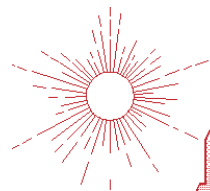


ADAW

4529 W. Park Place
Glendale, AZ 85306-1512



ADAW

Arizona Desert Aire Waves

Vol 42, No 2

February 2017

CLUB MEETINGS SCHEDULE

QCWA

Mar 25th
TBD

Tucson Area
11:00 AM

WVARC

Feb 6th

St Clement Catholic Church
Social Hall
7:00 PM

SuperstitionARC

Feb 21st
Charles K Luster Bldg
7:00 PM

ARA

Feb 23rd
Denny's Restaurant - Tempe
7:30 PM

MARCA

Feb 21st
Denny's Restaurant - Tempe
6:30 PM

MARA

Feb 25th
Barrow's Pizza - Maricopa
9:00 AM

ANSR

Feb 20th
via Skype
7:30 PM

YARC

Feb 5th
Mile High Middle School
7:00 PM

OVARC

Feb 17th
Ascension Lutheran Church
7:00 PM

ARCCC

TBA
American Red Cross Bldg
TBA

CLUB MEETINGS SCHEDULE

SARC

Feb 1st
Scottsdale Senior Center
7:00 PM

AARC

Feb 9th
Red Cross Bldg. - Phx
7:30 PM

OPRC

Feb 8th
Marshall Conference Ctr
at Tucson Medical Ctr
7:15 PM

TBARC

Feb 16th
North Phoenix Campus
Northern Arizona University
7:00 PM

CARL

TBA
AZ Science Center
TBA

CADXA

Feb 2nd
PERA Club
7:00 PM

ADAW Member Clubs

ARIZONA AMATEUR RADIO CLUB

The Arizona Amateur Radio Club meets on the **SECOND THURSDAY** 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	W0SL	623.215.2226
Secretary	Mike Zachary	KG7OSR	
Treasurer	Bob Hodges	K7JIT	602.375.9982
Activities Mgr	Lori Cripps	WA7EDI	
Membership	Bob Hodges	K7JIT	602.375.9982

AARC c/o Bob Hodges, K7JIT, 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 every Tuesday night at 7:00 p.m. on the 147.78/1.18 repeater.

President	James Wasson	N7ELL	480.456.1154
Vice President	Bob Johnsen	K7TR	480.946.1427
Secretary	Kelley Law	KF7ZVL	
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 MONDAY** 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 Skype. Please contact an officer about joining our meetings.

President	Stephen Thomas	KE7TLS	iamgadget1@yahoo.com
Vice President	Vince Jenkins	KC7IUI	vince.jenkins@meggitt.com
Secretary	Kim Jenkins		vince.jenkins@meggitt.com
Treasurer	Bill McLean	K7WWM	bmclean1@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 THURSDAY** 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 Cornwall	KF7CCC	
	Wayne Hale	W6IZK	
	Robert Fairfield	K7RQN	
Past President	Walt Reinert	N7GDP	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 each month (except June, July and August) 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 Directors:	Bill Price	N7GUO	
	Cliff Hauser	KD6XH	
	Jim Ulmer	KC7THU	
	Lin Donnelly	KF7CNR	
WebMaster	Ted Willis	AA7HX	520.790.3828
	(www.oprc.org)		
Trustees:	(all repeaters operating under the K7TRA call)		
Primary	Cliff Hauser	KD6XH	
	146.660, 146.820, 147.220-		
	Paul VanBeverhoudt	KA7LFX	224.06+
Secondary	Ted Willis	AA7HX	146.66-
	Ralph Turk	W7HSG	146.82-
	Paul VanBeverhoudt	KA7LFX	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	AA0LB	623.703.9161

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



ADAW Member Clubs

BARRY M GOLDWATER, ARIZONA CHAPTER QUARTER 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 every 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	w7bj@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	Raymond Tyrrell	N6MY	n6my@gmail.com
Treasurer	Linda Sitterley	W7POF	
Secretary	Lori Cripps	WA7EDI	602.955.7517

Web Site: <http://www.mingusmountain.org> and <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	Steve Miller	W6SDM	602.290.1603
Vice President	Chris Canevit	W7CGC	
Secretary	John Wiltberger	N07IN	
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: P O Box 3025, Arizona City AZ 85123

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, Sun 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 Fitzpatrick	WB7X	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:	Brian Betz	W7JET
	Dale Schmidt	N7QJK
	Dan DeVliieger	KC7MSU
	J.D. Smaylis	KF7VOX
	Andy Keels	KD4ABB
	Charlie Brown	NJ7V
	Steve Gurley	KY7W

SuperstitionARC, P.O. Box 21522, Mesa, AZ 85277-1522. Web Site: SuperstitionARC.org. The Superstition Amateur Radio Club is a 501(c)(3) non-profit organization. For club information, please send email to: Communications@SuperstitionARC.org.



ADAW Member Clubs

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 1343 Broadway in Tempe (SE corner of Broadway & Priest). Monthly presentations cover a broad spectrum of interesting subjects. Visitors 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
VicePresident	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 SR 143 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	Virgil Silhanek, K7VZ	k7vz@w7ara.net
Vice-President	Brian McCarthy, AK7F	ak7f@w7ara.net
Treasurer	Erv Heimbuck, K0OTZ	k0otz@w7ara.net
Secretary	Jim Hoff, N7XXX	n7xxx@w7ara.net
Board Members:		
	Lance Halle, KW7LH	kw7lh@w7ara.net
	Dennis Bietry, KE7EJF	ke7ejf@w7ara.net
	Doug Pelley, WB7TUI	wb7tuj@w7ara.net
	Joe Godfrey, AE7JG	ae7jg@w7ara.net
	Dennis Campbell, AE7WU	ae7wu@w7ara.net
	Mike Montalvo, KF7MBK	kf7mbk@w7ara.net
	Marty Dusenberry, KE7DGP	ke7dgp@w7ara.net
	James Wasson, N7ELL	n7ell@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.

