

4529 W. Park Place Glendale, AZ 85306-1512







Arizona Desert Aire Waves

Vol 42, No 4

April 2017

CLUB MEETINGS SCHEDULE

SARC

Arp 5th Scottsdale Senior Center 7:00 PM

OPRC

Jun 14th Marshall Conference Ctr at Tucson Medical Ctr 7:15 PM

CARL

TBA
AZ Science Center
TBA

AARC

Apr 13th Red Cross Bldg. - Phx 7:30 PM

TBARC

Apr 20th North Phoenix Campus Northern Arizona University 7:00 PM

CADXA

Apr 6th PERAClub 7:00 PM

CLUB MEETINGS SCHEDULE

QCWA

June/July TBD Prescott Area 11:00 AM

SuperstitionARC

Apr 18th Charles K Luster Bldg 7:00 PM

MARCA

Apr 18th
Denny's Restaurant - Tempe
6:30 PM

ANSR

Apr 17th via GoToMeeting 7:30 PM

OVARC

Apr 21st Ascension Luthern Church 7:00 PM

WVARC

Apr 3rd
St Clement Catholic Church
Social Hall
7:00 PM

ARA

Apr 27th
Denny's Restaurant - Tempe
7:30 PM

MARA

Apr 29th Barrow's Pizza - Maricopa 9:00 AM

YARC

Apr 5th Mile High Middle School 7:00 PM

ARCCC

TBA
American Red Cross Bldg
TBA

ARIZONA AMATEUR RADIO CLUB

The Arizona Amateur Radio Club meets on the **SECOND THURS-DAY** of each month at 7:30 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	Joe Cutitta	WOSLL	623.215.2226
Secretary			
Treasurer	Bob Hodges	K7JJT	602.375.9982
Activities Mgr	Lori Cripps	WA7EDI	
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). 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	480.456.1154
Vice President	Kelley Law	KF7ZVL	
Secretary	Paul Jorgenson	EK7HR	
Treasurer	Alan Jensen	KE7FSD	
Past President	Paul Finell	W7EFQ	602.741.6563
Board Members	Jerry Jacques	KE7GYM	480.239.8679
At-Large	Dreux Jacques	W7EMU	
	Louis Schmitt	NQ7I	
	Judy Jensen	KE7IXI	480.773.8452
	David Yee	N7AJR	
	Paul Jorgensen	KE7HR	
	Ed Nickerson	WU7S	480.949.5162
	Charlie Brown	NJ7U	
	Bill Kouchis	N9EIV	

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 MON-DAY** of the month at 7:30 p.m. on Skype. 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
17' D 1	Cl. to Lead VICOIC

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: www.ansr.org



THUNDERBIRD AMATEUR RADIO CLUB

The Thunderbird Amateur Radio Club meets the **THIRD THURS-DAY** of each month at 7:00 p.m. at North Phoenix Campus of Northern Arizona University located at 15451 N. 28th Avenue (near I-17 and West Greenway Road). The meeting is held in room 147. See the website (http://w7tbc.org) for a map and more details.

President	Gary Duffield	WK7B	602.843.7724
Vice President	Chris Johnson	K6OZY	623.866.2777
Secretary	Gary Cline	AF7BJ	
Treasurer	Darren Johnson	AF7CO	
Board Members	Joe Arnold	AD0X	
	Andrew Cornwal	1 KF7CCC	
	Wayne Hale	W6IZK	
	Robert Fairfield	K7RQN	
Past President	Walt Reinert	NJ8G	602.938.8219

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. Mailing address: PO Box 83615, Phoenix, AZ 85071-3615.

OLD PUEBLO RADIO CLUB

The Old Pueblo Radio Club meets the **SECOND WEDNESDAY** of March, June, September and December at 7:15 p.m. in the Marshall Conference Center at Tucson Medical Center. Visitors are welcome.

President	Ron Kalish	N7SPW	520.207.3852
Vice President &			
Treasurer	George Devich	N9IUK	520.760.0125
Board of Director	s: Bill Price	N7GUO	
	Cliff Hauser	KD6XH	
	Jim Ulmer	KC7THU	
	Lin Donnelly	KF7CNR	
WebMaster	Ted Willis	AA7HX	520.790.3828
	(www.oprc.org)		
Trustees: (all re	epeaters operating	under the K7	TRA call)
Primary	CliffHauser	KD6XH	
	146.660, 146.820,	147.220-	
	Paul VanBeverho	oudt KA7LFX	X 224.06+
Secondary	Ted Willis	AA7HX	146.66-
	Ralph Turk	W7HSG	146.82-
	Paul VanBeverho	oudt KA7LFX	X 224.06+

Mailing address: OPRC, P.O. Box 42601, Tucson, AZ 85733-2601. DUES: Individual - \$20.00/YR, Family - \$30.00/YR.

AZ RED CROSS COMMUNICATIONS CLUB

The Arizona Red Cross Communications Club meets 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	Frank Engstrom	KB7IQ	480.209.7300
Vice President	Larry Buchanan	AAOLB	623,703,9161

Arizona Red Cross Communications Club - K7ARC, 4747 N 22nd Street, Phoenix, AZ 85016.

BARRY M GOLDWATER, ARIZONA CHAPTER OUARTER CENTURY WIRELESS ASSOCIATION

The Barry M Goldwater Arizona Chapter of the QCWA includes amateurs from all over Arizona. Four luncheon meetings are planned each year. The meeting months and locations are announced by newsletter, but generally follow the following schedule:

Spring Meeting March/April Tucson Area Summer Meeting June/July Prescott Area Fall Meeting October Phoenix Area Holiday Meeting December Carefree Area

The AZ Chapter meets on the air evey Sunday morning at 0700 MST (0730 during December and January) on 3890 +/- QRM. During December and January, the net time is moved to 0730 MST.

President	Tom Fagan	K7DF	520.574.1129
Vice President	John Marshall	WA7BST	623.334.2583
Secretary	Clifford Hauser	KD6XH	520.235.7393
Treasurer	Dave Hanson	W7BJ w7b	j@outlook.com
Webmaster	John Marshall	WA7BSR	623,334,2583

Web Site: http://azqcwa.org Email: azqcwa@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	Ray Tyrrell	N6MY n6my73@gmail.com
Treasurer	Linda Sitterley	W7POF mmrginc@gmail.com
Secretary	Lori Cripps	WA7EDI 602.955.7517

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

MARICOPA AMATEUR RADIO ASSOCIATION

The Maricopa Amateur Radio Association (MARA) meets the **LAST SATURDAY** of each month at 9:00 a.m. at Barrow's Pizza, 44600 W Smith-Enke Rd. (Smith-Enke and John Wayne Parkway) in Maricopa.

President Vice President	Steve Miller Chris Canevit	W6SDM W7CGC	602.290.1603
Secretary	John Wiltberger	NO7IN	
Treasurer	Curt Steger	NA7CS	520.568.9471
Board Members:	Steve Miller	W6SDM	602.290.1603
	David French	N7FAN	480.430.9426
	Bob Howard	W8RH	520.709.6176
	Curt Steger	NA7CS	520.568.9471
	Ronald Beasley	KG7MUV	520.568.4880
PIO:	Steve Miller	W6SDM	602.290.1603
Webmaster:	David French	N7FAN	480.430.9426

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

WEST VALLEY AMATEUR RADIO CLUB

The West Valley Amateur Radio Club is an Arizona 501(c)(3) non-profit corporation. Meetings are the **FIRST MONDAY** of each month at 7:00 PM in the St Clements Catholic Church Social Hall located at 15800 Del Webb Blvd., Sun City. The board meets the second Monday of the month at Boswell Medical Center, Ironwood Room 2, Cun City. The Emergency Preparedness Group meets the third Monday of the month at 7:00 PM at Boswell Hospital. Club nets are held on 147.300 (tone 162.2) at 9:00 AM daily and Monday - Thursday at 8:00 PM. The preparedness net is held the last Friday before the monthly Monday night meeting at 8 pm on the NY7S repeater 147.300 MHz, Tone 162.2 Hz. A weekly breakfast is held on Thursdays at Lou's Trivoli Gardens, 12535 W Bell Rd., at 7:00 AM.

