



AARC OVER

**Keeping Austin Wireless
for Over 96 Years!**

Bulletin of Austin Amateur Radio Clubs

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April 2016

Issue 4-2016

World Amateur Radio Day - April 18th

<http://www.iaru.org/world-amateur-radio-day.html>

Every April 18, radio amateurs worldwide take to the airwaves in celebration of World Amateur Radio Day. It was on that day in 1925 that the International Amateur Radio Union was formed in Paris.



Amateur Radio experimenters were the first to discover that the short wave spectrum - far from being a wasteland — could support worldwide propagation. In the rush to use these shorter wavelengths, Amateur Radio was “in grave danger of being pushed aside,” the IARU’s history has noted. Amateur Radio pioneers met in Paris in 1925 and created the IARU to support Amateur Radio worldwide.

Just two years later, at the International Radiotelegraph Conference, Amateur Radio gained the allocations still recognized today — 160, 80, 40, 20, and 10 meters. Since its founding, the IARU has worked tirelessly to defend and expand the frequency allocations for Amateur Radio. Thanks to the support of enlightened administrations in every part of the globe, radio amateurs are now able to

(Continued on page 3)

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 - (107.2) |
| Sun | (After Swapnet) | Newsline | 146.94 MHz - (107.2) |
| Mon. | 7:30 p.m. | STX ARES Net | 3.873 MHz |
| Tues. | 7:30 p.m. | Hays ARES net | 147.100 MHz + |
| Tues. | 8:00 p.m. | Bastrop ARES Net | 443.750 MHz + (114.8) |
| Wed | 11:30 a.m. | Ham Social Luncheon, Jim's | 146.94 MHz - (107.2) |
| Thu | 9:00 p.m. | 2m SSB Net | 144.250 MHz (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 |
| Sat | 7:00 p.m. | AARC Elmer Net | 146.94 MHz- |
| Daily | 6:30 p.m. | Central Texas Traffic Net | 147.14 MHz+ |

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Ham Radio Exams Results

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

Technician Class Licenses Processed

| | | |
|---------------------------|--------------------------|-----------------------------|
| Steve A. Abrams KG5MEL | Michael P. Hughes KG5MEM | William T. McPherson KG5MEP |
| Keaton D. Anderson KG5MEQ | | |

General Class Licenses Processed

| | |
|------------------------|-------------------------|
| John A. Edwards KG5MEO | Samuel J. Furman KG5MEN |
|------------------------|-------------------------|

Extra Class Licenses Processed

| | | |
|---------------------------|----------------------------|-------------------------|
| Crockett L. Grabbe KF5LTT | Steven J. Schreiber KG5LAA | Matthew A. Theis KG5LVT |
|---------------------------|----------------------------|-------------------------|

Examiners Participating in this Test Session (*corrected*)

| | | |
|-------------------|-------------------|---------------------|
| David Boren W5DKE | Milt Cram W8NUE | Larry Gunter WB5BEK |
| Gene Hinkle K5PA | Joe Makeever W5HS | Rob Porter K5FAR |

Next ARRL VE Test Sessions

April 2nd - Bethany United Methodist Church, Disciple Bldg. Room 203/204

May 7th - Bethany United Methodist Church, Disciple Bldg. Room 203/204

TNX ES 73 DE W5HS

Joe

3-19-16

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

Technician Class (NEW)

| | |
|-----------------|-------------|
| Kevin Klaus | Jason Brock |
| John Allen, Jr. | Matt Phelps |

General Class

Lee Nuckols (New)

Extra Class

| | |
|-----------------------------|----------------------|
| Victor Neshyba, Jr., KF5WCX | John Oventile, K5TXY |
|-----------------------------|----------------------|

Our administering volunteer examiners were:

| | |
|-------------------|----------------------|
| Craig Bean, AC5KW | Gregory Dew, AF5ZB |
| Bill Duke, AF5JD | David Glosson, N5DPG |

Our next two amateur radio exam sessions will start at
2 PM on April 16th and March 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/>

ARRL Establishes “Youth Nets” Web Page

The ARRL has created a new web page aimed at youth participation in amateur radio. The new “Youth Nets” page (<http://www.arrl.org/youth-nets>) is a listing of Amateur Radio nets around the country to help youth find someone to talk to. The list is somewhat short at the moment, but adding a listing is quick and easy and the ARRL invites any nets aimed at young radio amateurs to post and share their information. The listed nets appear to be 2m and 70cm at the moment, but most include Echolink node information for those who may be out of range or want to expand their “circle of friends”.

