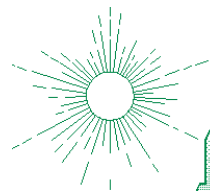


ADAW

4529 W. Park Place
Glendale, AZ 85306-1512



ADAW

Arizona Desert Aire Waves

Vol 42, No 3

March 2017

CLUB MEETINGS SCHEDULE

SARC

Mar 1st
Scottsdale Senior Center
7:00 PM

OPRC

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

CARL

TBA
AZ Science Center
TBA

AARC

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

TBARC

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

CADXA

Mar 2nd
PERA Club
7:00 PM

CLUB MEETINGS SCHEDULE

QCWA

Mar 25th
TBD
Tucson Area
11:00 AM

SuperstitionARC

Mar 21st
Charles K Luster Bldg
7:00 PM

MARCA

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

ANSR

Mar 20th
via Skype
7:30 PM

OVARC

Mar 17th
Ascension Lutheran Church
7:00 PM

WVARC

Mar 6th
St Clement Catholic Church
Social Hall
7:00 PM

ARA

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

MARA

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

YARC

Mar 2nd
Mile High Middle School
7:00 PM

ARCCC

TBA
American Red Cross Bldg
TBA

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			
Treasurer	Bob Hodges	K7JTT	602.375.9982
Activities Mgr	Lori Cripps	WA7EDI	
Membership	Bob Hodges	K7JTT	602.375.9982

AARC c/o Bob Hodges, K7JTT, 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 147.78/18 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	Clayton Jacobs	KJ6QJS	
Secretary	Steve Miller	W6SDM	
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	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	Steve Miller	W6SDM	602.290.1603
Vice President	Chris Canevit	W7CGC	
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: P O 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, 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 DeVlieger	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	Jack Landon	KD7ROB	480.759.5195
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
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 carl@w7asc.org or call Jack, KD7ROB at 480.759.5195. 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
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.



Daylight Savings
Begins March 12th

ADAW

ADAW Staff

PUBLISHER/EDITOR

Christine Kesauer	N7PVL	602.843.0960
AARC EDITOR		
Lori Cripps	WA7EDI	602.955.7517
ANSR EDITOR		
Steve Miller	W6SDM	602.290.1603
ARA EDITOR		
Virgil Silhanek	K7VZ	623.850.1441
ARCC EDITOR		
Mark Kesauer	N7KKQ	602.318.2920
CADXA EDITOR		
Lee Finkel	KY7M	ars-ky7m@cox.net
CARL EDITOR		
Jean Jolkovski	W4CIH	480.664.7353
MARA EDITOR		
Steve Miller	W6SDM	602.290.1603
MARCA EDITOR		
Norm Johnson	AA7OO	480.278.2886
MMRG EDITOR		
Lori Cripps	WA7EDI	602.955.7517
OPRC EDITOR		
Ron Kalish	N7SPW	520.207.3852
OVARC EDITOR		
Ron Herring	W7HD	520.240.5322
QCWA EDITOR		
Tom Fagan	K7DF	520.574.1129
SARC EDITOR		
Ed Nickerson	WU7S	480.949.5162
SuperstitionARC EDITOR		
Larry Kuck	WB7C	l.m.kuck@gmail.com
TBARC EDITOR		
Andrew Cornwall	KF7CCC	kf7ccc@arrl.net
WVARC EDITOR		
Robert Paul	KG7FIL	kg7fil@cox.net
YARC EDITOR		
Don Bauer	WB7TPH	dbauer2250@aol.com
TECH SUPPORT		
Mark Kesauer	N7KKQ	602.843.0960
ADAW EMAIL		adawaz@arca-az.org or adaw@adaw.org
ADAW WEB SITE		www.adaw.org

ADAW



Unique Handmade Jewelry and Gift Items
at Affordable Prices

Election results are in and Rick Paulette, W7RAP has been elected to the position of ARRL Arizona Section Manager. Rick's two-year term begins on April 1, 2017. Congratulations, Rick.

Rick will be taking over for Robert Spencer, KE8DM, who has held the position for the last four years. Robert has worked tirelessly for the betterment of Amateur Radio in Arizona. He has traveled the state to represent the ARRL at most, if not all, the various hamfests. Robert was also the guiding force behind the push for the license bill currently before the Arizona legislature. Thank you, Robert, for all you have done.

Later this year, the ARRL Southwestern Division will elect a new Vice-Director. Our current Vice-Director, Marty Wall, N6VI decided not to run for reelection. Dick Norton, N6AA, ARRL Southwestern Division Director, reported at the 2017 Yuma Hamfest that there are currently three people, and possibly four, planning to run for the position. See Lori Cripps, WA7EDI's report on the 2017 Yuma Hamfest in the next column for the possible candidates.

Thanks Lori for the report. Those of use who could not make the hamfest really appreciate it.

There are two great hamfests this month. First up is the annual SpringFest in Scottsdale. The Scottsdale Amateur Radio puts on an excellent event. The venue is the same as the last few years at the North Valley Campus of the Scottsdale Bible Church. There are covered spaces available for vendors and tailgaters which makes this hamfest a unique and desirable event. There will be prizes, refreshments, VE testing, RV parking, and more. The Amateur Radio Council will hold its Spring meeting at 11:00 A.M. at the event. Don't miss it! For more information, see the listing in the Hamfest Calendar on page 16. Hope to see you there.