President	Mike Corder	K7MJC	602.439.1303
Vice President	Alex Munro	K7AEM	
Secretary	Sharon Blaylock	KI7DOK	623.584.6974
Treasurer	Jim Rogers	N7YTI	623.214.9219
Membership	Tom Connor	W7TLC	623.444.7956
Club Directors:	Bob Paul	KG7FIL	623.252.0149
	John Siepmann	N9NA	630.209.4116
	Martin Fitzpatricl	cWB7X	wb7x@cox.net
	Tom Connor	W7TLC	623.444.7956

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://www.westvalleyarc.org.

SUPERSTITION AMATEUR RADIO CLUB

The Superstition Amateur Radio Club meets at 7:00 p.m. on the **THIRD TUESDAY** of each month (except December) at the Charles K Luster Building, 640 N. Mesa Drive, Mesa (use the glass door on your left at the main entrance). Visitors are welcome. Board meetings are held at 6:30 p.m. on the second Tuesday of each month (except December) at Black Bear Diner, 1809 E. Baseline Road, Gilbert.

President	Steve Estes	KB7KWK
Vice President	Jeff Machesky	K7ZLX
Secretary	Jeff Harris	KD2DFE
Treasurer	Douglas Mitchell	W7ADD
Board Members:	Andy Keels	KD4ABB
	Brian Butler	W7FK
	Charlie Brown	NJ7V
	Dale Schmidt	N7QJK
	Dan Karnes	W7TWR
	Jeff Heinze	N7CCW
	Larry Fort	AB7C

Superstition ARC, 5155 E Eagle Dr #21522, Mesa, AZ 85277. Web Site: <u>SuperstitionARC.org</u> and <u>SuperstitionSuperFest.org</u>. The Superstition Amateur Radio Club is a 501(c)(3) non-profit organization. For club information, please send email to: <u>Communications@SuperstitionARC.org</u>.



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. at Denny's Restaurant located at 825 S 48th Street in Tempe (SE corner of University & 48th Street). Monthly presentations cover a broad spectrum of interesting subjects. Vistors are welcome to attend. Come early for dinner and 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.

President	Norm Johnson	AA7OO	480.278.2886
Vice President	Dave Hall	N7ZPY	
Secretary	T D Kennard	N7ISR	
Treasurer	Don Aldridge	WA7RLL	
Director	Bill Hosking	W7JSW	
Director	Dusty Morris	W7ITM	
Trustee:	Norm Johnson	AA7OO	480.278.2886
Webmaster:	Norm Johnson	AA7OO	480.278.2886

MARCA, Inc., PO Box 28246, Tempe, Arizona 85285. Membership dues \$25 annually. See our website (http://w7mot.org) for more information about meeting schedules, membership, repeaters, library, and club activities.

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.

Virgil Silhanek, K7VZ

President

Vice-President Brian McCarthy, AK/F		ak/f@w/ara.net	
Treasurer	Erv Heimbuck, K0OTZ	k0otz@w7ara.net	
Secretary	Jim Hoff, N7XXX	n7xxx@w7ara.net	
Board Members:			
Lance H	alle, KW7LH	kw7lh@w7ara.net	
Dennis Bietry, KE7EJF		ke7ejf@w7ara.net	
Doug Pelley, WB7TUJ		wb7tuj@w7ara.net	
Joe Godfrey, AE7JG		ae7jg@w7ara.net	
Dennis Campbell, AE7WU		ae7wu@w7ara.net	
Mike M	ontalvo, KF7MBK	kf7mbk@w7ara.net	
Marty Dusenberry, KE7DGP		ke7dgp@w7ara.net	

For Membership Information, contact (Mike Montalvo, KF7MBK 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.

James Wasson, N7ELL

YAVAPAI AMATEUR RADIO CLUB

The Yavapai Amateur Radio Club meets the **FIRST THURSDAY** of every month at the Mile High Middle School located at the end of W Carleton Street west of Montezuma Street (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.

President	Kathy Laing, KJ6KMK	president@w7yrc.org
Vice-President	John Stevens, AB9JS	vice_president@w7yrc.org
Secretary	Sandy Mattsen, K9WIZ	Z secretary@w7yrc.org
Treasurer	Tom Bishop, KI7FWZ	treasurer@w7yrc.org
Past President	Frank Bender, K8FB	k8fb@w7yrc.org
Board Members	Art Jackson, KA5DWI	ka5dwi@w7yrc.org
	Rex Mauldin, N7NGM	n7ngm@w7yrc.org
	Art Protas, KG6AY	kg6ay@w7yrc.org

Yavapai Amateur Radio Club, P O Box 11994, Prescott, AZ 86304-19994. 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 Ascension Lutheran Church located at 1220 W Magee Road in Tucson. (June is normally Field Day. December is annual Christmas Party and date and location varies.) Visitors are welcome. Board Meetings are held at 9:00 a.m. at the Oro Valley PD Substation EOC on Tangerine Rd (next to WalMart) in Tucson. Check the web site at www.tucsonhamradio.org for dates.

President	Steve Wood, W1SR	president@tucsonhamradio.org
Vice-President	Fred Bresani, W2HZ vi	cepresident@tucsonhamradio.org
Secretary	Carl Foster, KB7AZ	secretary@tucsonhamradio.org
Treasurer	Hanna Eckert, KG7TPI	treasurer@tucsonhamradio.org
Board Members	Ross Eckert, K4WBR	
	Scott Boone, K7ADX	
	Com: Diamas WE7CD	

Gary Pierce, WE7GP
George Cooley, NG7A
Marnee Dearman, KG7SIO

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/.

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

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**

k7vz@w7ara.net

n7ell@w7ara.net

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. Board meetings are held the last month of each quarter at the AZ Science Center. Annual meeting for all volunteers is held the **THIRD SATURDAY** of January. Watch ADAW for details.

Jack Landon	KD7ROB	480.759.5195
Jim Felkey	N7BBS	480.966.7084
John O'Neal	K7IP	480.961.1109
Karen McConag	ghy NO7D	602.799.7338
	Jim Felkey John O'Neal	JimFelkey N7BBS

Jean W4CIH	ADAW, Publicity
Steve WB4ZSC	Tech/IT, CARL/ASC Interface
Fred K9TOS	Logbook/QSLs
Tom K9TOS	At Large
Sam N7INV	Scheduling
Dave W7PMD	Hamfests
John K7JP	Teacher Packets
Bob KG7QJ	Classes, ASC Contact

Web Master, ARCA Rep - Roger Buel, W9NCQ - 602.493.7242 For information: Email to <u>carl@w7asc.org</u> or call Jack, KD7ROB at 480.759.5195. Web Site: <u>http://www.w7asc.org</u>

CENTRAL ARIZONA DX ASSOCIATION

The Central Arizona DX Association meets the **FIRST THURSDAY** each month at 7:00 p.m. (except for January Awards Banquet) at the PERA Club, located at 1 E Continental Drive in Tempe. Visitors always welcome. See www.cadxa.org/meetings.html for a map. The May meeting is an outdoor barbecue at 6:00 p.m. (reservations required).

President	Lee Finkel	KY7M ars-ky7m@cox.net
Vice President	Fred Hoffert, III	NA2U cwman1@aol.com
Secretary	Bill Poole	AA4Q bill@poole.com
Treasurer	Alton Chaney	W7ACX w7acx.480@gmail.com
Past President	Tom Kramer	NQ7R tkramer@azci.net
Board Members	Larry Loen	WO7R lwloen@gmail.com
At-Large	Mickey LeBoeuf	K5ML k5ml@arrl.net

CADXA, P.O. Box 24616, Tempe, AZ 85285-4646. Email: cadxa@cox.net. 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.



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From The Editor's Desk

Some exciting things are happening in the Amateur Radio Community in Arizona. One of them is the bill before the Arizona legislature that will allow the Amateur Radio Community to collect \$17 of the "vanity" fee on every Amateur Radio license plate sold. Up until now, the state has kept that money. This bill would allow us to collect the money to be used for such things as education, scholarships, and emergency preparedness, as well as other worthwhile endeavors to benefit Amateur Radio throughout the state. See the Press Release on the next page for more information.

