



Yavapai Signal

The Yavapai Amateur Radio Club – Prescott, Arizona – DM-34 – Volume 33 – No. 4 – April 2018

Upcoming Club Events				
Event	Date	Time	Place	Contact / Info:
General Meeting	TH 04/05/18	1900 MST	Prescott Rodeo Grounds	Club Website
YARC Breakfast	TH 04/19/18	0800 MST	BackBurner Restaurant, Prescott Valley	Don WB7TPH or Jeff WB7RFY
General Meeting Programs — See page 4.				
Public Event Communications — Schedule— See page 6.				
General Class License Test Preparation — Schedule — See page 6.				
Foxhunt — Schedule — See page 11.				

YARC:	Badges	Patches	Shirts
Features:	Name & Call	Club Name & Logo	With or Without Name & Call
Contact Person(s):	Mike Reid N7IEP	Mike Reid N7IEP	Pete Morrison K6VVR
Cost:	\$7.00 each	\$3.00 each	Without Name & Call \$20.00 — With Name & Call \$24.00 each

Club Website Registration
In order to receive the <u>Signal</u> (the club's official newsletter), you must be a member of the club. Make sure your email is correct by logging into our website (www.w7yrc.org), then clicking on the members tab and viewing your profile.

Welcome to the Yavapai Amateur Radio Club

The Yavapai Amateur Radio Club (YARC) is an ARRL affiliate Special Service Club. The club participates in many activities in the quad-city (Prescott, Prescott Valley, Chino Valley, and Dewey-Humboldt) area by providing communications for local events, emergency communications, and promotion of the hobby throughout the community.

Membership in YARC is open to any interested amateur or non-amateur alike. Dues are \$20.00 per year (full-time students \$15). YARC general meetings are at 1900 MST on the first Thursday of every month at the Danny Freeman Building, Prescott Rodeo Grounds, 840 Rodeo Drive in Prescott.

www.w7yrc.org

YAVAPAI AMATEUR RADIO CLUB – PO BOX 11994 – PRESCOTT AZ 86304-1994

Club Nets

Band	Mode	Frequency	PL	Night	Time
2M	FM	147.260 MHz	+103.5 Hz	Wednesday	1900 MST
2M	SSB (USB)	144.250 MHz	N/A	Wednesday	2000 MST
10M	SSB (USB)	28.440 MHz +/- QRM	N/A	Thursday	2000 MST
1¼M	FM	224.080 MHz	-156.7 Hz	Wednesday	1930 MST
¾M	FM	447.650 MHz	-100.0 Hz	Saturday	0900 MST

Yavapai County ARES/RACES Nets

2M	FM	147.260 MHz	+103.5 Hz	Monday	1830 MST
2M	FM	145.290 MHz	-127.3 Hz	Monday	1900 MST

Club Repeaters

2M	FM	146.880 MHz	-100.0 Hz	Open Use 24/7	Open Use 24/7
¾M	FM	447.650 MHz	-100.0 Hz	Open Use 24/7	Open Use 24/7

Share Your Surplus Items

Bring any ham related surplus items that you no longer need to the next club meeting. There will be a table at the meeting where your items can be placed. Let your fellow club member take those things that they want. The table will be available at each monthly meeting.

Canned Food Donations

Bring your non-perishable food items to the monthly club meetings and Terry Pemberton KB7TRE will take them to the local food bank. Give your bagged items to Terry.

New Members

The following new YARC members were voted in at the March 1, 2018 general meeting. Please introduce yourself to them and make them feel welcome:

Andrew Scotto KI7GTH

David Arntz N7NRE

Charlie Sullivan KD6WZW



From the President's Desk
by Kathy Laing, KJ6KMK

The annual **YARC Party** will be held on **April 7, 2018** at the Centennial Center at Antelope Hills at the Prescott Airport. Please be submit your reservation online at

www.W7YRC.org

under [<Join Us>](#) and the [<Shopping Cart>](#). The menu and prices are the same this year as they were in 2017.

The 2018 draft budget and the revised YARC Bylaws were passed at the March general meeting. Please take a few minutes to review the new bylaws on the [Members-only](#) web page.

Please look at the request for volunteers that I have posted in this [Signal](#). We need help with a Program Chairman and a Public Information Officer. Anyone who is willing to help can contact me at the above email address. We will give a lot of assistance to anyone who volunteers.

Volunteers Needed for 2018

Program Chairman – Don Bauer, WB7TPH, has been the Program Chair, but due to other responsibilities would like to retire from this position. The program chair is responsible for obtaining speakers for the club meetings each month. Please send me an email to KJ6KMK.YARC@gmail.com if you are interested.

