

AARC OVER

*Keeping
Austin
Wireless...
Since 1919*



*Now
in our
101st
Year!*

AARC

Bulletin of the
Austin Amateur Radio Club

ISSN 1067-0262

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May, 2020

Austin Amateur Radio Club Meeting for May 5 will be held ONLINE!

Continuing adherence to social distancing mandates, the AARC meeting will be held online, Tuesday May 5, 2020 at 7:00 p.m. using the Zoom app. If you do not have Zoom, you may download the free application from the Zoom website for your desktop, laptop, or tablet. It can also be loaded on your smartphone from the iPhone or Android Stores.

<https://zoom.us/Download>

Zoom will allow the group to see the PowerPoint presentation online, as well as allowing the whole group to hear the speaker. While presentations are in progress **please mute your microphone** so the whole group will not hear background noise from your location. If you would like to ask a question, you can select "*Raise Your Hand*" from the application menu and the speaker will recognize you to take your app off mute. Then return to mute after you have finished.

The *Raise Your Hand* feature will also be used for any votes necessary during the meeting. After voting, please *Lower Your Hand*. You will also have the option to only see who is speaking or a view of all participants, with the speaker outlined in green.

We are looking forward to seeing and hearing from you during our regular meeting date and time. We also would like to express our appreciation to Clear Blue Sky Digital for allowing the club to use Zoom Pro at no charge to the club.

Kerby Spruiell, AARC President

The Austin Amateur Radio Club

Monthly Meeting - May 5, 2020

Topic: **Remote Operations of Amateur Radio on HF**, by VA3MW, Michael Walker

Solar Weather, by W5IFQ, Lew Thompson

Time: **7 p.m. to 9 p.m.** , Central Time, Tuesday, May 5

An email will be sent with meeting details as the date approaches.

Make sure your email address is up-to-date on the austinhams.org site.

Please do not post meeting info on social media or transmit via the radio.

Unfortunately, QRM is likely and expected if the meeting is published publicly.

***If you don't receive the meeting info,
please contact an officer for the meeting link and password.***

Contact info is on the last page.

Note 1: You can join the audio portion by phone or using your computer's audio. If you need to speak, you will need a headset with microphone to prevent feedback. If you do not need to speak, you can simply use your computer speakers to listen.

Note 2: If you have not used the Zoom teleconferencing app before, you may want to visit the pages below for some hints and tips on participating in the meeting:

<https://www.wired.com/story/tips-for-using-zoom/>

<https://thewirecutter.com/blog/use-zoom-like-a-pro/>



Using a Signalink Interface with Multiple Radios

by Michael Skurka, K5MSK

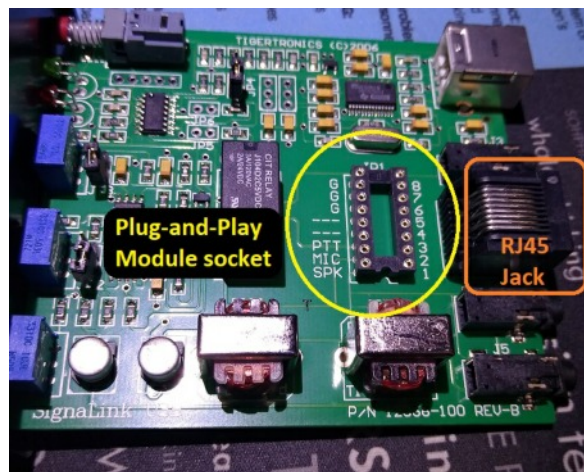
A Signalink USB is a handy interface for connecting a transceiver for digital operations. It has both 3.5mm audio jacks for connecting separate cables to speaker and microphone jacks on the transceiver as well as an RJ45 for connection to the “data” jack on a transceiver. This RJ45 jack allows the Signalink to be used with many different radios by simply plugging in a jumper module for the desired radio. The jumper module is essentially a set of jumpers that connect the pins from the RJ45 to the appropriate signal lines in the Signalink. It’s just a few jumpers that need to plug into a socket in the Signalink.