The Tucson Spring Hamfest will be held in March too. The Radio Society of Tucson will present this annual event on March 25 in the north parking lot of the Target store on Old Spanish Trail in Tucson. There will be prizes, VE testing, refreshments, a GOTA station, QSL card checking and more. Make plans to visit this great event. You'll have fun.

There's lots going on in the world of Amateur Radio over the next few months. Plenty of opportunities for you to get out and enjoy the great outdoors, amateur radio and the comradery of fellow hams. Enjoy!

73 'til next month,
Chris, N7PVL

The 2017 Yuma Hamfest had light rain all day Saturday. On Friday there was no rain but quite a bit of wind, especially in the afternoon, so tailgating was a challenge. There were plenty of tailgaters there, but the weather curtailed the displays and sales of gear. There is one area that is covered so some tailgaters could do their thing in that area on Saturday. The weather did not seem to curtail attendance. The attendance looked as good as or better than last year.

There were 16 main prizes that totaled over \$25,000. The top prize was a Flex 6500, won by WB7BYV.

There were many good seminars. Ed Hare, W1RFI, was there from HQ and talked about the ARRL Lab that he supervises. He's also on some IEEE EMI committees. He and Tom Fagan, K7DF, are on some of the same committees. Tom gave two presentations, one on stealth antennas and one on grounding to prevent lightning damage.

There were six Section Managers and one other Division Director in attendance - quite a showing of ARRL elected officials!

At the ARRL Forum, Dick Norton summarized some of the recent Board meeting actions and discussions. He's not so sure that the wording of the current HR 555 will give us the benefits we expect. It says the HOA can make a decision about allowing an antenna based on aesthetics and that the HOA must be notified before the antenna goes up. Most comments from the audience felt that even so, the ruling would be beneficial to hams in dealing with unreasonable HOA restrictions and causing many CC&R restrictions to be nullified as not conforming to federal law.

Dick did not mention anything about breaking AZ into several sections. He said the Board committee that is looking into redrawing the lines for divisions to make each of them have nearly the same number of members has recommended not doing anything at this time. Dick pointed out that of the 15 divisions, 8 of the smallest ones have about 35% of the members, but 8 is a majority of the Board and those 8 would probably not vote to redraw the division lines. Since HQ is closed on Monday, he thought the AZ Section Manager ballots would be counted on Tuesday. Dick said those he knew that were planning to run for Vice Director were AA7A, Ned Stearns from Phoenix; W1SR, Steven Wood from Tucson; and one other ham from Corona, CA, someone he did not know. He also thought that WB6OTS, Grant Hayes, was planning to run. Lee, KD7OED, called Grant to let him know that Ned was definitely running and to see if he still planned to run. He thought that he probably would.

Lori Cripps, WA7EDI

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.

March Test Sessions

Mar 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

Mar 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

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

Oro Valley Police Sub-Station, Oro Valley Marketplace, Oro Valley

Contact - Quinton Gleason qagleason@comcast.net

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

DeVry University Library, 2149 W Dunlap Ave, Phoenix

Contact - David Morrill 623.680.5011

Mar 11th - Oro Valley ARC -- 10:30 AM

Ascension Lutheran Church, 1220 W Magee Rd, Tucson

Contact - Quinton Gleason qagleason@comcast.net

Mar 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

Mar 11th - Yavapai ARC -- 9:00 AM

Jeep Posse Bldg in Pioneer Park, 1200 Commerce Dr, Prescott

Contact - Donald Bauer 928.775.4690

Pre-reg online: www.w7yrc.org (Click on License Tests)

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

Hardesty Mid-Town Police Bldg, 1100 S Alvernon, Tucson

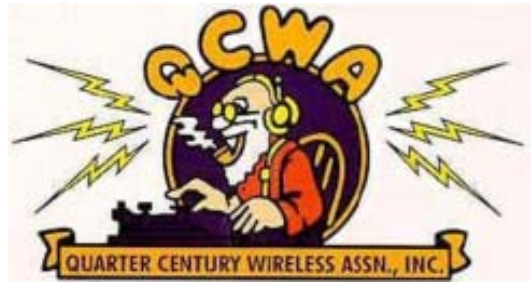
Contact - Diane Zimmerman 520.664.5070

Mar 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



CHAPTER 16

BARRY M. GOLDWATER ARIZONA CHAPTER

No Report Received



Test Sessions Continued from Previous Column

Mar 18th - Unsponsored -- 10:00 AM

Kingman Middle School, 1969 Detroit Ave, Rm 310, Kingman

Contact - Daniel Miller 928.897.3883

Mar 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

Mar 18th - 4X4 HAM -- 9:00 AM

Mountain Valley Church, 17800 Perimeter Dr, Scottsdale

Contact - Virgil Silhanek 623.850.1441

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

City of Mesa Utilities, 640 N Mesa Dr, Mesa

Contact - Fred Bollinger 480.242.8606

Mar 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

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

St Francis Xavier School, 4715 N Central Ave, Phoenix

Contact - John Kelly 602.264.6854

Mar 25th - Venture Out ARC -- 9:00 AM

Venture Out RV Resort, 5001 E Main St, Mesa

Contact - Robert Bingham 480.404.1408

No Walk-Ins

Mar 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



TBARC Continued from Previous Column

Many advances in radio are, even today, discovered first by amateur experimenters” (R. Taylor, personal communication, September 22, 2016). By 1912, Morse code was commercially used to relay locations and distress signals between ships at sea.