Public Information Officer (PIO) – Don Bauer, WB7TPH is the current PIO; however he needs a second-in-command willing to learn how to work with the media to publicize the club's activities. If you are interested in learning how to work with the media or have experience working with the media, Don would really like to hear from you.



Mike N7IEP

TREASURER'S REPORT Feb 2018	General Fund	Repeater Fund	Prescott Hamfest Fund
BEGINING CASH -January 31, 2017	7,167.01	3,478.45	2072.45
Dues	198.00	22.00	
YARC Annual party	95.00		
50/50 drawing	53.00		
PHF 2018 Ticket Sales			310.00
Misc. < \$50	30.02		(1.77)
TOTAL INCOME	376.02	22.00	308.23
NRA Event – Terry KB7TRE	54.15		
Training Books – Kathy KJ6KMK	50.00		
Appreciation Plaque – Kathy KJ6KMK	57.85		
Misc. < \$50	116.42		
TOTAL EXPENSES	278.42	0.00	0.00
CASH – February 28, 2017	7,264.61	3,500.45	2380.68

* * Detailed statements are posted on www.W7YRC.org

General Meeting Programs
<p>March Program – For the March club program, Doug Theriault NO1D and John Laing K7PRS will be presenting “Part II - Tips to Optimize Your Station and Make It More Effective”. You can find Part I and Part II of this presentation on the club website at http://www.w7yrc.org/club-program- presentations/. In addition, previous presentations by Doug have also been posted to that website. Many thanks to Doug and John for this very interesting and useful presentation.</p>
<p>April Program – Terry Schultheiss KG7BAM will be presenting “Emergency Preparedness” at the April 5, 2018 YARC general meeting.</p>
<p>May Program – ARRL Arizona Section Manager Rick Paquette W7RAP will be visiting our club on May 3, 2018 to give an update about the ARRL Arizona Section.</p>

February 22, 2018 Board of Director's Meeting

=====MINUTES=====

Present at Meeting: Kathy-KJ6KMK, John-K7PRS, Frank-K8FB, & Dave-W7BJ

Absent: Joe-KG6IDN, Art-KA5DWI, Don-WB7TPH & Mike-N7IEP

Due to the lack of a quorum no business of the club could be conducted. All applicable agenda items will be placed on the next meeting agenda.

March 1, 2018 General Meeting

=====MINUTES=====

Meeting called to Order by KJ6KMK at: 1900 MST

Pledge of Allegiance led by: Kathy-KJ6KMK

Welcome Visitors: Steve Duck – KW7S of Dayton, Oregon

Treasurer's Report and General Meeting Minutes: The February 2018 Board and Member meeting minutes and the January 2018 Treasurer's report has been published in the March 2018 Signal (General fund- \$7167.01, repeater fund - \$3478.45, Hamfest fund – \$2072.45)

➤ A motion to accept was made by George, WE7BSY and seconded by Tom, WN7E. Motion passed.

The Draft of the 2018 budget was sent out in a email to all members for review.

➤ A motion to accept was made by Bill, W7PVA and seconded by Carole, KA7LKW. Motion passed and the new 2018 budget was accepted.

The proposed changes to the YARC Bylaws was sent out in an email to all members for review.

➤ A count of the voting members indicated that 64 voting members were present. A 2/3 majority was need (42 votes) to pass the new bylaws.

➤ A motion was made by John, WB9VGJ and seconded by Carole, KA7LKW to accept the new bylaws as amended, The motion passed with no nay votes.

Hamfest update – Frank K8FB:

➤ Announce Hamfest Logo Contest – Bill W7PVA

➤ Announce need for Volunteers to register

Committee Reports:

YARC Event Communications – Frank K8FB

Upcoming Events:

April 14 – Whiskey Basin Trail Run; April 27-29 - Whiskey Off Road Bike Event; May 5 - Whiskey Row Marathon

Club Repeaters – Pete K6VVR/Doug NO1D — All repeaters are working fine

Fox Hunt – Pete K6VVR/ John WB9VGJ

Elmer Group – Jim N6KZ/KG6AY open house at the Jeep Posse Building for HF operation and tutoring on March 16th at 7 pm for new hams.

VE Exam: — Next exam March 17, 2018 Practice tests for Tech on March 14

YARC Annual Party – April 7, 2018 – Kathy KJ6KMK — Fliers in the rear. Prices and menus for review. Register online at www.W7YRC.org under [shopping cart](#)

Announcement from the VVARA – Mike, KG7LMJ President VVARA

We need some volunteers for Program Chair & Assistant PIO

Break

March Program — “Tips to Optimize your station and make it more effective” – Doug NO1D & John K7PRS – part II

Upcoming Programs — April – Emergency Preparedness – Terry Schulthneiss – KG7BAM; May – ARRL Arizona Section Manager- Rick Paquette – W7RAP; June – Special Interest Groups (SIGs)

50/50 Drawing Winner: Charlie Sullivan, Jr., #6018343, \$48.00

Winner of the March's Hamfest Raffle Ticket Drawing: Bruce, KY7SAR

Adjournment: KJ6KMK adjourned the meeting at 2040 MST.