Of course, you have to have the correct cable from the RJ45 to the transceiver. In my case, it’s an RJ45 to 6-pin mini-DIN cable that is common among several different transceivers. It works on my FT-897D, FT-991A, and FTDX1200. I’ll need another cable for the Kenwood TM-281A and any other radio I may want to use.

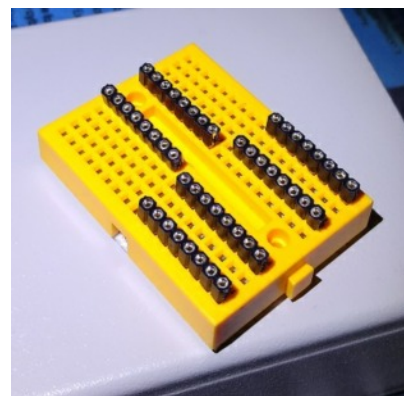
In my case, I want the ability to use the Signalink on any of these radios on a given occasion. Tigertronics sells the plug-and-play jumper modules for \$9.95 each.

While opening up the Signalink for every different radio isn't ideal, it is a more cost-effective option than buying more Signalink interfaces. But being the cheap ~~operator~~, uh, frugal operator that I am, I chose to “waste” time making my own modules to use one interface on different radios.

Hey! That’s a standard DIP socket! And I have some 0.1” headers that would work great to make my own jumper modules.



And since these are standard 0.1” headers, they fit perfectly in a standard breadboard. That will hold the jumpers in alignment while I insert the appropriate jumpers.



Let’s get started and plug in some wires!

(continued on page 5)

AMATEUR RADIO EXAM - TEST RESULTS

No exam results for ARRL VEC for the month of April.

Please visit http://www.austinsummerfest.org/VEC/ARRL_1st_Sat_Exams.html for details and list of scheduled exams.

NOTE: The **MAY** exam is **canceled** as the test site is not available due to Church coronavirus contagion concerns.

TNX ES 73 DE W5HS

Joe

The South Austin W5YI VE exam for April was canceled due to the closure of St. Edward's University in response to COVID-19.

The amateur radio exam sessions normally start at 2 PM on scheduled test dates 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).

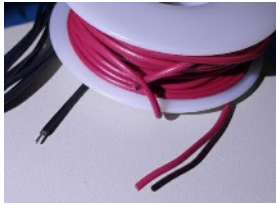
For additional information regarding our amateur radio examination sessions, please contact Craig, AC5KW at (512) 474-6443 or by e-mail to [craigmb5 /at/ gmail.com](mailto:craigmb5@atgmail.com)

Please visit AustinHams.org for current information about ham radio exam sessions returning.



Using a Signalink Interface with Multiple Radios

(continued from page 3)



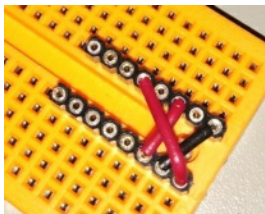
I'm using plain ol' solid wire to make the jumpers I need.

Using the jumper information on the Signalink support pages on their website, I measured the wire I needed and prepared a jumper. Here's the first one (top left).



After inserting the first jumper, I checked the alignment to make sure spacing was unchanged.

One of the jumpers needs to cross over a couple of others. I formed the jumper so that one of the insulated legs was longer, to help reach over the existing jumpers.



Since I'm planning on using the Signalink with more than one radio, I've added a "handle" by making one of the jumpers a little longer.

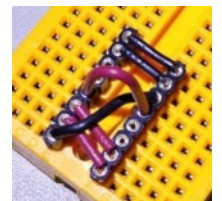


After all the jumpers were in place, I used the good ol' hot melt glue and bridged the two headers with enough glue for a solid base. I added some glue from the bottom for extra support.



At right is a pic of my second jumper module.

