







Arizona Desert Aire Waves

Vol 47 No 5

May 2022

CLUB MEETING SCHEDULE

SARC

May 4th - 7:00 PM via Zoom

YARC

May 5th - 7:00 PM Prescott Rodeo Grounds

CADXA

May 5th - 7:00 PM Bethany Lutheran Church

MARCA

May 17th - 6:30 PM via Zoom

AARC

May 12th - 12:00 PM American Red Cross/Echolink

TBARC

May 19th - 6:30 PM Arizona Christian University

ARA

May 26th - 7:30 PM Electronically

MARA

May 7th - 9:00 AM Maricopa Public Library

AzRCCC

May 10th - 7:00 PM
American Red Cross/MS Teams

SuperstitionARC

May 17th - 7:00 PM Charles K Luster Bldg-Mesa

ANSR

May 19th - 7:30 PM via GoToMeeting

OVARC

May 20th - 7:00 PM Mountain View Baptist Church

ATN (VOAR)

Postponed www.whereby.com/atn1

CARL

TBD Check Web Site

AMO

May 12th - 7:00 PM Charles K Luster Bldg

CHRC

May 14th - 9:00 AM Tri-City Baptist Church

KARC

May 10th - 6:30 PM New Hope Christian Fellowship

SunLifeARC

Every Monday - 10:00 AM Via Zoom

QCWA-AZ Chapter

TBD Various

MMRG

See Web Site

WVARC

May 2nd - 7:00 PM Shepherd of the Desert Lutheran Church/Zoom

ARIZONA AMATEUR RADIO CLUB

The Arizona Amateur Radio Club meets on the **SECOND THURS-DAY** of each month at 7:00 p.m. at the American Red Cross Building at 4747 N 22nd St. in Phoenix. Visit web site at www.W7IO.org for map. Visitors are welcome.

President	Gary Hamman	K7GH	602.996.8148
Vice President	Steve Tolnai	W7WSV	480.390.4446
Secretary	Randy Gault	KJ7RCN	
Treasurer	Bob Hodges	K7JJT	602.375.9982
Activities Mgr	Lori Cripps	WA7EDI	602.955.7517
Membership	Bob Hodges	K7JJT	602.375.9982

AARC c/o Bob Hodges, K7JJT, 15214 N 7th Place, Phoenix, AZ 85022. DUES: \$15.00/YR, Prorated (\$18.00 Family,\$9.00 Student), MEMBERSHIP YEAR BEGINS FEB. 1.

SCOTTSDALE AMATEUR RADIO CLUB, INC.

The Scottsdale Amateur Radio Club meets the **FIRST WEDNESDAY** of each month at 7:00 p.m. in Room 8 at the new Scottsdale Senior Center located at 1700 N Granite Reef Road (west side of Granite Reef Rd., 50 yards north of McDowell Rd. Parking on site) in Scottsdale. The club also holds a net <u>every Tuesday night</u> at 7:00 p.m. on the 147.78/.18 repeater.

President	James Wasson	N7ELL n7ell@scottsdalearc.org
Vice President	David Yee	N7AJR n7ajr@scottsdalearc.org
Secretary	Bruce Harmsen	KA9EYX ka9eyx@scottsdalearc.org
Treasurer	Douglas Mitchell	l W7ADD w7add@scottsdalearc.org
Past President	Paul Finell	W7EFQ w7efq@scottsdalearc.org
Board Members	Jim Dye	AG7AU
At-Large	Scott Gillins	W2KP
_	Bill Kouchis	N9EIV
	Ed Nickerson	WU7S

SARC, P. O. Box 10878, Scottsdale, AZ 85271-0878. Phone: 602.735.3988. DUES: \$20.00/YR, (\$10.00/Add'l Family Member). Web Site: www.scottsdalearc.org

ARIZONA NEAR SPACE RESEARCH

The Arizona Near Space Research group meets the **THIRD THURS-DAY** of the month at 7:30 p.m. via GoToMeeting. Technical meetings are held the first Monday of the month at 7:30 p.m. on GoToMeeting. Please contact an officer about joining our meetings.

President	Stephen Thomas KE7TLS	iamgadget1@yahoo.com
Vice President	Clayton Jacobs, KJ6QJS	
Secretary	Steve Miller, W6SDM	
Treasurer	Bill McLean, K7WWM	bmcleanl@gmail.com

ANSR, PO Box 31003, Mesa, AZ 85275-1003. DUES: \$10.00/YR. Web Site: <u>www.ansr.org</u>

Please be sure your club has your current email and/or mailing address.

THUNDERBIRD AMATEUR RADIO CLUB

The Thunderbird Amateur Radio Club meets the **THIRD THURS-DAY** of each month at 7:00 p.m. at Arizona Christian University, 59th Avenue and Greenway Road in Glendale. Meeting is in building 3600, Auditorium #1. See the website (http://w7tbc.org) for a map and more details.

President	Charles Loftus	KG7KRN	president@w7tbc.org
Vice President	Rick Tejera	K7TEJ	vicepresident@w7tbc.org
Secretary	Andrew Cornwall	KF7CCC	secretary@w7tbc.org
Treasurer	Jeff Rogers	KD7PYE	treasurer@w7tbc.org
Directors	Robert Lutes	N7NO	n7no@w7tbc.org
	Paul Veltman	WA6OK0	Q wa6okq@w7tbc.org
	Chuck Erickson	K7CAE	k7cae@w7tbc.org
	Robert Fairfield	K7RQN	k7rqn@w7tbc.org
Past President	Brian McCarthy	AK7F	ak7f@w7tbc.org
Station Trustee	Gary Duffield	WK7B	wk7b@w7tbc.org

For further information about the ThunderBird Amateur Radio Club, visit our website at http://w7tbc.org, send an e-mail to: info@w7tbc.org or call 602.938.8219. The Thunderbird Amateur Radio Club is a 501(c)(3) non-profit organization. Mailing address: PO Box 11394, Phoenix, AZ 85318-1394.

AZ RED CROSS COMMUNICATIONS CLUB

The Arizona Red Cross Communications Club meets the **SECOND TUESDAY** of each month at 7:00 PM at the Red Cross Building located at 4747 N 22nd Street in Phoenix. The group meets at emergency drills and at the call of the officers.

President	Charlie Zurenko	N2TFS
Vice President	Mark Steele	KI7RB
Secretary	Saroj Gilbert	KM6BQD
Treasurer	Doug Bessemer	K0VPL
Past President	Peter Petrotta	KD70IW

Arizona Red Cross Communications Club - K7ARC, 4747 N 22nd Street, Phoenix, AZ 85016. Web Site: <u>K7ARC.org</u> Email: <u>info@k7arc.org</u>

MARICOPA AMATEUR RADIO ASSOCIATION

The Maricopa Amateur Radio Association (MARA) meets the **FIRST SATURDAY** of each month at 9:00 a.m. at the Maricopa Public Library - Redwood Room, 18160 N Maya Angelou Drive in Maricopa.

President	Bob Howard	W8RH	president@copahams.org
Vice President	Scott Bushman	WI7Y	vicepresident@copahams.org
Secretary	Bob Proctor	N6YPE	secretary@copahams.org
Treasurer	George Hogan	K7TGH	treasurer@copahams.org
PIO:	Steve Miller	W6SDM	pio@copahams.org
Webmaster:	Louis Sandoval	W8LES	w8les@copahams.org

The Maricopa Amateur Radio Association is a 501(c)(3) non-profit organization. DUES: \$25.00/year individual, \$30.00/year family. Apply on-line at www.copahams.org. Mailing address: PO Box 951, Maricopa, AZ 85139



BARRY M GOLDWATER, ARIZONA CHAPTER QUARTER CENTURY WIRELESS ASSOCIATION

The Barry M Goldwater Arizona Chapter of the QCWA includes amateurs from all over Arizona who have been licensed for 25 or more years. Meetings are currently held in Phoenix, Prescott, and Tucson. The Arizona Chapter meets on the air every Sunday morning. Please check the website http://www.azqcwa.org/ for the time and frequency.

President	Tom Fagan	K7DF	president@azqcwa.org
Vice President	Open		
Secretary	Carl Foster	KB7AZ	secretary@azqcwa.org
Treasurer	Carl Foster	KB7AZ	treasurer@azqcwa.org

Web Site: http://www.azqcwa.org Email: info@gmail.com. DUES: \$7.00/year and current national QCWA membership.

MINGUS MOUNTAIN REPEATER GROUP

Meetings are held twice a year, an annual board meeting in Phoenix and a picnic meeting in Chino Valley. Dates, times, and locations are announced in the newsletter.

President	Bob Sitterley	K7POF	928.636.2146
Vice President	Tom Griswold	WN7E	
Secretary	Lori Cripps	WA7EDI	602.955.7517
Treasurer	Bob Sitterley	K7POF	928.636.2146
Board Members:	Gary Hamman	K7GH	
	Butch Merrill	K7JOG	
	Jerry Roberts	K7BUD	
	Ken Rasback	KK7KEN	
	Tom Raczykowsl	ki N7MMC	
	Sonja Hazlett	WB7CWW	

Web Site: http://www.k7mrg.org. DUES: \$20.00 per year, due prior to July 1. MEMBERSHIP YEAR - July 1 - June 30.

KACHINA AMATEUR RADIO CLUB

The Kachina Amateur Radio Club meets the SECOND TUESDAY of each month at 6:30 PM at New Hope Christian Fellowship, 989 Cheney Ranch Loop (US260 & Cheney Ranch) in Show Low.

Kevin Parmenter	· KG5Q	480.748.8182
Bill Turley	KJ7GYH	923.536.2293
Marie Mortenser	n N7SKS	928.358.8748
Dennis Wilkes	W7DRW	928.739.4700
	Bill Turley Marie Mortense	Marie Mortensen N7SKS

Mailing Address: Kachina Amateur Radio Club, P O Box 2996, Show Low, AZ 85902. Email: kachinainfo@drwilx.com Testing Info: White Mountain V.E. Team: VEtesting@cableone.net. Dues are \$15/yr for individual; \$25/yr for family. Membership is January 1 - December 31. Website: www.kachinaarc.org



The Arizona Repeater Association general meeting is held the FOURTH THURSDAY of each month at 7:30 p.m. There are no meetings in July and December. The November meeting is held the Monday before Thanksgiving. Meetings are held at Denny's Restaurant, 825 S 48th Street in Tempe, near SR143 and University Drive. Visitors are welcome. Come early for food and social time before the meeting starts. For further information about the ARA. including repeaters, site status, and the tech/board meeting, please visit our web site at www.w7ara.org.

