

4529 W. Park Place Glendale, AZ 85306-1512







# Arizona Desert Aire Waves

Vol 44, No 1

January 2019

# **CLUB MEETING SCHEDULE**

# **SARC**

Jan 2nd Scottsdale Senior Center 7:00 PM

# **OPRC**

Mar 13th Marshall Conference Ctr at Tucson Medical Ctr 7:15 PM

# **CADXA**

Jan 19th PERA Club 6:00 PM

# **AARC**

Jan 10th Red Cross Bldg. - Phx 7:00 PM

#### **TBARC**

Jan 17th North Phoenix Campus Northern Arizona University 7:00 PM

# **CARL**

Jan 19th AZ Science Center Call for Time

# **ARCCC**

TBD American Red Cross Bldg Phoenix 9:00 AM

# **SuperstitionARC**

Jan 15th Charles K Luster Bldg 7:00 PM

# **MARCA**

Jan 15th Denny's Restaurant - Tempe 6:30 PM

# **ANSR**

Jan 17th via GoToMeeting 7:30 PM

# **OVARC**

Jan 18th Ascension Luthern Church 3:00 PM

# **KARC**

Jan 8th Solterra at White Mtn - Show Low 6:30 PM

# **WVARC**

Jan 7th Shephard of the Desert Luthern Church 1:00 PM

# **ARA**

Jan 24th Denny's Restaurant - Tempe 7:30 PM

# **MARA**

Jan 5th Maricopa PD Community Rm 9:00 AM

# **YARC**

Jan 3rd Prescott Rodeo Grounds 7:00 PM

# **TCARA**

Jan 21st Goodyear City Hall 7:00 PM

# **QCWA-AZ Chapter**

March/April Tucson Area 12:00 PM

# ARIZONA AMATEUR RADIO CLUB

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

President	Gary Hamman	K7GH	602.996.8148
Vice President	Mark Kesauer	N7KKQ	602.843.0960
Secretary	Reinhard Geissle	er K7RGG	
Treasurer	Bob Hodges	K7JJT	602.375.9982
Activities Mgr	Lori Cripps	WA7EDI	602.955.7517
Membership	Bob Hodges	K7JJT	602.375.9982

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

#### SCOTTSDALE AMATEUR RADIO CLUB, INC.

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

cutci.			
President	James Wasson	N7ELL	480.456.1154
Vice President	David Yee	N7AJR	
Secretary			
Treasurer	<b>Ed Nickerson</b>	WU7S	480.949.5162
Past President	Paul Finell	W7EFQ	602.741.6563
Board Members	Irv Hembeck	K0OTZ	
At-Large	David Yee	N7AJR	
	Bill Kouchis	N9EIV	602.723.0700
	Ray Vasquez	K4RMV	(ARCA Rep)
	Bruce Harmsen	KA9EYX	
	Chris Tabor	K7TAB	

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

# ARIZONA NEAR SPACE RESEARCH

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

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

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



#### THUNDERBIRD AMATEUR RADIO CLUB

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

President	Brian McCarthy	AK7F	president@w7tbc.org
Vice President	Chris Johnson	K6OZY	vicepresident@w7tbc.org
Secretary	Gary Cline	AF7BJ	secretary@w7tbc.org
Treasurer	Darren Johnson	AF7CO	treasurer@w7tbc.org
Board Members	Clair Wyant	KG7MAJ	kg7maj@w7tbc.org
	Wayne Hale	W6IZK	w6izk@w7tbc.org
	Robert Fairfield	K7RQN	k7rqn@w7tbc.org
	Andrew Cornwall	KF7CCC	kf7ccc@w7tbc.org
Past President	Gary Duffield	WK7B	wk7b@w7tbc.org

For further information about the ThunderBird Amateur Radio Club, visit our website at http://w7tbc.org, send an e-mail to: info@w7tbc.org or call 602.938.8219. The Thunderbird Amateur Radio Club is a 501(c)(3) non-profit organization. Mailing address: PO Box 32544, Phoenix, AZ 85064-2544.

# OLD PUEBLO RADIO CLUB

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

President	Ron Kalish	N7SPW	520.207.3852
Vice President &			
Treasurer	George Devich	N9IUK	520.760.0125
Board of Director	rs: Jim Ulmer	KC7THU	
	Lin Donnelly	KF7CNR	
WebMaster	Ted Willis	AA7HX	520.790.3828
	(www.oprc.org)		
Trustees: (all r	epeaters operating	under the K7	TRA call)
Primary	Ron Kalish	N7SPW 146	5.660, 147.220-
	Paul VanBeverh	oudt KA7LF	X 224.06+
Secondary	Ted Willis	AA7HX	146.66-
	Paul VanBeverh	oudt KA7LF2	X 224.06+

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

# AZ RED CROSS COMMUNICATIONS CLUB

The Arizona Red Cross Communications Club meets at the Red Cross Building located at 4747 N 22nd Street in Phoenix. The group meets at emergency drills and at the call of the officers.

President	Peter Petrotta	KD70IW	
Vice President	Charlie Zurenko	N2TFS	
Secretary	Rob Rodriquez	KI7PDR	
Treasurer	Mark Kesauer	N7KKQ	602.843.0960
Past President	Frank Engstrom	KB7IQ	

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

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

President	John Marshall	WA7BSR	623.334.2583
Vice President			
Secretary			
Treasurer	Dave Hanson	W7BJw7bj	@outlook.com
Webmaster	John Marshall	WA7BSR	623.334.2583

Web Site: <a href="http://azqcwa.org">http://azqcwa.org</a> Email: <a href="mail:azqcwa@gmail.com">azqcwa@gmail.com</a>.

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	<b>Bob Sitterley</b>	K7POF	928.636.2146
Vice President	Ray Tyrrell	N6MY n6m	y73@gmail.com
Treasurer	Bob Sitterley	K7POF	928.636.2146
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 **FIRST SATURDAY** of each month at 9:00 a.m. at Maricopa PD Community Room, 17985 N Greythorn Dr. in Maricopa.