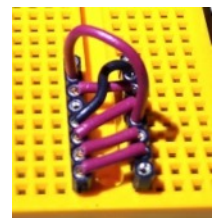
And a third one; both sans glue.



And the final version is inserted into the Signalink (below).



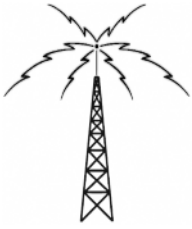
Which is which? I added identifying labels to make sure I get the right one (bottom right).



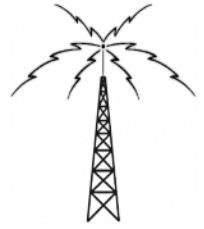
Now it's time to get on the air with digital!

And you?! See the next page (*Over the WWWaves*) for more digital ideas.





Over the W/Waves...



(Note: Some titles added by Editor. All links verified prior to publication.)

FCC Clarification Regarding Remote Amateur License Exam Testing

This should clear up many arguments about amateur license exam testing remotely, especially during COVID-19 stay-at-home orders. Per the FCC's Public Notice released April 30, 2020. "We make clear here that nothing in the FCC's rules prohibits remote testing, and prior FCC approval is not required to conduct remote tests."

Full notice on FCC website: <https://docs.fcc.gov/public/attachments/DA-20-467A1.pdf>

Copy at AustinHams.org: <https://cdn.austinhams.org/docs/fcc/DA-20-467A1.pdf>

Let's Go Digital!

Cheap and easy to build digital modes USB interface for Ham Radio

Don't want to pay "big bucks" for a commercial interface to go digital? Here's an interface built by KB9RLW, Kevin Loughin, that uses an inexpensive USB sound dongle for the audio interface and an Arduino Nano to provide Push-To-Talk (PTT) function. A schematic and Arduino code are provided, as well as a link to his YouTube video about the project.

<http://kb9rlw.blogspot.com/2016/08/cheap-and-easy-to-build-digital-modes.html>

USB Sound Card Radio Interface Project

Another project using off-the shelf modules to build an all-in-one Ham Radio interface for digital modes and contesting. It shows promise with extra features, but it's a work-in-progress and doesn't include a PTT option yet. An operator with minimum skills will have no problem adding this function.

<http://gritzmacher.net/tech-stuff/usb-sound-card-radio-interface-project/>

Yet Another Sound Card Interface Project

OK1RR has a Linux-based advanced ham radio logger based on MySQL database. And he also has a sound card interface project. He offers an explanation of the circuit along with schematic and PCB pattern.

<https://www.cqrlog.com/node/147>

Link to PDF version of project article: https://www.cqrlog.com/files/digi_interface.pdf

Ham Radio Homebrew Soundcard Interface with Cheap Sound Card

You want more options? Here's another with level potentiometers and opto-isolator for PTT. Also with schematic and PCB pattern. The audio narrative is a bit rough, but the circuit looks good.

<https://www.youtube.com/watch?v=bimplJftYXA>

Do you have any favorite links? Send them over to the *editor* [\[\[at\]\] austinhams.org](mailto:editor@ustinhams.org)



Just For Fun...



Word Search

Can you find all the words listed below in this puzzle? The words are taken from articles, news, events, or *anywhere* in this newsletter. Can you find them in this newsletter?

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

APOLLO
 ARDUINO
 CAMPOREE
 DIGITAL
 ELECTRONICS

HURRICANE
 LINUX
 MEMORIAL
 REMOTE
 SCOTA

SECURITY
 SOLAR
 STRANGE
 WHATABURGER
 WINLINK

Action on the Airwaves

Looking for a way to "get out" during COVID-19 lockdown?
 This is just a *sample* of the special events stations.
 Check out more [activities on the air!](#)

NOTE: Due to COVID-19 and shelter-in-place orders around the country, some events may be canceled, postponed, or modified without notice. Check the respective links for current info.