President	Brian McCarthy, AK7F	ak7f@w7ara.net
Vice-President	Dennis Bietry, KE7EJF	ke7ejf@w7ara.net
Treasurer	Cole Cunningham, AA	7RD aa7rd@w7ara.net
Secretary	Jim Hoff, N7XXX	n7xxx@w7ara.net
Board Members:		
Dennis	Campbell, AE7WU	ae7wu@w7ara.net
Mike M	ontalvo, KF7MBK	kf7mbk@w7ara.net
Marty D	Ousenberry, KE7DGP	ke7dgp@w7ara.net
Lance H	Ialle, KW7LH	kw7lh@w7ara.net
Joe God	lfrey, AE7JG	ae7jg@w7ara.net
Joe Bak	as,KE7WHE	ke7whe@w7ara.net
Patrick I	Baldwin KI4NSF	ki4nsf@w7ara.net
James V	Vasson, N7ELL	n7ell@w7ara.net

For Membership Information, contact (Joe Godfrey, AE7JG membership@w7ara.net) Arizona Repeater Association, Inc, P. O. Box 35758, Phoenix, Arizona 85069-5758. To join or renew, please visit http://w7ara.org/mbr/Membership.aspx. DUES: \$18.00/yr. (Jan. 1 through Dec. 31) with a one-time initiation fee of \$10.00. Life and family memberships are available.

SUPERSTITION AMATEUR RADIO CLUB

The Superstition Amateur Radio Club meets the THIRD TUESDAY each month at 7:00 PM: January only - Zoom and St Katherine Greek Orthodox Church, 2716 N Dobson Rd, Chandler. February through November - Zoom and Charles K Luster Building, 640 N Mesa Drive, Mesa. **VISITORS** are Encouraged to attend. If you would like to attend one of our meetings via Zoom, please contact <u>president@superstitionarc.org</u> at least 24 hours prior to the meeting for the Zoom link.

President	Steve Estes	KB7KWK	kb7kwk@superstitionarc.org
Vice President	Brian Betz	W7JET	w7jet@superstitionarc.org
Secretary	Scott Simeon	KI7KIM	ki7kim@superstitionarc.org
Treasurer	Bryan Hubbard	KF7DPC	kf7dpc@superstitionarc.org
Directors:	Brent Butler	W7FK	w7fk@superstitionarc.org
	JeffHarris	K2DFE	k2dfe@superstitionarc.org
	JeffHeinze	N7CCW	n7ccw@superstitionarc.org
	Dan Devlieger	KC7MSU	kc7msu@superstitionarc.org
	Bob Thomas	N8ANV	n8anv@superstitionare.org
	Matt Churchill	K7YEG	k7yeg@superstitionarc.org
	Robert Fridell Jr	N3BZ	n3bz@superstitionarc.org

Superstition ARC, 5155 E Eagle Dr #21522, Mesa, AZ 85277. Web Sites: <u>SuperstitionARC.org</u> and <u>SuperstitionSuperFest.org</u>. For more information, send email to: info@superstitionarc.org. The Superstition Amateur Radio Club, Inc. is a 501(c)(3) nonprofit corporation.



MARCA, Inc. / W7MOT

MARCA is an Arizona 501(c)(3) Non-Profit organization. The club call sign in W7MOT. Membership is open to all amateur radio enthusiasts. Meetings are held the **THIRD TUESDAY** of each month at 6:30 p.m. via Zoom - login info on W7MOT.org. Monthly presentations cover a broad spectrum of interesting subjects. Vistors are welcome to attend. Come early (6:00 p.m.) socializing. Repeater Problem Reports are encouraged. A Repeater Problem or Comment Reporting is available at http://www.w7mot.org/index.php/repeaters/report-a-repeater-problem. Site Managers and officers will take reports for any W7MOT repeater. Contacts are found on website. Club activities include providing voice, aprs, packet, DStar, and Fusion repeaters Central Arizona; ARRL Field Day, special interest groups in SDR, APRS, antennas, digital modes, and SBC applications.

President	Norm Johnson	AA7OO	480.278.2886
Vice President	Ray Vasquez	K4RMV	
Treasurer	Don Aldridge	WA7RLL	
Secretary	Paul Bennett	KD7KDO	
Board Member	David Yee	N7AJR	
Trustee:	Norm Johnson	AA7OO	480.278.2886
Webmaster:	Norm Johnson	AA7OO	480.278.2886

MARCA, Inc., c/o Norm Johnson, 5756 S Wildrose, PO Box 85140, Mesa, Arizona 85212. Membership dues \$25 annually. See our website (http://w7mot.org) for more information about meeting schedules, membership, repeaters, library, and club activities.

CENTRAL ARIZONA DX ASSOCIATION

We are finally back to in-person meetings! And we have a new location! The Central Arizona DX Association meets the FIRST THURSDAY each month at 7:00 p.m. at Bethany Lutheran Chruch, 4300 North 82nd Street in Scottsdale. and we'll try to also share the meeting on Zoom. Most months we have a pretty interesting program or presentation. Visitors always welcome. See www.cadxa.org/meetings.html for mor information. Contact club president for zoom link.

President	Bill Poole	AA4Q	aa4q@arrl.net
Vice President	Virgil Silhanek	K7VZ	k7vz@arrl.net
Secretary	Eric Schecter	KC7ES	eschecter@gmail.com
Treasurer	Mike Wright	N7MW	n7mw@aol.com
Immed. Past Pres	s. Larry Loen	WO7R	lwloen@gmail.com
Directors	Ron Smith	N7RD	
At-Large	John Jolly	N7NWI	wa7nwl@gmail.com

CADXA, P.O. Box 24616, Tempe, AZ 85285-4646. Email: <u>aa4q@arrl.net</u>. Dues are \$25 per year (\$12.50 per additional family member). For more information, DXing resources, and a membership application, visit our website: www.cadxa.org.

YAVAPAI AMATEUR RADIO CLUB

The Yavapai Amateur Radio Club meets the **FIRST THURSDAY** of every month at 7:00 PM (currently our meetings are on ZOOM due to COVID) in the Freeman Building at the Prescott Rodeo Grounds located at 840 Rodeo Drive in Prescott (visit web site at www.w7yrc.org for directions and map). YARC is an ARRL Special Service Club dedicated to public service and emergency preparedness. The club serves the quad cities area of Prescott, Prescott Valley, Chino Valley/Paulden, and Dewey/Humboldt.

John Snedden	KT7P	president@w7yrc.org
Mike Reid	WU7V	vice_president@w7yrc.org
Tim Norton	K7PVY	secretary@w7yrc.org
Sam Prather	K7SCP	treasurer@w7yrc.org
Bill Noe	WG7W	
Ron Levine		
Jane Lerette	K7ZHF	
Ray Kolman	KI7COM	spudsman@gmail.com
Mike Schnell	NC7X	ka9cid@gmail.com
BillNoe	WG7U	
	Mike Reid Tim Norton Sam Prather Bill Noe Ron Levine Jane Lerette Ray Kolman Mike Schnell	Mike Reid WU7V Tim Norton K7PVY Sam Prather K7SCP Bill Noe WG7W Ron Levine Jane Lerette K7ZHF Ray Kolman KI7COM Mike Schnell NC7X

Yavapai Amateur Radio Club, P O Box 11994, Prescott, AZ 86304-1994. DUES: \$20.00/yr. Visit the website at www.w7yrc.org

ORO VALLEY AMATEUR RADIO CLUB

The Oro Valley Amateur Radio Club meets the **THIRD FRIDAY** of each month at 7:00 p.m. at The Mountain View Church, 3500 W Overton Road in Oro Valley. (Monthly meetings are live-streamed.) Visitors are welcome. Board Meetings are held at 7:00 p.m.via ZOOM. Check the web site at www.tucsonhamradio.org for dates.

President	Steve Wood W1SR	w1sr@arrl.net
Vice-President	David Beauchesne AK	2L ak2l@arrl.net
Secretary	Logan Zintsmaster KE7	AZlrahnz@garlic.com
Treasurer	Gary Pierce, AE7GP	ae7gp1@gmail.com
Board Members	Fred Bresani W2HZ	w2hz@verizon.net

DUES: \$25.00/year (Household members living at same address \$15.00 each additional). To join or for additional information, visit website at http://www.tucsonhamradio.org/.

CHANDLER HAM RADIO CLUB

The Chandler HAM Radio Club (call sign N7CHN) meets the **SECOND SATURDAY** of each month at 9:00 AM at the Tri-City Baptist Church, Room 140, on the SW corner of Germann & Dobson Roads in Chandler. Our monthly club meetings are held in person. Visitors are welcome. Check the web site at <u>chandlerhams.org</u> for dates and presentation topics of club meeting. Weekly net is held every Thursday at 8:00 PM on 443.050+ PL100.

President	Dave Hoffman	KJ4RS	pres@chandlerhams.org
Vice President	Debbi Smith	KJ7MIQ	vp@chandlerhams.org
Secretary	Mary Stephen	AE6Q	sec@chandlerhams.org
Treasurer	Byon Garrabrant	N6BG	treas@chandlerhams.org

Web Page: http://chandlerhams.org. DUES: \$25/year primary member; \$10/year family member.



CENTER FOR AMATEUR RADIO LEARNING

The Center for Amateur Radio Learning is a hands-on amateur radio station, W7ASC, located within the Arizona Science Center at 600 E. Washington, Phoenix. Hours of operation are the same as the Arizona Science Center (subject to availability of volunteers.) The station is located on the third floor of the Science Center, in the "My Digital World" gallery. Board meetings are held the last month of each quarter at the AZ Science Center. An annual meeting for all volunteers is held the THIRD SATURDAY of January. Watch ADAW for details.