2018 Prescott Rodeo Volunteers Needed

The Prescott Rodeo has graciously let us use the Freeman Building for our monthly YARC meetings. In return, we are encouraging our members to volunteer to assist with the 2018 Prescott Rodeo, which runs from Thursday, June 28 through Wednesday, July 4. Volunteers will be asked to assist with various rodeo tasks such as parking and security. It is not clear at this time how much communications assistance will be required. You can download the volunteer application form at <http://www.w7yrc.org/2018-prescott-rodeo-volunteers/>. You can select the dates and areas that you would like to volunteer. Please fill out the form and return it to Frank Bender K8FB at k8fb@w7yrc.org.

Your support of the Prescott Rodeo through YARC will help ensure that we will be able to continue to use the Freeman building as our monthly meeting location.

2018 Public Event Communications Schedule

1. **Whiskey Basin Trail Run** – April 14, 2018 (MARC) – – Contact Frank Bender K8FB (k8fb@w7yrc.org)
2. **Whiskey Off Road Bike Event** – April 27, 28, & 29, 2018 (MARC) – – Contact Frank Bender K8FB (k8fb@w7yrc.org)
3. **Whiskey Row Marathon** – May 5, 2018 (MARC) – Contact John Broughton WB9VGJ (wb9vgj@arrl.net)
4. **Chino Grinder** – May 5, 2018 – Contact Bob Thompson KC8BOB (bobnstar@cableone.net)
5. **Groom Creek Mountain Mayhem** – **Canceled**
6. **Yarnell Memorial Run** – June 2, 2018 – Contact Doug Jarmoth N0DAJ (n0daj1950@gmail.com)
7. **March of Dimes Walk for Babies** – August 2018 – Need Coordinator
8. **Skull Valley Loop Challenge** – September 2018 – (MARC) Contact Dottie Akers WF7DS (dottie.akers@gmail.com)
9. **Groom Creek Classic** – September 2018 (MARC) – Contact Dottie Akers WF7DS (dottie.akers@gmail.com)
10. **Prescott Road Rally** – October 2018 (MARC) – Contact Bob Rosevear WB7RRQ (rosevear520@cableone.net)
11. **Man/ Horse Race** – October 2018 – – Need Coordinator
12. **Diabetes Walkathon** – October 2018 – Contact John Broughton WB9VGJ (wb9vgj@arrl.net)

Public Event Communications — Volunteer Sign-ups

We are now accepting volunteer sign-ups for the following events:

🕒 **Whiskey Off Road Bike Event – April 27, 28, & 29, 2018** — Contact Frank Bender K8FB (k8fb@w7yrc.org)

Note: We will not be supporting the 2018 Criterium Race through downtown Prescott on Friday, April 27.

ARES/RACES is providing the MARC communications vehicle and a net control operator for these (except the Chino Grinder because of a conflict with the Whiskey Row Marathon) events.two events.

Don't worry if you are inexperienced. We will team you up with someone who can show you the ropes.

You don't have to be a YARC member to participate. If you wish to sign up for one of these events, contact Frank Bender K8FB (k8fb@w7yrc.org).

Public service events are a major focus of our club's activities. Come out, improve your emergency preparedness, improve your operating skills, and assist your community.

A special thank you to everyone who has volunteered for one of these events. Your participation is essential to the success of our public service events and is greatly appreciated.

You can find these and other upcoming public service events on the club website at <http://www.w7yrc.org/public-service-events/> .

General Class License Test Preparation

The next General Class License test preparation class will be held on April 7, April 21, and 28 at the Jeep Posse Building. You can register for the class on the YARC website under the drop down "[Become A Ham → Amateur Radio Licensing Class](#)" and then click on "[class registration](#)". The class slides can also be found at this location.

Wanted: Flat Screen Monitor

Wanted: Donation of a working flat screen monitor for use with an additional computer that has been donated to the club station. Contact Frank Bender K8FB (k8fb@w7yrc.org) .





2018 Prescott Hamfest at ERAU

The 2018 Prescott Hamfest at ERAU will be held on June 1 and 2 at Embry-Riddle Aeronautical University (ERAU). This year's hamfest will be a full two day event with lots of activities and a balloon launch by the Arizona Near Space Research (ANSR).

The Prescott Hamfest at ERAU is co-sponsored by the Eagle Amateur Radio Club (EARC) at ERAU, YARC, and the Amateur Radio Council of Arizona (ARCA). The hamfest is also an ARRL sanctioned hamfest and we will be hosting the 2018 Arizona State ARRL Convention. You can find details at www.prescotthamfest.com.