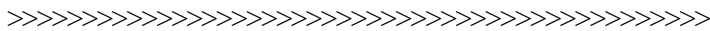
The iconic and “unsinkable” R.M.S. Titanic transmitted the distress signal “CQD” in Morse code after striking an iceberg in the North Atlantic Ocean. While 1,595 passengers perished, wireless radio alerted nearby ships and 745 passengers were saved (“Titanic Tragedy,” 2004). Amateur radio operators also played large roles during the World Wars. Ron Taylor explained ham radio’s role during World War II: When the United States entered World War II, Amateur Radio was temporarily put on the shelf for obvious security reasons. Amateurs did not sit idly by, however. Many donated their own equipment to the war effort. They also volunteered to serve both in the factories and in the field. They were among the most able radio operators at the time when Morse code was the predominant operating mode, and they served their country well. (R. Taylor, personal communication, September 22, 2016)

On the other hand, SMS texting’s relatively short lifespan has proven far less influential than ham radio’s; the first text message was sent on December 3, 1992, only 24 years ago (“Hppy bthdy txt!,” 2002). Text messaging has also been linked to detrimental side effects to youth, both in health and in education. Katie Hafner (2009) of the New York Times stated, “[The texting phenomenon] is beginning to worry physicians and psychologists, who say it is leading to anxiety, distraction in school, falling grades, repetitive stress injury and sleep deprivation.” Ham radio suffers from no such impulsive consequences. However, while ham radio served the world as the primary communication method for over a century, the onset of newer communication methods in the 1990s made the future of ham radio appear uncertain.

Today, ham radio is often considered antique and archaic to the general public with the convenience of messaging and Internet capabilities on portable devices. In response to the growing concern from the ham community, Joel Harrison, American Radio Relay League President, delivered a statement in 2009 describing the implementation of technology into the ARRL: “For hams, expanding the four pillars to include technology will reinforce one of the organization’s guiding principles — that ham radio is state-of-the-art, innovative and relevant” (Keane, K., 2008). But while the response provided reassurance to thousands of amateur radio operators, not all were satisfied with his statement. In response to Harrison’s remarks, The Fox River Radio League, established in 1924, issued the following response: “if one has to publicly assert that amateur radio is relevant, state-of-the art, and innovative, then there exists an underlying perception to the contrary ... In the

We have a guest editor this month. Brandon Hang KB7ANK is a student whose school assignment was to write a report about Ham radio. This newsletter is divided into two installments. What follows is the first part of this comprehensive report from a new Ham. To volunteer at W7ASC, contact Bob KG6QJ@COX.org

73 de W4CIH 480-664-7353



Ham Radio Holds its Own Against Text Messaging, Part 1
Brandon Hang

Amateur (or “ham”) radio is a unique method of long-distance communication that predates the television, cell phone, and computer by decades. Ham radio has been a popular hobby since its inception over a century ago with enthusiasts coining special terminology, experimenting with electronics, building equipment, playing vital roles in conflicts and natural disasters, and making contact with other operators around the globe through various methods or “modes.” Modern technology has introduced widespread communication tools that have attracted millions of users worldwide, most notably SMS (Short Message Service) text messaging, but ham radio continues to thrive and evolve as operators incorporate new technology into the hobby. In fact, ham radio equipment can be constructed using common household electronic components, can deliver a message faster, more reliably, and more efficiently than a text message, can generate and receive its own signals without cell phone towers or satellites, and can operate over hundreds of miles without monthly costs. All facts considered, ham radio is cheaper, more efficient, and ultimately more useful than modern cell phone text messaging.

While “wireless” may be considered a relatively modern term, amateur radio was the first true wireless technology, first utilized nearly a century before the inception of text messaging. During that time, ham radio and its operators (known as “hams”) proved its ability to provide massive benefits to society, both through the advancement of radio technology and as a means of providing communications during major historical events. The value of having amateurs “on the air” became immediately clear due to their “ever-present ability ... to discover ways to advance the art at his/her own expense.

Continued Next Column

Continued Next Page

context of perceptions of irrelevancy, lack of innovation, and that Amateur Radio as a legacy of the past may be on a trajectory to obsolescence, the ARRL and amateur radio has less than an optimistic future” (“Fifth Pillar of Amateur Radio,” 2009). However, this opinion, while well argued, is an unfounded assumption. Matt Sepic from NPR News (2010) states, “a few years ago, several blogs put ham radio alongside 35mm film and VHS tape on a list of things slated to disappear. But they were wrong.” The most recent Federal Communications Commission data indicates there are currently 803,879 licensed amateur radio operators in the United States, the highest number ever recorded (“FCC Information,” 2016). Following Harrison’s statement, an average of 10,000 radio operators have earned FCC licenses each year, in stark contrast to the nearly 20,000 license decrease only three years before.