We all need to thank Senator Barto, Tom Boza NE7X, Virgil Silhanek K7VZ, Steve Miller W6SDM and everyone else who has worked tirelessly on getting this bill progressed along in the legislature. Hopefully their efforts will pay off in the next week or two with the Governor signing the bill into law.

The AZThunt group is inviting all who are interested to join them in hunting hidden transmitters in the Phoenix east valley. They meet monthly for both walking and driving foxhunts. They hold equipment building parties, and also share their experiences at pre-hunt lunches and dinners. Don't have any T-Hunt equipment? The group even has equipment to lend to those who would like to try it out.

Questions or need more information? Join the Google Group AZTHunt. There are also photos and future hunt information on the group's web site at http://azthunt.com/.

Did you make it to the Scottsdale SpringFest? It was a great event. The weather was superlative and the crowd was good. For some pictures and a report, see the Scottsdale column of page 14.

The Amateur Radio Council of Arizona held its spring meeting at the Scottsdale Hamfest. Among the business voted on was the change to the Constitution and By-Laws. Previously the Constitution stipulated that the Annual Meeting be held at the ARCA-sponsored midsummer hamfest or at one scheduled in July or August. The discontinuation of the ARCA/Williams hamfest made it necessary to update the wording in this section of the Constitution to allow the Council to hold its Annual Meeting at an ARCA sponsored event in any one of the summer months (June, July or August). The proposed change was approved unanimously by roll call vote.

Other business before the Council included a call for nominations for the ARCA Ham of the Year and Young Ham of the Year awards to be presented at the Annual Meeting. Nominations must be received by the Council no later than May 1, 2017 for this year's awards. Information on how to nominate someone can be found on the ARCA web page at www.arca-az.org.

Applications for the 2017 ARCA scholarship are also due no



CHAPTER 16 BARRYM. GOLDWATER ARIZONA CHAPTER

No Report Received



Update to Press Release

The Amateur Radio license plate bill (SB1132) passed the State House of Representatives on March 21, 2017 by a vote of 37 aye to 19 nay (with 4 not voting). The bill has been transmitted back to the Senate to be forwarded to the governor for his signature.

Thanks to Senator Nancy Barto for sponsoring and Representative John Allen for co-sponsoring this bill. Thanks to Tom Boza NE7X, Virgil Silhanek K7VZ, and Steve Miller W6SDM who spoke in favor of the bill. Also thanks to all the dedicated Amateur Radio operators who attended the meetings in a show of support which helped to make this happen.

Editor's Desk Continued from Previous Column

later than May 1, 2017. An application form and guidelines for applying can be found on the ARCA web page.

In other news, the 2017 ARRL Arizona State Convention will be held in conjunction with the 2017 CopaFest in Maricopa on October 28. The one day event will be hosted by the Maricopa Amateur Radio Association at the UltraStar Multitainment Center. Check the flyer and web site at www.copahams.org for more information.

Don't forget the annual April Hamfest at DeVry. This year's event will be on April 15 at the usual location. Have a look at their flyer and visit the web site at www.w7io.org for the details.

Have a great month. See ya next time, Chris, N7PVL



Press Release

The Arizona House Transportation and Infrastructure Committee met on March 8th with SB1132 Amateur Radio Operator Special Plates on the agenda. The bill was introduced with 15 amateur radio operators in the audience. Tom Boza NE7X, Senator Barto, Virgil Silhanek K7VZ, and Steve Miller W6SDM stood up to speak in favor of the bill. After their testimony and answering several questions, it was called to vote, passing unanimously with an 8-0 Do Pass recommendation.

Three of the representatives commented favorably on their experiences with Amateur Radio before casting a vote. Vice Chair, Representative John, told a story about a camping trip in the mountains from several years back where he encountered vehicle problems and was stranded. He managed to get a hold of a ham operator who was able to get a tow truck out to his location in a snow storm. Representative Andrade shared fond memories from his train engineer career, working with a ham who would bring his radio along, connecting it in the locomotives. Representative Mosley explained how at least one ham is required in each LDS stake and the important role they serve there.

This legislation, AZ SB1132, makes the necessary changes to get \$17 of each \$25 fee for the Amateur Radio Specialty Plate to benefit Amateur Radio in Arizona. Like all of the other specialty plates in the state, we want those funds to be directed to a 501c3 nonprofit organization. The funds will be used to support scholarships, emergency preparedness, and Amateur Radio training opportunities in Arizona.

The next steps for SB1132 is to be heard before the House Rules Committee, then go before the House floor for a Caucus/Committee of the Whole. After that, it will have a Third Read on the House floor and be voted upon. We're monitoring its status and will send out further updates as they become available. A video of Wednesday's committee is available at this link. https://youtu.be/VgfvISa4lnE





MARA Hosts Outdoor Portable Operating Event

On Saturday, April 15, MARA will be hosting an outdoor ham radio activity. We will be running at least two stations on solar/battery power. The idea is not only to sharpen our skills at building and operating solar-powered stations but also giving everyone in the club who may not presently be operating on HF a chance to operate in a low-key, non-contest environment. The only objectives are to have fun, socialize, and learn something new.

This is not just a MARA club activity, however. Anyone who is interested is welcome to come by, observe, operate, or just hang around. If there's enough interest, we will bring the VE testing materials along and administer tests. If you're interested, let us know and we will have the material and examiners ready for you. We are going to the Jim Korsten West Pinal Park, located on SR 84, just west of SR 347. It's off of exit 151 on Interstate 8. The park is about 15 miles south of Maricopa, about 27 miles west of Casa Grande. I've included a map of how to get there.

The park has several ramadas, cooking grills, and primitive bathroom facilities. Everyone should bring their own water. We're also going to have a cookout - \$5.00 per head gets you hamburgers, hotdogs, soda, and the like. You're also welcome to bring your own stuff along. If you're going to eat, please RSVP to Chris, W7CGC, at ccanevit@canevit.com. Come on out and enjoy the Sonoran desert spring and socialize with other ham operators.

73, Steve W6SDM







Last month you saw part 1 of the paper that was prepared by Brandon Hang, KG7ANK This paper was a school assignment in which Brandon was asked to report on if, or why, Ham radio had any role in communications, considering the ubiquity of the cell phone. If you find yourself discussing the future of Ham radio with a disbeliever, this great paper will provide you many "Talking Points." Your faithful W4CIH scribe thanks Brandon, a relatively new Ham, for this excellent report.

We will be back to news of the Ham Shack next month.

Want to volunteer at the Arizona Science Center Ham Shack? Great fun. Email Bob KG7QJ@cox.net, or phone him at 480-961-1109. Better yet, drop in at the Ham Shack in person to see the action first-hand.

73 de Jean W4CIH jeanjol@hotmail.com 480-664-7353

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by Brandon Hang KG7ANK

Despite its age, ham radio is significantly more efficient than text messaging, most especially in one of its most popular modes: Morse code. The true efficiency of Morse code lies is the structure in which it is transmitted and received. Developed by Samuel Morse and Alfred Vail, every English letter is represented by a series of dots (short tones) and dashes (longer tone). The more common the letter in the English alphabet, the shorter that letter's code is and the faster it is to transmit ("Morse code and the Telegraph," 2009). It's simple in operation and necessitates very low power; a simple transmitter producing only 0.1 watts can communicate 500-1,000 miles (R. Taylor, personal communication, September 11, 2016). A cell phone, over the course of a year, will consume about 2 kWh (kilowatt-hour) of electricity, enough energy to power ten 100-watt light bulbs for an hour (Helman, C., 2013). Two hams can transmit and receive a message in Morse code in equal or less time than a text message is sent, as the code is received the instant it is transmitted. While text messages are often delivered within several seconds, their delivery failure ratio is as high as 5.1% under normal operating circumstances (Meng, X., et al., 2005). Additionally, Morse code is utilized internationally with English being its primary language, and it is more efficient than texting in its use of bandwidth.

The Federal Communications Commission defines bandwidth as "the width of a frequency band outside of which the mean power of the transmitted signal is attenuated at least 26 dB below the mean power of the transmitted signal within the band" (Silver, H. W., Wilson, S. J., & Wilson, M.J., 2014). In plain English, bandwidth is simply the width of a transmitted signal in its band. In a country where every available frequency of the radio spectrum is occupied by radio communications, bandwidth is a valuable commodity. While 4G LTE data on smartphones takes advantage of a 20MHz (megahertz) stream, Morse code uses only 50 – 200Hz (Silver, H. W. et al., 2014). Calculating the difference reveals that retrieving text messages through cell phone data plans uses over 100,000 times more bandwidth than a message transmitted with Morse code. Therefore, Morse code, developed over a century ago, remains unrivaled in its efficiency and

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simplicity in transmitting messages.

