:00 p.m.	Bastrop ARES Net	443.750 + (114.8)
Wed	11:30 a.m.	Ham Social Luncheon, Jim's	146.94 MHz -
Thu	9:00 p.m.	2m SSB Net	144.250 (USB)
Thu	11:00 a.m.	Lunch, Pokey Joe's 183&Great Hills	444.1 MHz+
Thu	11:45 a.m.	Lunch Whataburger Oltorf & Burleson	146.94-(107.2)
Fri	8:00 p.m.	6m SSB Net	50.230(texasvhf.org/)
Sat	7:00 - 8:30a.m.	Breakfast @ Waterloo Ice House	444.1 MHz +
Sat	9:00 a.m.	Chapter 67 QCWA QSO Net.	3.920 MHz LSB
Daily	6:30 p.m.	Central Texas Traffic Net	147.14MHz+

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Ham Radio Exams Results

The following are the results of the ARRL VE Test Session held on September 5th at Bethany United Methodist Church:

Technician Class Licenses Processed

Thomas R. Barbee KG5JHY
Jason T. Engel KG5JIB
Michael D. A. Gibich KG5JID
Martin D. Packham KG5JHT

Damon K. Brown KG5JHX
Anon. KG5JHZ
Roger D. Jones KG5JIG
Anon. KG5JIA

Martin J. Cohn KG5JHW
William D. Gee KG5JHV
Clifton C. Lyde KG5JHU
Anon. KG5JIC

General Class Licenses Processed

Adam K. Hermes KG5JHS

Donald J. Lewis KG5CID

Extra Class Licenses Processed

Joshua T. Bronson KG5IZA

Gregory W. Miller KG5IZB

Examiners Participating in this Test Session

Gary Becker AF5QB
Joe Makeever W5HS

Larry Gunter WB5BEK
Matt Porcher K5LF

Gene Hinkle K5PA
Donald Sitze AF6VA

Next ARRL VE Test Sessions

October 10th - Bethany United Methodist Church, Disciple Bldg. Room 203/204
November 7th - Bethany United Methodist Church, Disciple Bldg. Room 203/204

TNX ES 73 DE W5HS
Joe

9-19-15

The South Austin W5YI VE team heartily congratulates the following people who earned new or upgraded amateur radio licenses at our September 19th session:

Technician Class (NEW)

Clinton Foehner
Brian Stubbs
Michael Moore
Andrew Bitson

Wallace Sheldon
Clint Jackson
Cage Wavell
David Birti

Extra Class (NEW)

William O'Hern

Our administering volunteer examiners were:

Craig Bean, AC5KW
Sam Mihalik, KM5MY
James Peisker, AF5NP

Gary Popp, AE5JR
Wally Marusa, K5WLY

Our next two amateur radio exam sessions will start at
2 PM on October 16th and November 21st in
Fleck Hall, room 118 on the campus of St. Edward's University.
All sessions are walk-in and the exam fee is \$14 (cash or check).

For additional information regarding our amateur radio examination sessions,
please contact Craig, AC5KW at (512) 474-6443 or by e-mail to
ac5kw@arrl.net or visit our web page at
<http://texashams.org/w5yi-austin/>



Austin Amateur Radio Club, Inc., PO BOX 4739, AUSTIN TX 78765-4739, Web site: <http://www.austinhams.org>

President	Lori Schmidt	KM5MQ	512-632-6789	president@austinhams.org
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ARRL Travis Co. Emer. Coord.	Mark Esslinger			ec@austinhams.org
TC ARES PIO	Steven Polunsky	W5SMP		tcares-pio@gmail.net

Please contact a club officer, attend a meeting, mail us to join the organization, you can also join or renew online.

The Austin Amateur Radio Club, Inc. (AARC) has annual membership dues of \$20.00 per person or \$30.00 per family. AARC maintains the following repeaters:

FREQUENCY	AUTOPATCH	USE
146.880 107.2 PL Tone	Yes	General
146.940 107.2 PL Tone	No	Most popular, WX, Swapnet & Newsline
224.800	No	
444.100	No	
440.650 +5	No	70cm D-Star Repeater [W5KA B]
146.780/ -600kHz	No	2m D-Star Repeater [W5KA C]
1293.200/-20	No	23cm D-Star Repeater[W5KA A]
1248.200	No	23cm D-Star DD (data, simp./reversible)[W5KA A]

Persons using the repeaters are asked to join the club to help support these valuable resources. To use the autopatch, announce your call sign, press * and dial the phone number then release the PTT. When finished, press # to hang up the phone. Dial 911 (no * needed) for emergency services.

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Members and other readers are encouraged to submit material for publication. Call Mitch London, if mailed submissions are required. Electronic files are encouraged! Submissions may be edited for publication.