Additionally, fully functional portable ham radio transceivers (known as two-way radios) are manufactured in a variety of sizes, many equivalent to modern cell phones, debunking the misconception that cell phones are the only devices to provide portable communication. The data is undeniable: ham radio has not diminished under the presence of new portable technology. Rather, it continues to attract new members interested in both digital communication methods that incorporate technology into the hobby and traditional modes that have been used since the inception of radio.

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 in 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.



As the temperatures warm up a little, the Thunderbird Amateur Radio Club is awash in . . . prizes! In January, we awarded two of our hamfest volunteers (picked randomly) with gift cards as a way to say thank you for the hard work all our volunteers did. Then at the February general meeting (still in the future as I write this) we (will have) awarded gift cards to some of the smart people who signed up or renewed before or at the February meeting. And a little bird told me there might be door prizes at the February meeting too. Hope you got one!

Our membership coordinator, Clair Wyant, KG7MAJ has been working double shifts (actually, quadruple shifts) to make sure everyone who signed up is properly registered. He’s got the busiest job in the club at the beginning of the year - so be sure to thank him for his hard work! You’ll find him at the membership table, where you can still sign up for this year.

Another big factor in what makes our club so good is Israel Vicente, AD7ND. He’s already lined up presentations until September of 2017 (see the club website at w7tbc.org for the confirmed presentations). He’s got candidates for presentations up to January of 2018! But he’s always looking for more presenters, especially those who are enthusiastic about their topic. If you have an idea for a full-length presentation or a mini-presentation (5 minutes or so at the beginning of the meeting), let Israel know. We’d love to share your enthusiasm!

At the last board meeting, preliminary plans were put in place for a RV/Camping + Ham Weekend. Dates are still being ironed out based on availability, but it looks as if this will happen at a campground somewhere north of Payson at some time when the heat will make it desirable to leave town. Gary Cline, AF7BJ, is working behind the scenes on this - and we’ll be sure to give you the details as they firm up.

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 March, we’re going to hear about Interference Mitigation Techniques from Pete Wyckoff, KA3WCA. I’ve got lots of noise around my shack - maybe that will help bring the signal out. See you there!

Andrew Cornwall KF7CCC
kf7ccc@arrl.net



ARA Continued from Previous Column

Arizona Repeater Association Donates to ARRL Spectrum Defense Fund

The Arizona Repeater Association donated \$2500 in 2016 to support the ARRL Spectrum Defense Fund. The check was presented to ARRL Arizona Section Manager, Robert Spencer KE8DM, by several members of the ARA Board of Directors at the Thunderbird ARC Hamfest in January.



ARA Board of Directors present donation to ARRL Arizona Section Manager. L-R: Brian McCarthy AK7F, Dennis Campbell AE7WU, Robert Spencer KE8DM, Joe Godfrey AE7JG, Virgil Silhanek K7VZ, Lance Halle KW7LH, Mike Montalvo KF7MBK.

For many years, the ARA has made it a priority to ensure that our Amateur Radio frequencies are protected. The FCC manages the frequency allocations and there are many wealthy corporations that would love to take a slice away from Amateur Radio use. The donation of \$2500 from the ARA helps the ARRL Spectrum Defense Fund defend our bands for current and future Amateur Radio operators.

For more information on the ARRL Spectrum Defense Fund or how you or your club can participate, go to www.arrl.org/spectrum-defense-fund. Learn more about the Arizona Repeater Association and join as a member to support Amateur Radio frequencies at www.W7ARA.org.

Last Month I Mentioned Winter. It's Still Winter.

On Friday, January 20th, a rain storm passed over the Phoenix metropolitan area. At higher elevations, like Mt. Ord at 7200 feet, that equates to ice and snow. We soon began hearing warning messages on the repeaters that the site was on auxiliary power. Mt. Ord had lost APS commercial power and was running on backup generator.



ARA tower is left of center. The 146.92 Metrolink antenna is off the left of the tower, near the gray dome. The 147.36 Rimlink antenna is at the very top left.

By Sunday, APS was giving an ETA of repair for Monday afternoon. Mother Nature had other plans and ushered in another storm across the state. APS updated their estimated time of repair to be as much as two weeks. Uh oh. At that point, the focus turned towards refueling the generators.

A few days later, a snow plow was sent up the road to the top of Mt. Ord with a propane truck immediately behind. This allowed generator propane tanks to be refueled as well as APS access to repair downed power lines. Approximately 10 days after power was initially lost, APS was able to restore commercial power to the Mt. Ord site. Hooray!



Durham's propane truck made it to the top of Mt. Ord.

But don't celebrate too soon. We received notice that a large chunk of ice fell from the top of the tower, glanced off one of the dish antennas, and had damaged the roof. A call to the roofing company was made to get the roof repaired ASAP.

Continued Next Column

Continued Next Page

ARA Continued from Previous Page



Roof damage on ARA building from ice, found by RENCO Roofing crew.



Temporary repair until roof can be replaced in warmer conditions.