President Vice President	Steve Miller Chris Canevit	W6SDM W7CGC	602.290.1603
Secretary	John Wiltberger	NO7IN	
Treasurer	Curt Steger	NA7CS	520.568.9471
Board Members:	Ronald Beasley	KG7MUV	520.568.4880
	<b>Bob Howard</b>	W8RH	520.709.6176
	David French	N7FAN	480.430.9426
	Dale Dallon	KB7DD	
	Greg Harding	KG7VNZ	
PIO:	Steve Miller	W6SDM	602.290.1603
Webmaster:	David French	N7FAN	480.430.9426

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

# ARIZONA REPEATER ASSOCIATION, INC

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

President	Brian McCarthy, AK71	F ak7f@w7ara.net
Vice-President	Erv Heimbuck, K0OTZ	k0otz@w7ara.net
Treasurer	Cole Cunningham, AA	7RD aa7rd@w7ara.net
Secretary	Jim Hoff, N7XXX	n7xxx@w7ara.net
Board Members:		
Lance H	alle, KW7LH	kw7lh@w7ara.net
Dennis E	Bietry, KE7EJF	ke7ejf@w7ara.net
Doug Pe	lley, WB7TUJ	wb7tuj@w7ara.net
Joe Godf	frey, AE7JG	ae7jg@w7ara.net
Dennis C	Campbell, AE7WU	ae7wu@w7ara.net
Mike Mo	ontalvo, KF7MBK	kf7mbk@w7ara.net
Marty D	usenberry, KE7DGP	ke7dgp@w7ara.net
James W	asson, N7ELL	n7ell@w7ara.net

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

# SUPERSTITION AMATEUR RADIO CLUB

The Superstition Amateur Radio Club meets 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	480.251.0551
Vice President	Andy Keels	KD4ABB	602.809.3561
Secretary	Brent Butler	W7FK	480.332.1141
Treasurer	Douglas Mitchell	W7ADD	480.540.4110
Board Members:	Tony Manzo	W7KLV	
	Dan Karnes	W7TWR	602.502.5259
	Don Rollock	W2EULw2eu	ıl@yahoo.com
	Jeff Harris	K2DFE	602.617.6930
	Jeff Heinze	N7CCW	480.720.7908
	Jeff Marchesky	K7ZLX	602.628.0238
	RodFritz	WB9KMO	

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



# MARCA, Inc. / W7MOT

MARCA is an Arizona 501(c)(3) Non-Profit organization. The club call sign in W7MOT. Membership is open to all amateur radio enthusiasts. Meetings are held the **THIRD TUESDAY** of each month at 6:30 p.m. at Denny's Restaurant located at 825 S 48th Street in Tempe (SE corner of University & 48th Street). Monthly presentations cover a broad spectrum of interesting subjects. Vistors are welcome to attend. Come early for dinner and socializing. Repeater Problem Reports are encouraged. A Repeater Problem or Comment Reporting is available at <a href="http://www.w7mot.org/index.php/repeaters/report-a-repeater-problem">http://www.w7mot.org/index.php/repeaters/report-a-repeater-problem</a>. Site Managers and officers will take reports for any W7MOT repeater. Contacts are found on website. Club activities include providing voice, aprs, packet, DStar, and Fusion repeaters Central Arizona; ARRL Field Day, special interest groups in SDR, APRS, antennas, digital modes, and SBC applications.

President	Norm Johnson	AA7OO	480.278.2886
Vice President	Dave Hall	N7ZPY	
Treasurer	Don Aldridge	WA7RLL	
Board Member	David Yee	N7AJR	
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 (<a href="http://w7mot.org">http://w7mot.org</a>) for more information about meeting schedules, membership, repeaters, library, and club activities.

#### 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 <a href="https://www.cadxa.org/meetings.html">www.cadxa.org/meetings.html</a> 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	W7AC	X w7acx.480@gmail.com
Past President	Tom Kramer	NQ7R	tkramer@azci.net
Board Members	Larry Loen	WO7R	lwloen@gmail.com
At-Large	Reinhard Geissle	r K7RGG	dl1uf@compuserve.com

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.



# YAVAPAI AMATEUR RADIO CLUB

The Yavapai Amateur Radio Club meets the **FIRST THURSDAY** of every month at 7:00 PM in the Freeman Building at the Prescott Rodeo Grounds located at 840 Rodeo Drive in Prescott (visit web site at <a href="https://www.w7yrc.org">www.w7yrc.org</a> 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	Joe Thomas, KG6IDN	vice_president@w7yrc.org
Secretary	Art Jackson, KA5DWI	secretary@w7yrc.org
Treasurer	Mike Reid, N7IEP	treasurer@w7yrc.org
Board Members	Frank Bender, K8FB	k8fb@w7yrc.org
	Don Bauer, WB7TPH	wb7tph@w7yrc.org
	Dave Hanson, W7BJ	w7bj@w7yrc.org
	John Laing, K7PRS	k7prs@w7yrc.org

Yavapai Amateur Radio Club, P O Box 11994, Prescott, AZ 86304-19994. DUES: \$20.00/yr. Visit the website at www.w7yrc.org

#### ORO VALLEY AMATEUR RADIO CLUB

The Oro Valley Amateur Radio Club meets the **THIRD FRIDAY** of each month at 7:00 p.m. at Ascension Lutheran Church located at 1220 W Magee Road in Tucson. (June is normally Field Day. December is annual Christmas Party and date and location varies.) Visitors are welcome. Board Meetings are held at 9:00 a.m. at the Oro Valley PD Substation EOC on Tangerine Rd (next to WalMart) in Tucson. Check the web site at <a href="https://www.tucsonhamradio.org">www.tucsonhamradio.org</a> for dates.

Steve Wood, W1SR	president@tucsonhamradio.org
Fred Bresani, W2HZ vio	cepresident@tucsonhamradio.org
Carl Foster, KB7AZ	secretary@tucsonhamradio.org
Hanna Eckert, KG7TPD	treasurer@tucsonhamradio.org
Ross Eckert, K4WBR	
Scott Boone, K7ADX	
Gary Pierce, WE7GP	
	Carl Foster, KB7AZ Hanna Eckert, KG7TPD Ross Eckert, K4WBR Scott Boone, K7ADX

George Cooley, NG7A

Marnee Dearman, KG7SIO

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

# KACHINA AMATEUR RADIO CLUB

website at http://www.tucsonhamradio.org/.

The Kachina Amateur Radio Club meets the **SECOND TUESDAY** of each month at 6:30 p.m. at the Solterra at White Mountains, 5408 W White Mountain Blvd in Show Low.