The evolution of technology has also introduced digital modes to the traditionally analog hobby that are created specifically by ham radio operators, are often available for free, and are easily accessible to those already familiar with text messaging. Almost all 21st Century hams now include computers as an essential tool in their setups. According to the American Radio Relay League (ARRL) Handbook for Radio Communications (2014), "The marriage of ham radio and computers is solid and longstanding. Radio amateurs have discovered that interconnecting their PCs with their ham stations not only makes operating more convenient, but can open the door to additional activities on the ham bands" (p. 1.9).

Mode	Bandwidth (kHz)
CW (Morse code)	0.1-0.5
AM (Voice)	1.8-3.0
FM (Voice)	15.0
4G LTE Data	20,000.0

One such "digital mode" is called PSK31, a method of direct keyboardto-keyboard communication over the air that requires very low power and bandwidth to transmit. PSK31 involves interfacing a computer with a transceiver to transmit and receive text in real-time. Although PSK31 utilizes binary to transmit messages, it is essentially a digital successor to Morse code. Similar to the structure in which Morse code is composed, letters that occur more frequently in the alphabet have a shorter Varicode (such as "e"), while uncommon letters have longer Varicodes (such as "z"). This means that PSK31 also transmits a digital message more efficiently than a text message, often requiring only 60Hz of bandwidth to successfully relay a message at up to 50 words per minute (Ford, S., 1999). Additionally, PSK31 software is coded by hams and is available for free, making it a logical alternative to expensive cell phone data plans that accomplish the same task. Ham radio's continued growth is undoubtedly due, in part, to this and other techno-logically based modes that increase ham radio's reach and accessibility.

Despite the diverse uses of amateur radio for general communication purposes, a major function and justification for continued access to the amateur radio spectrum is its ability to serve the public. The Code of Federal Regulations for the Amateur Radio Service (2016) states it's the public. The Code of Federal Regulations for the Amateur Radio Service (2016) states its fundamental purpose is the "recognition and enhancement of the value of the amateur service to the public as a voluntary noncommercial communication service, particularly with respect to providing emergency communications." Many hams participate in "Field Day," an annual amateur radio tradition occurring on the fourth weekend of June. While Field Day is a recreational competition to contact as many ham stations as possible within a set amount of time, all participating groups of three persons or more must power their equipment independent of commercial power lines as preparation for real emergency situations. The American Radio Relay League specifically states "a premium is placed on developing skills to meet the challenges of emergency preparedness as well as to acquaint the general public with the capabilities of Amateur Radio" ("ARRL Field Day 2016 Rules," 2016). No matter the mode, amateur radio possesses a distinct advantage in disaster situations over text messaging due to the hobby's considerable emphasis in radio concepts and electronic engineering. As previously discussed, cell phones require a significant amount of power to function; the lack of a power source with which to recharge a cell phone immediately limits its abilities during a blackout. Additionally, cell phones are incapable of transmitting messages directly between devices. Instead, these mobile devices are reliant on complex networks of cell towers, which, if damaged or offline, also render an

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operational cell phone useless. In the event of a civil or natural disaster, constructing a ham radio transmitter or receiver by recycling components from an existing electronic device (including a cell phone) is entirely possible. If an individual is a licensed ham, they likely already possess appropriate knowledge to utilize these components to create "home-brew" receivers and transmitters, and to ultimately save lives. With operational equipment capable of receiving and transmitting signals, hams are fully capable of establishing communications during civil emergencies or natural disasters, including tornadoes, hurricanes, floods, wildfires, storms, and earthquakes.

However, a single ham radio operator would be helpless without the teamwork of thousands engaging in communication with each other to provide relief during times of crises. Several amateur radio emergency services exist, including the Amateur Radio Emergency Service (ARES), the Radio Amateur Civil Emergency Service (RACES), and the Military Auxiliary Radio Service (MARS). Each service employs trained and licensed amateur radio operators, often with special emergency equipment, prepared for any situation. No such organizations exist for cell phone users. Hams have also been productively involved in communications assistance during the course of several major disasters in recent United States history, as well. During Hurricane Katrina, overloaded 911 call systems necessitated the use of amateur radio to rescue families stranded in their attics or on rooftops (Krakow, G., 2005). During the massive North American blackout in 2003, hams were able to communicate directly to each other via a repeater on the Chrysler Building in New York (Boggs, A., 2010). Recently, ham radio volunteers have been actively providing communication during Hurricane Matthew, which has rendered over 1.2 million residents of Florida, Georgia, and the Carolinas without power. The Hurricane Watch Net, Salvation Army Team Emergency Network, Voice over Internet Protocol Weather Net, and the Federal Emergency Management Agency have established dedicated amateur frequencies for weather reporting and other emergency communications, which are currently in use. All amateur stations have been requested to "stay clear of these frequencies unless they have emergency traffic relative to Hurricane Matthew" ("Amateur Radio Response," 2016). With thousands of operators involved in amateur radio emergency services, ham radio is more effective than text messaging, let alone all other forms of modern communication, in assisting the public during any disaster that may strike.

Ham radio has evolved significantly since its inception over 120 years ago. While many radio technologies first conceptualized by ham radio operators have developed into a multitude of wireless communication tools, ham radio endures as the first true wireless communication form. The number of licensed operators in the United States only continues to grow, at over 800,000 strong. Morse code, ham radio's original language, remains more efficient in both energy and bandwidth as compared to texting. The incorporation of computers into the hobby has pioneered digital modes like PSK31 that are free, efficient, and easily accessible to those already familiar with text messaging. And, most importantly, ham radio continues to serve the public during civil emergencies and natural disasters when power grids and cell phone towers are no longer operational. It remains a critical partner in communications, and in many cases, is the crucial link to the outside world. While some may consider it a relic of the past, that is simply not the case: ham radio is cheaper, more efficient, and ultimately more useful than modern cell phones.





As temperatures heat up, our snowbirds are leaving the valley. By the time you read this, most of the Valley hamfests will have come and left. But that doesn't mean there's no amateur radio activity! Although we'll have more static on 160m and 80m, summer brings sporadic E, which means we may have more people bragging about their new contacts . . . including tech licensees who have privileges on 10m and up. So get on the radio and call CQ!

It's definitely time to start thinking about Field Day, which happens on the fourth full weekend in June. This year it looks as if we're going to hold an antenna launching contest while we're up there. Do you have a preferred way of getting wire antennas into trees? Start practicing - or better yet, start building. Think about both distance and accuracy. From the simplest potato on a string to the most complicated pneumatic contraptions, show us what you've got! (Since it will be in Flagstaff in the summer, please bring nothing that could ignite the landscape!)

Gary Cline, AF7BJ, continues to work behind the scenes for our August Escape - a RV/camping + ham weekend. It'll be at Canyon Point Campground (a Forest Service campground on US 260, at the top of the rim near Forest Lakes). Gary's got the dates pretty much narrowed down to the second or third weekend in August.

Have you been to a TBARC meeting yet? Why not stop by? We'd love to have you join us, and guests are welcome. Our meetings are held on the third Thursday of the month at the North Phoenix Campus of Northern Arizona University. It's near Greenway and I-17, starting at around 7:00 p.m.. See the

club website at w7tbc.org for directions. In April, we're going to hear about Building a Panadapter your Station from Andy Durbin, K3WYC. You can't work 'em if you can't hear 'em - but what if you can see them instead? See you there!

Andrew Cornwall KF7CCC kf7ccc@arrl.net







Each month the current membership totals are reported at our board meeting. I'm always excited to see the change we've had over the previous month(s). The ARA membership has grown over the last several years. In fact, we just passed 500 active members a few months ago and are already approaching 600. Thanks to everyone who has joined and supports our repeater systems.