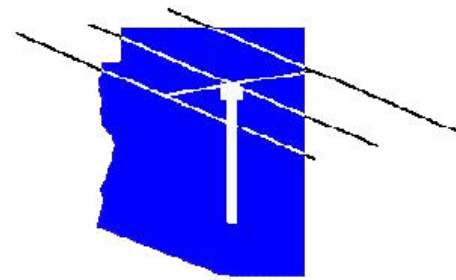
As of now, we still have minor weather related problems with our Mt. Ord, Greens Peak, and Pinal Peak sites. For example, the link for Rimlink between Ord and Pinal works, but when several inches of ice builds up on antennas, it tends to diminish the signal enough to cause problems. Greens has reported voltage problems as well as link issues in the last month.

Our repeater and site status is kept up to date on our web site, so please check that out and report problems using the interference form. <http://w7ara.org/z/Repeaters.aspx> Don't assume the ARA already knows about all problems. As temperatures surpassed 80 degrees the last few days in Phoenix, I don't think you'll have a 3rd month of "winter" articles from me.



Photo from DPS crew at the top of Mt. Ord. Fire lookout tower on the left. ARA tower is not really visible as it's behind the tower in the right foreground.

Virgil K7VZ
ARA President



MARCA INC.

No Report Received



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.



CADXA Continued from Previous Column

the island's key role in the movement of oil and petroleum products by ship from Venezuela to the world.

The biggest challenge facing PJ2T, Gary explained, is tower maintenance where the salt water environment has been literally eating the towers over time and will force replacement in the very near future. Historically, PJ2T has staked a claim to making more QSOs than any other station in the world because of its presence in almost every major and many minor contests over many years. The storied history of its Coral Cliffs (aka Signal Point) location was fascinating to learn about.

Thanks to Ray Sara, W7USA, the CADXA repeater (K5VT/R on 147.32+) now has its antenna at the 70-foot level in north central Phoenix. Ray houses the club repeater at his QTH and it now seems to cover most of the Valley very well. We even had a report from Casa Grande that it is easy to copy that far away. We have had several inquiries about adding Echolink(r) capability for those beyond the repeater coverage area and we will consider that possibility. Our first Thursday night net with the new antenna yielded ten check-ins and a good exchange of DX information. It is our intention to hold the net at 7:00 p.m. MST on Thursdays other than the first Thursday of the month when the club's general meetings are held. KY7M, K7RGG, and K7BHM will rotate the net control station (NCS) responsibilities. Dust off your old 2-meter radio and join the conversation.

Several DX stations have been very active in recent weeks. TL8TT in the Central African Republic has been most active on all bands and modes. We also continue to see spots for S01WS, E51DWC, A5A, and XX9D, among others. Openings to work them above 20 meters are few and far between, but there has been useful propagation on 15 and 17 meters some days.

These days, if you want to know if a band is open, the best indicator is JT65 activity on 076 on most bands (18102 on 17m and 10138 on 30m). There is more activity on that mode than any other on a daily basis. If you have not tried it, download WSJT-X from <https://physics.princeton.edu/pulsar/k1jt/wsjsx.html> and give it a try. It does not take much power to make contacts with DX stations or to work all states. Many JT65 stations are running less than 30 watts and using stealth antennas.

We had about 40 people at our February meeting with a wonderful presentation by Gary Hembree, N7IR, on the history of ham radio on the island of Curaçao in the Netherlands Antilles islands. Gary has operated from PJ2T in the last two CQWW CW contests and has joined the Consortium that maintains that award winning station on Curacao.

We were treated to a talk that went beyond the typical list of antennas and operators to cover some geology lessons about the island that most of us had never considered such as the difference between volcanic islands and those like Curaçao created by tectonic plate pressure. Gary also taught us about

March Meeting

Our next meeting will be on Thursday night, March 2nd at the PERA Club beginning at 7:00 p.m.. The program will be presented by Lee, KY7M, and Ned, AA7A. They will recount the story and many challenges of taking on the maintenance of the remotely operated Safford, AZ super station built by Milt Jensen, N5IA, who died in a tower accident last June. The privilege of operating an 8-Circle of 160m towers in Safford requires a lot more effort than simply turning on a control radio in Phoenix.



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

ADAW

Continued Next Column



Arizona Red Cross Communications Club



We welcome the Public Service Amateur Radio Group in using the VHF repeater for their weekly net. These folks are part of the ATV group (Amateur Television) which has an extensive network throughout Arizona. If you are interested in public service, check them out at 7:00 P.M. on Thursday evenings.

Did you get a chance to go to the Yuma Hamfest? Unfortunately, we didn't due to illness. The YARHO group always puts on a great event, with a large indoor facility for commercial vendors and a sizeable lot for swappers. They always have an extensive prize list, plus who can forget about the Saturday night BBQ dinner.

Your Humble Scribe,
Mark, N7KKQ

No report received.



Public Service Calendar

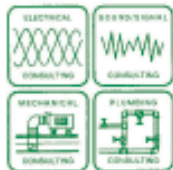
Maricopa County Emergency Communications Group Events

EVENT	LOCATION	DATE
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
Pat's Run	Sun Devil Stadium at ASU & Tempe Town Lake	04/22/17
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
Runner's Den Pancake Run	E Phoenix, Paradise Valley Mall	02/04/18

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) 941-8810 (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.