This seems like a good opportunity to get youth more involved, especially during those times between bigger events such as Field Day, Kids Day, and School Club Roundup. It is believed that regular participation in a net helps to develop operating skills and confidence, and builds connections within the community of young hams.



Source: <http://www.arrl.org/news/arrl-establishes-youth-nets-web-page>

(Continued from page 1)

experiment and communicate in frequency bands strategically located throughout the radio spectrum. From the 25 countries that formed the IARU in 1925, the IARU has grown to include 160 member-societies in three regions. IARU Region 1 includes Europe, Africa, the Middle East, and Northern Asia. Region 2 covers the Americas, and Region 3 is comprised of Australia, New Zealand, the Pacific island nations, and most of Asia. The International Telecommunication Union (ITU) has recognized the IARU as representing the interests of Amateur Radio.

Today, Amateur Radio is more popular than ever, with over 3,000,000 licensed operators!

World Amateur Radio Day is the day when IARU Member-Societies can show our capabilities to the public and enjoy global friendship with other Amateurs worldwide.

We have provided a poster for World Amateur Radio Day. Any club may download it and use it to promote WARD in their area. The poster comes in two sizes: [61cm x 91cm](#) and a [small \(A4\) flyer](#).

Groups should promote their WARD activity on social media by using the hash tag [#WARD2016](#) on Twitter and Facebook. IARU will list all WARD activities on this page. To have your WARD activity listed, send an email to ARRL Public Relations Manager [Sean Kutzko, KX9X](#).

April 18 is the day for all of Amateur Radio to celebrate and tell the world about the science we can help teach, the community service we can provide and the fun we have.

We hope you will join in the fun and education that is World Amateur Radio Day!

| | | | |
|------------------------------|-----------------|--------|-------------------------------|
| President | Don Dudley | AC5YK | president@austinhams.org |
| Vice President | Lew Thompson | W5IFQ | vice-president@austinhams.org |
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| 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 | No | General |
| 146.940 107.2 PL Tone | No | Most popular, WX, Swapnet & Newsline |
| 224.800 | No | |
| 444.100 | No | |
| 444.200 107.2 PL Tone | No | |
| 440.650 +5 | No | 70cm D-Star Repeater [W5KA B] |
| 146.780/ -600kHz | No | 2m D-Star Repeater [W5KA C] |
| 1293.100/-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.

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Viewpoints expressed in the AARCOVER do not necessarily reflect those of any club, or of its members, directors, or officers. Material quoted from the ARRL Letter is supplied by the American Radio Relay League, Inc.

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.

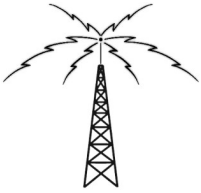


For Changes in your ADDRESS, PHONE NUMBER or CALL SIGN:

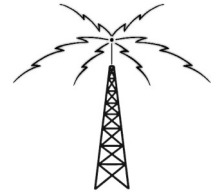
See Jay Hoffman, KA5OST

ka5ost @ arrl.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)

Looks like the academians at UT-Austin are dabbling in antenna design:

Researchers in the Cockrell School of Engineering at The University of Texas at Austin have designed an antenna that is able to process incoming and outgoing radio-wave signals more efficiently and without the need for separate bulky and expensive electrical components commonly used in antenna systems. This new technology could lead to significantly faster, cheaper and clearer telecommunications in the future.

See the full article at:

<https://news.utexas.edu/2016/03/14/engineers-invent-next-generation-antenna>

(link found in Austin Hams Yahoo group, 73 de k5gp gene)

AWESOME LINK OF THE MONTH!!!

Necessity is the Mother of Invention

Homebrew rigs have always fascinated me. Using bits and pieces of stuff that are laying around to build something is a challenge. And especially so for a prisoner of war. Check this out!

<http://www.k0nr.com/wordpress/2015/11/pow-canteen-radio/>

K3MT's "Grasswire Antenna" / April, 1997

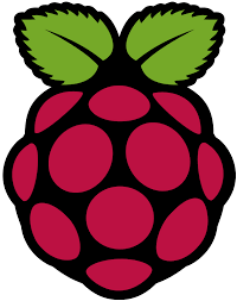
Deed restrictions got you down? Neighbors intimidating your tower plans? Need a really easy portable HF antenna? Then the grasswire may be the answer! Virtually invisible, lightweight, and compact (you can carry one in your hip pocket), this antenna works! It has been used by K3MT in various installations for more than 10 years.