It's all too easy to get caught up in the "ham radio is dying" hoopla, but I feel that's just the opposite of what's really happening. As mentioned, the ARA membership has grown as well as attendance at our general meetings has increased. I belong to several other clubs and see the same trends there. In my experience, being a member is one thing, but getting involved opens up the true benefits of the various clubs.

Looking back, I remember my first time going to Mt. Ord with the ARA in January 2009. They were not sure of the road conditions and James AC7ZT asked me to drive. The temperatures in Phoenix were warm and our first sighting of snow wasn't until we had already turned off on the gravel road heading up to the top of the mountain. The road conditions ended up being passable and the repairs were successful.



On the way up to Mt. Ord, the first sign of snow.



Looking toward Roosevelt Lake from near the top.



Made it to the gate, just before the top of Mt. Ord.

After that trip, I started going to the technical meetings and more work trips. Any club is certainly going to appreciate you joining as a member and supporting them. It's up to you how involved you become and that's where you'll truly reap the benefits.

Virgil K7VZ ARA President



Old Pueblo Radio Club INTERMOD

President's Column

The Old Pueblo Radio Club held its meeting on 8 March 2017. There was a short discussion about certain legislative proposals on the state level. Three on the House side concern prohibiting the manipulation of cellular phones by the driver of a motor vehicle to send or receive digital (text) messages while driving (unless it can be accomplished hands free). Their wording appears to avoid affecting the use of two-way radios. One from the Senate would prohibit the use of cellular phones by persons driving under learners' permits or for the first six months of obtaining a driver's license.

The second order of business was to begin a discussion about the direction the club should take in the future. This will be continued at the club's net meeting which will be held in June. Until further notice the OPRC will meet March, June, September and December.

73 de Ron Kalish, N7SPW President, OPRC







The next flight for Arizona Near Space research will be April 1, 2017, at 9:00 AM at the University of Arizona Agricultural Center, west of Maricopa, AZ. To get there, access 347 from Interstate 10 on either Queen Creek or Riggs Road. From Interstate 8, take exit 151 to 347 and follow it north through Maricopa. Turn east on State Route 238 (Smith Enke), which is at the extreme north end of Maricopa. You will see everyone on the right side of the road.

It's very educational and entertaining to see the prep for the launch. Students start at about 7:30 AM preparing their payloads. ANSR people begin preparing the balloon for gas and checking the payloads for secure ascension and reentry. Gas is put into the balloon, the crew, with hard hats, lines up and prepares for the release. A small pilot balloon is released and visually tracked as a last minute test of winds aloft. It's really fun to watch. Kids are welcome.

Keep in mind that the preparation for the flight itself begins days ahead of the actual launch. Computer models are run to determine the viability of the flight and the possible reentry locations. Finally, after the flight has started, members of the chase crew leave in their vehicles and head toward the most likely recovery point. We rely on amateur radio contact with our ground tracking station, APRS tracking, and even a CW beacon to find the payload when it lands.

Come on out and join the fun.

73, Steve Miller W6SDM









7311 E. STETSON DRIVE SCOTTSDALE, ARIZONA 85251

RAYMOND J. CARLI, P.E. ELECTRICAL ENGINEER W7GNE (480) 941-8810 (OFF.) (480) 945-7020 (FAX)

If anyone is considering a major radio shack, workshop, addition or going into business for yourself, I am offering professional Electrical, Mechanical and Plumbing Engineering services to radio club members at a 20% discount for residential property, and 10% discount for commercial property. Talking is always free.



After several months with little DXpedition activity, the bands have jumped to life in recent weeks with a plethora of DXpeditions to chase. There is a British team in Ghana at 9G5X; a French-led multinational team in Ivory Coast at TU7C; a Spanish-led multi-national team in Niger at 5U5R; and an Irish team in Nepal at 9N7EI. The African expeditions have been very workable while the Nepal expedition has not. It has been an opportunity, especially for newer DXers, to add to their country count. For those of us trying to add new band countries on the LF (low frequency) bands to our DXCC Challenge numbers there have been some great opportunities as well. Several of the expeditions have been active on PSK and JT65 digital modes in addition to RTTY plus 60 meters. Something for every DXer.

I keep an eye on DX Summit or DX Heat for internet spots that tell me where these expeditions are transmitting day and night. The major expeditions are a great way to get QSL confirmations because they always have QSL managers and use the latest tools on Club Log (OQRS) and/or Logbook of the World (LOTW) to make things easier for DXers who need them.

The CADXA Thursday night net is alive and well. Please join us on non-meeting Thursday evenings at 7:00 p.m. for the net. I hope to hear you on our 147.32+ repeater (no PL tone) to discuss the DX of the day. For those of you who cannot make it to our meetings, it is a chance to talk with other club members and to ask for advice on antennas, equipment, or how to get a QSL card from that station you worked 5 years ago.

April Meeting

Our next meeting will be on Thursday night, April 6th at the PERA Club beginning at 7:00 p.m. The program will be about "Stealth Antennas" and should be of great interest to all our members who live in antenna restricted communities. Our presenter will be Carl Foster, KB7AZ, from the Southern Arizona DX Association. Carl will be giving this presentation at the International DX Convention in Visalia a few weeks later, so this will be a dress rehearsal for him. Carl lives in Tucson and will be driving or flying (he is a pilot) to Phoenix for the meeting. We will change the order of the meeting to put him on first since he needs to be back home to pilot an early flight the following morning for the "Flying Samaritans" – a group of

Continued Next Column



No Report Received



CADXA Continued from Previous Column

medical professionals who provide no-cost services to under served communities in Mexico.



Please come and join us for the meeting and feel free to arrive early to socialize with your peers. Refreshments will be served at the break. Guests are always welcome.

73, Lee, KY7M CADXA President



Want Ads

WANTED:

I am looking to purchase an alinco DJ-G29T 222/900 MHz Dual-Band HT. If you have one to sell, please contact:

Larry Stafford, N7WBU 3527 S Chesin Drive Tucson, AZ 85730-2319 email: TFDFF@cox.net



Spring is upon us and we are already well underway with event schedules and planning for the summer. Our 2017 Prescott Hamfest is scheduled for June 9-10, Field Day is June 24, and this will be the 4th year that we will hold the Granite Mountain Hotshots memorial event on June 30.

Most of our operating events are now being held from our club station. Our partnering with the Sheriff's Jeep Posse is proving to be a well fitting relationship, and several YARC members are now also Posse members. Our new permanent antenna tower is going in at the club station as internal upgrades to the station are taking shape as well. All in time for Field Day (hopefully).

YARC continues our series of licensing classes for people interested in Ham radio. A Technician license class was held in February, prior to the March 11 test session. There will be a General licensing class coming up on April 1st and 8th. For more information on the class, contact Brian at classes@w7yrc.org In addition, YARC offers discounted "HamTestOnline" subscriptions. Upcoming regular test sessions are May 13 and July 8, 2017. There is also a test opportunity at the June hamfest. For more info on the test schedule, email testing@w7yrc.org

We find it interesting that some groups (back east) are decrying the demise of ham radio while we are seeing record growth within the club and elsewhere. The most encouraging thing to those of us on our VE team is the number of people who obtain a Technician license and then upgrade to General within a few months. That makes for a healthy hobby.

Come join us for one of our monthly club meetings.

2017 Prescott Hamfest at ERAU

The Prescott Hamfest at Embry-Riddle Aeronautical University will be held on Friday, June 9 and Saturday, June 10, 2017. The hamfest is cosponsored by the Yavapai Amateur Radio Club, the Eagle Amateur Radio Club at ERAU, and ARCA. Friday consists of seminars only in the afternoon. Sorry, but we were unable to have tailgating and commercial vendors on Friday this year because of scheduling conflicts. Saturday consists of tailgating from 7 AM until Noon. Commercial vendors will be indoors from 7 AM until 3:30 PM on Saturday. At Noon on Saturday, Yaesu will be presenting a talk on their System Fusion and will also have an indoor vendor's booth where you can ask questions and learn about

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Public Service Calendar

Maricopa County Emergency Communications Group Events

EVENT	LOCATION	DATE	
Xterra Black Canyon Trail	03/05/17		
	Black Canyon City		
American Diabetes Tour d	le Cure	03/18/17	
	Northwest Phoenix		
Mesquite Canyon	Waddell	03/18/17	
Crown King Scramble	Lake Pleasant - Crown King	04/01/17	
El Tour de Mesa	In and Around Mesa	04/01/17	
March of Dimes for Babies		04/08/17	
	Wesley-Bolin Plaza, Downtow	n Phoenix	
Pat's Run		04/22/17	
Sun Devil Stadium at ASU & Tempe Town Lake			
Zane Grey 50 Highline Trail Run 0		04/29/17	
Mogollan Rim on the Highline Trail Pine to 260 TH			
Barn Buner Mtn Bike Race NW Flagstaff 09/0			
Mogollon Monster	Pine AZ Area	09/16/17	
Phoenix Half Marathon	Downtown Phoenix	11/05/17	
Scottsdale Half Marathon	Scottsdale Civic Center	12/03/17	
Runner's Den Pancake Run		02/04/18	
	E Phoenix, Paradise Valley Ma	ıll	

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.