Old Pueblo Radio Club INTERMOD

President's Column



The OPRC general meeting for February was cancelled.

O.V.A.R.C. IS ON THE ROAD AGAIN

Now that the ARRL National Parks on the Air event has come to an end, The Oro Valley Amateur Radio Club is determined to create a replacement program to get outside and get on the air. Arizona is one of just a few states where we can get outside almost year round.

Through the leadership of Tom, W8TK and Ken, K7EAZ the first event was organized around Winter Field Day. We converged on RiverFront Park in Oro Valley where the morning was a little cool but the noon time sun warmed us quickly. Although the ARRL does not sanction this event, it still provides an opportunity to get out and have fun. With the help of a home brew tennis ball launcher made by George, NG7A we were able to put up a few antennas on the site. We didn't set any records for QSO's but we broke all the records for fun and helping other hams with helpful suggestions on their radios and antennas. Of course these events wouldn't be the same without some nourishment. We had plenty of bagels and coffee to wake us up and then we were treated with gourmet cupcakes made by Lena N7LNA. Some local pizza was also there for dessert.

We are formulating plans to do many more of these outings in 2017. We are currently researching places to go, and meaningful days to commemorate.

ADAW

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

2017 O.V.A.R.C. Board Elections

The Oro Valley Amateur Radio Club normally has its elections in January. Four positions on the Board of Directors were open and four members were nominated for those vacancies. Because we had an equal number of nominees and open positions, the membership simply ratified the new slate of officers and there was no need for a balloted election.

The 2017 Board of Directors are made up of the following members: Steven Wood - W1SR, Fred Bresani - W2HZ, Carl Foster - KB7AZ, Ross Eckert - K4WBR, Hanna Eckert - KG7TPD, Gary Pierce - AE7GP, George Cooley - NG7A and Marnee Dearman - KG7SIO. Congratulations to all of the 2017 directors!

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

ADAW

ADAW

Oro Valley ARC Winter Field Day



Hamfest Calendar

18 March 2017 - **SpringFest** - hosted by the Scottsdale Amateur Radio Club will be held at the Scottsdale Bible Church - Mountain Valley Campus in Scottsdale. General Admission use 17705 N Pacesetter Way entrance. Vendors use 17700 N Perimeter Drive. Hours are 6:00 AM until 12:00 noon. Vendor/Tailgate Set Up - 5:00 AM. General Admission \$5. Tailgate/Sales - 2 spaces \$20. RV Parking \$10. Refreshments, Raffle Prizes, VE Testing, Tailgating and more. Talk-In on 147.180 MHz (+) P1 162.2 Hz. For more information, Visit the web site at Scottsdalearc.org. No Guns - No Drugs - No Alcohol.

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 (+) P1 162.2 Hz. Contact Gary Hamman, K7GH at k7gh@arrrl.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(-) P1 162.2 Hz. Visit the Web Site at <http://www.k7rdg.org>. For more information, contact Peter, NH6BF at 520.216.6381 or email lr60@yahoo.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

Continued Next Column



MMRG has lost two former members and one current member lately. They are as follows:

MMRG member from back in the 80's and also a longtime friend of mine, (we were Novices at the same time in 1961) Stan Swartz, K7PLO.

Another member from several years ago, W7TQJ, passed away in Colorado.

Last, but by far not the least, was the recent passing of Mike Wingate, WA6LSE. Mike was a big help to me in keeping the repeaters on the air when I first started doing the tech work for MMRG. He will be sorely missed by many as he was also the head tech for the VVARA Repeaters.

Last month, we gained a new member, Ken K7NIB, who lives in Medford, Oregon.

Of course, he can't get into any of our repeaters directly; however, he has been having QSO's with his longtime friend Ray, N6MY (MMRG Vice President) via IRLP on our 442.150 Mingus repeater.

73,
Bob, K7POF

ADAW

Hamfest Calendar Continued from Previous Column

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@arrrl.net. Sorry - No Guns, Drugs, Alcohol, Smoking, Vaping, Firearms, or Pets per ERAU.

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

ADAW



Our club participated in Winter Field Day for the first time this year. It gave us the opportunity to practice for Field Day in June. This year, most of our operation was powered by solar panels. It was a learning experience and caused some members, including myself, to jump on the solar bandwagon.

Our first learning experience was that while we had no problem powering a portable station with our 100-watt solar panels, trying to power my 17-inch laptop, which we used for logging, overtaxed the system. Consequently, we will be using small screen netbook type computers for logging on Field Day.

Bob, N6YPE, is our solar mentor. He provided the solar panels, charge controller, and batteries for this operation. We used my station, an IC-706 built into a portable "go box." We also used a self-contained "go box" built by Chris, W7CGC, which we also used at Field Day last year. We had a backup generator provided by Jim, K0JAF that powered the laptops.

We had a winter visitor, Gene, K9UTQ, who is also the ARRL Section Manager for Wisconsin. Gene brought out his own equipment and operated with a portable Alpha loop antenna.

Field Day operations are a good way to get new hams familiar with HF operations. We had a couple of our members vow to work toward getting HF stations as they watched us work all over the country and even make contacts in Europe from a picnic table.

