## 10498 Monserrate St Elk Grove, CA 95757-1765







## Arizona Desert Aire Waves

Vol 47 No 6

June 2022

#### **CLUB MEETING SCHEDULE**

SARC Jun 1st - 7:00 PM via Zoom

AARC Jun 9th - 12:00 PM **American Red Cross/Echolink** 

YARC Jun 2nd - 7:00 PM **Prescott Rodeo Grounds** 

CADXA Jun 2nd - 7:00 PM **Bethany Lutheran Church** 

> MARCA Jun 21st - 6:30 PM via Zoom

**TBARC** Jun 16th - 6:30 PM **Arizona Christian University** 

> ARA Jun 23rd - 7:30 PM Electronically

MARA Jun 4th - 9:00 AM Maricopa Public Library

**AzRCCC** Jun 14th - 7:00 PM American Red Cross/MS Teams

SuperstitionARC Jun 2 st - 7:00 PM **Charles K Luster Bldg-Mesa** 

> ANSR Jun 16th - 7:30 PM via GoToMeeting

**OVARC** Jun 17th - 7:00 PM **Mountain View Baptist Church** 

ATN (VOAR) Postponed www.whereby.com/atn1

> CARL TBD **Check Web Site**

AMO Jun 9th - 7:00 PM **Charles K Luster Bldg** 

CHRC Jun 11th - 9:00 AM **Tri-City Baptist Church** 

**KARC** Jun 14th - 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** Jun 6th - 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 <u>www.W7IO.org</u> 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	W7ADD w7add@scottsdalearc.org
Past President	Paul Finell	W7EFQ w7efq@scottsdalearc.org
<b>Board Members</b>	Jim Dye	AG7AU
At-Large	Scott Gillins	W2KP
-	<b>Bill Kouchis</b>	N9EIV
	<b>Ed</b> 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: <u>www.scottsdalearc.org</u>

#### **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 ia	mgadget1@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 (<u>http://w7tbc.org</u>) for a map and more details.

President	Charles Loftus	KG7KRN	president@w7tbc.org
Vice President	Rick Tejera	K7TEJ vi	cepresident@w7tbc.org
Secretary	Andrew Cornwal	1 KF7CCC	secretary@w7tbc.org
Treasurer	Jeff Rogers	KD7PYE	treasurer@w7tbc.org
Directors	Robert Lutes	N7NO	n7no@w7tbc.org
	Paul Veltman	WA60KQ	wa6okq@w7tbc.org
	Chuck Erickson	K7CAE	k7cae@w7tbc.org
	<b>Robert Fairfield</b>	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: <u>info@w7tbc.org</u> 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	KOVPL
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) nonprofit organization. DUES: \$25.00/year individual, \$30.00/year family. Apply on-line at <u>www.copahams.org</u>. Mailing address: P O 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 <u>http://www.azqcwa.org/</u> 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: <u>http://www.azqcwa.org</u> Email:<u>info@gmail.com</u>. 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:		K7GH	
	Butch Merrill	K7JOG	
	Jerry Roberts	K7BUD	
	Ken Rasback	KK7KEN	
	Tom Raczykows	ki N7MMC	
	Sonja Hazlett	WB7CWW	

Web Site: <u>http://www.k7mrg.org</u>. 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.

President	Kevin Parmenter	KG5Q	480.748.8182
Vice President	Bill Turley	KJ7GYH	923.536.2293
Secretary	Marie Mortenser	N7SKS	928.358.8748
Treasurer	Dennis Wilkes	W7DRW	928.739.4700

Mailing Address: Kachina Amateur Radio Club, P O Box 2996, Show Low, AZ 85902. Email: <u>kachinainfo@drwilx.com</u> 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: <u>www.kachinaarc.org</u>

#### ARIZONA REPEATER ASSOCIATION, INC

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 Vice-President	Brian McCarthy, AK7F Dennis Bietry, KE7EJF	ak7f@w7ara.net ke7ejf@w7ara.net
Treasurer	Cole Cunningham, AA7	, <u>,</u>
Secretary	JimHoff,N7XXX	n7xxx@w7ara.net
Board Members:		
Dennis (	Campbell, AE7WU	ae7wu@w7ara.net
Mike M	ontalvo, KF7MBK	kf7mbk@w7ara.net
Marty D	usenberry, KE7DGP	ke7dgp@w7ara.net
Lance H	alle, KW7LH	kw7lh@w7ara.net
Joe God	frey, AE7JG	ae7jg@w7ara.net
Joe Bakas, KE7WHE		ke7whe@w7ara.net
Patrick	Baldwin KI4NSF	ki4nsf@w7ara.net
James W	/asson,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 <u>http://w7ara.org/mbr/Membership.aspx</u>. 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: <u>info@superstitionarc.org</u>. 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 <u>http://www.w7mot.org/index.php/repeaters/report-a-repeater-problem</u>. 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 (<u>http://w7mot.org</u>) 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 <u>www.cadxa.org/meetings.html</u> 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	. Larry Loen	WO7R	lwloen@gmail.com
Directors	Ron Smith	N7RD	
At-Large	John Jolly	N7NWL	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: <u>www.cadxa.org</u>.