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	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 86304-1994. DUES: \$20.00/yr. Visit the website at www.w7yrc.org

ORO VALLEY AMATEUR RADIO CLUB

The Oro Valley Amateur Radio Club meets the **THIRD FRIDAY** of each month at 7:00 p.m. at 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	Bob Molczan, KA7VPR	vicepresident@tucsonhamradio.org
Secretary	Carl Foster, KB7AZ	secretary@tucsonhamradio.org
Treasurer	Hanna Eckert, KG7TPD	treasurer@tucsonhamradio.org
Board Members	Scott Boone, K7ADX	
	Lanny Voight, KF7LV	
	Ross Eckert, K4WBR	
	Fred Bresani, W2HZ	
	Bob Stephens, AF9W	

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 *Arizona Desert Aire Waves* 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 ADAAW. ALL RIGHTS RESERVED. **Deadline is 10th of the month**

ADAW Member Clubs

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.

President	Bob Burleson	KG7QJ	480.961.1109
Vice President	Jim Felkey	N7BBS	480.966.7084
Secretary	John O'Neal	K7IP	480.961.1109
Treasurer	Karen McConaghy	NO7D	602.799.7338

Board Members:

Jean W4CIH	ADAW, Publicity
Steve WB4ZSC	Tech/IT, CARL/ASC interface
Fred K9TOS	Logbook/QSLs
Mike KG7OSR	Scheduling/Membership

Web Master, ARCA Rep - Roger Buel, W9NCQ - 602.493.7242

For information: Email to carl@w7asc.org or call Bob Burleson, KG7QJ at 480.961.1109. Web Site: <http://www.w7asc.org>

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
Acting V P	Fred Hoffert, III	NA2U	
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	lwlloen@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.



ADAW

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MMRG EDITOR		
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QCWA EDITOR		
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ADAW



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From The Editor's Desk

Editor's Desk Continued from Previous Column

Greetings!

Last month it was reported that Marty Woll N6VI had resigned from his post as ARRL Southwestern Division Vice-Director. This is not the case. Evidently the information that was received was either inaccurate or misunderstood. Marty has not resigned, he has just decided not to seek reelection when his term is up. Until then, he will continue to serve the Southwestern Division as our vice-director. My personal apologies to Marty and our ADAW readers for the mix-up.

By this time, you should have received your ballot for ARRL Arizona Section Manager. Ballots are due back to the ARRL by February 17. Please take a few minutes, read the bios of the candidates, mark your choice, and drop your ballot in the mail. Every vote counts - Let YOUR voice be heard.

In last month's edition of ADAW, it was announced that the 2017 ARCA/Williams Hamfest has been canceled. It bears repeating for those who may not have seen the announcement. The Board of Directors of the Amateur Radio Council of Arizona decided that the Council will no longer present a summer hamfest. Two other hamfests are held in the summer in the "north country" - the Prescott Hamfest and the White Mountain Hamfest. Either of these events is a viable replacement for the ARCA summer hamfest. If you haven't been to either of those hamfests, make plan to attend. They are both wonderful events.

The 2017 ARRL Arizona State Convention is still up for grabs. No group expressed interest by the January 14 ARCA meeting. There's still time to make the decision to host the event if it is in the latter part of the year. Check with your club and let one of the ARCA officers know if your are interested. You can contact ARCA by email to arca@arca-az.org.

A new "Amateur Radio Parity Act" bill has been introduced in the U.S. House of Representatives. H.R. 555 is identical in language to the 2015 bill H.R. 1301 which passed the House last summer, but failed to get the necessary support in the Senate. This new measure, introduced on January 13, was sponsored by Rep. Adam Kinzinger (R-IL) and cosponsored by Rep. Joe Courtney (D-CT) and Rep. Greg Walden (R-OR). The ARRL was expected to discuss this pending legislation at their meeting in January.

Did you make it to the Thunderbird Hamfest? It was a great event. The weather was a little dicey this year. The rain did hold off for most of the hamfest with only a brief shower early in the morning. Sales were brisk, coffee and donuts were available, and everyone had a great time.

Quartzfest was held January 22 - 28. This event has grown to be the biggest ham radio event in Arizona. Geared toward the ham RV community, it is a week long event packed with activities of interest for nearly everyone. As of this writing, it

hasn't taken place yet. If you attended the event, why not write about your experience? ADAW readers would love to "read all about it" and it would spread a little publicity for next year's event.

Have you heard about Winter Field Day? It's held each year on the last weekend of January. For those of us in the desert, that's a great time to get outdoors and set up for a Field Day event. In the north, well, not so much. But emergencies can happen anytime. They don't hold off for weather that is enjoyable for those who may be called upon to assist. So, it's a good idea to practice setting up and getting on the air in any type of weather. Besides, it's another excuse for us to get together, go camping (if you're so inclined), share some great food and stories, and enjoy each other's company. Oh, and do a little radio operating, too! This year's Winter Field Day is January 28 - 29. This is not an ARRL event. You can find more at www.winterfieldday.com.

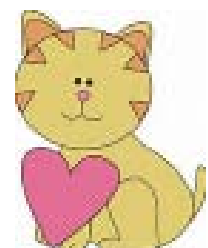
February will bring another must attend event, the 2017 ARRL Arizona Section Convention/Yuma Hamfest on February 17 and 18. YARHO (the Yuma Amateur Radio Hamfest Organization) puts on a great event at the Yuma County Fairgrounds. Every year it gets bigger and better. One of their "claims to fame" is their prize line-up. They offer the most major prizes of any other hamfest in the state - and they are great prizes, too. The admission prize is a Samsung Galaxy Tab A. Who wouldn't want one of those?! Their Saturday night "Buzzard BBQ" is one of the best around. If you are planning to attend and need a space to sell or camp, get your reservation in now before February 1 when the pre-registration discounts end and prices go up.

The Radio Club of America (RCA) has created a "Wireless Women" section on their website. It's designed to help and encourage women and girls who are interested in wireless and technology. The site features information on "Notable Women in Wireless" and professional organizations specifically for women. Several woman RCA members are credited for assembling information that they thought would be useful. The club welcomes any additional ideas and input from the wireless community that might help make the site more useful. You can visit the RCA site at www.radioclubofamerica.org to check it out.

Don't forget - Valentine's Day is February 14.

'Til next month,
Chris, N7PVL

ADAW



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ARA Continued from Previous Column

Cole and Erv checked in with them periodically to make sure they were OK. Troubleshooting the issue, they found a failed radio interface card causing the radio to stick in transmit. Discovering there was not a spare on the site, the card for the 900 MHz radio was used to repair the VHF repeater. The VHF repeater has a higher priority in the scheme of things; sorry to the 900 users. With exception of the 900 MHz repeater, the site is back online. The radio was still doing fine after being keyed down for approximately 2.5 days.