President	Merle Kissling	KB7MUB	928.386.5426
Vice President	Steve Herron	AG7GD	928.242.2558
Secretary	June Apedaile	KF7KVV	928.243.3780
Treasurer	Dennis Wilkers	W7DRW	928.739.4700

Mailing Address: Kachina Amateur Radio Club, P O Box 2996, Show Low, AZ 85902. Email: <a href="mailto:info@kachinaarc.org">info@kachinaarc.org</a> Dues are \$15/yr for individual; \$25/yr for family. Membership is January 1 - December 31. Website: www.kachinaarc.org

# CENTER FOR AMATEUR RADIO LEARNING

The Center for Amateur Radio Learning is a hands-on amateur radio station, W7ASC, located within the Arizona Science Center at 600 E. Washington, Phoenix. Hours of operation are the same as the Arizona Science Center (subject to availability of volunteers.) 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	K7JP	480.345.7800
Treasurer	Karen McConag	shy NO7D	602.799.7338
Board Members:		-	

Jean Jolkovski W4CIH
Steve Warford WB4ZSC
Tom Salt AD7PM
Sam Marshall N7INV
John O'Neal K7JP
Bob Burleson KG7QJ
ADAW, Publicity
Tech/IT, CARL/ASC Interface
At Large
Scheduling
Teacher Packets
President/Emeritus

Robert Faerber W9AQ Log Book

Direct Phone: 602.716.2082

Web Site: <a href="http://www.w7asc.org">http://www.w7asc.org</a> Web Master - Allyson Lee For information: Email to <a href="carl@w7asc.org">carl@w7asc.org</a> or call Jack, KD7ROB at 480.759.5195.

# TRICITY AMATEUR RADIO ASSOCIATION

The TriCity Amateur Radio Association meets the **THIRD MON-DAY** of the month at 7:00 p.m. in the Goodyear City Hall Conference Room located at 190 N Litchfield Road in Goodyear. Parking is available on the west side of the building. No meetings are held in June, July, August, and September. (A social gathering is held at Village Inn at 2700 N Litchfield Road after the meeting.) Weekly Rag Chew every Wednesday at Village Inn (2700 N Litchfield Road) at 2:30 p.m. All hams are welcome. Weekly net is held Wednesday evenings at 7:30 p.m. on 446.400 MHz (PL 100 Hz). Events are posted on our Yahoo Group page at <a href="https://groups.yahoo.com/neo/groups/TRICITYARA/info">https://groups.yahoo.com/neo/groups/TRICITYARA/info</a>

President	<b>Bob Nobis</b>	N7RJN	n7rjn@nobis.net
Vice President	Open		
Secretary	Carol Melton	AK7N	ak7n@azsnaps.com
Treasurer	Arnold Knack	KA7AOK	ka7aok@gmail.com

TriCity ARA, P O Box 6293, Goodyear, AZ 85338-6293. DUES: \$18.00/yr. for individuals, \$25.00 for family. Web Site: <a href="http://n7tca.org">http://n7tca.org</a>.

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

# WEST VALLEY AMATEUR RADIO CLUB

The West Valley Amateur Radio Club, an Arizona 501(c)(3) non-profit corporation, has been providing emergency communications since 1961. Meetings are the **FIRST MONDAY** of each month at 7:00 PM at Shepherd of the Desert Lutheran Church, 11025 N 111th Avenue in Sun City. The board meets the third Tuesday of the month at JB's Family Restaurant, 9889 W Bell Rd in Sun City at 2:00 PM. A weekly breakfast is held on Thursdays at Lou's Tivoli Gardens, 12535 W Bell Rd at7:00 AM. Club nets are held on 147.300 (tone 162.2) at 9:00 AM daily and Monday - Thursday at 8:00 PM. Please check our website (below) for other events and information.

President	Gary Robin	K9HDU	623.234.2252
Secretary	April Kramer	KI7GFJ	602.284.6212
Treasurer	Tom Connor	W7TLC	623.444.7956
Board Member:	Robert Paul	KG7FIL	623.252.0149
	Nancy Collins	KG6QWW	623.398.5286
	Many Blanco	KI7QLD	480.395.1653
	David Putman	W7DCP	253.307.0544
Past President	James Rogers	N7YTI	623.214.9219
Committees:			
Membership	James Rogers	N7YTI	623.214.9219
	ınications Comm		
**	Kris Philo	AI8TT	623.853.0586
Technical Advis	sory Committee	Representa	ative
	Frosty Oden		

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: <a href="http://www.westvalleyarc.com">http://www.westvalleyarc.com</a>.
Email: <a href="mailto:suncitywvarc@gmail.com">suncitywvarc@gmail.com</a>.



ADAW

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

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ADAWWEBSITE <u>www.adaw.org</u>				

# Public Service Calendar

# Maricopa County Emergency Communications Group Events

EVENT	LOCATION	DATE
Xterra - White Tank	Waddell	01/06/19
Prickly Pedal	Cave Creek-Lake Pleasant	01/19/19
JROTC Orienteering	Sophies Flat	01/26/18
Pancake Run	Paradise Valley Mall	02/03/19
Xterra McDowell Mtn	Fountain Hills	02/03/19
Black Canyon 100K		02/16/19
Spring Val	ley to the Emery Henderson Trail	head
Lost Dutchman Maratho	n Apache Junction	02/17/19
JROTC Orienteering - Fin	rst Water	02/23/19
First Water	Trailhead - Superstition Mtns	
Xterra Black Canyon Tra	il Run	03/10/19
	Black Canyon City	
ADA Tour de Cure	North Valley	03/16/19
Mesquite Canyon	Waddell	03/16/19
Crown King Scramble	Lake Pleasant to Crown King	03/30/19
El Tour de Mesa	Mesa	04/06/19
March of Dimes for Babi	es	04/13/19
Wessley-B	olin Park, Downtown Phoenix	
Pat's Run	Sun Devil Stadium at ASU	04/27/19
	and Tempe Town Lake	
Zane Grey 50 Highline Tr	-	04/27/19
	Payson Mogollan Rim	
Barnburner Mountain Bil	•	09/07/19
Kendrick P	eak (Northwest of Flagstaff)	

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

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





# ADAW

# From The Editor's Desk

Happy New Year! Hard to believe we're already starting a brand-new year (or will in just a few days depending on when you receive this edition). It's shaping up to be a great year for Amateur Radio.