YARC Continued from Previous Column

their amateur products. Seminars will run until 3 PM on Saturday. At that time, the Grand Prize raffle drawing will take place.

Commercial vendors can register for their tables online (www.prescotthamfest.com). You can also find the hamfest flyer on the site. Clubs and related organizations can reserve a free indoor table on Saturday. There will be limited free RV overnight dry camping on Friday night only. You can register for your RV spot on the hamfest website. You can also purchase Grand Prize Raffle tickets on the site. You do not need to be present to win the Grand Prizes.

We are also looking for good seminars of interest to the ham population. If interested in presenting on Friday or Saturday afternoon, contact Doug Theriault NO1D (no1d.doug@gmail.com).

We hope that you can come and enjoy our hamfest. For further information, check out our web site or contact hamfest chair person Frank Bender K8FB (<u>k8fb@w7yrc.org</u>).

SCOTTSDALE AMATEUR RADIO CLUB, INC.



Club Station: W7UF Club Repeaters: 147.78/.18 & 445.00/440.00

The Scottsdale SpringFest was held at the Scottsdale Bible Church – Mountain Valley Campus on March 18, 2017. The weather was perfect for this event and it was very well attended. I do not have the official count as yet, but from my observation it was much bigger than last year's event. There were many cars in the parking area from other states and I saw a lot of call signs from other districts. W had refreshments provided by the Church Youth Group and we had VE testing. Here are a few pictures of the event at about 9:00 A.M.

Manning the club table and nerve center are David Yee, N7AJR, Kelly Law, KF7ZVL, Judy Jensen, KE7IXI and Alan Jensen, KE7FSD.





Here is a view of some of the buyers and a fine bucket truck belonging to Bill Kochis, N9EIV

These guys take care of the state wide repeater system. And they do it very well. They had a lot of information to hand out.



SARC Continued from Previous Column

Whenever I am on 20 meters listening for some DX, I hear some local big guns going after the same thing. Sometime I manage to get through, but not too often.

Great guys.





The National
Organization was
here as well. They
had many hand
outs and a lot of
information about
the latest legislation.

Here is a typical vendor and his table is being really looked over by enthusiastic buyers. This looks a lot like Black Friday.





Here is another view of the vendors' area.
There are many parking structures in that area and the shade is really welcome on a hot day like this.
Everyone can be as cool as possible.

The Church Youth
Group was very
busy with their
carts serving
coffee, doughnuts
and soft drinks.
The refreshments
were also available
in the church.



The VE testing was held in the church as well. It looked like a large group of applicants.

And so ends another great hamfest. I had a very good time while I was there taking pictures and I hope everyone else enjoyed the day as well. These and a lot more pictures will be on the club web site (www.scottsdalearc.org). We will start planning next year's hamfest just as soon as we finish the planning on Field Day.

The Scottsdale Amateur Radio Club has a VHF / UHF net every Tuesday evening at 7:00 P.M.. The club frequencies are 147.18 with a tone of 162.2 and 440.00 with a tone of 100. Everyone is welcome to check in and join in the discussions.

Well, that is all I have for now. Be well and keep on hamming.

Ed Nickerson WU7S enickerson 427@aol.com

SARC CONSTANTS:

SARC is a 501 (c)(3) club. That means all donations are fully tax deductible. Contact Paul Jorgenson, KE7HR at 602.992.8043 for information on estate donations and equipment pick-up.

For membership information, call Judy Jensen, KE7IXI at 480.773.8452. Please send address change requests to Judy no later than the 7th of the month in which you would like the change to occur.







O.V.A.R.C. Launches RadioSport SIG

The Oro Valley Amateur Radio Club has launched a RadioSport Special Interest Group (SIG). RadioSport is the modern day term being given to Amateur Radio Contesting but we intend to broaden this definition by holding various outdoor operating events commemorating various historical events and places in Arizona.

Having the RadioSport SIG will give us the opportunity to closely duplicate the outdoor activities and fun that we enjoyed with The National Parks on the Air Program which has now concluded. We will also use our operating events to meet hams from other local clubs that join us. We have the entire year planned out with visits to a variety of locations in Southern Arizona.

Our March event will take us into Cochise County. We will gather at 9:00 A.M. on March 18 at an Arizona ghost town called Fairbank (https://www.blm.gov/az/st/en/prog/cultural/fairbank.html), which is about 10 miles west of Tombstone. Fairbank is one of dozens of ghost towns in Arizona, but most are only a memory. Fairbank had a train depot that served the Tombstone area and it was abandoned around 1972, but some buildings remain and the history is well documented on the website.

As always, we'll have 100 watt HF radio and antenna, battery power, table, shelter, and logging computer. If you care to join us bring your lunch and a chair. We'll operate as long as anyone wishes to do so, on CW, SSB, PSK, and RTTY, probably on 40, 20, and 15 meters, whichever is open at the time. New operators are encouraged to attend and old timers will be on hand to provide guidance and advice on any hamrelated topic. The only way to defeat mic fright is to get on the air and talk! We will help.

If you're interested in coming along to future locations, monitor the home page on our website: www.tucsonhamradio.org.

73, Steve, W1SR



Hamfest Calendar

15 April 2017 - **April Hamfest at DeVry** - hosted by the Arizona Amateur Radio Club and the Amateur Radio Council of Arizona will be held at DeVry University - South Parking Lot, 2149 W Dunlap Avenue in Phoenix. Hours are 6:00 AM until 11:00 AM. Admission Donation is \$2 per person. Tailgate spaces are \$10 per parking slot. Commercial Vendors - Tailgaters - VE Testing at 9:00 AM - DX QSL Card Checking from 9:00 to 10:00 AM. Coffee, Donuts, and Sodas will be available for purchase. Grand Prizes and Hourly Door Prizes. Talk-in on 147.060 (+) Pl 162.2 Hz. Contact Gary Hamman, K7GH at k7gh@arrl.net or 602.996.8148 for more information or to reserve a space.

6 May 2017 - The Cochise Hamfest and 7th Region Communications Exercise - hosted by the Cochise Amateur Radio Association will be held at the club site, 2756 South Moson Road in Sierra Vista. Gates open at 7:00 AM. Free Admission and Parking. Tailgating - \$5. Inside Table - \$10. VE Testing from 9:00 until 11:30 AM. Coffee, Pastry, and Drinks Available. Hourly Prizes with Main Prize drawing at 12:00 Noon. Talk-In on 146.76(-) Pl 162.2 Hz. Visit the Web Site at http://www.k7rdg.org. For more information, contact Peter, NH6BF at 520.216.6381 or email http://www.hoo.com.

9 - 10 June 2017 - Prescott Hamfest - hosted by the Eagle Amateur Radio Club at ERAU and the Yavapai Amateur Radio Club will be held at Embry Riddle Aeronautical University, 3700 Willow Creek Road in Prescott. Hours are Noon to 4:00 PM on Friday, June 9, for Seminars and Commercial Vendors Only and 7:00 AM to Noon Saturday, June 10, for Tailgating and Commercial Vendors. Saturday Seminars will be held from 1:00 PM until 3:00 PM. VE testing will be available from 4:30 - 6:30 PM on Friday, June 9. Free Admission on Friday. General Admission on Saturday is \$5.00 (free for ERAU Students with ID) Saturday Tailgating - \$10 for one (1) parking lot space (\$5 for each additional). Inside Commercial Vendors - \$20 for 1st table, \$10 each additional. Club Information Booths - Free. Talk-In: 146.880 MHz (-) PL 100 Hz. Check website at www.prescotthamfest.com for updates. Hamfest contact: Frank Bender, K8FB - k8fb@arrl.net . Sorry - No Guns, Drugs, Alcohol, Smoking, Vaping, Fireworks, or Pets per ERAU.