It's winter! Many of our repeater sites are experiencing much colder temperatures, snow, and ice that roll in with each storm. So far this year's excitement comes from our Pinal Peak site. On New Year's Eve, we discovered the VHF repeater transmitter was stuck. All remote control attempts to reset it failed.



Just a little bit of ice build up on the tower and antennas.

James N7ELL is still smiling after packing a radio 2 miles up hill in the snow.



Kudos to Lance and James for hiking in. Erv and Cole were able to get the Jeeps turned around (with effort) and headed back down the mountain. By that time, the outside temperature had dropped below freezing and the snow was getting crusty with pretty deep ruts. There were several other vehicles on the mountain and the snow was pretty chewed up and rutted in places, but they made it back down the mountain.

On January 2nd, Lance KW7LH, Cole AA7RD, James N7ELL, and Erv K00TZ made a trip to Pinal in spite of reports of 5 plus inches of snow. They made it to within 2 miles of the site. The vehicles were in very wet, saturated snow that was slightly melting and about 7" deep. With the camber of the road, they could not get past that point without sliding into the ditch.



James N7ELL tries using a Micor as a snow board.



Cole AA7RD digging his Jeep out of the snow.

After much discussion, Lance and James volunteered to hike into the site with the replacement radio (~30 lb. Motorola Micor). It took them about one hour to hike to the site while

It was just another day on the ARA technical committee. Haha.

Trip report written by Erv K00TZ, edited for ADAW by Virgil K7VZ

Continued Next Column



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.

February Test Sessions

Feb 2nd - 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

Feb 4th - Venture Out ARC -- 9:00 AM

Venture Out RV Resort, 5001 E Main St, Mesa
Contact - Robert Bingham 480.404.1408
No Walk-Ins

Feb 4th - ORO Valley ARC -- 10:30 AM

Oro Valley Police Sub-Station, Oro Valley Marketplace, Oro Valley
Contact - Quinton Gleason qagleason@comcastnet

Feb 4th - DeVry ARC & WVARC -- 9:00 AM

DeVry University Library, 2149 W Dunlap Ave, Phoenix
Contact - David Morrill 623.680.5011

Feb 11th - Venture Out ARC -- 9:00 AM

Venture Out RV Resort, 5001 E Main St, Mesa
Contact - Robert Bingham 480.404.1408
No Walk-Ins

Feb 13th - Radio Society of Tucson -- 7:00 PM

Hardesty Mid-Town Police Bldg, 1100 S Alvernon, Tucson
Contact - Diane Zimmerman 520.664.5070

Feb 15th - Thunderbird ARC -- 6:00 PM

Honor Health Medical Office Bldg, 19841 N 27th Ave, Phoenix
Contact - James Skinnell 602.826.1949
No Walk-Ins

Feb 18th - Un-sponsored -- 10:00 AM

Kingman Middle School, 1969 Detroit Ave, Rm 310, Kingman
Contact - Daniel Miller 928.897.3883

Feb 18th - Venture Out ARC -- 9:00 AM

Venture Out RV Resort, 5001 E Main St, Mesa
Contact - Robert Bingham 480.404.1408
No Walk-Ins

Important Notice

Arizona State Senator Barto introduced SB1132 which deals with Arizona Amateur Radio Operator license plates. If passed, this measure will allow the Amateur Radio Community to receive \$17 of the \$25 specialty fee paid for Amateur Radio plates, much like other groups receive from their special plates. The Amateur Radio Council of Arizona will receive the funds to be used for scholarships, education and other benefits for Amateur Radio in the state.

The bill will be heard in the Senate Transportation & Technology Committee on Tuesday, January 24th at 2:00 p.m. The meeting will take place in Senate Hearing Room 1. Thomas Boza, NE7X will speak to the Senate regarding the bill and is asking that we fill the balcony in the Senate building with as many amateur radio operators as possible. If you'd like to speak on the bill, they ask that you arrive 30 minutes early so you can register.

Please plan to attend if you are able. We need to "pack" the balcony. If you cannot attend, email your Arizona State Senator and request that they support SB1132 with a YES vote. You can find your senator's email address on the following website:

<http://www.azleg.gov/MemberRoster/?body=S>

ADAW

Test Sessions Continued from Previous Column

Feb 20th - East Valley VE Team -- 6:00 PM

City of Mesa Utilities, 640 N Mesa Dr, Mesa
Contact - Fred Bollinger 480.242.8606

Feb 21st - 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

Feb 21st - Boy Scout Troop 127 -- 8:00 PM

St Francis Xavier School, 4715 N Central Ave, Phoenix
Contact - John Kelly 602.264.6854

Feb 25th - 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

Feb 28th - P V Ham Study Group -- 6:30 PM

Trinity Lutheran Church, 3950 N Valorie Dr, Prescott Valley
Contact - J M Scherfling 928.632.2050

ADAW

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TBARC Holiday Meeting



It's a new year, and the Thunderbird Amateur Radio Club is active! As I write this we still haven't had the hamfest yet, but it'll be over by the time you get to read it. I hope we avoided the rain and cold, and had a sunny and warm (but not too warm) hamfest. Thanks to everyone who worked hard to make it happen. I've been told the TBARC hamfest is one of the best in the Valley - and that's due in large part to our dedicated volunteers. Thanks!

Thanks to you as well if you showed up, either as a vendor or as someone just looking for a great deal on ham gear. We appreciate everyone who attended.

With the elections over, we know who's in office (and you can find their names in ADAW under the club information section). I'd especially like to introduce our two newest board members: Wayne Hale W6IZK and Robert Fairfield K7RQN. Why not introduce yourself to them at the next general meeting? We're always looking for ways the club can serve its members.

A club is no better than its members, and ours are great. We've got some people who just got their license, as well as people who were licensed shortly after spark gap technology fell out of fashion. The broad range of experience and depth of knowledge means you're sure to find someone who's interested in the same things you are. I signed up online via the club website with PayPal, and it was a snap. If you'd like to be a 2017 TBARC member, you can join at a meeting or online at w7tbc.org. Again this year we're going to hold a drawing, and randomly pick three people who have joined or renewed by the February general meeting to receive HRO gift certificates. So make sure your name is in the hat by then!

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. I checked with Israel AD7ND (he's our program committee chair), and at press time the January topic was still being determined. But I guarantee it will be something interesting. Find out what it is at the meeting!