#### 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 <u>www.w7yrc.org</u> 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.

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

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

#### **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 <u>www.tucsonhamradio.org</u> for dates.

President	Steve Wood W1SR	w1sr@arrl.net
Vice-President	David Beauchesne AK	2L ak2l@arrl.net
Secretary	Logan Zintsmaster KE	7AZlrahnz@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 <u>http://www.tucsonhamradio.org/</u>.

#### 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: <u>http://chandlerhams.org</u>. 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 Vice President Sec./Scheduling Treasurer Station Engineer	Jack Landon Jim Felkey Sam Marshall Karen McConag Ron Taylor	KD7ROB N7BBS N7INV hy NO7D WA7GIL	480.759.5195 480.966.7084 602.291.0992 602.799.7338 602.390.5335
Board Members:			
	arford, WB4ZSC		
Tom Sal	tAD7PM	At Large	
John O'l	Neal K7JP	Teacher Pa	ckets
Bob Bur	leson KG7QJ	Trustee/Pre	sident Emeritus
Robert I	Faerber W9AQ	Log Book	
	llins W2KP	At Large	

Direct Phone: 602.716.2082 Web Site: <u>http://www.w7asc.org</u> For information: Email to <u>carl@w7asc.org</u> 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 <u>www.whereby.com/atn1</u> 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 <u>www.youtube.com/</u> <u>amateurtelevisionnetwork</u> and on YouTube at W7ATN-Arizona Live and W7ATN-Mesa Live.

President	Ed Olague	K5OLA	602.885.7725
Vice President	<b>Rod Fritz</b>	WB9KMO	480.322.5149
Sec/Treasurer	Lee Weitzel	K0CCU	602.439.4840
Repeater Trustee	Kevin Jacobson	AD70I	602.694.0851
Webmaster	RolandHoffman	KC6JPG	562.577.1381

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

#### WEST VALLEY AMATEUR RADIO CLUB

The West Valley Amateur Radio Club, an Arizona 501(c)(3) nonprofit 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 at7:00 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: <u>http://westvalleyarc.com</u>. Email: <u>suncitywvarc@gmail.com</u>

#### 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 <u>https://www.sunlifearc.org/</u>





#### 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 <u>president@arizonamesh.org</u> at least 24 hours in advance. Visit the web site at <u>https://arizonamesh.org</u> for more information on the AMO Club and up-to-date news.

President:	Michael Bailey, K	U7LXY president@arizonamesh.org
Vice-President	Steve Estes, KB7	KWK vicepresident@arizonamesh.org
Treasurer:	Scott Gillins, W2	KP treasurer@arizonamesh.org
Secretary:	Robert Fridell, N.	3BZ secretary@arizonamesh.org
Board of Directo	ors	
Dale Sc	hmidt, N7QJK	n7qjk@arizonamesh.org
Heidi B	rewer, K7ZAE	k7zae@arizonamesh.org
Gary H	inton, AC7R	ac7r@arizonamesh.org
Bob Ho	oward, 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: <u>https://arizonamesh.org/</u> <u>amo\_membership.shtml</u>

#### 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, <u>www.arizonaoutloaws.net</u>.

President:	MikeFulcher,KC7V m	ikekc7v@gmail.com
V.P. North Area	Ray Benny, N6VR	n6vr@arrl.net
V.P Central Area	Chuck Zanella, KF7U Ch	nuck_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: <u>www.arizonaoutlaws.net</u>.



## ADAW Staff

PUBLISHER/MANAGINGEDITOR			
Christine Kesauer	N7PVL	602.843.0960	
AARCEDITOR			
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	WB9KMO	wb9kmo@gmail.com	
CADXAEDITOR			
BillPoole	AA4Q	billpoole@yahoo.com	
CARLEDITOR			
Steve Warford	WB4ZSC	480.570.1041	
CHRCEDITOR			
Walter Lawrence	KK7AEV	walter.dkk@gmail.com	
KARCEDITOR			
Bobbye Mills	KA7MIZ	ka7miz@dmbam.com	
MARAEDITOR			
Bob Howard	W8RH	w8rh@live.com	
MARCAEDITOR		100.070.0000	
Norm Johnson	AA7OO	480.278.2886	
MMRGEDITOR		(02.055.7517	
Lori Cripps	WA7EDI	602.955.7517	
OVARCEDITOR	WICD	(0000)	
Steve Wood	W1SR NG7A	nauset2222@yahoo.com	
George Cooley	NG/A	george@ng7a.com	
QCWAEDITOR Carl Foster	KB7AZ ca	rlfoster@cactuscomm.net	
SARCEDITOR	KD/AZ <u>Ca</u>	moster( <i>a</i> )cactuscomm.net	
Gene Geller	K0VN	612.670.9358	
SunlifeEDITOR	KUVIN	012.070.9558	
Judy Ferrara	K7JLF	k7jlf@yahoo.com	
SuperstitionARCEDITOF		<u>K/JII(<i>W</i>, yanoo.com</u>	
Larry Kuck	WB7C	editor@us60.us	
TBARCEDITOR	WB/C	<u>canora usoo.us</u>	
Andrew Cornwall	KF7CCC	kf7ccc@arrl.net	
WVARCEDITOR	M /CCC	<u>KI/000(u)uIII.not</u>	
BillPowell	W9WRP	w9wrp@yahoo.com	
YARCEDITOR	11 / 11 11	<u>mpmp(gyanoo.com</u>	
Don Bauer	WB7TPH	dbauer2250@aol.com	
ADAWEMAIL	adaw@adaw	0	
ADAWWEBSITE	www.adaw.o		
	11 11 11 octuber 10		