We kick off the new year with the Thunderbird Hamfest on January 12. This year's event will be held at a new location - the Glendale Nazarene Church at 5902 West Cactus Road in Glendale. It's just a short distance from the old location and offers a lot more room for growth. There will be all the usual activities found at hamfests, but you can read all about it on page 13 of this issue. This is the perfect place to pick up a few of the things that Santa might have forgotten. Check it out - You won't be sorry.

Looks like there will be a hamfest every month in 2019 - with the exception of August and September. A couple of months might even have two that you can choose from. ADAW will keep you apprised of all the hamfests and events happening in Arizona. Just check the Hamfest Calendar for a listing of those currently scheduled.

Take a look at the Public Service Calendar on page 6. Several events are scheduled for each month through April. Taking part in one of these events is a great way to give back and you'll come away with a sense of satisfaction and pride that you were able to assist. Call Dennis Bietry at the number on page 6 if you'd like to give this a try.

If going "out in the wild" is not your cup of tea, why not try volunteering at the Ham Shack at the Arizona Science Center? The Center for Amateur Radio Learning (CARL) is always looking for volunteers to help staff the shack. There's no better feeling as there is when you help teach someone about Amateur Radio and open their eyes (or should we say ears) to the World. Or the joy you feel when a young (or older) person beams with excitement over sending their name in Morse code. You can contact Jack Landon at 480.759.5195 for more information and to sign up.

Did you get your Amateur Radio license plates yet? Amateur Radio call sign plates identify you as a FCC-licensed communicator and for each Amateur Radio call sign plate purchased, \$17.00 comes back to benefit Amateur Radio in the state of Arizona. This holds true when you renew your plates as well. These funds are used to help fund projects throughout the state, to support emergency and disaster communications services, and to promote education and community awareness of Amateur Radio. You can help by purchasing Amateur Radio call sign plates for your vehicle.

It's gonna be a busy month this year. Hope to see you at one of the 2019 hamfests.

73, Chris, N7PVL



# Old Pueblo Radio Club INTERMOD

# President's Column

The Old Pueblo Radio Club held its annual general business meeting on Wednesday, 12 December 2018. The December meeting is the only meeting where all business may be considered without prior notice.

The main action of the meeting was to vote to retain all officers in their current positions, which passed by acclamation. There being no further business, a general discussion of interest to members ensued, after which the meeting was adjourned.

73 de, Ron Kalish, N7SPW, OPRC President.



# OPRC Repeaters

146.66 - PL 110.9 wide coverage W7GV

# RACES Repeaters

 145.150
 packet/wide
 N7OEM

 146.880 - PL 110.9
 wide coverage
 N7OEM

 448.55 - PL 110.9
 wide coverage
 N7OEM

# 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



# AMATEUR RADIO SERVICE DEMONSTRATION STATION

Another year of service to the public has been completed at W7ASC, and it went well. The Volunteer corps has seen some gains, and some losses. One new volunteer was 10 years old when he started, but a birthday has been entered into the history books, and our youngest current volunteer is now 11. He generally works a Sunday shift, so plan your visit for that day, if you would like to visit him. Have some youngsters in the house who might be interested in obtaining a Ham license? Bring them in to meet a young Ham who can tell them, in person, why Ham radio is fun, and how easy it is to become licensed.

The Arizona Science Center is a magnet for visitors from out of town. Some from other countries. The Science Center is a destination for visitors from outside of out borders, and many of those visitors, foreign and domestic, seem to find the Ham Shack where they are all welcomed and invited to talk about ham radio in their home location. Some of these foreign visitors are Hams, and they delight in examining all of the gear that is in the Shack. Many are impressed by the Ham radio software that is in use in the Shack.

When you are visiting W7ASC, take a moment to look through the visitor log. Every visiting Ham is invited to "sign in." The log shows just how popular the station has become.

Perhaps it is only a perception, but it does seem as if there are more visitors who are asking for help in getting started in Ham radio. It is not uncommon for a visitor to announce that they have wanted to join the ranks of the licensed operators, but had no idea how to get started. There is ample printed material available in the Shack that addresses that interest. Volunteers on duty are able to tailor the response to the visitors situation and location. There is usually an ample supply of ADAW newsletters available for a handout. Since the copy includes contact information for most Arizona Ham clubs, the visitor is urged to make contact with a club that is most convenient for them. As you write your ADAW newsletter for your club, keep in mind that it is read by many potential Hams as well as potential club members. If you write it just for your members, you might be missing an opportunity to attract new members!

Speaking of missing an opportunity, now is the time to remind the ADAW readers that there is room for more volunteers at W7ASC, and that the station is located on the third floor of the ASC building. Volunteers enter the building at no cost, and they



On Wednesday, December 13, the Arizona Amateur Radio Club held its annual Christmas party at the American Red Cross Building. Twenty-four people attended. Some were members, and others were friends or relatives. It is always enjoyable to see family members and friends of members at this event. Photos of the party are included with this issue of ADAW.

Dinner was delicious and included various dishes, including delightful desserts. We have great cooks among our group. The room was decorated in a festive Christmas fashion with red tablecloths and poinsettias.

Besides getting together with friends, the evening's activity included playing bingo. AARC President, Gary Hamman, did the job of calling the bingo numbers, and members enjoyed the games and, of course, the prizes.



# CARL Continued from Previous Column

are provided with no-cost parking in the Heritage Square garage. There are other tangible benefits to volunteering, but the main reason for volunteering is that you love to talk about, and demonstrate, Ham radio to the general public.

Well, we have some photos, taken at the Shack during the Mars landing. Clearly that is not a Ham activity, but it certainly is Scientific. Those photos might not be attached as our program has not allowed us to attach them. If we find a way, they will appear here. If anyone would like to see them, and they are primarily screen shots, and some shots of the back of some heads, let us know and they will be emailed to you.

Visit the W7ASC web site for contact information, or find the application form. Go to <u>W7ASC.org</u>. You are also welcome to call the W7ASC President, Jack KG7ROB, or this author, W4CIH Jean at 480-664-7353 or via email at jeanjol@hotmail.com.

Until next year, best 73





# Arizona Amateur Radio Club Christmas Party



















In what has become tradition, Arizona Near Space Research launched flight ANSR-119 from Copafest in Maricopa. Students from the University of Advancing Technology were anxiously connecting their payloads when we had a sudden catastrophic event. A premature burst of the balloon resulted in a 30-minute delay while a second balloon was located, and another half-hour delay as the second balloon was filled.