Special Grand Prize Ticket Offer to YARC Members

This is a special offer for YARC members. Each month, for those members who make at least one purchase of Grand Prize Raffle Tickets online, your name will be put in a drawing to be made at the next club meeting. The winner of the drawing will be awarded 20 Grand Prize Raffle Tickets. At the April 5 club meeting, members who purchase at least \$10 worth of raffle tickets during the meeting will also have their name entered in the drawing.

A drawing will be held each month through May for ticket purchases made during the previous month only. The ticket drawing will be done after the break in the meeting. A member's name can only be entered one time each month, regardless of how many tickets are purchased that month. Raffle tickets can be purchased online by using PayPal or a credit card by going to <http://hamfest.w7yrc.org/prizes/>. You can also purchase tickets at the club meeting to be entered into the drawing. The list of current grand prizes can also be found at this site.

Hamfest Volunteers

If you would like to volunteer to help out during the hamfest, go to: <http://hamfest.w7yrc.org/volunteer/>, fill out the volunteer form with your preferences and submit the form or contact Art Jackson KA5DWI (ka5dwi@yahoo.com). If you would like to help with the hamfest planning, contact Frank Bender K8FB at k8fb@w7yrc.org.



Prescott Hamfest Logo Contest

Our club is putting on the Prescott Hamfest once again. We, the hamfest committee, are looking to the future and the continuation of the fest on an annual basis. To that end we believe that branding the fest will help possible attendees identify the event. Part of the process is to have a visual aide to help with that identity, a logo. Many other events have a logo to identify with the event. A well known event that many of us participate in is the Yuma Hamfest. One may not read the print but when the logo is seen, a ham knows that the subject is the Yuma Hamfest. The Hamfest is having a contest asking amateur radio operators, their families, friends and interested artistically inclined parties to submit entries to that contest. The contest information and rules are as follows.

Goal: To have a logo to identify with the Prescott Arizona Hamfest created by a amateur radio enthusiast or artist.

Dates of the Contest: Contest dates are March 1, 2018 through April 5, 2018. All entries must be received no later than 1700 MST on April 5.

Logo Artwork: Artwork can be drawn manually or computer generated. Art work should relate to amateur radio and the Yavapai County/Prescott area. Artwork is required to appear professionally done and mature. All artwork original or in the public domain. Those submitting artwork will release all ownership rights and use of the artwork to the Prescott Hamfest organization.

Eligibility of Contestants: This contest is open to all ages. Entrants under 18 years of age must have written consent of their parents. No contestants will be provided preferential treatment for any cause. Entry and participation in this contest constitutes full and unconditional agreement with the rules of this contest and final decision of contest judges.

How to Enter: Entries may be sent via USPS to the Prescott Hamfest Logo Contest c/o YARC, P.O. Box 11994, Prescott, AZ 86304-1994. Entries may be presented in person at any YARC meeting. Lastly, entries may be sent via email to HamfestLogo@cableone.net. All entries become the property of the Prescott Hamfest. Non-winning hard-copy entries will not be automatically returned but may be reclaimed within 30 days of this contest.

Entry Requirements: All computer entries must be in JPG format of minimum 300 dpi or 1024x768, full color and formatted to fit a 8 ½ x 11 in. page. Manually drawn entries should be full size and formatted on a standard 8 ½ x 11 in. page. Entries, if in color, should consist of no more than 6 colors, with minimal colors being preferable. Line drawings will be more suitable for use on various media.

Judging: Judging of entries will be completed by the Prescott Hamfest Committee members. That committee consists of members of the Yavapai Amateur Radio Club and the Eagle Amateur Radio Club (the ARC at Embry Riddle Aeronautical University). Decisions of judging parties will be final and indisputable. No judging party shall be liable for any cause due to their decision of the winning entry.

Prize: Any winning prize awarded in this contest will have no monetary value. The winner of this contest will have a lifetime entry pass for one person to the Prescott Hamfest. That entry pass may not be assigned to any other person. His/her contribution may be noted in hamfest documents.

Winning Entry: The winning entry will be announced the week of April 9 to 15, 2018. The winning entry will be published in the Yavapai Signal, the YARC newsletter, and announced on the various YARC nets.

Entry Form:

NAME: _____ CALL SIGN (IF ANY): _____

ADDRESS: _____

EMAIL: _____ TELEPHONE: _____

COMMENTS:



YARC Annual Party — April 7, 2018

Here is one more chance to get your reservations in for the YARC annual Party on April 7, 2018. You can go to the YARC website and pay for your reservation there.