Andrew Cornwall, KF7CCC
kf7ccc@arrl.net



2017 TBARC Ham of the Year
Walt Reinert, NJ8G



It's a few days into the new year, and I'm finally getting used to writing 2017 on my letters and checks! Are you? My calendar book seems to indicate an active amateur radio year in 2017 for both the AARC and for amateur radio in general. January's Thunderbird Hamfest on the 14th was with an ARCA meeting. The CADXA banquet is on the 22nd and the Quartzfest runs the 22nd to the 28th. The 28th finds some of the AARC members eating breakfast at the Denny's on 7th Street and Camelback at 7:30 A.M. (JOIN US!!), and then VE testing that evening, too. All this before the big YUMA HAMFEST on Friday and Saturday, February 17 and 18. So need we ask, "Is ham radio still alive?" It is!!

At the January meeting of the Arizona Amateur Radio Club election of officers was held. It is no big surprise that the 2016 slate remained in office for 2017:

President – Gary Hamman, K7GH
Vice-President – Joe Cutitta, W0SL
Secretary – Mike Zachary, KG7OSR
Treasurer – Bob Hodges, K7JJT
Activities Manager – Lori Cripps, WA7EDI

The program for the January meeting was a presentation by Reinhard Geissler, K7RGG/DL1UF. He and his XYL Ingrid, W7ISG, have been traveling the country visiting the National Parks on the Air. Ingrid has been on the air from 123 unique park units. Altogether she logged more than 13,500 QSO's as an activator and ranks 3rd nationally in activations. Reinhard's presentation on the NPOTA activities was documented with photos of the various parks they visited on their nationwide tour, including our club's activation of Saguaro National Park.

The AARC is looking forward to its annual hamfest. It is set for April 15 at the DeVry University campus. We are also looking forward to Field Day (June 24-25) when we will operate from the Emergency Operating Center at the American Red Cross Building, 4747 N. 22nd Street in Phoenix.

The AARC meets the 2nd Thursday of every month at 7:30 P.M. at the American Red Cross Building. Visitors are welcome to attend meetings, whether they are amateur radio operators or not. You might like to take a look at the AARC website which uses the club call, W7IO. The website has the following URL: <http://www.w7io.org>

73,
Lori, WA7EDI

No Report Received

ADAW

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.

ADAW



Arizona Red Cross Communications Club

2017 starts a new year and new challenges for the Arizona Red Cross Communications Club.

First off, we will have a new 440 MHz repeater up and running soon. It will be on 446.900 (minus) MHz with a PL of 131.8 Hz. We have the repeater and most of the peripherals – just waiting on the duplexer and antenna to arrive. We should be operational by mid-February. The ultimate goal is to have both of our repeaters linked, but that probably won't happen for a while yet.

Did you attend the Thunderbird Hamfest? I did and enjoyed talking to friends and seeing all the goodies. I even managed to sell a few items. The day started off a bit soggy but cleared up after sunrise. It wasn't as cold as in previous years, so that helped to bring in the reasonably large crowd. A big kudos goes out to the T-Bird folks who always put on a great show.

BTW - If you were at the Thunderbird Hamfest and you purchased the Realistic Pro-64 scanner from me, I found the manual for it. You can contact me via the info listed here in ADAW.

The word around town is that we will have a communications drill coming up this year. When and where plus all the details, has yet to be finalized. When it does happen, the Red Cross Club will hope to utilize all our available capabilities including HF, our repeaters, Echolink and Winlink 2K.

Speaking of Winlink, have you ever used this mode to send radio email? It's an invaluable resource for those involved with EMCOMM or for those camping in the boonies. So dust off that old TNC you've held onto and look into using Winlink to add to your personal station capability.

Your Humble Scribe,
Mark, N7KKQ

ADAW



A Notice from the Arizona Frequency Coordination Committee

In 2016 the ARRL announced it was getting out of the repeater directory business and specifically, to the task of receiving and processing data from coordination groups. Instead, the ARRL handed this off to RF Finder, an established publisher of repeater listings. While this seemed like a good business decision for the league (after years of losing money on the directory), the method by which RF Finder will accept and maintain listings has some Frequency Coordination groups crying foul (including Arizona).

RF Finder will use a "crowd-sourced" method of collecting information. In other words, anybody anywhere can submit a repeater listing, whether it's real, coordinated or none of the above. The league supports this as there are supposedly, numerous uncoordinated repeaters in regions not well covered by an official coordination group.

RF Finder also has been somewhat vague about how they will allow listings to be remotely edited for errors or having a listing removed because it's no longer active, or was never on the air in the first place (a "paper" repeater).

Why the resistance ...

In areas that do have an active, coordination group (such as Arizona), these groups feel as though this "opening" will be misconstrued as an opportunity for anyone to put up a repeater on any frequency, thus bypassing the important coordination process.

The coordination group volunteer members work very hard to insure that repeaters within their region (and with cooperation among neighboring states), are not interfered with. That's why repeaters are coordinated using different PL's, ERP levels, and locations distant enough to allow multiple repeaters on the same pair to exist without interference to each other.

The ARRL is urging coordination groups to upload their databases to RF Finder so it can be listed. We prefer our data not to be "mingled" with incorrect, out of date, and other uncoordinated submissions. For this reason, Arizona (and numerous other Frequency Coordination Groups) will NOT be participating at this time. Unless the ARRL and RF Finder change their policies and practices in the future, we will not be sharing our databases with them.

Our solution to get the info into the hands of repeater users is to publish a quarterly Arizona Repeater Directory booklet (available at Hamfests). This is to insure you have a listing of ONLY coordinated repeaters. We will continue to offer the official list on the Arizona Frequency Coordinators' website as well. (www.azfreqcoord.org)

Arizona Frequency Coordination Committee
A Committee of the Amateur Radio Council of Arizona



Basic DXing, Part IV Propagation for the DXer

by Larry Loen, WO7R

Since DXing is about distance communication, knowing when the bands are open and what countries they are open to would seem to be of prime importance. There are several basic variables that experience, and a little study, will teach:

1. The time of year. Summer propagation is generally worse than Fall and Winter.
2. The eleven year sunspot cycle and the current sunspot number (there is a solar flux index which is nearly the same thing; both are widely published).
3. The time of day. Depending on the band and the DX location, there are certain hours that are more productive than others when it is usually impossible to hear the DX on a particular band.

Do you need to care?