The launch took place at 10:01 AM MST. The flight was successful as we live streamed in-flight video from the payload to YouTube. After some adjustments and tinkering, we were able to display the live stream to the Jumbotron.

The balloon burst at 11:15 AM at an altitude of 88,065 feet. We had a picture-perfect landing at 11:56 about 12 miles to the southeast of the launch site near the town of Stanfield.

The picture shows the second the first balloon burst.



# ADAW

# For Sale / Wanted



LOOK!
Great Deals!

# For Sale -

Kenwood TS590s with Power Supply - \$800 Yaesu G450A controller and rotator - \$375

20-foot Rohn tower

Coax and many extras

Cushcraft A4S Tri-band beam - \$350

(20m, 15m, and 10m)

6 meter vertical antenna

Located in Glendale. You must take down tower. All equipment in excellent condition. Will sell entire package for \$1400 or prices listed above. Contact Terry Liesengang, W7TRL at <a href="mailto:liesegangt@yahoo.com">liesegangt@yahoo.com</a>

# 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.

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 <a href="mailto:kjenkins5623@gmail.com">kjenkins5623@gmail.com</a> or Bob Kettler WA6MIO at rdkettler@msn.com.

# 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.



# Arizona Emergency Net – Maricopa (AEN-MAR) 'Tis the Season

A common theme that we hear from new Hams coming into our ranks is that they were motivated to become a ham by the desire to participate in Emergency Communications, Preparedness and Community Service activities.

But where can you learn about them? How can you get prepared? The Arizona Emergency Net – Maricopa meets for training and exercises every Monday night at 9:00 p.m. on the ARA Metrolink frequencies. Join us and find out how!

The net is an activity, and not a separate organization. Check in when you want to. Each week has a topic, so you might learn about storing batteries one week, how to communicate when repeaters aren't available the next, and how emergency shelters use radio communications in disaster situations after that. No matter what, every week you'll exercise your equipment and learn efficient communications protocols appropriate for emergencies.

The only requirements to participate in the net are a radio, a license to use it, and an interest in using both for the benefit of others.

The Arizona Emergency Net – Maricopa is a safe space to try things out and make mistakes before a disaster strikes. This is what makes the Net a "Can-Do" and "How-To" zone. It's also a great place to learn, develop and hone your skills as a Net Control Station. Being a Net Control Station is without a doubt a challenging, yet very rewarding part of being a proficient ham radio operator.

And when we run into real threats or emergencies affecting Maricopa County, the Arizona Emergency Net – Maricopa activates as a place for information and resource coordination.

In Maricopa County, right now really is the season to participate in disasters by appointment, a.k.a. community service events. Join the Arizona Emergency Net – Maricopa to find out how, hone your communication skills, learn things that will contribute to your preparedness, and discover new ways to be prepared as an effective and efficient Ham Radio Operator.

Join us on the Arizona Emergency Net – Maricopa. You can get more info at: <a href="http://aen-mar.org">http://aen-mar.org</a>





Hello all. Since this notice is after the holiday period, I hope all received the items on their wish list.

We are starting a new year with many hamfests and activities to participate in. Our Ham in the Park (HIP) is going well with more training on the FUSION Digital systems. Our Saturday morning breakfasts are being well attended. Our preparation for our hamfest work is going forward . . . with a few stumbling blocks

Interest has been express with operating in the 'WINTER FIELD DAY.' Many years ago Walt N7IZM approached the ARRL about having a winter field day. At that time, there was little interest from most of the country. I think those hams didn't feel comfortable in the snow, etc. At the same time, us desert dwellers don't appreciate the HOT of the Summer. Now we do have a Winter field day

With all the Public Service Events, Hamfests, and Contests we are looking at a very busy spring.

Have a great New Year Paul W7EFQ



#### **SARC CONSTANTS:**

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

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





The Yavapai Amateur Radio Club would like to wish everyone a wonderful new year in 2019. It is our sincere hope that all of you enjoy the upcoming year with good health and great contacts.

YARC elections were held during November and we would like to take this opportunity to introduce you to our new Officers and directors. Our incoming President is Bill Noe, W7PVA. Continuing as VP is Joe Thomas KG6IDN, Also continuing is our Secretary Art Jackson KA5DWI, and incoming Treasurer is Jim Fortney K6IYK. Kathy Laing KJ6KMK will join the board as past President, with newly elected board members Sandy Meadowcroft KF4JHC, Ray Kolman KI7COM and Dave Erlach W7VSX. The new officers and board members take office in January.

YARCs hamfest committee has begun preparations for the 2019 Prescott Hamfest at Embry-Riddle Aeronautical University. The fest will include all the traditional things like tailgating, vendors, food, license testing and seminars. The dates will be May 31 and June 1, 2019. Details can be found on the club website as they are finalized. Advance purchase of Grand Prize tickets will be available soon (perhaps by the time you read this). Be sure to mark your calendars.

As an ARRL Special Service Club, YARC continues to provide communications for several local and regional events. The next event scheduled is "Run Sedona" on February 2. While mentioning public service, we would like to recognize Rob Redford KG7LMI, who is recipient of the Lloyd Halgunseth Memorial Award for outstanding leadership in public service and emergency communications. Recognition in the form of a Lifetime Membership was given at the November meeting to former President and Hamfest chairman, Frank Bender K8FB. Frank continues to provide outstanding leadership service and commitment to the club. Thank you Frank.

Amateur licensing continues to be a big part of YARCs service to the community. Our next license test will be on January 19, 2019. If you are in the Prescott area and want to get licensed or upgrade, we will be pleased to serve.

The Yavapai Amateur Radio Club encourages community members and those of other local clubs to join us for our monthly meetings. We continually strive to make our programs interesting by addressing as many facets of amateur radio as possible.

# YARC Continued from Previous Column

Meetings are held the first Thursday of the month (most months, check our website) in the Freeman Building in the Prescott Rodeo Grounds, 840 Rodeo Drive, Prescott, AZ 86305. Meetings start at 7:00 PM. For program information and directions check our website at www.w7yrc.org



Rob Redford is presented the award by Bud Semon



President Kathy Laing presents the lifetime member award to Frank Bender





Martin Luther King, Jr Day January 21, 2019

# Hamfest Calendar

12 January 2019 - **Thunderbird Hamfest** - hosted by the Thunderbird Amateur Radio Club will be held at Glendale Nazarene Church, 5902 W Cactus Road in Glendale. Hours are 8:00 AM until Noon. General Admission: \$5.00 per person with one door prize ticket. Under 12 if Free. Tailgate/Vendor spaces - \$10.00 per parking spot with 2 admissions. Set up Friday after 5:00 PM and Saturday after 6:00 AM. Grand Prize Drawing at 11:00 AM. Seminars, ARRL QSL Card Checking. VE Testing 10:00 AM - 11:00 AM. Talk-In Frequency: 147.040 MHz PL 162.2. No Firearms, Alcohol, or Drugs Permitted. For latest information, visit <a href="http://www.w7tbc.org/content.php?348-hamfest">http://www.w7tbc.org/content.php?348-hamfest</a>. Email <a href="https://www.w7tbc.org">Hamfest@w7tbc.org</a> for more information.