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

#### June 25-26 – Field Day!

"What is Field Day?" a new ham may be asking. It might just be the most popular on-air event in the US and Canada. It's a picnic, a camp out, a contest, and a chance to hone your operating skills. It's a chance to learn from more experienced hams, visit with old friends, make new friends, and share stories. But most importantly - It's FUN!!

Every year, groups of amateur radio operators gather together to set up operations in "remote" areas and make contacts. It helps hams to practice setting up gear and operating under less than optimum situations. This practice enables amateurs to be able to get on the air quickly should a crisis occur and normal conditions are nonexistent.

Amateur Radio operators help provide communications marathons, bike rides, parades, marches, and other community events. They also help provide communications during natural disasters, fires, floods, etc. Field Day is an opportunity to introduce Amateur Radio to the public and demonstrate what it's all about, and what it can do for them.

Mark your calendars for the June 25-26. Check what your club is doing for Field Day and consider taking part. You'll be glad you did.

73 - "See" you next month. Christine, N7PVL

ADAW





It is with great sadnes I have to report that Robert (Bob) Beltz, N7GW, became a silent key on Monday, May 2, 2022.

Amongst his many roles thoughout Amateur radio, Bob was a former member of the Maricopa Amateur Radio Association, where he served as a Board Member and member of the Technical Committee. During his time with MARA, he gladly provided guidance to new and old hams alike. After club meetings, Bob was often seen answering questions and assisting new hams with their equipment. He looked forward to helping those that had the desire to learn more about the hobby. When there was a club project, we could always count on Bob to be there to lend a hand. Bob also assisted on many antenna and tower projects for club members. All someone had to do was ask.

Bob was a great asset to the Amateur Radio community and a good friend to many. He will be missed.



Public Service Calendar

#### Maricopa County Emergency Communications Group Events

EVENT	LOCATION	DATE
Barnburner Mountain Bike	10000	09/17/2022
AuxComm Interest	Kendrick Peak, NW of Flag TBD	12/31/2022

To sign up for an MCECG Public Service Event: www.mcecg.net

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



#### 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.

#### Baader-Meinhof Phenomenon

When was the last time you heard that phrase? Hint: it's more common names are Frequency Illusion and Frequency Bias. "Oh, yeah," you say. "That's when a ham swears his equipment is spot on frequency even when everybody tells him he is drifting."

Good answer, but "no cigar." Actually, it has nothing specific to do with amateur radio, but all of us suffer with it to some degree. It's a term used by cognitive scientists to describe how bias creeps into our observational skills. A textbook example is contemplating a new car purchase. You study the options and zero in on a particular make, model, and color, then, bingo! , everywhere you look, you spot that vehicle on the road. In reality, it has not suddenly become a bestseller; you just have bias in your visual filter since you picked it for your next vehicle. Or, maybe instead of a new car, you are looking at a new transceiver and all of a sudden, you begin to make contacts with hams running that same rig.

#### Frequency Bias Hits Close to Home

Probably two years ago now, a non-ham friend of mine came

#### **CARL** Continued from Previous Column

to the Harkins Ham Shack at Arizona Science Center and started a conversation about getting his extended family into amateur radio in preparation for a scenario we usually associate with preppers. It wasn't a new conversation; we get that frequently at the exhibit. Or, maybe we just think we do. In any case, we treat such requests without suspicion or bias. After all, we often promote ham radio with the slogan, When all else fails ... Amateur Radio.

It was not an urgent request. My friend was just performing due diligence and he was aware that he would have to convince family members to join him in getting licensed to operate in the amateur bands. He would also have to get them onboard for becoming familiar with new technology.

#### From Out of the Blue

Recently, my friend reconnected to say he had just taken delivery of half-a-dozen or so new HTs and was ready to learn how to program them. Of course, my first response was to inquire about the licensure issue. Although that had not been completed, they were on track and well aware of its necessity. He and I sat down together shortly thereafter and went through the programming process. Next month, I meet the family for a group session.

Within a week or so of reconnecting with my friend, Joe K9TEW, a recently re-licensed ham, called to get help programming his new VHF/UHF rig for local repeaters. And a week after that, on the C.A.R.L. net, one of the YLs answered the question of the day with her desire to get up to speed programming her new radio. Déjà vu and Baader-Meinhof, rolled into one.

Well, if you have hung in up to this point, thank you. The moral of my drawn out story is that amateur radio operators are a community and what a seasoned ham might see as a simple task, can be a stumbling block for new hams or hams who haven't been active since vacuum tubes ruled the airways. Take every opportunity to share your knowledge.

Now ... maybe one of those hams from an earlier era can help me resurrect my collection of HW-101s.