Deadline is the 22nd of the month.

Material may be used in a later issue. Unless otherwise noted, permission is granted to reprint AARCOVER articles, provided you credit the author and the AARCOVER.



For Changes in your ADDRESS, PHONE NUMBER or CALL SIGN:

See Jay Hoffman, KA5OST

[ka5ost @ arri.net](mailto:ka5ost@arri.net)

Jay handles all changes for membership information .



Over the WWaves...



A Collection of useful and interesting Websites sent in by our readers (All links have been checked by editor as working at time of publication)

This is a pretty interesting article about how electricity is bought, sold and controlled in Texas.

http://www.slate.com/articles/business/the_juice/2015/09/texas_electricity_goes_negative_wind_power_was_so_plentiful_one_night_that.html

Forwarded by Jay Hoffman, KA5OST

AWESOME LINK OF THE MONTH!!!

The FCC is considering a rule restricting wifi routers, which may result in router vendors locking the devices from using open source firmware. Wired just ran an article on the issue.

Jim Kinter was quoted:

<http://www.wired.com/2015/09/hey-fcc-dont-lock-wi-fi-routers/>

In case you're interested, here's more info on the issue:

<http://prpl.works/2015/09/21/yes-the-fcc-might-ban-your-operating-system/>

Forwarded by Chip Rosenthal, KE5VHV



Where is That Tower?

Have you ever wondered where the towers are that the clubs repeaters are? Below is a list provided by Roy Walker, WA5YZD. This can help you aim your directional as best as possible.

Buckman Mountain 30 D 19 M 19.3 S N - 97 D 48 M 12.6 S W 497 Feet AGL
Site for 146.94, 224.8 and 444.2 Repeater - **W5KA**

Pickle Research Center 30 D 23 M 30.52 S N - 97 D 43 M 41.27 S W - 200 Feet AGL
Site for 444.1 Standard FM and 146.88 Fusion Mix Mode Repeater - **W5KA**

St. David's South Austin Medical Center - 30 D 13 M 34.86 S N - 97 D 46 S 27.99 W - 150 Feet AGL
Site for D-Star System 146.78 and 440.65 - **W5KA**

Austin B Tower - Very close to the Buckman Mt. site above - 200 Feet AGL
147.36 and 443.8 Repeater - **Operated by WA5VTV**

Thanks to Roy for providing this information.

QST had a story on the June drill that Salvation Army national radio assets and others, operated at Camp Mabry, and also showed Lew, W5IFQ, at the helm of the TX Army MARS station at Mabry.

The drill happened about the time Red Cross and local EOCs were ramped up for the Floods of Central TX, which caused the drill to be scaled back, since they had real emergency work to do.

Another emergency drill is coming up: Nov 10 is area hospitals and their ARES stations drilling with CATRAC, their regional association. This will also be the Simulated Emergency Test for Travis Co.

ARES in place of an Oct. ARES drill. If you have no assigned ARES-ARCHES hospital, you can still contact TC ARES for whom to see about helping at one of the hospitals. A couple of hams or more, are needed at each Hospital that activates.

-Stuart Rohre
K5KVH



Photo By:
Paul English,
WD8DBY

HAPPY HALLOWEEN

**FROM THE
AUSTIN AMATEUR
RADIO CLUB!**



(Continued from page 1) Whistlers

hemisphere and bouncing back on the magnetic field line going in the opposite direction.

The wave can be heard as this downward falling tone on the radio -- a descending "whistle". For radio waves that travel to the opposite hemisphere and bounce, a sequence of 3 descending "whistles" is heard, descending at a faster pace than the single whistle.

Whistlers lie in the frequency-range of 1 to 30 kHz, so are generally not heard by Ham enthusiasts today, who operate at much higher frequencies. However, these emissions are picked up on low-frequency bands by satellites all over the world, and continue to provide data to scientists on atmospheric conditions and magnetic field strengths.

For anyone using a receiver and picking up these low frequency whistles, s/he can think of this as the lightning speaking. It can speak volumes on the radio. ■



Austin Amateur Radio Club General Meeting
September 1, 2015

Start time: 7:06

Attendance: 44

Birthdays:

Happy birthday to you!