20-26 January 2019 - Quartzfest 2019 - This year's event will be held seven (7) miles south of Quartzsite, AZ on US95 at La Paz Valley Road. A week long event with Seminars and Activities for everyone. VE Testing Available. Food, Movies, 4x4 Off Road Trip, Campfires and More. Everything is free and everyone is welcome to attend. For more information, contact Kris, KR1SS at <a href="mailto:kristynweed@gmail.com">kristynweed@gmail.com</a> or visit web site at <a href="mailto:www.quartzfest.org">www.quartzfest.org</a>.

15-16 February 2019 - Yuma Hamfest - hosted by the Yuma Amateur Radio Hamfest Organization will be held at the Yuma County Fairgrounds, 2520 E 32nd Street in Yuma. Gate Open for Camping Thursday, February 14th at 2:00 PM. Event Hours: Friday, Noon - 5:00 PM and Saturday, 8:00 AM - 5:00 PM. Vendor Setup starts Friday, 7:00 AM - Noon. Admission - \$5.00 per person. Consignment Sales Available. VE Testing, On-Site Camping Seminars and Speakers, Hospitality Area, Balloon Launch Antenna Clinic and more. Visit the web site at www.yumahamfest.org for more information or email info@yumahamfest.org.

16 March 2019 - **SpringFest** - hosted by the Scottsdale Amateur Radio Club. Location will be announced. Tentatively - hours are 6:00 AM until 12:00 noon. Overnight RVs are welcome. Refreshments, VE Testing, Tailgating and more. Talk-In: 147.18 (PL 162.2). Contact: Ed Nickerson, WU7S at 480.949.5162 or email at <a href="mailto:enickerson427@aol.com">enickerson427@aol.com</a>. Visit the website at <a href="mailto:http://www.scottsdalearc.org">http://www.scottsdalearc.org</a> for all the latest information.

20 April 2019 - **April Hamfest at DeVr**y (date tentative) hosted by the Arizona Amateur Radio Club and the Arizona Red Cross Communications Club will be held at DeVry University, 2149 W Dunlap Avenue in Phoenix. Hours are 6:00 AM to 11:00 AM. Admission Donation: \$2.00. Tailgate Spaces: \$10.00 each. VE Testing in school library at 9:00 AM. DX QSL Card Checking from 9:00 to 10:00 AM. Commercial Vendors - Tailgaters - Prizes - Coffee - Doughnuts - Sodas. Talk-In on 147.060 (+) PL 162.2 Hz. Contact Gary Hamman at k7gh@arrl.net or 602.996.8148 for information or to reserve a space.

4 May 2019 - Cochise Hamfest and 7th Region Communications Exercise - hosted by the Cochise Amateur Radio Association will be held at the club site, 2756 South Moson Road in Sierra Vista. Gates open at 7:00 AM. Free Admission and Parking. Tailgating - \$5. Inside Table - \$10. VE Testing from 9:00 until 11:30 AM. Coffee, Pastry, and Drinks Available. Hourly Prizes with Main Prize drawing at 12:00 Noon. Talk-In on 146.76(-) Pl 162.2 Hz. Watch for more details.

31 May - 1 June 2019 - 2019 Prescott Hamfest at ERAU - hosted by the Eagle Amateur Radio Club at ERAU and the Yavapai Amateur Radio Club will be held at Embry Riddle Aeronautical University (ERAU), 3700 Willow Creek Road in Prescott. Hours are: Friday, 7:00 AM - 4:00 PM and Saturday 7:00 AM - 3:00 PM. Seminars, Tailgating, Vendors, DXCC Card Checking, Prizes. General Admission \$5.00 - Good for Both Days. Tailgate \$10.00 per parking space, each additional space \$5.00. Inside Commercial Vendor Table - \$25.00, each additional table \$10.00. Talk-In Frequency: W7YRC 146.880 MHz (-) PL 100 Hz. No Guns, Drugs, Alcohol, Smoking, Vaping, or Fireworks per ERAU Policy. Leashed or Caged Animals permitted in Outside Public Areas ONLY. For up-to-date info, visit the website at <a href="https://www.prescotthamfest.com">www.prescotthamfest.com</a>

27 July 2019 - White Mountain Hamfest - hosted by the Kachina Amateur Radio Club will be held at 1101 Woodland Road in Lakeside. Overnight camping may be available. VE Testing, Demonstrations, Hourly and Grand Prizes, Tailgaters, and Refreshments. Further details to follow. Visit the web site at <a href="www.kachinaarc.org">www.kachinaarc.org</a> and click on "Hamfest" or email <a href="mailto:info@kachinaarc.org">info@kachinaarc.org</a> for up to date information.

26 October 2019 - Copafest 2019 - hosted by the Maricopa Amateur Radio Association will be held at the UltraStar at Ak-Chin Circle, 16000 N Maricopa Road in Maricopa. Hours are 7:00 AM until 1:00 PM. Admission Donation is \$5.00 per person. Spaces are \$10.00 for two parking spaces. Setup begins at 5:00 AM. Balloon Launch, VE Testing, Card Checking, Vendor Exhibits, Seminars, Prizes and more. Many activities available in the Multitainment Center including laser tag, bowling, movies, games, dining and more. Dining and Hotel also available. For information, email <a href="mailto:fest@copafest.org">fest@copafest.org</a> or visit the website at <a href="mailto:www.copafest.org">www.copafest.org</a>.





Seasons' Greetings to all CADXA members and your families from the Finkel family. May 2019 be filled with good DX and sunspots as we, hopefully, begin the move to a new solar cycle.