05/16/2020 | Clark County Amateur Radio Club's 90th Anniversary and Mt. St. Helen's Eruption 40th Anniversary Special Event Station
 May 16-May 25, 1400Z-0600Z, W7AIA, Vancouver, WA. Clark County Amateur Radio Club. 14.225 14.030 7.185 7.030. Certificate & QSL. Clark County Amateur Radio Club, P.O. Box 1424, Vancouver, WA 98668.
<http://www.w7aia.org/>

05/16/2020 | WHOA/SCOTA
 May 16, 1300Z-1900Z, W1M, Russell, MA. Western Mass Council-Scouting USA. 7.060 7.190 14.060 14.290. QSL. tom barker, 329 faraway road, Whitefield, NH 03598. paper logging is used--there is a delay in sending out qsl cards--sase is required

05/18/2020 | Memorial Day
 May 18-May 25, 0000Z-0000Z, K1A, Cleburne, TX. Club KC5NX. 14.250 14.045 7.233 7.045. QSL. Club KC5NX, 9200 Summit Court West, Cleburne, TX 76033-8212. K1A will be on the air the week May 18th till the 26th to honor the many lives lost in the service of the United State Military. Sponsored by Club KC5NX deep in the Heart of Texas!
 club.kc5nx@gmail.com or www.qrz.com/db/kc5nx

05/18/2020 | The Indianapolis 500
 May 18-May 24, 0400Z-0400Z, W9IMS, Indianapolis, IN. The Indianapolis Motor Speedway Amateur Radio Club. 18.140 14.245 7.245 3.840. Certificate & QSL. Indianapolis Motor Speedway Amateur Radio Club, P.O. Box 30954, Indianapolis, IN 46230. See the website for ALL information!
www.w9ims.org

05/20/2020 | Apollo 11
 May 20, 1330Z-2030Z, K2CAM, Garden City, NY. Long Island Mobile Amateur Radio Club in support of the Cradle of Aviation Museum. 21.340 14.240 7240. QSL. LIMARC, P.O. Box 392, Levittown, NY 11756. The aerospace industry on Long Island was a significant part of the moon landing project. Much of that history is displayed at the Cradle of Aviation. Visit <https://www.cradleofaviation.org/> or www.limarc.org

05/23/2020 | Gulf Coast Hurricanes Special Event 2020
 May 23-May 27, 0001Z-2359Z, AG5Z, Purvis, MS. Larry Morgan. 3.862 7.250 14.255 21.300. Certificate. Larry Morgan, 96 Oak Haven Rd., Purvis, MS 39475. Stations include W4F Florida, W4A Alabama, W5M Mississippi, W5L Louisiana, W5T Texas, bonus station K5H (Katrina 5 Hurricane). Hurricane experiences discussions are encouraged. For this reason, FT8 contacts will not count. This special event is to increase awareness of the hurricane season that will start on June 1.
<http://www.ag5z.net/>

05/30/2020 | Girl Scout Camporee
 May 30, 1500Z-2000Z, K2G, Kingston, NY. Overlook Mountain Amateur Radio Club. 14.240; DMR Tg 31630. QSL. Overlook Mountain Amateur Radio Club, P.O. Box 48, Hurley, NY 12443. Local talk-in 146.805, -0.6, PL 103.5 <http://www.omarcclub.org/>

Action on the Airwaves

(continued)

05/23-25/2020 | Strange Antenna Challenge

May 23-May 25, 0001Z-2359Z, K0S, Springfield, MO. Erik Weaver, N0EW. 28.400 14.300 7.200 3.900. QSL. Erik Weaver, 4857 E. Farm Rd. 136, Springfield, MO 65809. Antennas for the Strange Antenna Challenge are to be constructed of unusual, make-shift, or debris material that may be on hand following a natural disaster. Past examples include bridges, statues, folding chairs, bed springs, fences, beer/pop cans, tomato cages, and shopping carts. Basically, just do NOT use standard pipe or wire antennas. We encourage any ham who wishes to become their own special event station, by simply appending /k0s onto your own call sign, and you need to respond to your own QSL requests. N0EW will be operating the three letter call sign K0S. This is tons of fun! I encourage you to promote your club with this "strange" event, and let the media know what you are doing!
 erikeweaver@gmail.com