If you don't want to use PayPal and are sure you will be able to attend the dinner, then send me an email to kj6kmk.yar@gmail.com and indicate your meal choices. You can then pay for the reservation either by mail, at the next YARC meeting on April 5, or at the door on April 7.

Please use this option only if you are sure you will be able to attend the dinner because the club will be responsible for any meals not paid for and may have to charge the member for the reservation.

Hope to see you at the party this year. 73, Kathy Laing KJ6KMK, YARC President.

Club Station Activities

Club Station Activities - <http://www.w7yrc.org/club-station/>

Past Activities:

— **ARRL International SSB DX Contest** – March 4 – Doug Freeman KV8TD and Mike Belanger W1DGL worked the ARRL International SSB DX Contest on Sunday, March 4 at the club station. Fifty-three (53) contacts were made with DX stations all over the world. Fiona Reid K7PLV and Charles McKee KI7LXB also came out to operate the station during the contest.

— **CQ WW WPX SSB Contest** – March 24 and 25 - **Canceled** – This operating event at the club station on March 24 and 25 has been canceled. The event had to be canceled at the club station because there is Fire Wise training now scheduled at the Jeep Posse building on these two dates.

Upcoming Activities:

— **April 6 Club Station Open House** – by Appointment Only – Art Protas KG6AY will be conducting an open house from 1900 to 2030 MST on Friday, April 6 at the club station at the Jeep Posse building. Art will orient you to the club station, allow you to operate, and answer any questions that you might have in a non-intimidating environment. This activity is targeted to new or inexperienced hams and is open to any interested person. Contact Art at kg6ay@protas.org .

— **April 27 Club Station Open House** – by Appointment Only – Jim Zimmerman N6KZ will be conducting an open house from 1900 to 2030 MST on Friday, April 27 at the club station at the Jeep Posse building. Jim will orient you to the club station, allow you to operate, and answer any questions that you might have in a non-intimidating environment. This activity is targeted to new or inexperienced hams and is open to any interested person. Contact Jim at n6kzdx@gmail.com .



Bob WB6ODR



Terry KB7TRE



Large Projection Screen at YARC Meeting Place

A work party led by Bob Smith WB6ODR recently installed a large projection screen at our meeting place at the Prescott Rodeo Grounds. Thanks to Terry Pemberton KB7TRE for donating the screen to YARC.
(Photo courtesy of Art Jackson, KA5DWI)



John WB9VGJ



Pete K6VVR

March 2018 Foxhunt
by John Broughton, WB9VGJ

The monthly foxhunt was scheduled for Saturday, March 10, 2018. Bob WB6ODR and Robert WA6FBA were the foxes. They hid the transmitters on the Constellation Trail across Hwy 89 from the Phippen Museum. Unfortunately, due to technical difficulties and the rain, the hunt was cancelled.

There was a good turnout. We had three teams ready to hunt comprising eight members. Even though the hunt was canceled, we had a good time socializing at the Prescott Junction restaurant.

Bob and Robert will again be the foxes for the April foxhunt.

We would encourage more folks to get involved in the hidden transmitter hunts. They are really fun and help develop direction-finding skills.

Amateur Radio Direction-finding Transmitter Hunt Schedule — Calendar Year 2018
by Pete Morrison, K6VVR

Meet at 1300 MST in the parking lot of the AZOne Credit Union behind Walgreens near the corner of Willow Creek Road and Gail Gardner Way in Prescott. Contact Pete Morrison K6VVR or John Broughton WB9VGJ for additional information.

Month	Day of the Month	Day of the Week
April	8	Sunday
May	6	Sunday
June	16	Saturday
July	8	Sunday
August	5	Sunday
September	9	Saturday
October	7	Sunday
November	4	Sunday
December	9	Saturday



W7YRC 2M FM Net — 147.260 MHz, PL +103.5 Hz — Wed., 1900 MST

Note: NCS = Net Control Station

Call	Name	02/21/18	02/28/18	03/07/18	03/14/18
AE7CG	Loren	NCS	NCS	NCS	NCS
K6VVR	Pete	x	x	x	x
KA5DWI	Art	x	x	x	x
KF7ANX	Frank	x		x	x
KF7FPD	Jerry	x	x	x	x
KF7PQV	Dan	x	x		
KG6AY	Art		x	x	x
W7HAM	Ralph	x	x	x	x
WA6AQK	Ken	x	x	x	x
WN7E	Tom	x	x	x	x
KG7EWD	Patrick		x	x	
WA6FBA	Robert	x			x
NO1D	Doug	x	x	x	x
KI7LXI	Sheila	x	x	x	x
KI7LWZ	Mike	x	x	x	x
K7LMJ	Mike			x	x
K6PSR	Tony	x	x		x
WB6ODR	Bob	x			
AD7WW	Will				x
W7OTB	Vince	x			
W7PVA	Bill			x	x
K5RDB	Rick		x	x	
KJ7WED	Bob		x		