73 de WB4ZSC Steve vyix99@yahoo.com 480.570.1041





#### **April Emcomm Operating Event**

It was almost a mini Field Day! A group of TBARC members set up an operating position in a parking lot at Arizona Christian University. The sports field next to us gave us ample room for antennas and radials, and the covered parking kept us (mostly) in the shade. We had tasty pizza for lunch, but more than that we demonstrated ham radio to each other and to interested people who were walking by. Several members had brought interesting pieces for show and tell - things like an antenna analyzer, a screwdriver antenna, and a book that documents the T41-EP software defined transceiver project. New hams got great tips for operating and upgrading to general, while even hams who'd been around for a while learned something new. If you were among us, you know ... and if not, there's still time to join upcoming events!

#### We have a new programs and activities chair

I'd like to thank Clair Wyant KG7MAJ, who has volunteered to lead the Programs and Activities chair. Clair's been busy planning, and he's the main reason why you're seeing so many interesting events. Everything kind of shut down in the dark days of 2020 and 2021, but now we're back! I hope you join us - and thank you again Clair!

#### Foxhunt Event May 21

In the early part of the day at Thunderbird Conservative Park in Glendale, you can test your ability to find - not foxes - but hidden radio transmitters. Byon Garrabrant N6BG, owner of Byonics, will be assisting in the setup and leading hams through figuring out what you need to do to track a source of interference down. That's a useful skill to have, not only to discover who might be transmitting on a repeater, but also to find sources of radio frequency interference near your home. Learn how on May 21!

#### Field Day June 25-26

Jack Lunsford has opened his home in Flagstaff to us once again. This is a 24h operating event - the biggest event of the year for most hams. Stay overnight in your RV, or head up for a day trip on Saturday, June 25. Learn about how to set up HF antennas and - if you've got a technician license - operate HF radios and see if you might want to think about that general license. You'll need to sign up for this one ahead of time if you

#### **TBARC** Continued from Previous Column

want to eat: breakfasts and lunches are \$10, dinner is \$15, the whole weekend is \$45. Sign up at w7tbc.org/field-day!

#### POTA Event July 23

Escape the July heat with a trip to Sedona. Sedona has an advantage that you might not have known about: it's entirely surrounded by the Coconino National Forest, which makes it ideal for operating a Parks On The Air (POTA) event! We'll meet at Posse Grounds Park (525 Posse Ground Road, Sedona) on July 23. It's a day trip to evade the heat, set up, generate a big pileup of stations calling, and generally enjoy ourselves in a slightly cooler environment than Phoenix in July. Thanks to Rick K7TEJ, the club callsign is already registered on the POTA website. See you there!

#### New Zoom meeting numbers

You probably didn't realize it, but until now the club has been using a member's Zoom number. Now we've gone official, with a Zoom account of our own. That means the usual Zoom meeting number has changed. You can get a direct link on the website, w7tbc.org - but if you've been dialing in on the phone, our general meeting is now accessible at the usual Zoom phone number with meeting ID 861 6947 3737. We welcome both members and nonmembers - dial in, connect through your PC, or show up in person!

#### June 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 heard that Gary WK7B might have figured out how to convince a home owners association to let him put up an antenna, and will have a brief presentation on that. Is this going to help out a lot of hams who are currently restricted? I can't say for sure, but I'm really interested in finding out! 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 kf7ccc@arrl.net





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 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 clubs South Mountain repeater (443.050+PL100). This keeps it from getting dusty and lets them know it 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

#### **CHRC** Continued from Previous Column

2022-06 ADAW

Kudos to our co-founder Byon, N6BG, and our current president Dave, KJ4RS, for heading up our Chandler Ham Radio Club VE Team. Our VE Team members were able to keep running testing sessions thru the lockdown of the last couple years. They continued to provide this invaluable service, following all the CDC guidelines, thru the pandemic not only for the Chandler, AZ area but for all of the Valley of the Sun. The VE Team was able to welcome in the area of 100+ new licensee's and upgrades since March of 2020 to our wonderful amateur radio community. Our hobby continued to flourish with this valuable function.

The Chandler VE Team continues to hold test session on the first Saturday of every month at 10am at the Tri-City Baptist Church, 2211 W. Germann Rd. Chandler, AZ. All newly licensed hams (TECH) receive a free gift membership to the Chandler Ham Radio Club for the remainder of the calendar year. For more information see our website licensing page at <u>http://chandlerhams.org/testing/</u>.

The Chandler Ham Radio Club holds their monthly business meeting on the second Saturday of every month at 9am at the Tri-City Baptist Church, 2211 W. Germann Rd. Chandler, AZ. On most months these meeting are immediately followed by a ham radio related presentation. Please check out the club website for more information. <u>http://chandlerhams.org/</u>

Chandler Ham Radio Club was founded in July of 2019 and has grown to over 100 members today. We are a social group of amateur radio enthusiasts that meet regularly for local field events, lunches and breakfasts and provide expert experience to all who seek it.

Always respect the airwaves 73 de KI7PBR, Gary







We are fortunate to have dedicated volunteers among our members and the American Red Cross Club members. Several times in early April a group of them went on the roof of the American Red Cross Building and put in place a tri-band beam that had blown over. In late April, Steve, W7WSV and Gary, K7GH made SWR measurements of the trap dipole and found the SWR higher than expected. The cause and correction are yet to be determined.