President	Jack Landon	KD7ROB	480.759.5195
Vice President	Jim Felkey	N7BBS	480.966.7084
Sec./Scheduling	Sam Marshall	N7INV	602.291.0992
Treasurer	Karen McConag	ghy NO7D	602.799.7338
Station Engineer	Ron Taylor	WA7GIL	602.390.5335
Board Members:			
C. 117	C 1 1111D 47707	A DATE	

Steve Warford, WB4ZSC ADAW
Tom Salt AD7PM At Large
John O'Neal K7JP Teacher Packets

 $Bob\,Burleson\,KG7QJ \qquad Trustee/President\,Emeritus$

Robert Faerber W9AQ Log Book Scott Gillins W2KP At Large

Direct Phone: 602.716.2082 Web Site: http://www.w7asc.org
For information: Email to carl@w7asc.org or call Jack, KD7ROB at 480.759.5195.

AMATEUR TELEVISION NETWORK

The Amateur Television Network (ATN) promotes video operation on linked repeaters and mesh networks. Business meetings are in January and July. Monthly social meetings are postponed due to the pandemic. Join us online at www.whereby.com/atn1 on Sundays at 7:00 PM AZ time and Tuesdays at 8:30 PM AZ time for our ATV Nets. It's a lot of fun!

If you can, check in with RF on ATV, FM or DMR...
ATV Repeater Inputs: 434 MHZ AM/DVB-T and 2441.5 MHZ FM
ATV Repeater Outputs: Phoenix - 1253.25 and 5910 MHz,
Mesa - 421.25 and 1289.25 MHz, Tucson - 1277.25 MHz
FM Repeater Outputs: Phoenix - 448.400 MHz PL 100.0,
Mesa - 445.175 MHz PL 100.0, Tucson - 445.225 MHz PL 103.5
DMR Talk Groups: 9410 "ATV Talk" and 31024 "ATN"

We also stream 24x7 on www.youtube.com/amateurtelevisionnetwork and on YouTube at W7ATN-Arizona Live and W7ATN-Mesa Live.

President	Ed Olague	K5OLA	602.885.7725
Vice President	Rod Fritz	WB9KMO	480.322.5149
Sec/Treasurer	Lee Weitzel	K0CCU	602.439.4840
Repeater Trustee	Kevin Jacobson	AD7OI	602.694.0851
Webmaster	Roland Hoffman	KC6JPG	562.577.1381

ATN-AZ, 4134 W. Danbury Dr. Glendale, AZ 85308. Full membership dues are \$75 annually. Affiliate membership is free. Website: www.atn-tv.org. Email: wb9kmo@gmail.com

WEST VALLEY AMATEUR RADIO CLUB

The West Valley Amateur Radio Club, an Arizona 501(c)(3) non-profit corporation, has been providing emergency communications since 1961. Meetings are the **FIRST MONDAY** of each month at 7:00 PM at Shepherd of the Desert Lutheran Church, 11025 N 111th Avenue in Sun City. VE Testing with prior registration before each general meeting at 6:00 PM. The board usually meets on the third week of the month on Zoom. A weekly breakfast is held on Thursdays at Lou's Tivoli Gardens, 12535 W Bell Rd at 7:00 AM. Daily call-in nets are held on 147.300 (tone 162.2) at 9:00 AM and at 8:00 PM. Check our website (https://westvalleyarc.com) for other events and information.

President	Danny Hoerr	KM4HFT
Vice-President	BillCiccone	KA2KHV
Secretary	Lee Ann Ciccone	KJ7AZR
Treasurer	Bob Runke	AB7RR
Board Member:	Ryann Shipp	K1WAZ
	Joe Jacobson	KJ7PUL
	Frosty Oden	NQ1S
	Larry Johnson	WO7C
Committees:		
Membership	Krissy Larson	KI7GJJ
Technical Advisory	Frosty Oden	NQ1S
Equip. Donations	Ken Jenkins	WB6MMV
& Sales	Jim Seay	WB7RBN

WVARC, P O Box 1573, Sun City, AZ 85372-1573. DUES: \$15.00/ YR for family residing at the same address. MEMBERSHIP YEAR-January - December. Web Site: http://westvalleyarc.com. Email: suncitywvarc@gmail.com

SUNLIFE AMATEUR RADIO CLUB

The Sunlife Amateur Radio Club is a Snowbird Club and meets **EVERY MONDAY** at 10:00 AM from October through the end of April both in person and on Zoom at Greenfield Village, 111 S Green field Road in Mesa. Please contact Sue Rogers, W7SKH at happyham7777@gmail.com.

Nets:

20 Meter Net: Monday, Wednesday, & Friday, 14329 Mhz SSB 12:30 p.m./11:30 a.m. during daylight savings time.

10 Meter Net: Tuesday & Thursday, 28.329 Mhz, SSB. 7:00 p.m./ 8:00 a.m. during daylight savings time.

Venture Out: 2 Meter Net: Monday, Wednesday, & Friday, 1:00 p.m., 146.58 MHz FM simplex, 12:30 p.m.

President	Ralph Towers, KA0CET	retowers@hotmail.com
Vice President	Jim Hood, K5TT	
Secretary	Greg Watkins, WB7VOK	
Treasurer	Cheri Goforth, KD7ZXD	treasurer.sunlifearc@gmail.com

Membership dues are \$10.00/year. If you would like to be a member, visit the website at https://www.sunlifearc.org/





AMO - ARIZONA MESH ORGANIZATION

The Arizona Mesh Organization (AMO) is a 501(c)(3) amateur radio club. Our goals and purpose is to promote and support ARDEN MESH Networks throughout the state of Arizona, to explore new technologies, to promote the education of what amateur radio mesh is, to support and exchange information with mesh users throughout the state, to further the technology of mesh radio itself, to support emergency and public service communications, and (of course) to have fun along the way. AMO's board meets the FIRST THURSDAY and club meetings are held the **SECOND THURSDAY** of each month via Zoom. If you would like to attend either of these, contact the President, Michael, KI7LXY at president@arizonamesh.org at least 24 hours in advance. Visit the web site at https://arizonamesh.org for more information on the AMO Club and up-to-date news.

President:	Michael Bailey, KI7LX	Y president@arizonamesh.org
Vice-President	Steve Estes, KB7KWK	vicepresident@arizonamesh.org
Treasurer:	Scott Gillins, W2KP	treasurer@arizonamesh.org
Secretary:	Robert Fridell, N3BZ	secretary@arizonamesh.org
Board of Director	S	

Dale Schmidt, N7QJK n7qjk@arizonamesh.org Heidi Brewer, K7ZAE k7zae@arizonamesh.org Gary Hinton, AC7R ac7r@arizonamesh.org Bob Howard, W8RH w8rh@arizonamesh.org Rodney Fritz, WB9KMO wb9kmo@arizonamesh.org

Mail Address: Arizona Mesh Organization Inc, 7939 E Golf Avenue, Mesa, Arizona 85209. DUES: Full Membership \$25.00 per year. Visit the AMO web site for more information on membership. If you would like to join, visit our web site and click on the HamClubOnline Banner: https://arizonamesh.org/amo_membership.shtml

ARIZONA OUTLAWS CONTEST CLUB

The Arizona Outlaws Contest Club ("AOCC") does not hold routine meetings. At least once per year, we hold the AOCC Roundup, a catered event that rotates each year between Phoenix, Tucson, and Prescott. All members have access to an email reflector. Members post comments, questions, and their contest scores. All licensed amateur radio operators interested in amateur radio contesting (also known internationally as "radiosport") are eligible for membership. For more information, see our website, www.arizonaoutloaws.net.

President:	Mike Fulcher, KC7V	mikekc7v@gmail.com
V. P. North Area	Ray Benny, N6VR	n6vr@arrl.net
V.P Central Area	Chuck Zanella, KF7U	Chuck_KF7U@outlook.com
V.P. South Area	Owen Watson, AK7W	ak7w.owen@gmail.com
Secretary/Treasurer	Larry Reader, KE2VB	larry.ke2vb@gmail.com

Arizona Outlaws Contest Club, 1099 N Olympic Pl, Tucson, AZ 85737. Dues are \$10 per year. For more information, contesting resources, and a membership application, visit our website: www.arizonaoutlaws.net.



ADAW Staff

PUBLISHER/MANAGINGEDITOR				
Christine Kesauer	N7PVL	602.843.0960		
AARCEDITOR	11,1112	002.0 1510,000		
Lori Cripps	WA7EDI	602.955.7517		
AMOEDITOR				
Robert Fridel	N3BZ	610.577.6907		
ANSREDITOR				
Steve Miller	W6SDM	602.290.1603		
AOCCEDITOR				
Mike Fulcher	KC7V	480.522.4332		
ARAEDITOR				
T D Kennard	N7ISR	adaweditor@w7ara.net		
Joe Bakas	KE7WHE	adaweditor@w7ara.net		
AzRCCCEDITOR				
Charlie Zurenko	N2TFS	chazur@icloud.com		
ATNEDITOR				
RodFritz	WB9KMC	wb9kmo@gmail.com		
CADXAEDITOR				
Bill Poole	AA4Q	billpoole@yahoo.com		
CARLEDITOR	WD 4700	400 570 1041		
Steve Warford	WB4ZSC	480.570.1041		
CHRCEDITOR	VV7AEN			
Walter Lawrence KARCEDITOR	KK7AEV	walter.dkk@gmail.com		
Bobbye Mills	KA7MIZ	ka7miz@dmbam.com		
MARAEDITOR	KA/IVIIZ	Ka/IIIIZ@difibaiii.com		
Bob Howard	W8RH	w8rh@live.com		
MARCAEDITOR	WOKII	wormanive.com		
Norm Johnson	AA7OO	480.278.2886		
MMRGEDITOR	111,00	100.270.2000		
Lori Cripps	WA7EDI	602.955.7517		
OVARCEDITOR				
Steve Wood	W1SR	nauset2222@yahoo.com		
George Cooley	NG7A	george@ng7a.com		
QCWAEDITOR				
Carl Foster	KB7AZ	carlfoster@cactuscomm.net		
SARCEDITOR				
Gene Geller	K0VN	612.670.9358		
Sunlife EDITOR				
Judy Ferrara	K7JLF	k7jlf@yahoo.com		
SuperstitionARCEDITO				
Larry Kuck	WB7C	editor@us60.us		
TBARCEDITOR				
Andrew Cornwall	KF7CCC	kf7ccc@arrl.net		
WVARCEDITOR				
BillPowell	W9WRP	w9wrp@yahoo.com		
YARCEDITOR	II ID ATTOLY	11 00500 1		
Don Bauer	WB7TPH	dbauer2250@aol.com		
ADAWWEDSITE	adaw@ada	_		
ADAWWEBSITE	www.adaw	org.		