ARRL Bulletin 7 — From ARRL Headquarters — Newington, CT — March 1, 2018
ARRL Requests Expanded HF Privileges for Technician Licensees

ARRL has asked the FCC to expand HF privileges for Technician licensees to include limited phone privileges on 75, 40, and 15 meters, plus RTTY and digital mode privileges on 80, 40, 15, and 10 meters. The FCC has not yet invited public comment on the proposals, which stem from recommendations put forth by the ARRL Board of Directors' Entry-Level License Committee, which explored various initiatives and gauged member opinions in 2016 and 2017.

"This action will enhance the available license operating privileges in what has become the principal entry-level license class in the Amateur Service," ARRL said in its Petition. "It will attract more newcomers to Amateur Radio, it will result in increased retention of licensees who hold Technician Class licenses, and it will provide an improved incentive for entry-level licensees to increase technical self-training and pursue higher license class achievement and development of communications skills."

Specifically, ARRL proposes to provide Technician licensees, present and future, with phone privileges at 3.900 to 4.000 MHz, 7.225 to 7.300 MHz, and 21.350 to 21.450 MHz, plus RTTY and digital privileges in current Technician allocations on 80, 40, 15, and 10 meters. The ARRL petition points out the explosion in popularity of various digital modes over the past 2 decades. Under the ARRL plan, the maximum HF power level for Technician operators would remain at 200 W PEP. The few remaining Novice licensees would gain no new privileges under the League's proposal.

ARRL's petition points to the need for compelling incentives not only to become a radio amateur in the first place, but then to upgrade and further develop skills. Demographic and technological changes call for a "periodic rebalancing" between those two objectives, the League maintains.

"There has not been such a rebalancing in many years," ARRL said in its petition. "It is time to do that now." The FCC has not assessed entry-level operating privileges since 2005.

The Entry-Level License Committee offered very specific data and survey-supported findings about growth in Amateur Radio and its place in the advanced technological demographic that includes individuals younger than 30. It received significant input from ARRL members via more than 8,000 survey responses.

"The Committee's analysis noted that today, Amateur Radio exists among many more modes of communication than it did half a century ago, or even 20 years ago," ARRL said in its petition.

Now numbering some 378,000, Technician licensees comprise more than half of the US Amateur Radio population. ARRL said that after 17 years of experience with the current Technician license as the gateway to Amateur Radio, it's urgent to make it more attractive to newcomers, in part to improve upon science, technology, engineering, and mathematics (STEM) education "that inescapably accompanies a healthy, growing Amateur Radio Service," ARRL asserted.

ARRL said its proposal is critical to developing improved operating skills, increasing emergency communication participation, improving technical self-training, and boosting overall growth in the Amateur Service, which has remained nearly inert at about 1% per year.

The Entry-Level License Committee determined that the current Technician class question pool already covers far more material than necessary for an entry-level exam to validate expanded privileges. ARRL told the FCC that it would continue to refine examination preparation and training materials aimed at STEM topics, increase outreach and recruitment, work with Amateur Radio clubs, and encourage educational institutions to utilize Amateur Radio in STEM and other experiential learning programs.

"ARRL requests that the Commission become a partner in this effort to promote Amateur Radio as a public benefit by making the very nominal changes proposed herein in the Technician class license operating privileges," the petition concluded.

Why ARRL Is Recommending Enhanced HF Privileges for Technician Licensees — March 15, 2018

ARRL has asked the FCC to expand HF privileges for Technician licensees to include limited phone privileges on 75, 40, and 15 meters, plus RTTY and digital mode privileges on 80, 40, and 15 meters. These recommendations were put forth by the ARRL Board of Directors' Entry-Level License Committee (ELL), which explored various initiatives and gauged members' opinions through surveys conducted in 2016 and 2017.

Specifically, ARRL proposes to provide Technician licensees, present and future, with phone privileges at 3.900 to 4.000 MHz, 7.225 to 7.300 MHz, and 21.350 to 21.450 MHz, plus RTTY and digital privileges in current Technician CW allocations on 80, 40, and 15 meters. The ARRL petition is in recognition of the tremendous technological advances and changes in Amateur Radio.

"This action will enhance the available license operating privileges in what has become the principal entry-level license class in the Amateur Service," ARRL said in the petition. "It will attract more newcomers to Amateur Radio, it will result in increased retention of licensees who hold Technician class licenses, and it will provide an improved incentive for entry-level licensees to increase technical self-training and pursue higher license class achievement and development of communications skills."