#### 73, Lori Cripps, WA7EDI



TriBander Down

## 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 <u>ebasilier@cox.net</u>

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 <u>kjenkins5623@gmail.com</u> or Jim Seay, WB7RBN at <u>wb7rbn@arrl.com</u>.



TriBander Up Again



**Begins June 21st** 

## 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 <u>https://apps.fcc.gov/coresWeb/publicHome.do</u> 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.

## June Test Sessions

Jun 4th - CHRC Laurel VEC Team -- 10:00 AM Tri-City Baptist Church, 2211 Germann Rd, Chandler Bldg D, Room 170 Contact: <u>ve@chandlerhams.org</u> No Walk-Ins / Registration or Call Ahead Register at: <u>chandlerhams.org/testing/</u>

Jun 4th - High Country Teaching Testing Center -- 1:00 PM Concho Community Center, 36650 AZ-61, Concho Contact-Gerald Gutz 928.243.6123

Jun 4th - Yavapai ARC -- 9:00 AM Jeep Posse Bldg in Pioneer Park, 1200 Commerce Dr, Prescott Contact - Donald Bauer 928.775.4690 Pre-Reg online at www.w7yrc.org (Click on License Tests)

Jun 4th - Kachina Radio Club -- 9:00 AM 411 Papermill Rd, Taylor For more information, email vetesting@gmail.com

Jun 6th - WVARC -- 6:00 PM Shepherd of the Desert Lutheran Church-Walton Hall 11025 N 111th Ave, Sun City Contact - David Morrill 623.680.5011 No Walk-Ins / Register or Call Ahead

Jun 11th - 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 Jun 13th - 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

Jun 13th - Radio Society of Tucson -- 7:00 PM Immanuel Presbyterian Church, Witherspoon Hall 252 E 22nd St, Tucson Contact-Diane Zimmerman <u>dzimmerman2002@gmail.com</u>

Jun 15th - 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

Jun 17th - Oro Valley ARC -- 5:30 PM Mountain View Baptist Church, 3500 W Overton Rd, Tucson Contact - David Beauchesne 831.345.3308

Jun 18th - Hualapai ARC -- 10:00 AM VE's Residence, 3571 E Lum Ave, Kingman Contact - Alyce Ingle 425.231.9173

Jun 18th - 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

Jun 25th - Tonto ARA -- 7:00 AM Rumsey Park, 400 N McLane Rd, Ramada 5, Payson Contact - Darde De Roulhac 928.468.1487

Amateur Radio License Testing



There was a recent article on MSN.com stating the sun is far more active than anticipated. I think we have seen this with conditions. Time will tell and perhaps the prediction of one of the biggest cycles ever will come true. That would be awesome.

We are seeing the beginning of the 6m E's season. If you plan to operate in the June VHF contest now is the time to prepare. Maybe we will see some F2 on 6m this cycle. 7QP has come and gone and there was a lot of participation and conditions made it fun.

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

Contest Tip this month – Software. N1MM is updated weekly along with many Call History files and SCP files (search check partial). Keep these files updated as it will help your contest efforts. N1MM also provides many individual .mc files for contests and you can modify as needed. If you do any digital contesting WSJT-X (or JTDX) can be invoked from within N1MM to make it easy for logging.

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-

AOCC once again took the team competition top spot in both the NAQP CW and SSB contests.

AOCC finished #10 in the USA out of 70 entries in the 2021 CQWW SSB & CW Contests. Our club finished in 7th place in the Medium Club category for the 2021 ARRL 10m Contest out of 25 entries. Nice job!

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

73, Mike KC7V



Field Day is coming up and with the recent changes to the rules, everyone will have a chance to experience this exciting event. With a few weeks left, you can get your antenna "tuned up" and blow the dust off your rig and get ready to experience the premier operating event of the year.

By the time you read this, Hamvention will be over. Hopefully many regulars will have had an opportunity to get back into in-person events once again. For good reasons, many will be cautious and that's a good choice.

If you haven't noticed, OVARC repeaters are operating on Analog-FM. Supporting public service and emergency communications is paramount so we have made this mode our default. There are still many other modes operating in Southern Arizona so if you're a digital fan do not despair. Our Sunday evening NET is operating on the Keystone Repeater at 7:30 local time. Join us if you can. It's short and packed with announcements and events so if you have 20 minutes after dinner on a Sunday evening, please check-in.

With the summer heat digging in, it's difficult to have comfortable outings. Logan – KE7AZ is working on a set of Go-Boxes so that we can easily deploy our field station once again. Once this is done, we'll hopefully be back doing regular outings.

Our April meeting was quite a thrill. Bill – AJ8B spoke to us about hunting down DX during a contest event. Most would have never coupled these two together but what a great way to multitask. Thanks to Bill for a great session.

Special thanks to Carl-KB7AZ and Andreas-W1IXQ for running the AV during our meetings. Connecting cameras, microphones, and zoom connections all together takes some expertise and a good dose of patience.

Best to all for a Happy and Safe Memorial Day! & Happy Father's Day (June 19).