AARC Meeting Info

AARC Monthly Meeting
Tuesday, May 5, 2020 / 7:00pm to 9:00pm

Location: ONLINE - Email invite
See Page 2 for more info

Meeting Topic

Remote Operation of HF Station
(Two types of operating: Occasional & Permanent)
by Michael Walker, VA3MW

Solar Wx Summary, by Lew, W5IFQ

Upcoming Amateur Exams: 2020

ARRL VE - Please visit
http://www.austinsummerfest.org/VEC/ARRL_1st_Sat_Exams.html
for details and list of scheduled exams.

May exam is CANCELED / June is pending

For more info, contact:

Joe Makeever, W5HS (512-345-0800)

W5YI VEC - May Exam-CANCELED / June is pending
2 p.m. In Room 118, Fleck Hall,
St. Edwards University. \$14 fee.

For more info, contact:

Craig, AC5KW [at] ARRL.net

2020 - Calendar of Events

May 15-17 – Dayton Hamvention

(Note: Canceled due to COVID-19 threat)

Greene County Fairgrounds and Expo Center
120 Fairgrounds Road, Xenia, OH 45385

2021 – May 21-23

2022 – May 20-22

Jun 12-13 – HamCom

Keep eye on website for possible change-ups

Plano Event Center

Friday, June 12 12:00 PM - 5:00 PM

Saturday, June 13 8:00 AM - 5:00 PM

<https://sites.google.com/hamcom.org/ham-com/home>

July 11 – Tidelands Texas City Hamfest

8:00 am - 2:00 pm

Charles T. Doyle Convention Center
2010 5th Avenue North

Texas City, TX 77590 United States

Talkin: 147.14 MHz Tone 167.9

(Secondary) 442.025 MHz Tone 103.5

<https://www.tidelands.org/>

Email: hamfest@tidelands.org

Replaced Yahoo Group with: <https://groups.io/g/tidelands>

Jul 24-25 – Central States VHF Society Conference

NOTE: Postponed until **2021** due to COVID-19 threat.

Aug 7-8 – Austin Summerfest

Crowne Plaza 6121 North IH-35 Austin, TX 78752

2020 info TBA on: <http://www.austinsummerfest.org/>

Aug 22-23 – Huntsville Hamfest & ARRL Southeastern Division Convention

Von Braun Center South Hall

700 Monroe St SW, Huntsville, AL 35801

Hours: Saturday 9 AM - 4:30 PM, Sunday 9 AM - 3 PM

Talk-in: 146.94(-) 100Hz, backup 145.33(-) 100Hz

Huntsville's Wide Coverage D-STAR System is W4WBC:

145.36-, 443.425+, 1285+ and 1251 DD

Yaesu Digital Fusion Users: Use 147.14(+) 100Hz

DMR Users: DMR Networked System 442.275+ For Talk

Group info, go to www.N4HSV.net for more and code plugs.

<https://hamfest.org/>

Contact- <https://hamfest.org/contact-us>

Oct 2-3 – Belton Ham Expo (Fall)

Bell County Expo Center, 301 W Loop 121, Belton, TX

<http://www.tarc.org/hamexpo>

Oct 3 – Deep South ARC Hamfest

Deep South Amateur Radio Club / J. C. Davis Auditorium

400 Thompson Blvd. Chickasaw, Alabama 36611

Sandy 251-232-1938 or usnamom@bellsouth.net

<http://k4dsr.com/>

Oct 17 South Texas Hamfest & Electronics Expo

"TEXAS FASTEST GROWING HAMFEST"

San Patricio County Fairgrounds - Event Center

Located at 219 W. 5th Street, Sinton, Texas.