Strangely enough, however, it may not always be necessary to pay attention to propagation as such. Major DXpeditions often do the work for you. They look at propagation conditions that are expected and so will arrange a schedule of what bands to be on when that will usually make it possible for you to find them with favorable propagation. Also: Are there spots by USA stations on the DX spotting websites like “DX Summit” or “DX Heat,” especially by W7s and W6s?

So, you can just monitor spots, especially by USA stations, and have a listen – sometimes conditions are not what you expect and you can work DX no matter what the predictions say. But, for the most part, the predictions and normal expected conditions are pretty repeatable. If you are “on the bands” regularly, you will have a fairly good idea of the art of the possible, too. A spot of a DX station on 20 meters from a European station at 1:00 a.m. Arizona time is probably not going to be available to work.

Basic Propagation

In truth, most of the time, you will be working 20 meters and higher frequencies in the daylight. You will hear Europe and Africa in the morning and Asia and Pacific in the afternoon. If

CADXA Continued from Previous Column

the sunspot numbers (or solar flux) are high enough, conditions will extend well into the evening. At a good solar peak, propagation may even be available around the clock. However, right now and for the next several years, you will be doing well to work any DX on 10 meters, because it is most sensitive to low sunspot numbers and in 2016, we are in the lowest phase of the sunspot cycle and propagation windows will be much more limited. The higher the frequency, the less time a given DX station will be available.

Similarly, you will expect to see 40 meters start up most reliably at or after sunset and work all night and into the morning. If you have a very good station, you can expect to work stations an hour or two before sunset and an hour or two after sunrise. You will quickly learn the limits of your station as far as when 40 meters opens up. 30 meters is similar. Since 40 is a nighttime band, you can expect to work Europe and Africa in the evening and Asia and Pacific in the morning.

Simple Propagation Aid – Club Log

Club Log (www.clublog.org) has a section on propagation that is mostly based on history. The best way to use it is as follows:

1. Find the current solar flux value (available widely on the internet). Surround it with “min” and “max” values as the interface allows.
2. Select “Zone 3” for your end of the path (that is a stand-in for Arizona, more useful than “the US”). Select the DXCC entity you are interested in for the other. Then click “Run Propagation Report.”

What you will get is a history lesson. You will see when Zone 3 stations have contacted that DXCC country on a given band in a given hour for comparable solar flux. Actually, this is for Club Log member stations only, but that’s quite a few stations. If the data is sparse (because the DXCC country is really rare), you can pick a nearby location that isn’t so rare. For instance, Ducie Island is rare, but Pitcairn Island is less rare and both are close enough to be used interchangeably. Likewise, you can substitute Philippines, for which there is ample data, for the Spratly Islands, which has less. Clearly, the higher the bar on the graph, the more favorable the propagation is for that band at that hour.

Simple as this is, it has been enough preparation for me to work major DXpeditions. The graphs are very easy to read.

More “professional” grade — VOCAP

More valuable, but less easy for the beginner, is the VOCAP system at <http://www.voacap.com/p2p/index.html> . In this brief tutorial, all that can be given is a start.

To really use this well requires understanding of ideas like “Maximum Usable Frequency” and “Frequency of Optimal

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Transmission.” The net is full of resources to explain these to you.

Sunrise/Sunset Enhancement

Especially on the lower bands, sunrise and sunset can give a short term “gray line” boost to your signal. You can just “be active” at those times and see, or you can make a study of how it works. Either way, it can get you more DX. Don’t forget that there’s a similar enhancement on the DX station’s side of it, too.

Conclusion

As promised, these are the basics. To do better can require a lifetime of study, but you can get started with this and put more DX stations into your log as you learn.

Club Updates

Thank you, once again, to Larry for his very informative articles on the basics of DXing. Our meeting on Thursday, February 2nd will feature a presentation about the station at PJ2T (Curacao Island) from our club members who operated there in last November’s CQWW CW Contest, Gary Hembree, N7IR, and Fred Hoffert, NA2U. The meeting time is 7:00 p.m. at the PERA Club. Directions are available on the club website, <http://www.cadxa.org/meetings.html>. Come early to socialize with other CADXA members.

73,

Lee, KY7M
CADXA President

Public Service Calendar

Maricopa County Emergency Communications Group Events

EVENT	LOCATION	DATE
Runner's Den Pancake Run	E Phoenix Paradise Valley Mall	02/05/17
Xterra - McDowell Mtn	Fountain Hills	02/05/17
Black Canyon 100K	Spring Valley to Emery Henderson Trailhead	02/18/17
Lost Dutchman Marathon	Apache Junction	02/19/17
JROTC Lake Pleasant	West of Lake Pleasant	02/25/17
Xterra Black Canyon Trail Run	Black Canyon City	03/05/17
American Diabetes Tour de Cure	Northwest Phoenix	03/18/17
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	Wesley-Bolin Plaza, Downtown Phoenix	04/08/17
Zane Grey 50 Highline Trail Run	Mogollan Rim on the Highline Trail Pine to 260 TH	04/29/17
Barn Buner Mtn Bike Race	NW Flagstaff	09/09/17
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

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

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



R.J. CARLI ENGINEERING CORP

		7311 E. STETSON DRIVE SCOTTSDALE, ARIZONA 85251 RAYMOND J. CARLI, P.E. ELECTRICAL ENGINEER W7GNE (480) 941-8610 (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.



Field Day 2017

Field Day is a huge event for O.V.A.R.C. and planning begins several months before the event. Our Field Day Chairman, Tom W8TK, does a spectacular job at rallying all of the manpower together to make it a great weekend. CW, SSB, Antennas, FLDigi, Donuts, Coffee, Good Barbecue, and a few winks are all part of the weekend.

This year, Tom is taking Field Day up a notch. We have challenged two similar clubs to a Field Day Challenge. To make the challenge fair, we invited two clubs that participate in the same category as O.V.A.R.C. The two clubs are The Cochise Amateur Radio Association and the Coconino Amateur Radio Club. Lora K8LJK, Tom's XYL and O.V.A.R.C. member, has offered to design and create an appropriate plaque for the winner to be presented in person sometime after Field Day when the official winner is made public.

We are looking forward to the challenge and hope that this will motivate all three clubs to increase their participation as well as raise their score.

73 and Happy New Year from O.V.A.R.C.!