73, Steve – W1SR





## Hamfest Calendar

17 September 2022 - **Show Low Tail Gate Swap Meet** - will be held at the Show Low Masonic White River Lodge #62, 741 Whipple Street in Show Low. Hours are 7:00 AM to 12:00 PM. Set up starts at 6:00 AM. Free Admission. Spaces - \$5.00 for 10X10 space. Food & Drink available by the Ladies of Masonic Eastern Star. VE Testing - to pre reserve, contact Vince at vetesting@gmail.com. Contactw8ybm18@gmail.com for more information.

24 September 2022 - **Tucson Autumn Hamfest** - hosted by the Radio Society of Tucson will be held at Calvary Tucson Chruch, 8711 E Speedway in Tucson. Hours are 7:00 AM to 11:00 AM with seller set up starting at 6:00 AM. Free Admission. Seller/Vendor Spaces - \$10/parking space. Morning Snacks by Scout Troop 157 and Pack 705. Talk-in - 145.250 MHz, Tone 156.7 Hz. For more information, visit the web site at <u>http://www.k7rst.org</u>.

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 - <u>stretch8@q.com</u>) for more info. Visit the website at <u>https://n7tar.org/</u>

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 <u>fest@copafest.org</u> or visit the website at <u>www.copafest.org</u>.

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











The Kachina Club held ham radio classes to train individuals to obtain their ham radio licenses which have paid dividends. In our recent test session we saw several new licensed hams as well as some existing hams upgrading their licenses. As one of our mission focuses - education - training and getting new hams licensed and helping existing hams upgrade is one of the things we do.

Work is continuing on new sites for the linked repeater system. We are working hard to acquire the equipment needed to bring up the new sites - equipment programming and testing before we make the long drives to install the equipment. Progress has been made in getting new shelters, getting power, racks, HVAC, ice bridge runs, grounding systems and the usual necessary work completed before equipment can be installed at the sites, so the long-term reliability is insured. The goal of the system, when complete, is to provide linked repeater coverage across much of Navajo county into adjacent counties of Apache and Coconino counties with some strategically located repeater sites. The ECOM center in Pinetop is still under renovation, yet we have been able to start refurbishing the existing tower and have stripped off the old antennas and feedline. New improved grounding, new feedline and polyphasers are being added as well as three new antennas. Two Discone antennas for VHF -UHF public safety and amateur bands and a long wire DX Engineering antenna for broadband HF is being added. We hope to report greater progress next month as we get closer to fire season in the White Mountains and hope that nothing we are preparing for will be needed yet

Work is underway to build the new Chevelon Butte repeater. This repeater will be part of the new Navajo Link repeater network providing coverage for most of the White Mountain/ Navajo County area. The work day was held on April 29 with

the following participants:

- Kevin Parmenter, KG5Q
- Jim Mortensen, W7AZY
- Dennis Mills, WA7ZZT
- Steve Herron, AG7GD
- Bill Turley, KJ7GYH







The ARA is known for its high quality repeaters across all of Arizona. These repeaters are supported by the members of ARA.

You can join the ARA to support these open repeaters! Membership is \$20 per year.

Membership info @ <u>https://www.w7ara.org/mbr/</u> <u>Membership.aspx</u> or email <u>membership@w7ara.net</u>

ARA members are encouraged to log into member services on the ARA website and review / update their email addresses.

Join us at our next General Meeting Virtually or in person. https://www.w7ara.org/mtg/Meetings.aspx

ARA Pinal Peak profile contributors Dennis Campbell, John Braden and Cliff Bailey

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

Earlier this year, the Pinal Peak VHF Rimlink repeater was reported as suffering from low power. Remote diagnostics couldn't pinpoint the problem, so we needed a service trip up the mountain.

But first, of course, we had to wait for the snow to clear and road conditions that allowed access.

On Friday, April 29th, a group drove up the mountain and found the VHF Super Station Master antenna had been damaged by the winter weather. Dennis Campbell reported "the antenna laid over to horizontal, breaking the top stay and bending and twisting the horizontal support bars. We used a couple of tie-down straps to stabilize the antenna to minimize further damage." The combined power of ice and wind horizontally polarized the antenna.

A week later, Saturday, May 7th, enough climbers, ground crew, and materials were gathered to restore the 147.20 antenna to its vertical position.

The team met up at 9:00 AM in Globe to convoy to the top. Five vehicles, carpooling with all the materials needed for the work. The team consisted of Dennis Campbell, Marty Dusenberry, Donna Martin, Joe Godfrey, Bill Jackson, John Braden, Cole Cunningham, Scott and Tanya, Kevin Drissel, and Joe Bakas.

Arriving at the top, the team found the weather was good with clear skies and predicted highs temps in the 80's.

Everyone got to work immediately as there was a great deal to be accomplished. Unloading the vehicles of gear, materials, and tools needed was the first task for everyone. Next, the

#### ARA Continued from Page 15

ground crew worked to arrange the materials preassembled for the new antenna mounting.

Meanwhile, the climbing team suited up in their climbing harnesses and safety gear, preparing for the ascent to the top. With safety checks completed the climbers began the assent as the ground crew split to support the climbers and continue the materials prep.