Read on - and listen to the "experts" telling you that this is hogwash, that an antenna like this can't work. But it does. And true experts, who have taken a decade or more to come to grips with the intricacies of Maxwell's Math, know why it works.

This antenna will not out-perform a yagi, or a decent dipole up a half wavelength. Not in gain or signal strength, at least. But it will survive an ice storm, wind storm, and is practically immune to lightning. And it doesn't need a large tower or tall support.

Curious? Read the article at http://f5ad.free.fr/Liens_coupes_ANT/G/K3MT%20Antenne%20gazon.htm

New Raspberry Pi 3 Sports a Faster Processor... Sweet!



Four years ago the Raspberry Pi Model B SBC (Single Board Computer) was released with 256MB of RAM. According to the Raspberry Pi web site, they've shipped over eight million units, which includes three million units of Raspberry Pi 2. What? You haven't picked one up yet? Don't worry. You haven't missed the boat. They've just released the Raspberry Pi 3, on sale, at the same price as the existing Raspberry Pi 2!

This new slice of computing power features: a 1.2GHz 64-bit quad-core ARM Cortex-A53 CPU (about 10 times the performance of the first Pi), integrated 802.11n wireless LAN & Bluetooth 4.1, and complete compatibility with versions 1 and 2.

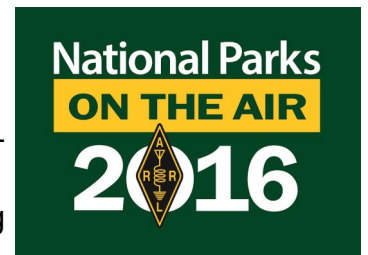
What can you do with a Raspberry Pi? How about building a Linux-based amateur radio repeater controller (<https://openrepeater.com/>)? Or connect one to your transceiver to make an Echolink station (<http://www.instructables.com/id/Raspberry-Pi-for-Amateur-Radio-VOIP-Echolink/>)? Want to build your own SDR transceiver? Check out this link at RTL-SDR.com (<http://www.rtl-sdr.com/building-a-ham-transceiver-with-an-rtl-sdr-raspberry-pi-and-rpitx/>). Other projects I've seen include an ADS-B (Automatic Dependent Surveillance-Broadcast) flight tracker to track aircraft, a WSPR (Weak Signal Propagation Reporter) station, an APRS (Automatic Position Reporting System) tracker, and a complete PBX (Private Branch eXchange) system which can run quite well on Broadband Hamnet. It's like having your very own phone system without paying Ma Bell. And there's much, much more!

Reference: <https://www.raspberrypi.org/blog/raspberry-pi-3-on-sale/>

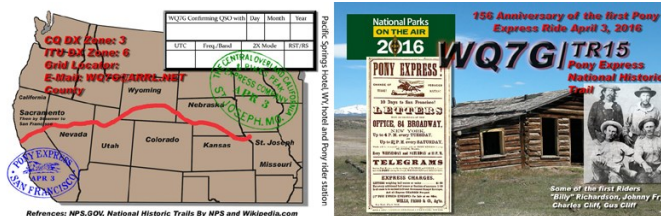
One Ham's Designs on National Parks

(QRZ.COM)

National Parks on the Air is a big deal event for the Department of the Interior, but also for Quentin Gardner, **WQ7G**, of River Heights, Utah. He's been busy designing special QSL cards for each activation in his plans, beginning with the Pony Express Trail, TR15, southwest of Salt Lake City. Listen for him on the air on Tuesday, April 5 at 2000 UTC until Wednesday, April 6, 0200 UTC. He also plans to activate the Golden Spike National Historic Site, NS31, in May, marking the 147th anniversary of the completion of the first Transcontinental Railroad. Yes, there's a custom-designed card for that too - so listen for him from 2000 UTC on Tuesday, May 10 through 0200 UTC on Wednesday, May 11.



His other intended sites include Mormon Pioneer National Historic Trail, the Fossil Butte National Monument, the California National Historic Trail and the Craters of the Moon National Monument. You might say these national parks aren't just in his plans - they're in the cards.