Doors open to the Public 8:00AM - 3:00PM

Talk-In Frequency- 147.08(+) 107.2 PL

<https://squareup.com/store/south-texas-hamfest>

southtexashamfest@gmail.com or call 361-947-5665

<http://southtexashamfest.org/> for details

More info & events listed in the [SwapNet Newsletter!](#)

Visit <http://austinhams.org/swapnet>

Upcoming Meetings...

May	June	Frequency	Austin Meetings/Happenings	Time	Address
5	2	1st Tuesday	AARC Meeting @ ONLINE	7:00pm	ONLINE - See page 2
26	23	4th Tuesday	Travis County ARES @ ON-AIR	7:00pm	ONLINE - See groups.io message
19	16	3rd Tuesday	CTDXCC @ Baby Acapulco	6:30pm	9505-B Stonelake Blvd

* Note: Meetings may occasionally change date or location due to holidays or other events. Check here or their respective websites for updates.

If your club is listed here and has incorrect time or dates, please let us know!

Email: editor [at] austinhams.org

Please include complete details of what needs to be updated.

DUE TO COVID-19 (coronavirus), in-person meetings are CANCELED.
Some are being held online/on-air. Check with their respective leaders for info.

Periodic Events - In the Area and On-the-Air

Sun	7:00 p.m.	Travis Co. ARES net	147.360 MHz - (131.8)
Sun	1900-Wed 2359	Travis Co. ARES WinLink Wednesday	145.730 MHz
Sun	8:00 p.m.	Williamson Co. ARES net	146.640 MHz - (162.2)
Sun	9:00 p.m.	AARC SwapNet	146.940 MHz - (107.2)
Mon	7:30 p.m.	STX ARES Net	3.873 MHz
Tue	7:30 p.m.	Hays ARES net	147.100 MHz +
Tue	8:00 p.m.	Bastrop ARES Net	443.750 MHz + (114.8)
Wed	10:00 a.m.	Ham Social Brunch, Jim's	146.940 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	444.100 MHz+
Thu	11:45 a.m.	Lunch, Whataburger, ONLINE	146.940 - (107.2)
		Contact Gene at wa5ac for instructions to receive invitation to meetings	
Fri	8:00 p.m.	6m SSB Net	50.230 (texasvhf.org/)
Sat	7:00-8:30 a.m.	Breakfast @ Waterloo Ice House	444.100 MHz +
Sat	9:00 a.m.	Chapter 67 QCWA QSO Net.	3.920 MHz LSB
Sat	7:00 p.m.	AARC Elmer Net	146.940 MHz - (107.2)
Daily	6:30 p.m.	Central Texas Traffic Net	147.140 MHz+

THIS SPACE FOR "RENT" (aka **Call For Articles**)

For "Rent"? Sort of... Rather, do you have any news of interest to the AACROVER readers. Have you run across some amateur radio related news items? How about links to homebrew projects or new equipment?

I've run out of prepared material and am interested in articles for publishing in this newsletter. Personal experiences are fantastic! Have you worked or played with a new technology - like the digital methods mentioned in this newsletter? Or maybe you're one of the more experienced operators in our community. What changes have you seen in amateur radio throughout the years?

You don't have to be a Pulitzer Prize winner to submit an article. I'll take anything, but would love to get articles that are at least two pages in length (single-spaced). Photos are great, too! Please remember, any submissions need to be free of copyrights. Creative Commons are okay, but I will need references to be able to publish them with attribution.

Thanks & 73 DE K5MSK, Editor

IMAGE CREDITS

Page 9, Radio Wave background image © [Can Stock Photo Inc.](#) / italianestro
Page 10, Fun Zone, © [Can Stock Photo](#) / iqoncept

Minutes of the Regular Membership Meeting of April 7, 2020

The Austin Amateur Radio Club (AARC)

First Virtual Meeting on Zoom hosted by Mark Jenkins & Clear Blue Sky Digital

Meeting started by Kerby Spruiell at approximately 7:00 pm as people logged on.