The <u>Arizona Desert Aire Waves</u> is published monthly and is the official news media of the sponsoring clubs. All news items, articles and inquires should be submitted to each club's editor. Any information and opinions printed herein are those of the contributors and are not necessarily those of the sponsoring clubs. Full permission is granted to quote from this publication providing credit is given to the individual contributor and the ADAW. ALL RIGHTS RESERVED. **Deadline is 10th of the month**

From the Editor's Desk

Just a quick note from me this month.

The FCC has issued a clarification on the new \$35.00 application fee. The fee will not apply to most license modifications, including license upgrades and changes to club station trustees. It will only apply to new licenses, renewals, rule waiver, and a new vanity call. Therefore, current licensees will not be changed a fee until they renew their licenses or apply for a vanity call. The new fees took effect on April 19, 2022.

Found an interesting column by Doug Mansor, WA8UWV in the ARRL Club News for April 19, 2022. Wanted to share it you case you haven't seen it.

Enjoy - and "see" you next month.

73, Christine, N7PVL





Public Service Calendar

Maricopa County Emergency Communications Group Events

EVENT	LOCATION	DATE
Barnburner Mounta	in Bike Race	09/17/2022

Kendrick Peak, NW of Flagstaff
AuxComm Interest TBD 12/31/2022

AuxCommInterest IBD 12/31/2022

To sign up for an MCECG Public Service Event: <u>www.mcecg.net</u>

For information, contact Dennis Bietry - KE7EJF at 602.274.3732 - email, ke7ejf@cox.net, or contact the Event Coordinator for the event.

Using Phonetics to Improve Communications

Doug Mansor, WA8UWV, PCARS

If you've been a ham for a few years, you are probably aware of the phonetic alphabet and have used it or at least have heard it being used on the air. As a new ham, you might have encountered the phonetic alphabet while studying for the test but stashed it away in the back of your mind for later study if needed.

The phonetic alphabet we use as hams is sometimes referred to as the NATO phonetic alphabet, and is considered the standard for general use on the air. It consists of words that represent corresponding letters of the alphabet. It is important to use this standard to prevent being misunderstood on the air, such as when giving your call sign, location, or name to a rare DX station or any station under noisy conditions.

It may be fun to create a unique set of phonetics to represent your call sign, but that is not likely to improve communication. When the standard phonetics are used, you will eventually learn to associate that word with the corresponding letter. It's the same mechanism that is used to interpret Morse code. Instead of thinking of "dit dit dah dit" as the letter "F," you simply hear "F" when that code is presented. So, instead of hearing the word "bravo," you would actually hear the letter "B." If the other station uses nonstandard words to represent the letters in their call sign, you would have to take the time to think how each word is spelled and then what the first letter is. By the time you have accomplished all that, you will have missed the next two words (letters). For example, my call is WA8UWV. If I say, "Whiskey Alpha Eight Uniform Whiskey Victor," it would be readily understood. If I say, "We all ate ugly white vegetables," it would take a while to translate.

When checking into a net, the Net Control Station (NCS) is often required to report the call signs of stations reporting in. If a letter of the reporting station's call is misinterpreted, the NCS report will be incorrect. In regard to the Platinum Coast Amateur Radio Society (PCARS) net, where ten check-ins for each week in a row will entitle you to a certificate, an error in reporting your call might cause a disqualification.

How easy is it for a letter to be misunderstood? I have often mistaken similar sounding letters.

As an example, the following groups of letters tend to sound similar.

Sounds Alike: BCDEGPTVZ AJK QUW IY SX

This group of letters tend to have unique sounds and are less likely to be mistaken.

Unique Sounding: FHLMNOR

As you can see, more letters have the potential to be mistaken than not. The results are highly dependent on the enunciation practiced by the speaker and radio conditions.



AMATEUR RADIO SERVICE DEMONSTRATION STATION

W7ASC is a Demonstration Station for the Amateur Radio Service. The Volunteers who operate the station are members of the Center for Amateur Radio Learning (C.A.R.L.), a 501(c)(3) corporation. W7ASC is open to all who visit Arizona Science Center (ASC) during those hours when ASC is open. The station is located on the third floor of the Science Center in the "My Digital World" gallery. Direct phone number is 602-716-2082.

ASC is open daily, 10:30 a.m. – 4:00 p.m., and the ham shack hours are essentially the same, dependent on availability of staff. Our Twitter feed and Face Book page can be accessed at twitter.com/w7asc_arc and facebook.com/W7ASC, respectively. We hope to have our web page back up shortly. All licensed amateur radio operators are invited to join us Wednesday and Saturday mornings at 0900 MST for the CARL Net on 440.375 MHz, offset +5.0, tone 100. The repeater is located on South Mountain.

We still need more volunteers to keep the shack open and fully staffed at Arizona Science Center. Call the number above to set up a visit to check us out, or visit us on QRZ.com to start the process of becoming a volunteer at ASC.

Chasing Rabbits

Anybody who's spent time working with me during my active days at the W7ASC shack at Arizona Science Center will tell you that I like to chase rabbits. Not the cute little cottontails that hop around my back yard, but the off-subject topics which pop up in an otherwise normal conversation. I just can't resist going off the main trail to tell a story that popped into my head from something that was said.

Today, I was reading the April ADAW newsletter again and the appeal of Chuck, KF7U, for participants in the upcoming 7th Call Area QSO Party. When I got to the part about manning all fifteen Arizona counties, my mind took an abrupt turn. I'm a native Kentuckian and I immediately thought about the fact that Kentucky has 120 counties; more than any other states except Texas and Georgia. I remember the tale that the reason KY has so many counties was that politicians and other VIPs liked to have counties named after them, so existing counties were split to allow the new county formed to be named for the dignitary. Nice story, but not the whole truth. With only nine original counties, and property taxes payable at the county seat or to a roving tax collector, it became a hardship as the

CARL Continued from Previous Column

population grew. But, I digress.

Opportunity Abounds

Chuck's message was that it is important to make the best possible presentation of amateur radio across the region; especially within State-48. As I write this, a scavenger hunt is in progress at Arizona Science Center, the home of W7ASC. Visitors of all ages, with a list of prey in hand are scurrying about seeking experiences and finds to cross off their list. The intrepid C.A.R.L. volunteers in the photo (L-R, Dennis N4NDS, Thomas NE7X, Rusty WA7ZID, Sam N7INV, and Jack KD7ROB) will be positioned to do their part for the experience, handing the visitors a Morse code chart and sending them a "secret" letter of the alphabet in Morse code. That will potentially put our volunteer operators face-to-face with many hundreds, of visitors. Each encounter is an opportunity to make an impression for amateur radio that goes beyond the simple task of sending a little code. But it doesn't end with that.

The Plot Thickens

The guests will also add their impression of each encounter on their scavenger hunt form and ASC management will use those comments to assess the value of the various exhibits to the overall mission of the center. Think of it as our annual report card. A fleeting moment, from 363 days a year, to make a difference. Of course, we do get other feedback from visitors throughout the year – if we make an exceptional presentation. The attribute that triggers most of our favorable shout-outs is when a parent observes an operator fully engaged with their kid, with a smile on their face and enthusiasm that goes beyond any formal goal to convey a canned message.

We can always use more volunteers to help us make the case for amateur radio at Arizona Science Center. If that causes a rabbit to pop up, go to our QRZ.com page and click the Volunteer Application button to begin the chase.

73 de WB4ZSC Steve vyix99@yahoo.com 480.570.1041





Field Day 2022

We've had great news on Field Day for 2022. Once again, Jack Lunsford has graciously opened his home in Flagstaff to us, so we'll be able to operate at altitude - and hopefully slightly cooler than a June in Phoenix. Mark your calendars now for June 25-26 (or just head up for the day on Saturday, June 25). The menu this year includes brisket and ham for dinner - not to be missed! Make sure there's a plate for you at mealtime by visiting the TBARC website - breakfasts and lunches are \$10, dinner is \$15, the whole weekend is \$45. Sign up at w7tbc.org/field-day!

What is Field Day anyway?

New hams might be scratching their heads - what's the big deal about Field Day? What happens there and why do people plan their calendars around it? Field Day is a radio operating event designed to take people out of their normal locations. The goal is to set up radios and make as many contacts (mostly on the HF bands) as possible. Lots of other people are doing the same thing, so contacts are frequent! If you've got a technician license, it's a great place to learn about what goes on at the lower frequencies - and to transmit there legally!

April Emcomm Operating Event

One of the purposes of ham radio is emergency communications. TBARC participates by supporting local hospitals in the event of a communications outage. But that's not something you can just show up for - you need to practice your skills! In April (and you might be seeing this before or after the event) we will have/had an event focused on emcomm. If it hasn't happened yet, be sure to charge up your battery-powered radios and bring them out - more details will be in email. How do you participate in a net? What might you need to know? We hope you (were able to) join us and find out!

Foxhunt Event

Also in plan is a foxhunting event. That doesn't involve any live foxes - it's really a hidden transmitter hunt. Your job will be to find a small number of radios that are occasionally transmitting in a park. This is a great activity for hams. Because it just involves receiving, not transmitting, it's also fun for people who don't have a license yet. Bring your interested kids, friends and your handheld radio. If you have a directional

Continued Next Column

For Sale / Wanted



LOOK! Great Deals!