There is no regular meeting in January because it is the month when we hold our annual CADXA Awards Banquet. The Banquet will be held on Saturday night, January 19, 2019 at the PERA Club. We will have a no-host bar for our Social Hour, 6:00 – 7:00 p.m., followed by dinner. The program will be given by Don Sears, N7PLL: "From Camera to TV: How the Olympics get from the ski slope to your home."



Don Sears, N7PLL, is a fairly new ham with 46 years in television broadcast engineering and four Technical Team Emmy Awards for working at nine Olympics. His presentation will focus on his trip to PyeongChang, South Korea covering the 2018 Winter Olympics for NBC-TV. He was doing technical support for editing systems at the Snowboarding and Free Style Skiing events. The talk will be somewhat technical and somewhat travelogue, but mostly a month behind the scenes at the Olympics as seen through Don's camera.

The dinner menu is expected to be the same as the one we enjoyed so much last year: Top Sirloin Steak & Chicken Marsala (served so everyone can have a little of both), Mashed Potatoes, Green Beans, Garden Salad, Iced Tea, Lemonade, Chocolate Cake. A Vegetarian option is available if ordered in advance.

Awards will be given out and if you have a nomination for DXer of the Year or the Presidential Service Award, please send it to me ASAP. Also, please be sure to get your numbers into Larry, WO7R, so he can determine who will take home the DXpedition Master trophy and the other activity awards for 2018.

We need your Banquet reservations and payment in

Continued Next Column



# CHAPTER 16 BARRYM.GOLDWATER ARIZONA CHAPTER

Have you been a ham for at least 25 years? Then celebrate by joining the Quarter Century Wireless Association!

The Barry M. Goldwater Chapter 16 Arizona chapter has four lunch meetings a year with fabulous speakers. Check us out at <a href="http://www.azqcwa.org/we">http://www.azqcwa.org/we</a> are also on Facebook at <a href="https://www.facebook.com/AZQCWA">https://www.facebook.com/AZQCWA</a> We are always looking for speakers and great lunch locations. Let us know.



# CADXA Continued from Previous Column

advance of the event so we can provide a firm number to the PERA Club. The Banquet cost is the same as last year, \$30 per person. All reservations go to the CADXA Treasurer: Alton Chaney, W7ACX, 722 N. Robson St., Mesa, AZ 85201. His email address is W7ACX.480 [at] gmail.com. We cannot take walk-ins the night of the Banquet. You can also include your \$25 dues for 2019 when you send a check to Alton.

I am looking forward to seeing you at the Banquet. This will be our last one at the current PERA Club facility because it will be replaced at the end of 2019 by the new building now under construction in the old parking lot. Speaking of which, please use the new parking lot south of the meeting rooms – follow the signs. We should have a PERA Club golf cart available to provide rides from the south parking lot to the building for those who need it on the night of the Banquet, beginning at 6:00 p.m.

It has been my honor to serve as your President these past three years. CADXA remains in excellent health, both financially and in membership numbers (140). Let's keep the momentum going and let's all have a fantastic, DXciting 2019!!!

73, Lee, KY7M CADXA President

# 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.

# January Test Sessions

Jan 3rd - PV Ham Study Group -- 6:30 PM
Trinity Lutheran Church, 3950 N Valorie Dr, Prescott Valley
Contact - J M Scherfling 928.632.2050
No Walk-Ins - Call to Pre-Register

Jan 3rd - 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

Jan 5th - NOMADS -- 9:00 AM

Venture Out RV Resort, 5001 E Main St, Mesa

Contact - Robert Bingham 480.404.1408

No Walk-Ins - Call Ahead

Jan 5th - DeVry ARC & WVARC -- 9:00 AM
DeVry University Library, 2149 W Dunlap Ave, Phoenix
Contact - David Morrill 623.680.5011

Jan 5th - Oro Valley ARC -- 10:30 AM
Ascension Lutheran Church, 1220 W Magee Rd, Tucson
Contact - Quinton Gleason licensing@tucsonhamradio.org

Jan 7th - West Valley ARC -- 6:00 PM
Desert of the Shepherd Lutheran Church, 11025 N 111th Ave,
Walton Hall, Sun City
Contact - David Morrill 623.680.5011

Jan 12th - NOMADS -- 9:00 AM

Venture Out RV Resort, 5001 E Main St, Mesa

Contact - Robert Bingham 480.404.1408

No Walk-Ins - Call Ahead

Jan 14th - Radio Society of Tucson -- 7:00 PM
Hardesty Mid-Town Police Bldg, 1100 S Alvernon, Tucson
Contact - Diane Zimmerman 520.664.5070



Continued Next Column

# Test Sessions Continued from Previous Column

Jan 15th - Hassayampa AR Klub -- 2:30 PM
Home, 30645 S Wandering Way, Escapees North Ranch, Congress
Contact - Charles Carter 316.651.7710
No Walk-Ins / Call Ahead for test and location info.

Jan 15th - Boy Scout Troop 127 -- 8:00 PM St Francis Xavier School Library, 4715 N Central Ave, Phoenix Contact - John Kelly 602.264.6854

Jan 16th - Thunderbird ARC -- 6:00 PM Honor Health Medical Office Bldg, 19841 N 27th Ave, Phoenix Contact - James Skinnell 602.826.1949

Jan 19th - Coconino ARC -- 9:00 AM North Country Healthcare, 2920 N 4th St, Ate A1, Flagstaff Contact - Roderick Martin 928.527.1139

Jan 19th - Yavapai ARC -- 9:00 AM
Jeep Posse Bldg in Pioneer Park, 1200 Commerce Dr, Prescott
Contact - Donald Bauer 928.775.4690
Pre-Register online: www.w7yrc.org

Jan 20th - East Valley VE Team -- 6:00 PM
City of Mesa Utilities, 640 N Mesa Dr, Mesa
Contact - Fred Bolinger 480.242.8606

Jan 26th - NOMADS -- 9:00 AM

Venture Out RV Resort, 5001 E Main St, Mesa

Contact - Robert Bingham 480.404.1408

No Walk-Ins - Call Ahead

Jan 26th - Arizona ARC -- 7:00 PM
American Red Cross, 4747 N 22nd St, Phoenix
Contact - Gary Hamman 602.996.8148
No Walk-Ins - Call Ahead



# 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



This month we had a successful WVARC luncheon which took place on December 3. Both April, KI7GFJ and my wife, Carol worked very hard to pull it off. Bill Ciccone, KA2KHV provided his talent and entertained us throughout with his keyboard and singing. A very special thank you to Doug Totel, K9RZ and Dick Stout, KE7RD.