We documented our experience on our online forum, which you can find at www.w6sdm.net/forum under the Field Day thread. We also have a thread on putting together a solar system from scratch.

Oh, and before I go, yes, the MARA board voted to hold Copafest again this October. You will see flyers coming forth over the next few months.

73,
Steve, W6SDM

Okay, so you've got your Worked All States and DXCC on five bands. There's still plenty of DX to be had if you're going to make honor roll while you're still breathing. Beyond that, what's next?

There are so many facets to ham radio that it's virtually impossible to get bored. When one activity becomes tiresome or you've accomplished an objective, there's always something else out there to peak your interest that will tie into your appreciation for ham radio.

In her usual sarcastic manner, when I tell her that I've scored a new country, she asks, "What's next, planets?" I usually answer, "Maybe." That isn't too far from the truth. Many amateurs are experimenting with amateur satellite communications. A lot of hams bounce signals off the moon. And some of us chase balloons around in the desert. The latter would apply to Arizona Near Space Research.

Our balloons have a purpose. Think of us as the Uber or Lyft of near space. When college students have experiments that require escape from the ground-level atmosphere of Earth, we give them a ride into near space.

Payloads are evaluated for safety and especially for weight. There are multiple payloads on each flight and the combined weight has a huge influence on how much altitude the flight will achieve and where the payload will land for recovery. We usually have a pretty good idea where a given flight will land – if everything goes as planned. An early burst of the balloon or a failure of any of the recovery systems, i.e., APRS, CW beacon, or parachute, can cause unpredictable results.

There's a rumor out there about landing close to a prison yard in Florence, Arizona. That's true. Last year, we had a payload softly touch down on top of someone's house. Fortunately, the homeowner was gracious and even loaned us a ladder so that we could recover our equipment. Most of the time, we spot the balloon visually on the last portion of the flight and follow it, both visually and with several electronic tracking systems.

Like many other ham radio clubs in Arizona, ANSR is an ARRL-affiliated club and is a 501c3 nonprofit corporation. Our membership is mostly hams, but also includes those interested in ham radio and near space research. We can be found sending up flights at many hamfests. We're also present and many colleges and universities throughout Arizona. We welcome new members, so if you're looking to expand your ham radio horizons, look us up at www.ansr.org.



73,
17 Steve Miller W6SDM



The February 9 meeting of the Arizona Amateur Radio Club was a very special one. After our usual business meeting, we were treated to an extremely interesting and informative presentation by Ned Stearns, AA7A. On QRZ, Ned professes an interest in DXing, contesting, VHF weak signal, EME, antenna design, and homebrewing equipment for his flexible station. His presentation at the AARC focused on the history of EME, Earth Moon Earth, (moon bounce). Ned has been active on 2-meter EME since 1989 and has contacted over 1,250 stations in 160 countries on EME using a homebrew antenna system, preamp, and power amplifier. He has operated EME in West Africa and the Bahamas and has done numerous EME DXpeditions. Many of the AARC members found EME to be a new concept, and we appreciated this opportunity to learn of 2-meter EME from Ned who has been active with it for 27 years.

The AARC is looking forward to our annual hamfest at DeVry University which is definitely set for April 15. Take a look at our website, W7IO.org, for additional information on our club activities.

73,
Lori, WA7EDI
cripps@cybertrails.com

ADAW

Real Estate

*Are you or someone you know looking for a Ham Home?
I can help you find a home with a tower or one where a
tower can be added. Call or email me to get started.*

Richard Haworth W7MDQ
Coldwell Banker Residential Brokerage
602-370-1450 Cell, rahaworth@cox.net

Silent Key



Mike Zachary, KG7OSR

It is with deep regrets that we report the passing of our AARC secretary, Mike Zachary, KG7OSR. Mike passed away on February 11, 2017. He has been our secretary for the past year and has been a dear friend to the members of the Arizona Amateur Radio Club. He has participated regularly as a volunteer examiner and was a major part of the team that installed the antennas on the roof of the American Red Cross Building. Mike was an active AARC participant during Field Day and was always ready to help with any project undertaken by the AARC, including the annual DeVry hamfest.

In addition to his dedicated efforts for the AARC, Mike played a major role as a volunteer at the Science Center. He worked well with the young perspective hams there and often commented to us about their interest in Morse code when he taught them to send their names on CW.

Mike will be missed by all of us and remembered for his friendly nature and willingness to contribute in any way for the betterment of ham radio.

—Lori Cripps, WA7EDI

ADAW



SCOTTSDALE AMATEUR RADIO CLUB, INC.



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

The planned outing for Friday, January 27 at the El Dorado park met with some very chilly weather and did not come off as planned. Very few showed up for the event. This event is planned for every other Friday at 86th Street and Hayden Road around 10:00 and will last till about 2:00. Check the web site for updates.

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

There will be refreshments provided by the church youth group, many demonstrations, some programs and a lot of tailgating. There will be many prizes of great worth in the raffle plus door prizes and a lot of socialization with old friends. These are the events we remember through the years. Many times I have met someone that I have not seen for years. I am always glad to see many young people enjoying the tailgating.