For Sale

For Sale - "The Dominator" 6 meter, 5/8 wave vertical antenna. Made like a tank in Intaly by SIRIO. Is in perfect condition in Tucson. \$100.00

Contact Richard Bruns, K7VQ at d brunz27@yahoo.com

11.0/13.5 KW 120/240 V Predator Generator

Looks and runs like new. Electric start with 12V battery and charger. Purchased 8/3/16, has 37 hours total run time. Comes with Manual, complete maintenance log, 90' 50-A cable, and dual 6' loading ramps. \$1800.00 Contact: Dave West K9JKN at WestDL@aol.com or 480.641.1480.

70CM Yagi - 70 CM Yagi, KLM model 440-16X. Gain 14.0 dBd, Broadbanded 420-450 MHz. Boom length - 10 ft, 3 in. \$50 including manual. Contact Erik Basilier K7TV at ebasilier@cox.net

The **West Valley Amateur Radio Club** has radios and ALL kinds of supplies available for sale through the club. We get some old equipment that won't sell that will be added to the items for free. Contact: Ken Jenkins, WB6MMV at kjenkins5623@gmail.com or Jim Seay, WB7RBN at wb7rbn@arrl.com.

TBARC Continued from Previous Column

antenna, that will help you. So will - believe it or not - a paperclip that fits in your radio's antenna jack! More details are coming in email. See you there!

May meeting

We'd love to see you at our next meeting! As usual, it's on the third Thursday of the month. The meeting will be hybrid: in person at Arizona Christian University or online with Zoom. As of press time, the subject is still being confirmed - but I guarantee that you'll learn something interesting! The conference URL and details are on the TBARC website, w7tbc.org. Join us and share the learning and conversation - in person at 59th Avenue and Greenway Rd or at the Zoom virtual meeting - it's your choice! Either way, we'll see you at the meeting!

Andrew Cornwall KF7CCC <u>kf7ccc@arrl.net</u>





4747 N 22nd St. - Suite 100 - Phoenix, AZ 85016 VHF - 146.84 MHz - PL 162.2 / UHF - 446.900 MHz - PL 131.8 Echolink Node #731289 - K7ARC-R

I would like to take a moment to thank everyone who turned out this weekend to help make our annual hamfest at DeVry a success. We faced some challenges like road construction on Dunlap Ave. requiring a detour to get to the parking lot and even the remnants of COVID restrictions which required the students at the Carrington School of Nursing to attend class on Saturday, leaving us without a classroom for our meetings. With the support of the administration of DeVry and Carrington College, we were able to continue the tradition of holding a hamfest at this same location where the Arizona Amateur Radio Club and ARCA first held a hamfest in 1997.

It's been two years since we have been able to host our hamfest and it sure felt good to be out there mingling with old friends and making new friends, too.

We started setting up on Friday, and with the many volunteers who came out to help, we made quick work of setting up the club booths, sale table and roping off the hamfest area. This allowed us to enjoy an early dinner of cold cuts and salads, served up once again by Roger Bram. Jane Engstrom's lemon bars were a nice touch, too!

Doug Besemer pulled together a team to gather up our surplus and donated items to sell at the club booth. From the smile on Doug's face on Saturday, and the shrinking number of items on the club table, I'd say he and his team did a fantastic job.

Every time I passed by the ARCA and ARRL tables, they seemed to be busy. Whether it was a new ham looking for information on how to get started in radio, questions about how to get an amateur radio license plate for your car, or what is being done to oppose onerous fees being leveled on repeater owners on federal land, there was plenty of good information available and being shared.

While things appeared to get off to a slow start on Saturday, it had picked up by 9:00 a.m. and the rows were filled with shoppers looking to score a great deal. I heard lots of positive comments from those in attendance.

The big winners in our annual hamfest raffle were:

Anytone AT-D578UV III Pro DMR Dual-band Mobile Radio with GPS and Bluetooth

W6IZK - Wayne Hale - Flagstaff, AZ

Anytone AT-D878UVII Plus Digital DMR Dual-band Handheld Radio with GPS, APRS RX/TX and Bluetooth - N6CAZ - James Irish – Vail, AZ

Continued Next Column

AzRCCC Continued from Previous Column

A \$100 Gift Certificate to Ham Radio Outlet - K7ASA – Kevin Gold – Palominos, AZ

We would also like to thank Firestik Antenna Company for their donation of 2-meter Firestik antennae for the hourly raffles.

It will be a few days before Gary Hamman compiles a financial report, but I am hopeful that the final tally will be good news for both clubs.

It takes a lot of work to put together a successful event and this year, with the help of our friends at the Arizona Amateur Radio Club, I'd say our combined efforts paid off.

Again, many thanks to those that helped put the hamfest together and to those that came out in support of both K7ARC - the Arizona Red Cross Communications Club and the Arizona Amateur Radio Club. We can't wait to do it again next year!



AzRCCC Crew



Volunteers' Dinner



What a busy month this has been for ham radio!! But April will continue to be filled with enjoyable radio events. The Arizona Amateur Radio Club's annual hamfest at DeVry will be history when you are reading this, but it is the AARC's biggest event and one we look forward to with enthusiasm. Hopefully you were there to enjoy it with us!

The AARC has continued its testing program at the American Red Cross Building the last Saturday of each month, so we will be testing again on April 30 and again in May. It's a pleasure to welcome new hams to our ham fraternity.

73, Lori, WA7EDI



K7GH & KI7GJJ at the Gate



W7ISG, K7GH, & K7OED at Club Tables



N2TFS at the Red Cross Vehicle



ARRL Booth



The Refreshment Crew

License Testing Information

When you are ready to take an exam for an Amateur Radio license, there are Volunteer Examiners available to assist you. Each Applicant will need to bring a picture ID (some test sessions require two forms of identification). An FCC-issued FRN number is required. If you do not have an FCC-issued FRN number, visit https://apps.fcc.gov/coresWeb/publicHome.do to obtain one. If you are upgrading your class of license, be sure to bring the original (and a copy) of your license and/or Certificate of Successful Completion of Examination (C.S.C.E.). There may be an exam fee required.

PLEASE NOTE: Dates, times, locations, fees may change. Arrive promptly at time listed. Fees may vary and exact change or check is required at most sessions. Call test session contact to confirm information. Walk-ins are permitted unless otherwise specified.

IMPORTANT NOTICE: In light of the current situation with the COVID-19 virus, please call to verify whether test session will be held.

May Test Sessions

May 2nd - WVARC -- 6:00 PM
Shepherd of the Desert Lutheran Church-Walton Hall
11025 N 111th Ave, Sun City
Contact - David Morrill
No Walk-Ins / Register or Call Ahead

May 3rd - ARRL Ham Radio Exams -- 6:00 PM
Quadcity Christian Church, 501 S Senator Hwy, Prescott
Contact - J.M. Scherfling 928.632.2050
No Walk-Ins/Register or Call Ahead

May 7th - CHRC Laurel VEC Team -- 10:00 AM

Tri-City Baptist Church, 2211 Germann Rd, Chandler
Bldg D, Room 170

Contact: ve@chandlerhams.org

Registration or Call Ahead / Walk-Ins Allowed

Register at: chandlerhams.org/testing/

May 7th - K7ARC VE Team -- 10:00 AM

American Red Cross, 4747 N 22nd St, Phoenix

Contact - Brandi Bridges VE.Testing@k7arc.org

No Walk-Ins / Register at k7arc.org

May 9th - East Valley VE Group -- 6:00 PM
Charles K Luster Bldg, 640 Mesa Dr, Mesa
Contact - Ray Vasquez
602.363.4207
MUST obtain FRN prior to exam

May 9th - Radio Society of Tucson -- 7:00 PM
Immanuel Presbyterian Church, Witherspoon Hall
252 E 22nd St, Tucson
Contact - Diane Zimmerman dzimmerman 2002@gmail.com

May 13th - Oro Valley ARC -- 5:30 PM

Mountain View Baptist Church, 3500 W Overton Rd, Tucson
Contact - David Beauchesne 831.345.3308

May 14th - Yuma ARC -- 9:00 AM
Yuma County Sheriff's Office, 141 S 3rd Ave, Training Rm 2, Yuma
Contact - John Ham
970.927.3273
No Walk-Ins/Register or Call Ahead
Appointment Only - Pre-register by Wednesday

May 18th - Thunderbird ARC -- 6:00 PM
Northwest Christian School, , 16401 N 43rd Ave, Phoenix
Enter Gate 9, Room 423
Contact - Walter Reinert 602.668.7804
No Walk-Ins / Register or Call Ahead

May 21st - Hualapai ARC -- 10:00 AM
VE's Residence, 3571 E Lum Ave, Kingman
Contact - Alyce Ingle 425.231.9173

May 21st - West Valley Electronic Club -- 9:00 AM
The Shack, 11115 W Nevada Ave (111th & Nevada), Youngtown
Bring FRN, pencil & pen, and \$15.00
Contact - David Morrill
623.680.5011
No Walk-Ins / Register or Call Ahead / Limited Seating

May 28th - Arizona ARC -- 10:00 AM

American Red Cross, 4747 N 22nd St, Phoenix

Contact - Gary Hamman 602.996.8148

No Walk-Ins / Register or Call Ahead

Pre-Register Required by the Thursday before

FACEMASKS ARE REQUIRED







I came across an interesting piece of software by AA0Z. He has created a dashboard that interfaces with N1MM+ and gives contesters even more situational awareness about their ongoing trends, rates etc. This may just be for multi-op stations but I will check on that. I am thinking about a possible AOCC Zoom presentation.

The bands have been great lately (except for a few flares and disturbances) as the flux hit 150 and has stayed above 100. The high bands are really fun and it is great to have 10m back. For you 6m enthusiasts, the June ARRL VHF contest is not all that far away so start getting prepared. The next major contest is CQ WPXCW at the end of May.

As a reminder, you can find contest dates and links to rules by looking at www.contestcalendar.com. You can also check to see what dxpeditions will be on for DX contests at https://www.ng3k.com/.

Contest Tip this month – Automation. This is a project that I am investigating so I can cut down on the amount of cables plus give better access for multiple antennas between my two stations. I am not an expert but I will be looking into remote antenna switches, green heron everywhere and several other vendors. Have you thought automating your station?