We encourage everyone to read the full petition, which can be found at www.arrl.org/TechnicianEnhancement

Key Points:

- A thorough review of operating privileges available to the entry-level license has not occurred since the late 1970s when the Novice class license — the entry-level license at that time — was modified to allow Novices access to a limited portion of the 10-meter band, which included the first HF phone privileges for that license class.
- The 2-year process that led to the development of this petition did include significant input from the Amateur Radio community. The two surveys that the ELL Committee conducted on this issue drew more than 8,000 responses from ARRL members.
- If the operating privileges are changed as proposed, the Technician class license, (which is now the entry-level license class since the FCC prohibited the issuance of new Novice class licenses in 2000) will be comparable to the "foundation" license found in many Amateur Radio administrations around the world. These foundation licenses include a broad array of basic HF phone, CW, and digital privileges in addition to the VHF/UHF privileges already available with the current Technician class license.
- Technician licensees, now numbering at about 378,000, comprise more than half of the US Amateur Radio population. Yet, the Technician class license is insufficient for the purpose that the FCC made for it 18 years ago. Many who obtain Technician class licenses do not participate actively, do not pursue on-air and public service opportunities, do not renew their licenses prior to expiration, and do not pursue higher license classes. There is an uncomfortably large attrition rate among Technician class licensees. Those who obtain Technician-class licenses are not pursuing upgrades to General class licenses because they don't find the operating privileges offered by the Technician class license interesting enough to keep them from pursuing other, non-radio-related activities.
- The proposed addition of a total of 275 kHz of HF phone privileges, spread across the 80, 40, and 15-meter bands would allow Technicians the opportunity to develop and expand their understanding of HF propagation. In addition, this proposed change would allow Technician licensees to participate in public service-oriented, emergency, and Section traffic nets on 75-meter phone frequencies from 3900 to 4000 kHz, since 47 out of 50 states conduct their primary state/section-wide public service activities on those frequencies.
- Technician licensees already hold CW privileges on the frequencies on the 80, 40, and 15-meter bands where the proposal would add HF digital privileges. Those digital privileges will attract younger people to Amateur Radio.
- There is no proposed change to the 200 W Technician HF power limit. Also, the few remaining Novice licensees would gain no new privileges. • While some believe that the addition of the frequencies takes away the Technician's incentive to upgrade, consider that current Technician HF privileges involve 850 kHz on 4 bands, with the proposed addition of 275 kHz on 3 of those bands, so the total under this proposal is 1125 on 4 bands – 80, 40, 15, and 10 meters. Compare that to General class HF privileges: 3150 kHz across 9 HF bands – 160, 80, 40, 30, 20, 17, 15, 12, and 10 meters. In addition, Generals have access to the 5-channels on 60-meters, and the two newest bands 2200 and 630 meters. The incentive to upgrade from Technician to General is almost tripling the available HF spectrum and allows those who upgrade access to 8 additional bands, including the prime day-time bands of 20 and 17-meters. Also, when a Technician upgrades to General or higher, they also are permitted the maximum Amateur power level of 1500 W.
- Demographic and technological changes call for a "periodic rebalancing," and there has not been such a rebalancing in many years. The FCC has not assessed entry-level operating privileges since 2005, and yet Amateur Radio has changed dramatically since then, with many more modes of communication having been developed.
- ARRL does not propose changes to the Technician class question pool, which is reviewed and updated every 4 years by the NCVEC's Question Pool Committee. The current pool already tests for all of the basic technical and operating information that would allow Technician-class licensees to safely and appropriately use the proposed additional spectrum.

Which way does current flow?

– by Dan Romanchuk, KB6NU –

I was recently taken to task by one of my blog readers regarding my description of current flow in my [No Nonsense Technician Class License Study Guide](#). He wrote:

"You casually say that current flows from positive to negative (with cool accompanying directional arrows), without any accompanying qualifying statement. Over the years I have looked at all the views on the subject. Positive to negative is not what I was taught 48 years ago, and I have never seen a good reason to change my view."

In a subsequent email, he pointed me to a [Nuts 'n Volts](#) article, "Which Way Does Current Really Flow?" (<http://www.nutsvolts.com/magazine/article/which-way-does-current-really-flow>) and asked my opinion. In the article, the author, who is a ham by the way, does a good job of explaining the various types of current flow.

I agree that in electronic circuits electrons flow from negative to positive, but it really doesn't matter. I agree with one of the article's commenters who says,

"This is a silly argument. It's like comparing apples and oranges and challenging people to take sides.

"Electron flow is not current flow. Electron flow is easy to understand, an actual physical property, and a real help in understanding vacuum tube operation. But it falls apart when one needs to understand complex electronic systems.

"[Conventional] current flow is a mathematical abstraction. It is defined as a net flow of positive charge, irrespective of the polarity of the physical charge carriers — whether electrons, holes, positive or negative ions, or whatever.