Visitors in attendance: Bill Byrom, N5BB Grayson Schlichting, W5ANM Jacob Fagg, KG5IYW
Clay Bales - has equipment potentially to sell (father was a ham and passed away a few months ago in OK)

New hams: none

New members: none

Upgrades: none

Call sign changes: none

Approval of minutes: approved as written in last month's newsletter

Announcements

past events: none

upcoming events: (In the AARC and swapnet newsletters)

Sep 12-13 Tour de Cure contact Jeff Schmidt (n5mnw@arrl.net) to sign up

Oct 2-3 Belton Hamfest, www.tarc.org for information

Oct 2-3 MS150 Ride to the River contact Lee Besing, N5NTG, for more info

General announcements:

Dues are due; see Jay Hoffman, KA5OST or Lori Schmidt, KM5MQ

Polo shirts are available, contact Lori Schmidt

Officer reports

president: none

vice-president: none

treasurer: none

secretary: none

Other reports

newsletter: Mitch London, Always looking for articles...doesn't have to be long! My last year as editor; looking for someone to take over. Send more articles!

technical: Stuart Rohre, K5KVH: I have not been able to hear any repeater complaints as I have been out of town. Continuing discussions are being held regarding coverage issues.

ARES: (Joe Thiel, NS5MN): On Nov 10, area hospitals will have a drill. They have written us into the plans. We are in need of volunteers. Contact n5hpc@arrl.net for info

Roger Wines: looking for people interested in providing training - suggestions for trainings, volunteers for trainers, etc. w5wia@arrl.net

BBHN: Mitch London: Check facebook page to see banning of firmware manipulation of routers (doesn't apply to part 97, but interesting reading)

AARC ladies: none

Kerby Spruiell, KG5DLD: for those interested in weather net, contact kg5dld@arrl.net

Old business none

New business Lori Schmidt: next month is officer nomination month

Ham of the month Membership choice - Mitch London

Door prizes

20- Yaesu mousepad: John Taylor, KF5CJS

26 - quick charger: Charles Goertz, KF5MFK

8 - yaesu mousepad: Deroy Howard, AA5R

Space weather Presented by Jeff Schmidt, N5MNW

Meeting adjourned 7:38 pm **Presentation**

William Moyes - Video: reverse engineering the 6502 IC

The Austin Amateur Radio Club, Inc.

Membership Form - DATE _____

Application for: (check applicable box and enclose payment)

- AARC Individual \$20 _____
 Family (all with same mailing address) \$30 _____
 Student rate (thru 12th grade, no mail) \$ 5 _____
 ARRL Individual ARRL (new or renewal) \$39 _____
 Senior ARRL (new or renewal) \$36 _____
 Family member ARRL (at same address) - \$8ea x _____ = _____
 First time ARRL discount -\$15 _____
 TEXAS HAMPAC (Political Action Committee (\$10 Max)) \$ _____
 Total Enclosed _____

Mail this form with payment to:

AARC - P O Box 4739 - Austin, TX 78765-4739

Check One: New member Renew membership Update Info

ARRL member **Y** **N** License class **E A G T+ T N** Year first licensed _____

Call sign _____ First Name _____ Last Name _____

Mail Address _____

City/St/Zip _____

Hm Ph _____ Cel Ph _____ Wk Ph _____

Pager # _____ e-mail _____

Please list additional family members here and check the family member box above.

2nd Call _____ Name _____ ARRL mem **Y** **N**

3rd Call _____ Name _____ ARRL mem **Y** **N**

4th Call _____ Name _____ ARRL mem **Y** **N**

I/WE have interest in the following:

- Monthly meetings Field Day Working Events Transmitter Hunts
 Talking on 2 mtrs DXing Newsletter Holding Office
 Presenting programs CW Net Control Emergency Comm's
 Holding ARRL office Education Public Awareness Working w/Youth
 Others _____

Rcvd ____ / ____ / ____ Amt \$ ____ Ck ____ Cash ____ Dep ____ Post ____
 (for office use only)

JMH 20150207



The national association for
ARRL
 AMATEUR RADIO®

Membership Application

New Renew Previous Member Unlicensed

Name _____ Call Sign _____

Address _____

City _____ State _____ ZIP _____

Email _____

Date of Birth ____ / ____ / ____ Phone _____

My Family Member is Joining or Renewing:

Name _____ Call Sign _____

Name _____ Call Sign _____

Please Note My New Address!

Your Annual Membership Dues - Circle Your Choice/s.

	1 Year	2 Years	3 Years	
Regular	\$39	\$76	\$111	Monthly QST via standard mail for US members
Canada	\$49	\$93	\$132	Monthly QST via standard mail for Canadian members
Intl QST	\$62	\$118	\$167	Monthly QST via air mail for international members
Intl CD	\$39	\$76	\$111	Annual CD-ROM (QST, NCJ and QEX) for international members
Blind	\$8	\$16	\$24	No QST delivery, all other member benefits apply
Family	\$8	\$16	\$24	Reside at the same address as the primary member, no additional QST. Membership dates must correspond with primary member.

If you are 21 or younger a special rate may apply. Contact ARRL for more details. Additional membership options available online at www.arrl.org/join.

\$ _____ TOTAL

US Memberships include \$15 per year for subscription to QST. Dues are subject to change without notice and are non-refundable.