Sample QSL card from QRZ.COM

News About the Newsletter

Please join me in thanking **Mitch London, KD5HCV**, for the many years of wonderful service he provided as Editor of the AARCover newsletter. Mitch tirelessly wrangled up articles, news, and many other tidbits of information for the newsletter. However, he decided to pass the torch on and give someone else an opportunity to lead while he takes time off from the spotlight. He's not disappearing totally, though. You'll still see him at meetings. And when you do, please be sure to say... **Thank you, Mitch!**

But now what? What's happening to the newsletter? That's where I come in. Allow me to introduce myself. I am **K5MSK**, otherwise known as *Michael ("Mike") Skurka*, in other circles. I have only had my ticket (General class) a little less than three years, but I've been an enthusiast for many years. I dabble in hobbyist electronics (Arduino, PIC, and others) and software (I'm a Linux nerd). My day-time job is helping secure Texas' electric grid in my duties as a Senior Cyber Security Analyst. I've joined the Travis County & Williamson County ARES groups and participate in weather nets and volunteering when I can (Kite Festival, Trail of Lights, etc.).

As your new editor, I have an idea or two I'd like to incorporate here, so don't be too surprised if you see changes in the coming months. Nothing *too* drastic, mind you, but maybe a somewhat regular "column" or two to pique interests, i.e. perhaps a Q&A for new hams to go along with the Elmer Net. Also, if there's anything I can do to make this newsletter more enjoyable and informational to you, please do not hesitate to contact me. You can reach me at editor@austinhams.org. Keep in mind, I *don't* know everything, and I don't pretend to either. But if I don't have the answer, I will be happy to help find an answer for you, and to educate myself in the process, too. 73 from K5MSK

Just for Fun

Q. What hobby do pigs like?
A. *Ham* Radio!

A Few Famous Hams...

K9EID Bob Heil, legendary sound engineer to *The Eagles*, *The Who*
KB2GSD Walter Cronkite (SK 2009), TV journalist
KB6LQR Jeana Yeager, pilot/adventurer, Voyager 'round the world flight in 1986
KB6LQS Dick Rutan, pilot/adventurer, Voyager 'round the world flight in 1986
KD6OY Garry Shandling (SK 3/25/2016), comedian, actor, TV writer and personality
KE6PZH Marlon Brando (SK 2004), actor, private name: Martin Brandeaux
N6YOS Priscilla Presley, actress (wife of Elvis Presley), private name: Lou Lou Beaulieu
W5RRR Johnson Space Center Amateur Radio Club, Houston TX
WB4KCG Ronnie Milsap, singer/songwriter
WB6ACU Joe Walsh, singer/songwriter (*The Eagles*)

Word Search

Can you find all the words and terms related to Amateur Radio? Words may be forward, reverse, up, down, or diagonal.

V H S L L S K Y W A R N H Q Q O
W O S C I L L A T O R B N R H S
R A J F X N O G R S S E O Q S F
E T T X L I M Y D D W S I C B D
V Q R K E Q D N T I S K T M A O
I R C A P L U T M T N C A I N Y
E Z E K N O P P X O R N L D D C
C J Z T R S E M I J O B U Y W N
E H S G A D M T I I G X D A I E
R C K K A E A I S S Z A O D D U
O H O N A G P S T L W B M D T Q
O W C N A F I E K T A O L L H E
R E M P T M T R R L E O S E F R
H S O G E E Q J U L M R W I M F
V R D X M T S N T R O G R F S B
P K S H U Y Y T J A N N E T N A

| | | |
|-----------|-------------|-------------|
| ANTENNA | FREQUENCY | REPEATER |
| BALUN | GROUND | RTTY |
| BANDWIDTH | IMPEDANCE | SIMPLEX |
| CONTEST | MODULATION | SKYWARN |
| CTCSS | OSCILLATOR | SWR |
| EMISSION | PROPAGATION | TRANSMITTER |
| FIELDDAY | RECEIVER | |

Meeting Minutes — AARC General Meeting, 1 Mar 2016

Start: 7:03 pm

Attendance: 53 members

Visitors: Six visitors. Welcome!

New hams: One new ham—congratulations!

New members: none

Upgrades: none

Call sign changes: none

Approval of minutes: Minutes of the February meeting were approved as distributed in the AARCover.

Announcements:

General:

- ◆ Stuart Rohre, K5KVH: Mast and rotator now on replacement tower. Beam is now within wind load. Now moving on to replace some hardware. Will announce on Austinhams.org when we need help working on these tasks.