New Members: KJ5T Steve and K5ANM Al White

Visitors: AD5L Hal, N5YHF Adam Barklett, KI5BPK Gil, KF5FDH Eric Lundquist

Upgrades: KE5WAN upgraded to Extra

Ham of the Month virtual nominations: Mark Jenkins is April Ham of the Month. Lew Thompson nominated Mark Jenkins, club treasurer & hosting Zoom meetings and more. There were no other nominations and no objections.

Old Business: Treasurer Report – Renewed liability insurance and emergency trailer & all repeater gear and our own liability, this is the biggest expense of the month. Cost a little over \$1,000.

Special Interest Groups:

- **ARES:** Michael Marks - Still having weekly voice nets at 19:00 on 147.36 and Winlink nets. More information on TCARES.Org, KG5RXG [[@]] arrl.net for questions.
 - Brief Weather Net the other night when National Weather Service activated a warning. Only lasted about 15 minutes until warning ended for Travis County. We had 17 check-ins.
- **Technical Committee:** Roy Walker instrumental in compiling list of club equipment and active with SOC.
- **Copeland Scholarship Committee:** Have a number of applications in and the committee will be reviewing those and awarding scholarships.
- **Greenwood Scholarship:** We contacted ninety-one schools to tell them about the scholarship. We have received two applications this week

COVID-19: Shelter in place. Use free time to join various nets

New Business: Could we use Zoom for other things? Mark would have to set up to use his company copy. Can use free version if under 40 minutes. Other possibilities are Jitsi, which we use for Waterloo (*Saturday breakfast –Editor*). Cisco WebEx has a free account with no time limit. These will be posted on the website. (*See below –Editor*)

Program: Solar Weather by Lewis Thompson W5IFQ, cycle 21 to 24

ZoomBomb: Interrupted program. Restarted session with a password and Lew continued with a great program. Lesson learned is always have a password on Zoom (*and all online meeting platforms –Editor*).

Attendance: 58 at the beginning & 41 after ZoomBomb.

Meeting dismissed at 8:21 PM by Kerby Spruiell

Submitted by Joan Cox KD4SRD, Secretary



ONLINE MEETING PROVIDERS

Zoom: <https://zoom.us/>
Cisco WebEx: <https://www.webex.com/>
Jitsi Meet: <https://jitsi.org/>

Visit websites for details, features, and limitations. Note: Some features require a paid account.

Security Reminders: Use a password on all online meetings.
Do **not** post links & passwords on social media or websites.
Only distribute meeting notices in a controlled manner.



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

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

CLUB REPEATERS

AARC maintains the following repeaters:

Frequency (MHz)	PL Tone (Hz)	Use / Notes
146.780 (-)	-	2m D-STAR repeater [W5KA C]
146.880 (-)	107.2	Analog/Digital Fusion (Yaesu)
146.940 (-)	107.2	Most popular, TCARES WxNet, SwapNet
224.800	-	-
440.650 (+5)	-	70cm D-STAR repeater [W5KA B]
444.100	-	-
444.200	107.2	-
1293.100 (-20)	-	23cm D-STAR repeater [W5KA A]
1248.200	-	23cm D-STAR DD (data, simplex/Reversible) [W5KA A]

Persons using the repeaters are encouraged to join the club to help support these valuable resources.

Note: **No** AARC repeater has **auto-patch** capability any longer.

The Austin Amateur Radio Club offers annual scholarships to licensees living in Travis, Williamson, Bastrop, Hays, Blanco, Caldwell, and Burnet counties. Please see <http://austinhams.org/scholarships> for more information.

OFFICERS

President	Kerby Spruiell	KG5DLD	president [at] austinhams.org
Vice President	Lew Thompson	W5IFQ	vice-president [at] austinhams.org
Treasurer	Mark Jenkins	W5MPJ	treasurer [at] austinhams.org
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