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



CHAPTER 16 BARRY M. GOLDWATER ARIZONA CHAPTER

The Barry M Goldwater, Arizona Chapter, Quarter Century Wireless Association, Inc. held their first quarterly meeting on January 7, 2017 at the Horny Toad Restaurant in Cave Creek, AZ. The officers for 2017 are Tom Fagan K7DF President, John Marshall WA7BSR Vice President, Clifford Hauser KD6XH Secretary, and David Hanson W7BJ Treasurer. The meeting was run by Tom Fagan K7DF President. 19 members were present for the lunch and presentation. Tom Fagan gave out QCWA certificates to hams who had reached their 50, 55, 60 or 65 year anniversary of being an amateur radio operator. Congratulations!

50 years

- Lou Caldwell W7HX
- Reinhard Geissler DL1UF
- Tomy Ivan Sr KF7GC
- Larry Soughan WB3ELM
- Mark Timpany WA9MJG

55 years

- Frank Bender K8FB
- Eric Carlson K8CEP
- Dan Ford K2LH
- Howard Fouts K7MBJ
- Wes Minear W7UO
- Michael Perrett K7HIL
- Bob Sitterley K7POF

60 years

- Vince Baker K4HHX
- Bob Davies K7BHM
- Ron Lundeen K0KWN

65 years

- John Elwood WW7P
- Philip E Battey W3FZV

Founded in 1947, QCWA Arizona has been incorporated with the Arizona Corporation Commission for 25 years. The officers just renewed the incorporation with the ACC for another 25 years. The notice was published in the paper in December.

John Ryan W7KEZ showed everyone a keyer he purchased and put together. It was very well made.

After a wonderful lunch, our main attraction was a presentation Ned Stearns AA7A on the History of Moon Bounce. Thank you, Ned.

Our next meeting will be the day of the RST hamfest in Tucson in March.



Hamfest Calendar

6 February 2017 - **West Valley ARC Auction** - hosted by the West Valley Amateur Radio Club will be held at St. Clement Catholic Church Social Hall, 15800 Del Webb Blvd. in Sun City. Viewing of items begins at 6:00 PM until 7:00 PM. For more information, contact Mike Corder, K7MJC at afmikec@cox.net or James Rogers, N7YTI at jarogers@q.com.

17 - 18 February 2017 - **2017 Arizona Section Convention/Yuma Hamfest** - hosted by the Yuma Amateur Radio Hamfest Organization will be held at the Yuma County Fairgrounds, 2520 E 32nd St in Yuma. Hours are Noon - 5:00 PM Friday and 8:00 AM - 5:00 PM Saturday. Gates open Thursday, 16 February, at 2:00 PM for camping. Admission \$5.00 per person. Talk-In frequency - 146.840 (-) PI 88.5 Hz. Check web site at www.yumahamfest.org for full details. Email contact: info@yumahamfest.org.

18 March 2017 - **SpringFest** - hosted by the Scottsdale Amateur Radio Club will be held at the Mountain Valley Community Church, 17800 North Perimeter Drive in Scottsdale. Hours are 6:00 AM until 12:00 noon. Overnight RVs are welcome. Refreshments, VE Testing, Tailgating and more.

25 March 2017 - **Tucson Spring Hamfest** - hosted by the Radio Society of Tucson will be held in the north parking lot of the Target store, 9615 E Old Spanish Trail in Tucson. Hours are 7:00 AM until 11:00 AM. Set up starts at 6:00 AM. Free Admission and parking. Vendor/seller spaces - \$10 per space. Prizes, VE Testing, GOTA Station, ARRL Card Checking and Snacks. For map and information, visit the website at <http://www.k7rst.org>.

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 (+) PI 162.2 Hz. Contact Gary Hamman, K7GH at k7gh@arrl.net or 602.996.8148 for more information or to reserve a space.

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.prescottamfest.com for updates. Hamfest contact: Frank Bender, [K8FB - k8fb@arrl.net](mailto:k8fb@arrl.net). Sorry - No Guns, Drugs, Alcohol, Smoking, Vaping, Fireworks or Pets per ERAU.



On January 14, 2017 at 1:08 P.M., the Board of Directors of the Mingus Mountain Repeater Group met after the Thunderbird Hamfest. In attendance at the meeting were President Robert Sitterley, K7POF; Vice-President Ray Tyrell, N6MY; Secretary Lori Cripps, WA7EDI; and board members, Gary Hamman, K7GH; Jerry Roberts, KB7CN; and Peggy Williams, KD7AWU. Ken Rasbach, KK7KEN was approved as a new board member. In her proxy letter, Linda Sitterley, W7POF volunteered to be treasurer to replace retiring treasurer Dave Hanson, W7BJ. She was unanimously approved as treasurer for 2017.

At the board meeting, President Bob gave the technical committee report. The Downtown Phoenix repeater is back on the air, but has almost no traffic. Both the 147.00 and the 442.150 repeaters on Mingus are working fine. The backup MMRG repeater on 147.280 is on the air in Chino Valley, although its range is pretty short.

We are starting to look forward to the yearly picnic at President Bob's as in the past. This year the picnic will be in May, and we all remember the great culinary creations of past MMRG events! Top quality amateur families seem to be top quality cooks!! Hopefully Tomy KF7GC, and Debbie will be there with their special popcorn. We look forward to that treat! And, of course, we treasure this chance to see our MMRG friends. Our thanks to Bob and Linda for hosting this special occasion.

—Lori Cripps, WA7EDI

ADAW

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Kit Building as a Club Project

When I first got into amateur radio in the mid-1960s, a lot of the ham gear used was “home brew,” or constructed by the amateurs themselves from whatever parts were available. Discarded television sets were one source for cannibalized parts. Radio Shack and some of the electronics mail order catalog companies were another source for components. I made friends with the owner of a local TV repair store and he would sell me components so that I didn’t have to wait for them in the mail.

My personal 75-watt novice transmitter, made from the plans in a QST article, made me a television star in my neighborhood. I would have gone broke buying TVI filters for everyone who was affected, so I restricted my operating hours to those between Queen for a Day and the Six O’clock News.

It was a time of fun and learning. The next step up from home brew was kit building. Much less expensive than buying one of the few off-the-shelf radios like Swan, Drake, or the much coveted Collins S-line, it allowed you the intimacy of becoming one with your equipment. Each component had to be sorted, carefully checked, and meticulously soldered into the correct position in order for each circuit to work. Even after carefully following the directions, there was always the troubleshooting. Once a project was complete and working, the elation of having built it myself made it all worth it.