Events:

- ◆ Check the swapnet newsletter

Officer and committee reports:

- ◆ Jay Hoffman, KA5OST, treasurer: We have money. We can also do AARC name badges. Finances detailed in a handout.
- ◆ Angie Steelman, KF5ZXI, secretary: 53 sign-ins last month. Please sign in.
- ◆ Don Dudley, AC5YK, president: waiting until the end...
- ◆ Lew Thompson, W5IFQ, vice-president: My task is to provide programs. Next month Tom White-side, N5TW, will be talking about lightening protection. May - visiting scientist from Arecibo. June: considering field day preparation. I will look to station captains for presentations
- ◆ Mitch London, KD5HCV, newsletter editor: Passing of W5SIO is in the newsletter. Always looking for articles. This was officially the last one - we'll see how it goes.
- ◆ Stuart Rohre, K5KVH, technical committee: No repeater status reports. If there's an issue or problem, submit it via the club website.
- ◆ Kerby Spruiell, KG5DLD, ARES: We're having good programs with ARES. At the last meeting, we had Lee Cooper talk about unity of effort between ARES, MARS and RACES. We also had John Stratton talk about coming changes from ARRL, particularly changes in leadership and publications as well as increased emphasis on emergency communications.
- ◆ Rick Kirchoff, NG5V, BBHN: Meeting is on the second Wednesday, still at CATRAC, concentrating on field skills. New title: field skills laboratory for BBHN.
- ◆ Don Dudley, AC5YK, president: Survey results. 55 responses. Near Breaker and 183 was the most popular location. Food is less important, perhaps we will follow the Williamson county model with refreshments. Accessibility is important, public transportation was not important. Ham radio topics were important, with mid- and more technical presentations receiving ~51 of 55 votes.

Space weather presented by Lew Thompson

Meeting adjourned: 7:53 pm.

AARC Meeting Info.

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

Business Meeting 7:00 pm

April 5 — Lightning Protection by Tom Whiteside, N5TW

Officers Meeting

Officers meet from 6:00 to 7:00 pm prior to regular club meeting and is open to all. Contact an officer for more information.

2016 Upcoming Amateur Exams

ARRL VEC— April 2nd & May 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- April 16th & May 21st
2p.m. in room 207, Fleck Hall, St. Edwards Univ.
Contact Craig Bean, AC5KW@arrl.net, (474-6443) for more info.

2016 Calendar of Events

April 7-10 / ADRF (Amateur Radio Direction Finding) Championships <http://www.homingin.com/>
Primary site—Parrie Haynes C5 Youth Ranch and Equestrian Center near Killeen

April 8 / Oklahoma State Convention (Green Country Hamfest) <http://greencountryhamfest.org/>
Claremore Expo Center, 400 Veterans Parkway, Claremore, OK 74017 / Contact: Merlin Griffin, wb5osm@hotmail.com
918-520-7668
Talk-in: 147.09 / PL 88.5

April 9 / STEAM event
<http://austinvoices.org/event/eastside-steam-fest/>
Martin Middle School, 1601 Haskell St., Austin, TX 78702.
10:00am to 2:00pm.
(FYI: STEAM=Science, Technology, Engineering, Art, Math)

April 15-16 / Belton Hamfest Admission \$5
<http://www.tarc.org/hamexpo/> or
<http://www.beltonhamexpo.org/>
Talk-in: 146.82(-) PL 123.0

April 16-17 / MS150 Hou-LaGrange-ATX Bike Tour Mandatory Train/Packet Pickup Meetings: Houston area 4/11/16 @ Houston MS Office; Austin/San Antonio area: 4/9/16 @ San Marcos Hotel Conference Room
ms150sags@gmail.com
Note: During this weekend, bike ride traffic will have priority on the 444.200 W5KA repeater

April 23 / Red Poppy Ride
Craig, W5TSN, cboegler@suddenlink.net

April 24 / WCARC Spring Picnic
San Gabriel Park Arbors, 4pm-evening
<http://www.wcarc.com/>

Upcoming Meetings...

| Apr | May | Austin Meetings/Happenings | Time | Address |
|------------|------------|--|-------------|----------------------|
| 5 | 3 | AARC Meeting Baby A's | 7:00 p.m. | 9505 Stonelake Blvd. |
| 26 | 24 | Travis County A.R.E.S. Pickle Research Ctr | 7:00 p.m. | 10000 Burnet Rd. |
| 28 | 26 | CERT Meeting, CTECC | 6:30 p.m. | 5010 Old Manor Rd. |
| 25 | 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