"When looking at any circuit containing a resistance with a voltage across it, conventional current through that resistor says that the voltage drop occurs as the current through it meets resistance. On the other hand, in negative (electron) flow, a voltage increase will correspond to the 'current' flow through it, clearly violating physical laws. Conventional current flow is consistent with the laws of physics and those of other engineering disciplines.

"You are correct that engineers, professors and scientists use conventional current flow. That is not because they are too obtuse to understand electron flow; I assure you they fully understand it. It is because in their world they have to solve more general problems involving complex math and science, and, again, conventional current flow is consistent with physical laws.

"It is unfortunate that electron flow and current flow are so often confused. They both have their place."

After reading that article, I thought I'd see what the [ARRL Handbook](#) has to say about current. In the 1963 edition, they don't mention electron flow at all. They have one diagram showing the direction of current flow in both series and parallel circuits, but the voltage source has no polarity. It's simply labeled "Source of E.M.F." Diagrams giving practical examples of series and parallel circuits do include a battery, and if the reader were to mash up the two diagrams, they would conclude that current flows from the positive terminal to the negative terminal.

The most recent edition of the [Handbook](#) that I have is the 2005 edition (it might be time to get another copy!). It says,

"Electrons move from the negative to the positive side of the voltage, or EMF, source. Conventional current has the opposite direction, from positive to negative. This comes from an arbitrary decision made by Benjamin Franklin in the 18th century. The conventional current direction is important in establishing the proper polarity sign for many electronics calculations. Conventional current is used in much of the technical literature. The arrows in schematic symbols point in the direction of conventional current, for example."

Having said all that, I really don't see that there's much of a controversy here. I did learn to think of current as conventional current in college, although it was mentioned that electrons actually flow in the opposite direction. Using the concept of conventional current has never seemed to hold me back. I've been able to design circuits and repair electronic equipment thinking that current flows from positive to negative.

Although it's a departure from my "no nonsense" style, I am thinking of including a sidebar, similar to the paragraph above from the 2005 [Handbook](#) explaining the two ways of looking at current flow. What do you think?

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Breakfast and Lunch Gatherings

There are a number of lunch and breakfast gatherings in the area that are open to all radio amateurs and interested persons. Please let us know of any updates or corrections at info@w7yrc.org.

Third Thursday of the Month – **YARC** holds an informal **breakfast** gathering at the **BackBurner** Restaurant at 0800 MST. The restaurant is at 8400 Long Mesa Drive in Prescott Valley. Contact Don Bauer WB7TPH or Jeff Hanna WB7RFY.

Second Tuesday of the Month – **Quarter Century Wireless Association (QCWA)** brunch gathering, 1030 MST to 1230 MST at the **Golden Corral** Restaurant in Frontier Village in Prescott, off Highway 69. You do not have to be a QCWA member to attend.

Every Monday – **Dan Nichols (W6SAK SK) Memorial Lunch**, 1100 MST to 1230 MST at **roving locations**. Contact Bob Rosevear WB7RRQ, 928-458-7830, rosevear520@cablone.net; or Bob Smith WB6ODR, 928-443-9321, lsmith@cablone.net for the next location.

Every Wednesday – **Breakfast** at 0700 MST at the **Manzanita Grill** at the Antelope Hills Golf Course, near the Prescott airport.

Every Wednesday – **Lunch** – 1100 MST at **Costco** — “The Umbrella Club”

Club Officers, 2018

Officer	Name	Call Sign	Email Address
President	Kathy Laing	KJ6KMK	kj6kmk.yarc@gmail.com
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Yavapai Amateur Radio Club — W7YRC Club Station Access List — Effective January 26, 2017

Name:	Call:	Lic. Class	Notes:	Telephone:
D. Hanson	W7BJ	E	Dual Member	602-615-3444
R. Mauldin	N7NGM	E	Rotating Member	277-7164
M. Bélanger	W1DGL	E	Rotating Member	420-0498
R. Redford	KG7LMI	G	Rotating Member	623-252-3980
T. Jackson	K6PSR	G	Rotating Member	562-644-0528
F. Bender	K8FB	E	Station Manager	379-5575
J. Zimmerman	N6KZ	E	Elmer Group	713-0542
A. Protas	KG6AY	E	Elmer Group	227-2954
D. Freeman	KV8TD	E	N7GMH Trustee	759-0958
B. Vlastelich	K7TSY	E	License Classes	583-7572
R. Dashiell	W6TYV	G	Dual Member	602-501-2571

Note: K. Laing KJ6KMK; P. Morrison K6VVR; B. Semon N7CW; and D. Bauer WB7TPH have station access, but are not to be contacted for station access.