Fast forward to the 21st Century. To my dismay, Heathkit is no longer around, at least not to the degree it was with a full color catalog that allowed you to put together an entire amateur radio station one component at a time. Rigs are now cheap and plentiful. A dual band VHF/UHF transceiver can be had for under fifty bucks. A pretty nice HF transceiver can be picked up for around \$800.00.

Plug-and-play is the philosophy today, which has also given way to the term “appliance operator,” referring to someone who turns the dials and pushes the buttons but has no clue what makes everything work. There’s nothing wrong with that, nothing says you have to be an electrical engineer to be a ham operator. Personally, I was the kid who took his toys apart to see what made them work. To a degree, I’m still that way and love the idea of building things.

That takes us to kit building. There are a few sources out

MARA Continued from Previous Column

there for kit projects. On eBay, you can find anything from oscilloscopes to code practice oscillators that include the parts, circuit board, and instructions in marginal Chinglish. I have a box of things I’ve built that I didn’t need and probably won’t use. I just had fun building them. There are other places to get kits, like the Winkey from the famous K1EL who has set the standard for electronic keying across multiple platforms <http://k1el.tripod.com>

I have built the SoftRock SDR kit, which you can find at <http://fivedash.com/> This one was a little more involved and required winding your own toroids and learning to solder surface mount components, some of them the size of a grain of rice.

On the next project, I recruited a couple of members of MARA to share the fun. The Genesis project is a QRP SDR 2-band transceiver. The circuit board was free on a promotional program. The components were just over a hundred bucks. No surface mounting or coil winding was required on this project and there was plenty of graphic online documentation to support the builder. There’s even an online Yahoo group and IRC chat room supporting the builders worldwide. Nate, K7NDM and Bob, N6YPE are both building this project as well.

I was reading an article on QRZ.com about a kit building project for an antenna analyzer that Ham Radio 360 (<http://www.360workbench.com/>) was building. It was so popular that they sold out of the first two runs of the circuit board as soon as it became available. Who can’t use an antenna analyzer, right? The board is \$12.95 and most of the components I had on hand. It uses a mini-Arduino that you can pick up on eBay for five bucks.

MARA members John NO7IN, Bob KU4ZG, and Chris W7CGC, also jumped on the chance to get boards before they sold out. They’re now on the 4th run of circuit boards for this project.

There is still a lot of interest in kit building. It’s educational and, to me at least, relaxing. It makes a great club project. For those new to ham radio or electronics, it gives you a chance to learn what’s under the hood of the equipment you use.

by Steve Miller, W6SDM

ADAW

Continued Next Column



Old Pueblo Radio Club INTERMOD

President's Column

The Yavapai ARC (YARC) is excited to begin 2017 with new officers and board members, and a busy event schedule. In addition to our compliment of public service events, we will again have a significant presence for Field Day in June. Our 2017 Prescott Hamfest is also scheduled for June and this will be the 4th year that we will hold the Granite Mountain Hotshots memorial event on June 30.

YARC continues our series of licensing classes for people interested in Ham radio. A Technician license class is scheduled for Feb 4 and 11, with license testing following on March 11. There will be a General licensing class coming up in April, as well. For more information contact Brian at classes@w7yrc.org In addition, YARC offers discounted "HamTestOnline" subscriptions. Upcoming regular test sessions are March 11 and May 13, 2017. We offer testing generally on the 2nd Saturday of every other month. For more info, email testing@w7yrc.org

Our joint planning committee with Eagle Radio Club at Embry-Riddle has scheduled the 2017 Prescott Hamfest for Saturday, June 10, 2017 at Embry-Riddle Aero-nautical University in Prescott. Planning is well under way. Watch for details as they become available.

Come join us for one of our monthly club meetings.

The Old Pueblo Radio Club held its first general meeting of the year on Wednesday 11 January 2017.

The first order of business was to elect officers for 2017. Officers will remain unchanged.

Dues are due by the end of March.

New business contained two items.

1. Quick discussion about temporary amateur operation in Mexico: Mexico is undergoing a major reorganization of radio communications permitting, apparently with an intent to sell off major pieces of the spectrum. At this time, no temporary (reciprocal) licenses are being issued. Apparently, permanent licenses are not being issued, and expired Mexican licenses are either not being issued, or are being issued only in small numbers. The Mexican counterpart to the ARRL is working on these matters. More information on this may be found on the ARRL web site.

2. The town of Oro Valley recently passed an ordinance of concern to amateur radio operations. Although the ordinance has been advertised as requiring motor vehicle drivers to use only hands free operation of cell phones while on public streets, as written, it also includes other electronic devices such as GPS. It appears broad enough to prohibit the use of amateur radio, FRS, GMRS and CB push to talk microphones. A similar law is currently under consideration for the City of Tucson. The language appears similar to what is already in effect statewide in California. More information about these and similar laws may be found on the ARRL web site.

73 de

Ron Kalish, N7SPW
President, OPRC

ADAW

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OPRC Repeaters

146.66 - PL 110.9	wide coverage	W7GV
146.82 - PL 110.9	wide coverage	W7GV
147.22 - PL 110.9	wide coverage	W7GV

RACES Repeaters

145.150	packet/wide	N7OEM
146.880 - PL 110.9	wide coverage	N7OEM
147.300 - PL 110.9	wide	N7OEM
448.55 - PL 110.9	wide coverage	N7OEM

SCOTTSDALE AMATEUR RADIO CLUB, INC.



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

SARC Continued from Previous Column

Straight Key night was again last year on New Year's Eve. I was able to participate for a while on 20 meters before the whole gang descended on the shack and made CW impossible. I was probably half in the bag by then anyway. The 20-meter band was not very good but I made a number of contacts anyway. I will have better luck next year. We'll see.

The program for the January general club meeting featured a presentation by Arturo Fonda, WB7ATA. Arturo is always working on something electronic because of his background. He finds old equipment and makes it sing again. He worked for many years at Motorola and really knows his stuff. His presentation was on basic electronics and I, for one, had not thought about it for a long time. He had some funny props to go with the presentation and a lot of hand out Great program Arturo.



Yours truly on New Year's Eve

Arturo presenting his program to the members



The executive table getting ready for the meeting



Here is our star for the evening, Arturo, WB7ATA, joking with the club members.

February is going to see some warmer weather and it will be time to get out with the gang. Some of the guys are going to the El Dorado Park Friday mornings to plan Radio. Check with the web site for more information.