Our members include elite contesters who have operated from many DXCC entities around the globe as well as beginners wanting to learn more and who may submit a score of only a few QSOs. We encourage all stations, big or small, to get on and participate in contests and make contacts. There are excellent resources among club members and on our club website for contesting help.

Here are a couple of AOCC accomplishments-

2021 CQWW RTTY Contest, AOCC finishes #6 in the USA and #2 on the west coast.

AOCC finished #11 in the USA in the 2021 ARRL 160m Contest. A decent effort, but not as good as years before.

Don't forget Chuck's, KF7U, note in the April ADAW for the 7QP coming up in early May. Let's all get on and make some noise.

Keep posting your scores. We welcome all who wish to join the ham contesting/radiosport world.

73, Mike KC7V





REMINDER OF UPCOMING EVENTS...THESE EVENTS AND NETS ARE OPEN TO ALL HAMS BUT CHRC MEMBERS ARE THE MAIN SUPPORTERS OF MOST OF THEM ... PLEASE PARTICIPATE, IT IS WHY WE STARTED THIS CLUB.

WEEKLY...

WEDNESDAYS @8pm: The SHOW NET on South Mountain Repeater, 443.050 + pl100. This is a social net, but also hope to get TECH questions and conversations as well. Please join us every WEDNESDAY

THURSDAYS @7pm: Maricopa County New Hams Net on South Mountain Repeater 440.375 + PL100. This net is targeted at newly licensed hams to learn and get over the fear of pressing that PTT button on your radio. Good variety of new and seasoned hams . . . no such thing as a dumb question here.

THURSDAYS @8pm: The Chandler Ham Radio Club weekly net on South Mountain Repeater, 443.050+pl100. All though this is the weekly club net it is open to all ham radio operators in the valley.

EVERY FRIDAY @ 11AM: A GROUP OF US MEET AT THE NATIONALLY FAMOUS "ROMEO LUNCH." WE MEET AT CULVER'S ON ARIZONA AVE. AND WILLIS RD. IN CHANDLER, AZ. COME JOIN US!

Paul, KD7KDO, who is the Secretary of the Motorola ARC, thanked us for using the club's South Mountain repeater (443.050+PL100). This keeps it from getting dusty and lets them know it's up and functional. Since this repeater is listed as a backup EmComm repeater, it's good to know it's up and running. Giving us permission to use this system simply promotes the goodwill and fellowship we share in this wonderful hobby.

Walter KK7AEV



Hamfest Calendar

7 May 2022 - Cochise Hamfest and 7th Area Phone/CW/Digital Communications Exercise - hosted by the Cochise Amateur Radio Association will be held at the club site at 2756 S Moson Road in Sierra Vista. Gates open at 7:00 AM with free parking and admission. Tailgating is \$5.00 and inside tables are \$10.00 each. VE testing will be held from 9:00 AM until 11:00 AM. Prize drawing will be held at 12:00 noon. Talkin: 146.76(-) PL 162.2. For more information, email Bill N7BIL at cwmcnab@gmail.com.

14 May 2022 - 2022 Prescott Hamfest - hosted by the Yavapai Amateur Radio club will be held at Granville Elementary School, 5250 Stover Drive in Prescott Valley. Hours are 8:00 AM until 12:00 Noon. General Admission - \$5.00 per person. Full time students with ID and 16years old and younger - FREE. Swap spaces - \$10.00 per space. Pre-registation for seller spaces at www.prescotthamfest.com is required. Due to limited space, RVs, Campers, and trailers will not be permitted. Talk-In Frequencies - 146.880 MHz(-) PL 100 Hz, 447.65 MHz(-) PL 100 Hz, or 146.580 Simplex. Contact Hamfest Chairperson - Frank Bender, K8FB at k8fb@w7yrc. Visit the web site at www.prescotthamfest.com for updates and additional details. SORRY NO GUNS, DRUGS, ALCOHOL, SMOKING, VAPING, OR FIREWORKS. ONLY LEASHED ANIMALS ARE PERMITTED.

17 September 2022 - Show Low Tail Gate Swap Meet - hosted by the Kachina Amateur Radio Club will be held at the VFW, 741 Whipple Street in Show Low. Hours are 7:00 AM to 12:00 PM. More info to come.

24 September 2022 - **RST Hamfest** - hosted by the Radio Society of Tucson. Watch for more details.

1 October 2022 - TARA Ham Swapfest - hosted by the Tonto Amateur Radio Association will be held at Rumsey Park, 400 McLane Road in Payson. Hours are 8:00 AM until 2:00 PM. Admission is free. Tailgaters are \$10.00 and vendors are \$20.00 per table. VE testing will be held from 7:00 AM until 9:00 AM. There is a \$15.00 fee for the test. A potluck BBQ will follow the swapmeet until 4:00 PM. Bring your own meat and something to share. Contact Bruce Johnson at 928.474.4154 (email - stretch8@q.com) for more info. Visit the website at https://n7tar.org/

29 October 2022 - Copafest - hosted by the Maricopa Amateur Radio Club will be held at The Ultrastar at Ak-Chin Circle, 16000 N Maricopa Rd in Maricopa. Hours are 7:00 AM until 1:00 PM. Admission Donation is \$5.00 per person. Spaces are \$10.00 for two parking spaces. Setup begins at 5:00 AM. Balloon Launch, VE Testing, Card Checking, Vendor Exhibits, Seminars, Prizes and more. Many activities available in the Multitainment Center including laser tag, bowling, movies, games, dining and more. Dining and Hotel also available. For information, email fest@copafest.org or visit the website at www.copafest.org.

5 November 2022 - HARKfest Tailgate Hamfest - hosted by the Hassayampa Amateur Radio Klub will be held at North Ranch Escapees RV Park, 30625 S Hwy 89 in Congress. Haours are 8:00 AM until Noon. Free Admission. Free Tailgating & Vendor Sites. Mus pre-register via email to djgrooms@yahoo.com. Overnight full RV hook-up or dry camping. Contact North Ranch Escapees at northranch@escapees.com to reserve. Free Ham Radio License Testing - Must pre-register via email to cecarter39@yahoo.com. Grand Prizes - Door Prizes - ARRL Card Checking. Talk-in on 146.580 (simplex) or 146.620 repeater (PL 162.2). Contact Duane Grooms, KD0KYK at djgrooms@yahoo.com for more information. Visit the web site at harkaz.org.

12 November 2022 - Oro Valley Hamfest - hosted by the Oro Valley Amateur Radio Club will be held at Marana Middle School, 11285 W Grier Road in Marana. Gates open at 7:00 AM (5:00 AM for sellers). Closes at 1:00 PM. \$5.00 Admissio includes a bottle of water. Children under 12 are free with a paid adult. Sudents are free with any AZ school ID. Seller spaces - \$10.00 per space (includes the seller). Indoor VE session. Pre-registration preferred - email licensing@tucsonhamradio.org. ARRL Card Checking, Interesting Seminars, Prizes! Food Truck available for Breakfast and Lunch. Contact hamfest@tucsonhamradio.org for more information.

3 December 2022 - **SuperFest** - hosted by the Superstition Amateur Radio Society will be held at Mesa Community College, Southern & Dobson Campus in Mesa. Watch for more details.









We had an excellent meeting last month from Anthony, K8ZT. The subject was portable and field operations and Anthony did a great job speaking to all of the details necessary for a successful outing.

Our April meeting has been rescheduled to April 22nd to accommodate Easter services in the church where our meetings are held. Please join us then. Our May meeting has also been pulled in to accommodate those that are going to Dayton Hamvention this year. More details are available on our website.

Last weekend, we held our Spring Foxhunt; something we haven't done in years. Many thanks to Walt, AL7KE for organizing the event and to Andreas, W1IXQ for being the fox. Special thanks to Andreas' sister for the wonderful artwork that she designed for use during the Fox Hunt. Congratulations to Jim, K7OHK for being the winner. Our long-range plan is to hold another Fox Hunt when the weather gets cooler during the weekend of October 29th.

Our VE sessions have been successfully moved to the time slot just prior to our monthly meetings. Thanks to David, AK2L for organizing these.

We continue to receive donations for our November Hamfest. Thanks to Fred, W2HZ for following up on the many phone calls that we get for donations. We are looking forward to another great Hamfest on November 12th with items that will be of interest to many.

We are working on getting our club radios prepared for outings. Although the weather is heating up, we are assembling the necessary items, including a Go-Box arrangement. Thanks to Logan, KE7AZ for helping with this project.

We had a joint meeting with the K7UAZ University Amateur Radio Club this week. Thank you to the OVARC members that came down. It was amazing to see their newly transformed shack. K7UAZ has made some incredible progress during the last two years. Congratulations to all at K7UAZ. Great work!

I hope to see everyone in Dayton this year. It will be great to come back to this event like the old days.

73, Steve W1SR





Time to RENEW! Membership is \$20 per year. Membership info is available at https://www.w7ara.org/mbr/membership.aspx. ARA members are encouraged to log in to the member services on the ARA website and review / update their email addresses.

ARA Pinal Peak profile contributors Dave Hall, Erv Heimbuck, Lance Halle, and Dennis Campbell

Location – Pinal Peak – Tonto National Forest, Globe, AZ **Elevation** of 7,800 feet

The Pinal Mountain Communications Inc. group operated a repeater at this site until July 2000 when the ARA assumed ownership.

January 2000 - The Arizona Repeater Association and the Pinal Mountain Communications Incorporated have reached agreement in principle for the ARA to assume their current location on Pinal Peak pending administrative paperwork completion.

February 2000 - Paperwork is still pending from the Forest Service. The ARA will acquire the 10 x 10 building, the 40' guyed Rohn tower, and repeater.

July 2000 - The Tonto National Forest Service has completed the paperwork. ARA has received the keys and the first electric bill. Erv Heimbuck has volunteered to assume the duties as Site Engineer. A reconnaissance trip is planned for 7/15. The ARA will assume the existing frequency 147.200 but will change the PL to the ARA standard 162.2.

July 15, 2000 - Erv, Lance and John made a recon trip to the new Pinal Peak site. Call sign on the repeater changed to W7ARA but the PL remains 110.9 for now.