Detaching the twisted supporting bars, hardware and antenna, and lowering it to the ground safely was known to be the greatest challenge. The entire hardware assembly was under massive and unpredictable torsion and tension due to being twisted and broken. After careful planning, the antenna assembly was released from the tower legs and lowered to the ground without incident.

Up on the tower, Joe G and Marty removed the old antenna mounting brackets from the tower legs. Next they pre positioned a new antenna stay at the top of the tower.

In the meantime, the ground crew stripped the old mounting hardware and bent side arm brackets from the antenna. They inspected the antenna, and it appeared undamaged.

The Super Stationmaster was then attached to the new mounting hardware and side arm brackets. The antenna was hoisted up the tower and held in position. The tower crew remounted the antenna and two stays.

Joe G and Marty were on the 60' tower for over six hours working continuously to plan and execute the two operational evolutions of removing / lowering the broken assembly and then raising / installing the antenna connected to the new mounting hardware.

Operations concluded at 18:00 as the daylight and our energy were waning.

The antenna was healthy once again, but we found that the repeater still had a transmit issue. We will return to the mountain soon to figure out those problems and restore the VHF repeater to full operation.

Last month, we covered some of the history of the site. Cliff Bailey contributed additional history for this follow up article on the Pinal Peak site.

The Pinal Mountain Communications Inc. (PMCI) group operated a repeater at this site until July 2000 when the ARA assumed ownership. A group of hams graduating college in 1975 decided to form PMCI in 1976 and establish a repeater site on the mountain. The beefy ground mat to dissipate lighting strikes is made up of a 7-strand, 4/0 copper wire CAD welded to the ground rods. Everything inside the building is grounded to a single point 1/2 copper pipe bonded to that mat. The original 40' guyed tower failed after an ice storm. The 60' tower that our crew was climbing replaced it.







#### 2021 Arizona QSO Party: FIRST PLACE!



(W7EVE Not Pictured)

SuperARC's WB7TJD won First Place in the state, in the Multi-operator, Unlimited class, thanks to the efforts of those who participated at the home of Brian W7JET. All participants but one were present for the group photo. Www.azqp.org/2021 offers details!

#### Tuesday, June 21 Club Meeting at 7:00 PM

Location: Mesa's Charles K Luster Building and Zoom June will feature preparation for ARRL Field Day and lastminute updates. Fire season is upon us, and that can have a deleterious effect on our getting into certain locations. Always on the fourth weekend of June, Field Day is the 25th and 26th *Continued Next Column*  Superstition Continued from Previous Column

#### this year.

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.

## 147.12 and 449.60 Link Goes Full Duplex This Fall, EchoLink Fixed

Plans were announced in April for our half-duplex links between the repeaters to be upgraded this fall. That means, when Net Control calls for check-ins, one person each on the VHF input and the UHF input will be heard as two voices together.

This will not affect how two people on the same input will be heard with the strongest signal covering the weaker one. Halfduplex has the effect of people on one repeater not being heard at all on the other repeater if both are busy.

The linked repeaters can be accessed via AllstarLink Node 52987 and from EchoLink node WB7TJD-L from the Internet. Speaking of WB7TJD-L, the EchoLink node is now working properly.

The Internet nodes are directly tied into the repeater controller. EchoLink users no longer are linked in via radio on the repeater inputs nor do they have to wait for the repeater tail to drop.

## Webmaster Report from Chris KJ7ZQB and SuperFest Report:

"We have websites, they're still up, that's about it for now." Reminiscent of the Treasurer's report often given by the late Dianne KD7DJE: "We had some, we got some, we spent some, and we still have some," she would say in jest before getting into the detailed report!

Chris has redesigned the SuperFest site, and noted that we have a deal up there right now on ticket pricing.

The SuperFest committee reported in April's meeting, also, that vendors can select and buy their space on our site. We can walk them to their space upon arrival at the SuperFest.

The committee will use a system of progressive pricing, where vendor spaces in the center of the action will cost a bit more than vendor spaces farther out.

Chris will redevelop the much larger club site over time.

#### Arizona Mesh Report by AMO President Michael KI7LXY

There may be more details over in the AMO column in ADAW, but here is an abbreviated synopsis from the April meeting of this Club.

Usery Site Manager Doug WB7TUJ has granted access to a six-foot dish that should provide phenomenal access to the far west valley, giving Deer Valley and north Scottsdale, among

#### Superstition Continued from Page 17

others, a solid link to the mesh network that was started by the Superstition Club some eight years ago. AMO also was able to move some Mesh nodes up eighty feet on the tower to bring in the city of Maricopa and a Superstition Fire training facility "at the end of Highway 60" near Apache Junction.

Just think what our 147.12 could do at 80 feet up that tower!

#### Antenna Build in May

Originally, I understood this was to take place at the May club meeting, but it was a Saturday morning event scheduled for May 21. As this issue of ADAW won't be out by then, I won't bother with location and time details.

The club settled on an American Radio Relay League kit, priced at \$69.95, and consists of a weatherproof box, a 49:1 toroid impedance transformer, 66 feet of wire and other components.

The kit builds an end-fed half-wave wire antenna specifically for the 40, 20, 15, and 10 meter bands at 250W PEP output. The antenna can be configured as a sloper, an inverted L, or can potentially be deployed on a portable operation.