22 July 2017 - White Mountain Hamfest - hosted by the Kachina Amateur Radio Club - location to be announced. Free Admission. Vendors/Tailgaters - \$5.00 per space. VE Session begins at 9:00 AM, Walk-Ins Allowed. Demonstrations, Grand Prizes, Hourly Prizes, Coffee & Donuts, Arts & Crafts, and More. Talk-In 145.310 Pl 110.9. Visit the web site at www.kachina-arc.org and click on "Hamfest" for up to date information.



Continued Next Column

For Sale

Partly Restored Vintage Tube-type Transmitter - \$485 Baker Williams B&W 5100B AM/CW, 80-10m, 150w(2)6146's, has built in VFO and restored dial. Included is: Matching B&W 51SB-B SSB Generator (for ssb operation). Both will need new electrolytic filter capacitors. Interconnect cables (between 5100B and 51SB-B) included. Contact: Ray, W7GNE @ 480-540-4629.

A-4 Antenna For Sale - \$450

This is an older model that does not have the stainless steel hose clamps on the elements. It is the same size and has the same features as the modern A-4S. The mast mount plate is new, and some of the elements have been replaced with stock A-4S parts. The antenna is stock - does 10, 15, & 20 meters. It does not have the 40 meter add on. It is boxed and ready to go now. Contact: Bob Howard, W8RH at 520.709.6176 voice/text or email w8rh@live.com.

Ham QTH For Sale: 1800 sq. ft. 3 BR, 2BA house with separate HAM shack inside, includes fully permitted 55ft crank up tower, cables etc. Nice quiet SW Mesa area. No HOA or CCR. Available February 2017. For further info, contact Al (W7XA) by email at: W7XA.al@gmail.com

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 Bob Kettler WA6MIO at rdkettler@msn.com.

Hamfest Calendar Continued from Previous Column

28 October 2017 - Copafest 2017 - hosted by the Maricopa Amateur Radio Association will be held at the UltraStar at Ak-Chin Circle in Maricopa. Swap Meet, Free VE Testing, Educational Seminars, Raffle Prizes and more. In addition, UltraStar offers 12 Cinemas, 24 Lanes of Bowling, Laser Tag, a Video Arcade, Restaurants, Cocktail Lounge and much more. For info, visit the web site at www.copahams.org or email info@copahams.org

2 December 2017 - Superstition SuperFest 2017 - hosted by the Superstition Amateur Radio Club will be held at Mesa Community College, 1833 W Southern Avenue in Mesa. Hours are 8:00 AM to 4:00 PM. Admission \$5.00 per person, children 12 and under free. Tailgate \$10.00 per space. Grand Prizes and Hourly Door Prizes. VE Testing - Registration from 8:00 AM until 9:00 AM, Testing begins at 9:00 AM. Preregister at times listed. ARRL Card Checking. Special Events Station - K7A Commemorating the USS Arizona. GOTA Station. Fox Hunts. For more information, contact the SuperFest Chairman at chairman@superstitionhamfest.org.

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). 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 a 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.

April Test Sessions

Apr 1st - Venture Out ARC -- 9:00 AM

Venture Out RV Resort, 5001 E Main St, Mesa

Contact - Robert Bingham

No Walk-Ins

480.404.1408

Apr 1st - ORO Valley ARC -- 10:30 AM
Oro Valley Police Sub-Station, Oro Valley Marketplace, Oro Valley
Contact - Quinton Gleason qagleason@comcastnet

Apr 1st - DeVry ARC & WVARC -- 9:00 AM
DeVry University Library, 2149 W Dunlap Ave, Phoenix
Contact - David Morrill 623.680.5011

Apr 3rd - AARC & WVARC -- 12:00 PM St Clement Church, 15800 N Del Webb Blvd, Sun City Contact - Joseph Cuttita 623.215.2226

Apr 6th - CARBA -- 7:00 PM
Lighthouse YMCA, 2900 N Columbus Blvd, Tucson
Contact - Matthew Grossman 520.750.7189
Pre-Reg by email preferred - veregistration@rstclub.org

Apr 7th - Tonto ARA - 6:00 PM
Payson Public Library (Meeting Rm), 328 N McLane Rd, Payson
Contact - Darde DeRoulhac 928.468.1487

Apr 8th - Venture Out ARC -- 9:00 AM

Venture Out RV Resort, 5001 E Main St, Mesa

Contact - Robert Bingham 480.404.1408

No Walk-Ins

Apr 10th - Radio Society of Tucson -- 7:00 PM
Hardesty Mid-Town Police Bldg, 1100 S Alvernon, Tucson
Contact - Diane Zimmerman 520.664.5070

Apr 15th - Unsponsored -- 10:00 AM
Kingman Middle School, 1969 Detroit Ave, Rm 310, Kingman
Contact - Daniel Miller 928.897.3883

Test Sessions Continued from Previous Column

Apr 15th - Venture Out ARC -- 9:00 AM
Venture Out RV Resort, 5001 E Main St, Mesa
Contact - Robert Bingham
No Walk-Ins
480.404.1408

Apr 17th- East Valley VE Team -- 6:00 PM
City of Mesa Utilities, 640 N Mesa Dr, Mesa
Contact - Fred Bollinger 480.242.8606

Apr 18th - Hassayampa AR Klub -- 9:00 AM
Club House Park Entrance, 30625 Hwy 89, Congress
Contact - Charles Carter 316.651.7710
No Walk-Ins - Pre-Register

Apr 18th - Boy Scout Troop 127 -- 8:00 PM St Francis Xavier School, 4715 N Central Ave, Phoenix Contact - John Kelly 602.264.6854

Apr 19th - Thunderbird ARC -- 6:00 PM

Honor Health Medical Office Bldg, 19841 N 27th Ave, Phoenix

Contact - James Skinnell

No Walk-Ins

Apr 19th - Central Phoenix VE Team -- 6:00 PM
South Mountain Community College, 7050 S 24th St, Phoenix
Contact - Bill Martin 480.205.3625
No Walk-Ins - Limit Space - Contact Prior to Exam

Apr 22nd - Coconino ARC -- 9:00 AM

North Country Healthcare 2920 N 4th St, Ste A1, Flagstaff

Contact - Roderick Martin 928.527.1139

Apr 22nd - Venture Out ARC -- 9:00 AM

Venture Out RV Resort, 5001 E Main St, Mesa

Contact - Robert Bingham

No Walk-Ins

480.404.1408

Apr 22nd - Arizona ARC -- 7:00 PM
American Red Cross, 4747 N 22nd St, Phoenix
Contact - Gary Hamman 602.996.8148
No Walk-Ins - Pre-Registration Required by Friday night

Apr 25th - PV Ham Study Group -- 6:30 PM
Trinity Lutheran Church, 3950 N Valorie Dr, Prescott Valley
Contact - J M Scherfling 928.632.2050

Apr 29th - Venture Out ARC -- 9:00 AM

Venture Out RV Resort, 5001 E Main St, Mesa

Contact - Robert Bingham

No Walk-Ins

480.404.1408



The March 9 meeting of the Arizona Amateur Radio Club was a special event for several reasons. First of all, several of the attendees had never attended an AARC club meeting before this one. We welcome the newcomers as well as the regulars. Visitors are always welcome, too. An interesting and informative facet of the meeting was the presentation by Peter Petrotta, KD7OIW, on Public Service with Amateur TV. Peter explained what his group does in the way of public service, and we were able to see firsthand some of the equipment he uses to provide this public service. Items such as the waveguide, the specialized antenna, and several modules were circulated for attendees to examine closely as you can see in some of the photos.

When members introduced themselves at this meeting each shared memories of our recent member silent key, Mike Zachary, KG7OSR. Mike had been our secretary for the past year or two. At present, the AARC has no replacement secretary, but we expect to elect a new secretary at the April meeting.