September 2000 - A trip is planned for 9/30 to upgrade the electrical service. Plans call for linking the site to Bank One for auto patch service, UHF repeater linked to White Tank's, a UHF APRS radio.

January 2001 - Erv and John will attend the user's association meeting 1/22 at the site. Construction and wiring of the racks is under way. Electrical upgrade to the building will begin in the springtime as the 9/30/2000 trip had to be postponed due to weather.

May 26, 2001 - Erv, Lance and Ben began the electrical upgrade work to the building. Craig Kingston made the trip to plan his Eagle Scout project involving improvements to the

ARA Continued from Page 15

site's appearance.

August 4, 2001 – The Craig Kingston Eagle Scout project is a tremendous success. He had nine cars full of volunteers. The building was painted, weeds cut and old concrete removed.

September 2001 - Site batteries have been received. There will be 1100 Amp Hours of capacity. Erv is working on the rack and negotiating with the Forest service about the tower size, type and location.

October 5, 2002 - Site visit was made to restore power to the site. A lighting strike damaged the antenna and was reflecting nearly as much RF back to the radio as it was forwarding to the antenna. The team switched to a temporary antenna and improved the coverage and performance. A new antenna will be installed on the next trip.

January 4, 2003 - Erv and John attempted a trip to the site to cover the hole for the new tower. They were unsuccessful due to deep snow on the mountain. The new tower will be a Rohn 60' SSV self-supporting tower. This will comply with the Forest Service newly developed standard. The ARA begins fund raising for the \$30,000 cost to install the new tower.

February 2003 - Tonto National Forest advises the proposed tower installation has been approved.

August 2003 - The new tower has been installed. Work to complete the grounding, install cross arms, hang antennas and the run hard line will be scheduled soon.

September 6, 2003 – Tower work including grounding and running hard line was completed. A new vent fan was installed. As soon as the antennas arrive, a site visit to install the antennas and take down the old tower will be planned.

October 11, 2003 – Erv, John, Dennis, and Lance along with four others from MARCA went to the site and installed the new 22' Super Stationmaster antenna. The tip is at 70' AGL.

May 8, 2004 – Site trip spanning nine hours to install the new equipment rack, controller and radios. A great deal of time was spent routing cables, wires, and debugging the new installation.

May 15, 2004 trip to place the new equipment on the air. The 147.20 Micor and 448.475 repeaters are on the air.

May 22, 2004 – 147.20 repeater PL changed to ARA standard 162.2 A few control issues remain to be addressed. May 2005 – The ARA has a new web address. W7ARA.org

September 2005 – Erv and John re-roofed the building. The heavy duty battery charger was replaced. Telemetry from the site was indicating the AC voltage was varying from 85V to 160V. A bad neutral wire was identified.

May 2006 – Erv, Clark, Dave and Dave's son Toby spent the day cutting down weeds prior to the annual forest service inspection.

July 25, 2019 – A new battery was added replacing existing lead acid wet cells and a new samlexpower charger.

Radios - Pinal Peak has four Repeaters and one Link. The

Continued Next Column

ARA Continued from Previous Column

site uses Motorola Micor, Mitrek, and Quantar radios for the repeaters and links.

147.200 MHz + 162.2 Tone Motorola Micor 448.475 MHz - 100.0 Tone – RimLink Motorola Micor 33cm 927.4125 MHz - 151.4 Tone – RimLink Motorola Quantar

445.925 Mhz APRS UHF Digipeater Motorola Mitrek Link Radio to RimLink (Mount Ord) Motorola Micor

Antennas – There is a 60' tower supporting the antennas. The antennas are all commercial grades and are all Omni Station Master type antennas. The site originally had a 40' guyed tower that had been hit by lightning. A new tower originally purchased for Mount Ord was installed at this site. The tower company installed the 100' self-supporting tower but the Forest service required it be reduced to 60' to provide a clear view for the Fire lookout Tower located above it.

Power / Redundancy - The site is powered Absolyt battery floated / charged by a samlexpower SEC-1280UL 12VDC 80 AMP Automatic Battery Charger.

Controller - The radios are all controlled by one Link Communications RLC-3 Repeater Controller.

Communications shelter – The radio hut is 10' X 10'.

ARA Pinal Peak https://www.w7ara.org/photo/Pinal/





The Sunlife Amateur Radio Club meets EVERY MONDAY from October through April each year 10:00 to 11:00 a.m. at Greenfield Village RV Resort. The meetings are held in the gated community of which you can park outside the gates on S. Quinn Circle or park inside. The parking inside is limited, but there are a few handicap parking spaces. Our meetings are held in the building just south of the guard shack. From the guard shack looking into the park, the building straight across from the shack, the meeting door is the first one on the left of that building. No mask is required at the moment.

Our meetings are in person and on Zoom. During the summer, at 1:00 p.m., we hold an informal ragchew gettogether on Zoom.

The meetings consist of guest speakers and show and tell presented by our club members. The 3rd Monday of the month we have our business meetings. SunlifeARC PR person can be contacted at SunlifearcSR@gmail.com

Club dues are \$10 a year for you and includes family. You can check out our website at https://www.sunlifearc.org/ where you can read the President's Message for more information about our club. We are pleased to introduce our new Board Members:

President - Ralph Towers KA0CET

Vice President - Jim Hood K5TT

Secretary - Greg Watkins WB7VOK

Treasurer - Cheri Goforth KD7ZXD

Our club is a gathering of people who enjoy helping others learn about ham radio, how to get on the air, and we give classes once a year to study and pass the Tech, General, or Extra tests to earn Amateur Radio licenses.

A lot of the members and nonmembers gather at Red Mountain Park located on SunValley Blvd. and Brown Road on Thursday mornings, to socialize, put up antennas, and to teach new hams different aspects of ham radio. It is not an official meeting, just a gathering of hams, from all over the valley. Ham's gather from about 7:30 a.m. until whenever the last person leaves. There are usually several antennas assembled, radios on and contacts being made.

In the winter they meet on the west side of Red Mountain Park Falcon Ramada, the first pavilion as you enter the park. When the weather turns warmer, they meet on the east side of the park off Sterling and Brown Rd. at the Eagle Ramada, the second Ramada as you enter the park. If you don't see us at

SunLife ARC Continued from Previous Column

one Ramada, we will be across the park at the other Ramada. Come join us sometime!

Once a year, in February we have a club picnic at the park for our annual Sunlife SNOWBIRD Winter Field day and then once a year at Christmas, we enjoy each other's company at the annual Christmas Party. We partner with the Venture Out ARC.

20 Meter Net: Monday, Wednesday & Friday, 14.329 Mhz SSB 19:30 (UTC) 12:30 MST / 11:30 MST during daylight savings time. See *.

10 Meter Net: Tuesday and Thursday, 7:00 p.m. 28.329 Mhz, SSB. 02:00 (UTC) is also crossbanded to KD8PC-L and AllStar 51772 on Tuesday nights.

Sunlife: DMR Net: Monday at 7:00 p.m. Arizona time, on Talkgroup 31041, Also available on EchoLink KD8PC-L and AllStar node 51772. DMR talk group is on the Brandmeister DMR system.

Venture Out: 2 Meter Net: Monday, Wednesday & Friday, 1:00 p.m., 146.58 MHz FM simplex. 19:30Z, 12:30 p.m. Arizona time.

*All times are MST, Arizona time. Arizona does not go on daylight savings time.

SunlifeARC.K7JLF@gmail.com





Continued Next Column



Tuesday, May 17 Club Meeting at 7:00 PM Location: Mesa's Charles K Luster Building and Zoom

The May meeting will feature an HF Antenna Build. (I now have a recorder that I will use in upcoming meetings! If upcoming programs are announced two months ahead, I will have that information to include here. Sometimes planned programs cannot be confirmed until just weeks beforehand.)

We welcome visitors in person or via Zoom: Please email the <u>President@SuperstitionARC.org</u> at least a full day in advance for the Zoom link.

Our Member Clubs entry on Page 3 has general information about the club meeting schedule.

Maricopa County Emergency Communications Group

I had a note from Chris, KC9AD, whose friend was trying to organize a car show and planning to use Family Radio Service communications. He found our club in this ADAW column, and thought that ham radio might be a better option for the event's communications.

"To me, this situation just screams out for a field day type of operation, VHF or UHF base station and proper amateur radio handhelds in the hands of people who know how to use them," Chris wrote in his email.

Upon further questioning, I learned that the event was planned for early April and would be in Cave Creek, which is some distance from our center of operations in the East Valley. I recommended that Chris investigate use of MCECG, an organization that runs radio comm for events throughout the metro Phoenix and Tucson areas for car shows, marathons, bike-a-thons, and the like. I told him that MCECG used our repeaters for the Lost Dutchman Marathon in Apache Junction, Pinal County, and an event in Mesa last February. Many of our members are signed up online with MCECG.net, as are members of many area clubs to work events near their homes.

147.12 and 449.60 FM Repeaters update and More photos

The Technical Committee continues to fine-tune the repeater setup, to balance audio and extend coverage both to Apache Junction and Mesa. The two-meter antenna has been re-aimed to cover both east and west from Usery Pass.

I must say, when the repeater was aimed all toward the west, that I had a wide sweet spot that let me run 1 watt from my outsized handheld antenna. I still have a smaller sweet spot that

Superstition Continued from Previous Column

still lets me run 1 watt. That sure saves on the battery life! Additional photos will come at the end of this column.

AllstarLink Internet access on our Linked Repeaters

The 147.120/449.600 repeaters can be accessed via AllstarLink Node 52987 from the Internet. This node, along with the WB7TJD-L EchoLink are running at the repeater site, and not over a link radio to the repeater. During the Wednesday night Club Information Net, you can access the repeater via KD8PC-L EchoLink.

Unfortunately, while WB7TJD-L EchoLink sounds great, it has had continuing issues with a dropout after one minute, requiring a reconnect each time. This is not an issue with AllstarLink.

Doolittle Raid 80th Anniversary

Over Easter weekend, Bob (N8ANV) has a special events station, N4D, honoring the World War II aerial attack on the Japanese homeland in retaliation to Japan's bombing of Pearl Harbor.