We will be monitoring the club repeater for anyone looking for directions to the hamfest. We will be on 147.18 with a tone of 162.2 and 440.00 with a tone of 100. Here are a few photographs of past Spring Fests you might like.

Here is our trailer and the nerve center for the event. You can also see the Church Youth Group and their refreshment cart.



SARC Continued from Previous Column

We have a terrific site for the Spring Fest with plenty of covered parking for the vendors, demonstrations, and tailgating.



We are looking forward to another great year with magnificent weather and fellowship.

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.

Ed Nickerson WU7S
enickerson427@aol.com

ADAW

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.



Continued Next Column



No Report this Month



Emergency Communications Since 1961

SHORT SKIP

ADAW

ADAW

Superstition ARC Repeaters

147.120 MHz (+) 162.2 Hz - Utery *

448.275 MHz (-) 100.0 Hz - Utery

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

ADAW

ADAW

Need Computer Help?

Computer consultant: in-home tutoring, problem solving, hardware and software installations, virus detection and removal. I am Patient and professional with 30 plus years in the computer field.

Call Larry, KE7JXQ

L.E. Purchase Computer Consultants, Inc.

1-888-922-9295 or 602-863-0502



HAM RADIO OUTLET

WWW.HAMRADIO.COM

Special HRO Holiday Pricing!



\$600
MSRP SAVINGS

IC-9100 | The All-Round Transceiver

• HF/50MHz 144/430 (440) MHz and 1200MHz** coverage • 100W on HF/50/144MHz, 75W on 430 (440) MHz, 10W on 1200MHz** • Double superheterodyne with image rejection mixer



\$1000
MSRP SAVINGS

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



\$1000
MSRP SAVINGS

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
MSRP 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
MSRP SAVINGS

\$75
MSRP SAVINGS

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
MSRP SAVINGS

\$500
MSRP 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



\$55
MSRP SAVINGS

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



\$20
MSRP SAVINGS

\$20
MSRP SAVINGS

IC-2300H | VHF FM Transceiver

• 65W RF Output Power • 4.5W Audio Output • MIL-STD 810 G Specifications • 207 alphanumeric Memory Channels • Built-in CTCSS/DTCS Encode/Decode • DMS



\$20
MSRP SAVINGS

\$100
MSRP SAVINGS

IC-5100A Deluxe | VHF/UHF Dual Band Digital Xcvr

• Analog FWD-Star DV Mode • SD Card Slot for Voice & Data Storage • 50W Output on VHF/UHF Bands • Integrated GPS Receiver • AM Airband Dualwatch • FM Analog/DV Repeater List Function



\$250
MSRP SAVINGS

IC-PW1 | HF/50 MHz Amplifier

• Wide freq. coverage - 1 kW from 1.8 MHz to 50 MHz (another bands only) • Wide ALC adjustable range • Full duty cycle • Auto antenna tuner built-in • Auto AC input voltage selector is employed • Current (Ip), Voltage (Vp), temperature, SWR and output power protectors are available



\$50
MSRP SAVINGS

\$100
MSRP 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!**



\$20
MSRP SAVINGS

IC-V80 | HD 2 Meter FM Transceiver

• Tough construction • 750mW loud audio • Powerful 5.5W of output power • IP54 and MIL-STD-810 rugged construction • Built-in CTCSS/DTCS • WX channel & weather alert function

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

• 5/2.5/1.0/0.5/0.1W Output • RX: 0.52-1.71, 88-174, 380-479 MHz** • AM/FM/FM-N/WFM/DV • 1304 Alphanumeric Memory Chis • Integrated GPS • D-STAR Repeater Directory • IPX7 Submersible **D-STAR ready!**



\$50
MSRP SAVINGS



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

• RS-MS1A, free download Android™ application • New modes for extended D-STAR coverage • Terminal Mode & Access Point Mode allow D-STAR operation through Internet • DV & FM repeater search function • Dplus reflector link commands



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



ANAHEIM, CA
(800) 854-8046

OAKLAND, CA
(877) 892-1745

SUNNYVALE, CA
(877) 892-1749

PORTLAND, OR
(800) 766-4267

PHOENIX, AZ
(800) 559-7388

WOODBIDGE, VA
(800) 444-4799

PLANO, TX
(877) 455-8750

BURBANK, CA
(877) 892-1748

SAN DIEGO, CA
(877) 520-9623

NEW CASTLE, DE
(800) 644-4476

DENVER, CO
(800) 444-9476

ATLANTA, GA
(800) 444-7927

SALEM, NH
(800) 444-0047

MILWAUKEE, WI
(800) 558-0411



*Except 6M Band. **Frequency coverage may vary. Refer to owner's manual for exact specs. **Optional UX-8100 required. †Instant savings and mail-in rebates expire 12/31/16. Contact HRO for promotion details. GET NOVEMBER 2016. The logo is a registered trademark of Icom Inc. Toll-free including Hawaii, Alaska and Canada. Call will be routed to the nearest store. All HRO 800-lines can assist you. If the first line you call is busy, you may call another. AZ, CA, CO, GA, TX, VA, WI residents add sales tax. Prices, specifications and descriptions subject to change without notice.