After Peter's presentation, detailed plans for the AARC/ARCA 2017 Hamfest were made. The Hamfest is held at the South parking lot of DeVry University at 2149 W. Dunlap Avenue in Phoenix on April 15, 2017 from 6 AM to 11 AM. Admission donation is \$2.00, and tailgate space is \$10.00 each. Coffee and doughnuts will be available. VE testing will be held in the library at 9 AM. DX QL. card checking will be done between nine and 10 AM. Contact Gary Haman, K7GH, for more information at k7gh@arrl.net or 602.996.8148. We hope to see you there. The Hamfest at DeVry has always been a well-attended and popular event.

73, Lori Cripps, WA7EDI Activities Manager







Arizona Red Cross Communications Club

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

If you are a Red Cross Volunteer, there are plenty of new classes coming up. Just login to your EDGE Volunteer portal and look around.

Perhaps, by the time you read this, you will have taken or at least enrolled in the DST101 class given in Tucson on March 28-30 (DST101@redcross.org). This class gives hands-on experience on some of the latest gear the Red Cross uses at disasters and emergencies. If you missed it, there is one every few years in the region.

The PSARG (Public Service Amateur Radio Group) meets twice a week on our VHF repeater (146.84 – 162.2 PL). This happens on Tuesdays at noon (12:00 PM) and on Thursday evenings at 6:30 PM. Their focus is in providing video (ATV) at public service events, drills and emergencies. If you are interested in what these folks can provide, check them out. We attended the demo given at the March 9th AARC meeting and it was very interesting. Not sure my skills are up to working at 47 GHz, but . . .

After a couple of visits from "Murphy," the Red Cross UHF repeater is finally operational, but not yet installed. The plan is to accomplish that sometime before April. Look for us on 446.900 MHz – 131.8 PL. We did manage to spend a morning working on the VHF repeater to lengthen the timeout. Folks were getting cut off by the 2 minute "alligator." We bumped it up to 3 minutes so hope that works out better for you longwinded folks:)

While he was at it, Murphy visited the Echolink setup as well. Nothing serious, but it has kept us off the internet for a few weeks. Once we have a chance, we'll put it back into service – mainly on weekends.

Hope you got a chance to attend the Scottsdale Hamfest. I went to possibly sell some stuff, but at the time of this writing, not sure how well I did yet – hard to comment about future events.

Your Humble Scribe, Mark, N7KKQ





Let's start out with a W7MOT DStar update.

DStar is getting an upgrade. Still no official announcement from Icom, but the USTrust team is coordinating a G3 release to North America (US, Canada, Mexico). We are now waiting for our W7MOT G3 Software. What is G3? It's the Gateway Server software, the smarts that coordinates how a Repeater not only functions as a RF Repeater, but how it connects to other Repeaters and Users via the Internet. That's an abstract definition! Simply, it supports those newly released Icom ID-51A+2, ID-5100+2, and Kenwood TH-D74A radios.

In January, I wrote "No Worries." And for current users with DStar radios, there's still, "No Worries." Your radios will continue to work as they do today. Yes, new features would require new radios. From a MARCA perspective, it's just some software. Well almost, one requirement is the Operating System changes to CentOS 7 which implies a 64 bit hardware. Typically, upgrading to a 64 bit server can be a major expense. In our case, we initially installed a 64 bit Gateway. And a review of 3rd party DStar utilities and applications Dplus, DSM, Monlink, and bucket full of Admin utilities appear to all be compatible with a little tweeking. This is extremely important from a User perspective, since these 3rd party softwares enhance the Icom Gateway G2 and G3 features, and define the total DStar User experience of features taken for granted as "part of the package." That's it for the scary uncertainty of the Icom G3 upgrade, other than no official announced by Icom.

Next step is the demanding part for anyone, Executing, assembling all the stuff, the right volunteers to do the work, scheduling, time, and again resources. As I see it, the work is all focused on ONE box, a server, on a mountain top. The box is simple, the mountain top presents many possibilities for system failure. So, to reduce potential problems, we'll build a 2nd UPGRADED Gateway server to function identically to the one on White Tank. Yes, I have some more spare parts in the garage even after our catastrophic rebuild last spring. We'll build and configure the gateway at some location in the valley including a backup of the current working database. Then it's just a leisurely day trip up the mountain, swap things out, test, lunch overlooking the valley, and a fun ride down the mountain.

This is an interesting opportunity in DStar evolution. We're actually going to be going through rebuilding an entire DStar site. Not physically doing all the repeater hardware, antennas, etc. . . . etc., but the brains of it all. MARCA will open up this project to DStar Users interested in learning how it works under the covers. A day to build the new Gateway with software and configure it all. Then a day on the mountain swapping out the New with the Old Gateway server, and testing. If interested, you keep an eye on our website, w7mot.org, for announcements and schedule, or contact Norm Johnson, aa7oo, aa7oo dot az at gmail dot com.

MARCA Continued from Previous Column

Raspberry Pi is peaking our interests with Echolink.

While this approach has been around for a while, the latest RPi Model 3 B appears to have enough CPU, speed, and memory to handle Echolink. Typically, Echolink is done using a Windows PC which has enough horsepower to be deployed at a "in town/home repeater" location. However, for a remote mountain top or site where support can be days away, neither a Windows PC nor a RPi is sufficient. MARCA has entertained a request to add Echolink to an existing repeater site. So we decided to take the challange to use an SBC Echolink. Our requirements include low cost, reliability, remotely supportable, and integrate with existing Repeater Controller. Our initial review is encouraging with several challenges which parallel leading edge technical discussion in several repeater communities. Our goal is to apply the SBC RPi as a cost alternative to Windows PC or Linux PC/server and be more reliable. RPi is one of 3 or 4 other SBCs that could possibly be used, come learn why RPi. A by product of all this will be a group of RPi proficient members that can branch out and apply RPi to other radio projects such as WSPR / Digital Modes / and more.

MARCA started a Raspberry Pi interest group in January to work the project. Since RPi is something new in our club activities, member experiences and especially with a challenging project with Echolink, we are beginning with the basics. While many have Linux skills ranging from none to expert, we need to first build our clubs support skills with basic Linux sufficient to support our Echolink final configuration. The group meets once a week, typically at the Chandler Public Library, where we learn "hands on" with multiple RPi's. We're focused on the basics of how RPi works, Linux, source code, compiling, installing svxlink, and dealing with improving SD shortcomings, UPS issues, interaction with repeater controller, and all the physical interfaces.

If you're interested in participating in sessions and learning more about our Echolink project, please join us. We're just getting our open sessions flowing. Don't worry if you're a beginner, you can join at any time, we'll get you up to speed quickly. Check out our website for more details about the project, schedule, and joining the RPi activity sessions.

Till next month, 73s.

Having repeater problems with any of MARCA's W7MOT repeaters, please let us know by using the simple & quick online report at http://www.w7mot.org/index.php/repeaters/report-a-re-peater-problem. Nothing fancy or complicated, just a few quick entries and the system notifies half a dozen site managers.

Our website is www.w7mot.org.
Follow us on Facebook www.FB.com/W7MOT.

Norm Johnson, aa7oo President MARCA MARCA ADAW Editor





No Report this Month



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* - Linked Full Time and Carries all Nets (except 10-Meters)

Club Nets

Morning Drive Time Net: Mon-Fri, 7:00-8:00 AM - Trivia **Club Business Net:** Wednesdays, 8:00 PM - Featuring Club News, Elmer Q&A and AR Newsline.

East Valley Swap Net: Thursdays, 7:30 PM

 $\textbf{National History Net:} \ Thursdays \ at \ 8:30 \ PM. \ Quizzes \ you \ on$

National History.

10-Meter Rag Chew: Thursdays 8:00 PM, 28.465 MHz USB

Morse Code Class Net: Saturdays, 7:00 PM

Club Membership is open to anyone with an interest in Amateur Radio. Send email to:

membership@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.





West Valley
Amateur Radio Club
High-Speed Multimedia
Special Interest Group

The West Valley Amateur Radio Club is are starting a highspeed multimedia special interest and mesh networking group. If anyone is interested, please let me know.

We will try from Boswell Hospital next, which looks good from the computer program. Will keep you posted.

Bob KG7FIL kg7fil@arrl.net

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