The Special Events station will be held at Milepost 217 on US 60, about 5 miles east of Florence Junction, from April 15 - 18. This ADAW will be out after the event closes.

Doolittle Raid

From Wikipedia: "The Doolittle Raid, also known as the Tokyo Raid, was an air raid on 18 April 1942 by the United States on the Japanese capital Tokyo and other places on Honshu during World War II. It was the first air operation to strike the Japanese archipelago. Although the raid caused comparatively minor damage, it demonstrated that the Japanese mainland was vulnerable to American air attacks. It served as retaliation for the 7 December 1941 attack on Pearl Harbor, and provided an important boost to American morale. The raid was planned by, led by, and named after Lieutenant Colonel James Doolittle (later a Lieutenant General in the US Army Air Forces and the US Air Force Reserve)."

"Under the final plan, 16 B-25B Mitchell medium bombers, each with a crew of five, were launched from the US Navy aircraft carrier USS Hornet, in the Pacific Ocean, off Japan. There was to be no fighter escort. After bombing military and industrial targets in Japan, the B-25 crews were to continue westward to land in China."

At that time, China and the Soviet Union were American allies in the war. The Soviets had a neutrality pact with Japan, so the bombers couldn't land there, even though it would be closer than China.

The President's Corner

By Steve, KB7KWK

Hello everyone. I hope your spring is going well. It is already starting to heat up outside but it is the best time of the year I

Superstition Continued from Page 17

think. It is not too hot and not too cold.

I would like to dedicate this President's Corner to all of you net control operators. I realized a couple of days ago that this club has been operating the morning drive time net for 19 years straight. If not for all you morning net control operators, there would not be a net. As Art would say, "No people, no net." We must have plenty of people checking in. This net just keeps going. It is a great net and for those of us driving into work every morning, it just makes the drive more enjoyable. Not only that, I think we all learn something every morning.

Each net control uses his or her own style and method for running the net. Every morning it is different and not the same old stuff every morning and I believe that is one of the reasons the nets just keep going with a lot of participation.

The newest addition to the morning net is the Wireless. It is fun to hear this day in history every morning as well as the latest club QST's. I want to thank Matt, KF7RM for introducing this to the morning nets.

Let's not forget our Wednesday night net. Our net control for this net is John, KD8PC. John has been operating this net for well over 20 years and is going strong. This is the one net where we discuss club business and check on the welfare of our club members. Then after that we throw in general chat.

73 for now and I hope we hear you on a net somewhere on the Superstition ARC repeaters

Deadlines to Include Your Input in Our Publications:

We publish this column and the club Communicator newsletter. We welcome your input to both publications

<u>This publication:</u> Please email WB7C@SuperstitionARC.org with your input by May 5th. The June ADAW will publish to club members in late May.

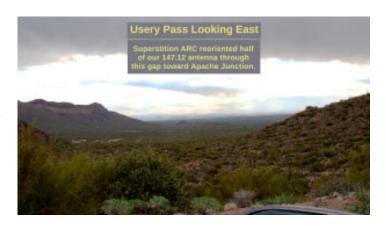
The Communicator: Please email

Editor@SuperstitionARC.org with your input by April 27th. The Communicator will publish to club members in early May.

73 Larry Kuck, WB7C for SuperARC's part of this ADAW.









Superstition ARC Repeaters

<u>CTCSS</u>	<u>Links To</u>	<u>Mode</u>
162.2Hz	449.600*	FM Only
100.0Hz	147.120*	FM Only
100.0Hz	WIRES-X	Fusion
	100.0Hz	162.2Hz 449.600* 100.0Hz 147.120*

- * Also Links to Echolink Node: WB7TJD-L
- * Also Links to AllstarLink Node 52987

Club Nets

Morning Drive Time Net: Mon-Fri, 7:00-8:00 AM - Trivia

Saturday Supershow: Sat, 8:00-9:00 AM - Trivia

Club Net: Wednesdays, 8:00 PM - Discussion, Elmer Q&A. **Mesh Information Net:** Thursdays, 7:00 PM - Net control

Steve, KB7KWK

Fusion Confusion: Monday & Friday, 8:00 PM - 448.275 10-Meter Rag Chew: Thursdays, 8:00 PM, 28.465 MHz USB

Club Membership is open to anyone with an interest in Amateur Radio. Visit: https://superstitionarc.org for more information.

Superstition SuperFest

The Superstition SuperFest is held on the first Saturday of December. Visit www.superstitionsuperfest.org for the latest information.

No Reports Received





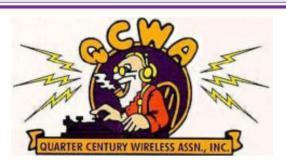




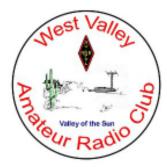








CHAPTER 16 BARRYM. GOLDWATER ARIZONA CHAPTER



Emergency Communications Since 1961
SHORT-SKIP







SARC CONSTANTS:

SARC is a 501 (c)(3) club. That means all donations are fully tax deductible. Contact Paul Finell W7EFQ at 602.741.6563 for information on estate donations and equipment pick-up.

For membership information, call Ed Nickerson, WU7S at 480.949.5162. Please send address change requests to Judy no later than the 7th of the month in which you would like the change to occur.



HAM RADIO OUTLET

WWW.HAMRADIO.COM

FAMILY OWNED AND OPERATED SINCE 1971



FTDX101MP | 200W HF/50MHz Transceiver

Hybrid SDR Configuration • Unparalleled 70 dB Max. Attenuation VC-Tune • New Generation Scope Display 3DSS • ABI (Active Band Indicator) & MPVD (Multi-Purpose VFO Outer Dial) • PC Remote Control Software to Expand the Operating Range • Includes External Power With Matching Front Speaker



FTDX10 | HF/50MHz 100 W SDR Transceiver

 Narrow Band and Direct Sampling SDR • Down Conversion, 9MHz IF Roofing Filters Produce Excellent Shape Factor • 5° Full-Color Touch Panel w/30 Spectrum Stream • High Speed Auto Artenna Tuner • Microphone Amplifler w/3-Stage Parametric Equalizer • Remote Operation w/optional LAN Unit (SCLFLAN10)



FT-991A | HF/VHF/UHF All ModeTransceiver

Real-time Spectrum Scope with Automatic Scope Control • Multi-color waterfall display • State of the art 32-bit Digital Signal Processing System • 3kHz Roofing Filter for enhanced performance • 3.5 Inch Full Color TFT USB Capable • Internal Automatic Antenna Tuner • High Accuracy TCXO



FTDX101D | HF + 6M Transceiver

- Narrow Band SDR & Direct Sampling SDR Crystal Roofing Filters Phenomenal Multi-Signal Receiving Characteristics
- Unparalleled 70dB Maximum Attenuation VC-Tune 15 Separate (HAM 10 + GEN 5) Powerful Band Pass Filters • New Generation Scope Displays 3-Dimensional Spectrum Stream



FT-891 | HF+50 MHz All Mode Mobile Transceiver

Rugged Construction in an Littra Compact Body • Stable 100 Wart Output with Efficient Dual Internal Fans • 32-Bit IF DSP Provides Effective and Optimizes ORM Rejection • Large Dot Matrix LCD Display with Quick Spectrum Scope • USB Port Allows Connection to a PC with a Single Cable • CAT Control, PTT/RTTY Control



FTM-300DR | C4FM/FM 144/430MHz Dual Band

 50W Reliable Output Power • Real Dual Band Operation (V+V, U+U, V+U, U+V) • 2-inch High-Res Full Color TFT Display • Band Scope • Bult-in Bluetooth • WIRES-X Portable Digital Node-Fixed Node with HRI-200



FT-2980R | Heavy-Duty 80W 2M FM Transceiver

Massive heatsink guarantees 80 watts of solid RF power •
 Loud 3 watts of audio output for noisy environments • Large 6 digit backlift LCD display for excellent visibility • 200 memory channels for serious users



FT-818ND | HF/6M/2M/440 All Mode Portable Xcvr

Ultra-Compact/Portable • Multi-Color Easy to Sec LCD • 208
 Memory Channels 10 Memory Groups • Built-in Electronic
 Keyer • Internal Battery Operation Capability • Two Antanna
 Connectors • Built-in High Stability Oscillator ±0.5 ppm



FTM-400XD | 211/440 Mobile

- . Color display-green, blue, orange, purple, gray . GPS/APRS
- Packet 1200/9600 bd ready Spectrum scope Bluetooth MicroSD skot 500 memory per band



FT-70DR C4FM/FM 144/430MHz Xcvr

- System Fusion Compatible Large Front Speaker delivers 700 mW of Loud Audio Dutout
- Automatic Mode Select detects C4FM or Fm Analog and Switches Accordingly • Huge 1,105 Channel Memory Capacity • External DC Jack for DC Supply and Battery Charging



 High Res Full-Color Touch Screen TFT LCD Display • Easy Hands-Free Operation w/Built-In Bluetooth Unit • Built-In High Precision GPS Antenna • 1200/96000bps APRS Data Communications • Simultaneous C4FM/C4FM Standby • Micro SD Card Slot



FT-65R | 144/430 MHz Transceiver

Compact Commercial Grade Rugged Design •
Large Front Speaker Delivers 1W of Powerful
Clear Audio • 5 Watts of Relable RF Power
Within a compact Body • 3.5-Hour Rapid
Changer Included • Large White LED Rashlight, Alarm and Quick Home Channel Access

FT-60R | 2M/440 5W HT

- Wide receiver coverage AM air band receive
 1000 memory channels wialpha labels •
- Huge LCD display Rugged die-cast, water resistant case • NOAA severe weather alert with slert scan





- RETAIL LOCATIONS Store hours 10:00AM 5:30PM Closed Sunday
- PHONE Toll-free phone hours 9:30AM 5:30PM
 ONLINE WWW.HAMRADIO.COM
- FAX All store locations
- MAIL All store locations



The LONG HOT summer is on the way. It's time to finish all your outside projects before the "HEAT IS ON."

Stop by our website to see all the latest specials.

HRO is the home of all your radio project needs.

Stay "RADIO ACTIVE" from all of us here at HRO PHX.