Of course, we have our Spring Hamfest coming up on Saturday, March 18, 2017 at the Scottsdale Bible Church – Mountain Valley Campus, 17105 Pacesetter Way, Scottsdale, AZ 85255-5449. As usual, we are looking for some volunteers to help at the site. If you can donate an hour of your time, you will receive a free admission to the event. Check in with the club web site at www.Scottsdalearc.org


The 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.

Well, that is all I have for now. Be well and keep on hamming. I'll see you all next year.

Ed Nickerson WU7S
enickerson427@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.





Arizona Near Space Research Supports Arizona ASCEND! Eclipse Project

No Report Received

Mark your calendar for Monday, August 21, 2017. On this day, the moon's shadow on Earth will darken the sun in the middle of the day.

A total eclipse is a rare and very impactful event. For those who have witnessed one, it is a memory that lasts forever. There is a time when, if you knew when a total eclipse was coming, you could convince primitive cultures of your godlike status when the sun went dark, wiping away daylight. Today, our understanding of the Earth's position in the solar system removes our fear of some displeased deity switching off the sun. Nevertheless, as an act of God or a fact of science, it's still an amazing thing to see.

Total eclipse events are as rare as they are mysterious – the last time we saw one on the North American continent Jimmy Carter was still President. Gasoline was 86 cents per gallon. You could buy a new Toyota Corolla for less than four grand. Yeah, it's been a while.

The solar eclipse that happens this year will be one of the best documented and most thoroughly studied events of its kind in history. Proudly, Arizona Near Space Research will be a big part of the study and documentation of the 2017 total eclipse.

As an affiliate member of the NASA/Arizona Space Grant Consortium, ANSR is providing the flight prediction, in flight prediction updates, launch, tracking, and recovery operations. In addition to a variety of student payloads, we expect to fly a video and imaging payload designed by ANSR member Eugene Swiech, WB9COY.

The payload transmits still pictures and live video allowing ground control to "stay with" the flight during ascent and reentry. For the technical folks among us, it's a MESH network system that uses a Raspberry Pi microcontroller, a Pi Camera, and Ubiquity WiFi modems on the 2.4 GHz amateur band. AREDN (Amateur Radio Emergency Data Network) software is used to control the modems.

Jack Crabtree, W7JLC, founder of ANSR, will be serving as project manager for the Arizona ASCEND! Eclipse project. Jack has an amazing record in high altitude ballooning with hundreds of flights under his belt. He has mentored countless students over the years in his position as a part-time professor

Continued Next Column

ADAW

ANSR Continued from Previous Column

at Embry Riddle Aeronautical University.

The Eclipse base of operations for the AZ ASCEND! Team will be Glendo State Park in Wyoming. ANSR members will be there to an extent largely determined by what funding we receive from NASA Space Grant and what we can allocate from our own treasury. This effort is being led by Embry-Riddle Aeronautical University and Arizona State University, with nine other ASCEND! project schools in Arizona supporting.

So how does ham radio factor into the observation of a total eclipse? Tracking and recovery operations depend very much on VHF/UHF beacons and tracking through APRS. We use mobile VHF/UHF radios in simplex mode to communicate vehicle to vehicle and local repeaters to talk with our ground station. There is a CW beacon aboard most flights to assist in locating once the payload has landed and the recovery team is in close proximity.

We're always glad to accept new members. ANSR presents a great learning opportunity for radio amateurs looking to expand their experience. ANSR is also a 501-C-3 nonprofit corporation and gratefully accepts tax deductible donations, which allow us to carry on our service work of getting student payloads into near space.

If you're interested in joining ANSR, visit our web site at <http://www.ansr.org>

By Steve Miller, W6SDM

ADAW



No Report this Month

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Emergency Communications Since 1961

SHORT SKIP

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Superstition ARC Repeaters

- 147.120 MHz (+) 162.2 Hz - Usery *
- 448.275 MHz (-) 100.0 Hz - Usery
- 449.600 MHz (-) 100.0 Hz - East Mesa *
- KB7KWK-L Echolink Node 538499 *

* - 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 Newslines.
- East Valley Swap Net:** Thursdays, 7:30 PM
- 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 high-speed 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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IC-7851 | HF/50MHz Transceiver

• 1.2kHz "Optimum" roofing filter • New local oscillator design • Improved phase noise • Improved spectrum scope • Dual scope function • Enhanced mouse operation for spectrum scope • More features



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IC-7700 | HF/50MHz Transceiver

The Contestor's Rig • HF + 6m operation • +40dBm ultra high intercept point • F DSP: user defined filters • 200W output power full duty cycle • Digital voice recorder



\$800
INSTANT SAVINGS

IC-7600 | All Mode Transceiver

• 100W HF/6m Transceiver, gen. cov. receiver • Dual DSP 32 bit • Three roofing filters- 3, 6, 15kHz • 5.8 in WQVGA TFT display • Hi-res real time spectrum scope



IC-7300 | HF/50MHz Transceiver

• RF Direct Sampling System • New "IP+" Function • Class Leading RMDR and Phase Noise Characteristics • 15 Discrete Band-Pass Filters • Built-in Automatic Antenna Tuner • Large Touch Screen Color TFT LCD



DSP
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IC-718 | HF Transceiver

• 160-10M* • 100W • 12V operation • Simple to use • CW Keyer Built-in • One touch band switching • Direct frequency input • VOX Built-in • Band stacking register • F shift • 101 memories



\$100
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\$500
INSTANT SAVINGS

IC-7100 | All Mode Transceiver

• HF/50/144/430/440 MHz Multi-band, Multi-mode, F DSP • D-STAR DV Mode (Digital Voice + Data) • Intuitive Touch Screen Interface • Built-in RTTY Functions



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IC-2730A | VHF/UHF Dual Band Transceiver

• VHF/VHF, UHF/UHF simultaneous receive • 50 watts of output on VHF and UHF • Optional VS-3 Bluetooth® headset • Easy-to-See large white backlight LCD • Controller attachment to the main unit with optional MSA-4 • Wideband receiver



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INSTANT SAVINGS

ID-880H | Analog+Digital Dual Bander D-STAR

• D-STAR DV mode operation • DR (D-STAR repeater) mode • Free software download • GPS A mode for easy D-PRS operation • One touch reply button (DV mode) • Wideband receiver **D-STAR ready!**



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ID-51A Plus | VHF/UHF Dual Band Xcvr

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ID-51A PLUS2 | VHF/UHF D-STAR Portable

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