If you do not wish your name and address made available for non-ARRL related mailings, please check this box

Charge to: Visa MasterCard Amex Discover Check Enclosed

Card Number _____

Expiration Date _____

Cardholder's Signature _____

Toll free (US) 1-888-277-5289 or 860-594-0200 ■ Online www.arrl.org/join
 ARRL ■ 225 Main Street ■ Newington, CT 06111-1494 ■ USA

-----> The Austin Amateur Radio Club, Inc. <-----
www.austinhams.org
 PO Box 4739, Austin, TX 78765-4739

Club Dues for 2016 can now be paid!

2016 is approaching and you might as well get a jump on things by paying your dues for the 2016 year.

Besides the admiration of your friends, you also get guilt free use of all club repeaters, access to club equipment, online help through the use of the Austin Hams Yahoo group and much more! Be the first on your block to be a renewing member in 2015!

You can pay online at- <http://www.austinhams.org/join.htm>

Just fill out the .pdf form and mail to:

The Austin Amateur Radio Club
PO Box 4739
Austin, TX 78765-4739

Huge Fuses!

"Went out on a service call today... can anyone tell me the size of these fuses? It works fine but the customer says it's ugly... oh and it has burned up 3 a/c units in almost a year. Can't get these suckers to blow. Maybe oversized?? Thinking about going back with 3/8 all thread rod and see if those will do the trick but gotta move fast cause Rheem says the customer only has about a month and a half of warranty left before they'll stop sending units..... thoughts???"

Forwarded by Jay
Hoffman, KA5OST



AARC Meeting Info.
Baby A's near the Arboretum
9505-B Stonelake Blvd.
(Come early and have dinner!)

Business Meeting 7:00 pm

October 6th— Movie Night: Part 2 of Reverse Engineering the 6502 IC

Officers Meeting

Officers meet via Skype and meetings are open to club members. Contact an officer for more information.

2015 Upcoming Amateur Exams

ARRL VEC— Oct 10th(due to Belton) Nov. 7th
 9a.m. at Bethany United Methodist Church. Contact Joe Makeever, W5HS (345-0800) or Joe Thiel, N5SMN (832-0450) for info. \$15 fee.

W5YI VEC- October 17th & November 21st
 2p.m. in room 207, Fleck Hall, St. Edwards Univ.
 Contact Craig Bean, AC5KW@arrl.net, (474-6443) for more info.
<http://texashams.org/w5yi-austin/>

2015 Calendar of Events

Oct 2-3 Belton Hamfest

Admission \$5 (Includes a \$2 Raffle Ticket)
 Talk-in 146.82(-)PL 123.0
www.tarc.org/hamexpo/ www.beltonhamexpo.org/

Oct 17 Lubbock ARC's Second Annual Hamfest

Noble Stidham Memorial Clubhouse 1108 98th Street
 Lubbock, TX 79401
 Lubbock Amateur Radio Club
 Talk-In: 147.000 - (PL 179.9)
 Gary WA5TED 806-790-0966 garywa5ted@gmail.com
<http://K5LIB.org>

Oct 18 WCARC Sunday fall picnic

San Gabriel Park in Georgetown

Oct 23-24 Oklahoma State Convention (Texoma Hamarama)

Ardmore Convention Center 2401 North Rockford Road, Ardmore, OK 73401
 Texoma Hamarama Inc.
 Talk-In: 146.97 (PL 131.8) from the north; 146.835 (PL 131.8) from the south
 Contact: Don Loving, KM5OX 580-221-1894 wall-cloud2001@yahoo.com
www.texomahamarama.org/

Oct 31 South Texas Hamfest

Aransas Pass Civic Center- 700 West Wheeler Ave, Aransas Pass, Texas 78335
 Pre-Registration now open with lower entry fee and extra door prize tickets for 2015
 Exclusive Grand Prize Drawing for Pre-Registrants
 2014 Tables sold out before opening day. Get yours now.
<http://www.southtexashamfest.org/>

Upcoming Meetings...

Oct	Nov	Austin Meetings/Happenings	Time	Address
6	3	AARC Meeting Waterloo Ice House	7:00 p.m.	8600 Burnet Rd.
28	25	Digital Wednesday at CATRAC	7:00 p.m.	4100 Ed Bluestein Blvd.
24	28	Travis Co. REACT Jim's 183 & Burnet	7:30 p.m.	9091 Research Blvd.
26	23	Travis County A.R.E.S. Pickle Research Ctr	7:00 p.m.	10000 Burnet Rd.
22	26	CERT Meeting, CTECC	6:30 p.m.	5010 Old Manor Rd.
26	23	CTDXCC Meeting Old Quarry Library	6:30 p.m.	7051 Village Ctr Dr.

If your club is listed here and has incorrect time or dates, please let us know!
editor@austinhams.org