#### The President's Corner

#### By Steve KB7KWK

Hello fellow club members and welcome to summer. It is already getting hot and the fire season is already ramping up.

That being said, the Field Day crew is holding biweekly meetings. The purpose of these meetings is to discuss how the event will operate as well as discussion of backup locations should a fire stop us from going to Lost Eden. If you are not familiar with Lost Eden, this is the private property up North on the Rim that the club has access to for this event.

Field day is the fourth weekend in June. The club has been going to this property now for about five years and we have a blast there. I hope to see a lot of club members there this year. If you are new to Ham Radio or the club, come out to Field Day and operate on HF. Of course if there is a ham there with a higher license than you, you can legally operate on those lower frequencies.

Another activity that the club holds every year is the Organ Stop Pizza event. This is an event where all club members meet on a Saturday in July and have some good pizza and listen to good organ music. We also give out awards for those members who have done a lot for the club. We usually have around 100 people at this event. Now that COVID has died down and more people are getting together, I hope to see most members there this year. Stay tuned to club emails and nets on further details for this event.

The club will not be having a picnic this year. We tried to get the Usery Mountain Regional Park location again this year. However, all the locations were taken for the weekend that we wanted and then they were going to close those areas for a long time. Now it is just getting too hot to have a picnic. We may find

#### Superstition Continued from Previous Column

another event for this. Stay tuned for further information.

I would like to remind all club and non-club members that we have a club net every Wednesday night at 8:00pm. This net is not only a business net, it is for general chat as well as to answer any questions new club members or new hams may have. There are no stupid questions. We all asked those same questions at some point. We also play the Amateur Radio Newsline just before the net at 7:30.

And do not forget about the morning drive time trivia nets that are on the repeaters every

morning, Monday through Friday, from 7:00 a.m. to 8:00 a.m. 73 for now and I will catch you on the air.

#### **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 <u>WB7C@SuperstitionARC.org</u> with your input by June 5th. The July ADAW will publish to club members in late June.

<u>The Communicator</u>: Please email <u>Editor@SuperstitionARC.org</u> with your input by May 27th. The Communicator will publish to club members in early June.

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

## adaw

Superstition ARC Repeaters			
<u>Output</u>		Links To	Mode
147.120 MHz +	162.2Hz	449.600*	FM Only
449.600 MHz -	100.0Hz	147.120*	FM Only
448.275 MHz -	100.0Hz	WIRES-X	Fusion
* 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: <u>https://superstitionarc.org</u> for more			
information.			
Supportition Suppre Fast			
Superstition SuperFest			
The Superstition SuperFest is held on the first Saturday of			
December. Visit <u>www.superstitionsuperfest.org</u> for the lat- est information			



# HAM RADIO OUTLET

### 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 wi30 Spectrum Stream • High Speed Auto Antenna Tuner • Microphone Ampilter wi3-Stage Parametric Equalizer • Remote Operation wipptional LAN Unit (SCU-LAN10)



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

Rugged Construction in an Ultra Compact Body • Stable 100 Watt Output with Efficient Dual Internal Fans • 32-Bit IF DSP Provides Effective and Optimized ORM Rejection • Large Dot Matrix LCD Display with Quick Spectrum Scope • US3 Port Allows Connection to a PC with a Single Cable • CAT Control, PTL/RITY Control



#### FTM-400XD | 2M/440 Mobile

FT-3DR CAFM/FM 144/430 MHz Xovr

 High Res Full-Color Touch Screen TFT LCD Display Easy Hands-Free Operation w/Built-In Bluetooth Unit • Built-In High Precision GPS Antenna • 1200/9600bps APRS Data Communications • Simultaneous CIFM/CHFM

Color display-green, blue, orange, purple, gray • GPSIAPRS
 Packet 1200/9600 bd ready • Spectrum scope • Bluetooth •
MicroSD slot • 500 memory per band



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

 SOW 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 • Built-in Bluetooth • WIFES-X Portable Digital Node/Fixed Node with HRI-200



#### FT-70DR CAFM/FM 144/430MHz Xevr

 System Fusion Compatible - Large Front.
 Speaker delivers 700 mW of Loud Audio Dutput
 Automatic Mode Select detects C4FM or Fm Analog and Switches Accordingly - Huge 1,106 Channel Memory Capacity - External DC Jack for DC Supply and Battery Charging

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

Real-time Spectrum Scope with Automatic Scope Control • Multi-color watertail 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 Anterna 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-2980R | Heavy-Duty BOW 2M FM Transceiver

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



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

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

#### 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 Charger Included • Large White LED Flashlight, Alarm and Quick Home Channel Access

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

Standby . Micro SD Card Slot

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





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



The LONG HOT summer is here. Now is the time to work on inside radio projects. HRO is the home of all your radio project needs. Stop by our website to see all the latest specials. Stay "RADIO ACTIVE" from all of us here at HRO PHX.

Now serving you at our Phoenix store:

Manager Ron AJ7T, Mike K7DD, Bob W8RH, Richard K1RAB, Ira AI7HC, Paul N0RWW, and Jim KE7EEU.