The business portion of our upcoming January 7th meeting includes a presentation of our club's proposed revisions for By-Laws, Mission Statement and Constitution as well as several other proposals.

Two of our members were voted Hams of the Year: Jim Rogers N7YTI and Manny Blanco K7QLD.

Currently, the Membership Chairman and a member of the Technical Advisory Committee, Jim has held the Board position of Treasurer and was even the club's President in 2017. Before working so hard as a volunteer, Jim was with Ma Bell for 30 years with one of his favorite times maintaining several different types of radios including pagers, mobile radios, IMTS radios and Microwave radios.

Manny has been a ham and a member of this club for a little over a year, earning his General License in January of this year. Manny has been a Board member, is currently the V. President, a member of the Technical Advisory Committee, Net Control for the Sunday/Funday Net, Chairman of Winter Field Day and Chairman of the Annual Auction.

The main event at our January meeting will be a review and explanation of Winter Field Day. The Winter Field Day Association (WFDA) is a dedicated group of Amateur Radio Operators who believe that communications in a winter environment is just as important as the preparations and practice that is done each summer, but with some additional unique operational concerns.

All Amateur Radio operators around the world are invited to participate. There are three entry categories — indoor, outdoor, and home. The rules are similar to those for ARRL Field Day. Operation will take place on all HF bands except 12, 17, 30, and 60 meters, as well as on VHF, UHF, and satellite.

Manny, K7QLD has been heading up this event since its consideration by our club. He and the field day committee members have done an extraordinary job of procuring a site

# WVARC Continued from Previous Column

and organizing down to the minutest detail. The hours of operation are from noon MST January 26 to noon January 27 with setup and tear down time additional. The site for Winter Field Day is the Pleasant Valley Airport. Weather forecast for that weekend is sunny and 76 degrees with a special emergence of the sunspots.

On February 4th, we will have our annual auction of equipment at the Shepherd of the Desert Church 11025 N. 111th Avenue Sun City, Arizona 85351. Doors open at 6:00 PM for Buyers. It will include vintage parts, tubes, circuit boards, power supplies, radios, microphones & manuals, transformers, coils, insulators, collectibles, tools and much more. For questions, please contact Auction Chairman Manny Blanco, K7QLD, for more information: SUNCITYWVARC@GMAIL.COM









To commemorate Pearl Harbor Day, the club operated its special event station from the USS Arizona Mall Memorial at The University of Arizona. This was a joint event with The University of Arizona's K7UAZ Amateur Radio Club. Gary Grindle, the president of the UA club was a tremendous help in organizing the event and getting the necessary permissions from the University.

For those that struggle with antennas at their own QTH, operating from the University's station with big antennas, was great fun. When operations began at 9AM, there was a nonstop pile-up of stations wanting to make contact with us. We were definitely the hunted. By mid afternoon we had just under 500 QSO's. Many of the stations we contacted had a personal connection to the USS Arizona or other ships that were in Pearl Harbor. They all expressed their appreciation for honoring their friends and family with our special event station. Special thanks to Frank – N1UW, Ken – K7EAZ and Roger – K7ROG for organizing and putting the operation together.

OVARC has been very fortunate to have received several donations throughout the year. Some have come from our own members and I am very grateful to them for their contribution. We have also received a number of radios and other equipment that will be attractive items for our 2019 hamfest which is already in the planning stages for November 9, 2019.

2018 has been a great year for OVARC. The club is more "radioactive" than ever, our membership has grown and our technical leadership/education is experienced daily by those that operate our repeater system. My thanks goes out to everyone that has helped make OVARC such a great organization. Special thanks to Tom, W8TK for his dedication to Field Day and our monthly operating events. Our robust repeater operations would not be possible without the repeater committee and especially Gary – KT7AZ and Jim – W5ZIT. Thanks to Scott – K7ADX for his many years of continuous service to the club and I look forward to his continued help and advice in 2019. Thanks to George NG7A for his service to the club; I wish him best success in his new position. For countless hours of advice and strategizing, I thank Howard KC7AC, Roger K7ROG, Bob KA7VPR and Bob AF9W. Your help is greatly appreciated. Finally, thank you to the OVARC Directors who are there at every meeting and every event pitching in to help the club prosper – that's you Fred, Ross, Hanna, Carl, Gary and Marnee.



We would like to begin this month's message by saying to all that Kachina hopes everyone had a fantastic Thanksgiving! Thanksgiving is always a great time for friends and family to get together, enjoy the day, catch up on the happenings of the year, all topped off with a delicious meal. We hope all had a wonderful day!

November was a busy month for some and a rather laid back month for other members of Kachina ARC. The high point of the month was the monthly meeting at which time the club elected officers for 2019 and following that, planning has started for the coming year. It was also decided that Vince Cattolica, KA7JOI, will officially be the ARCA representative from Kachina.

On 1 Dec, Kachina sponsored its last VE test session for the calendar year. There were two tests taken and we are happy to announce the community has a new Tech licensee and a new Extra Class licensee. In addition to the successful test session, the VE Coordinator for Kachina presented, and it was agreed to, that Kachina will be switching our license processing link from ARRL to Laurel VEC. The objective is to eliminate the \$15 fee per applicant charged by ARRL. In addition, it is also expected that new licenses will be issued more quickly than has been the case in the past.

On behalf of Kachina ARC, I wish all a Merry Christmas and a Very Happy New Year.



# **OVARC** Continued from Previous Column

As busy as we all are, most are looking forward to some downtime around the Christmas and New Years Holidays. It's a good time to get the shack organized and get your antennas in shape because the sunspots will return someday. Best wishes to all ADAW readers for a Merry Christmas and a Happy New Year.

73, Steve, W1SR



# President's Corner

Steve, KB7KWK

The 2018 Superstition ARC SuperFest is now behind us and it is time to start planning for 2019. This hamfest was the best the club has ever seen passing even last year as far as attendance, tailgaters, vendors, sponsors, and money made for the club. Our club Treasurer Douglas, W7ADD will tell everyone the good news at the Christmas dinner on December 11th at the Golden Corral.

I want to thank John Wolven, KG7NSP and the entire SuperFest crew for your hard work all year to make this hamfest run smooth and easy. I also would like to thank each and every person who came out to help set up on Friday and those who came out early on Saturday morning to work at the event. Without all your help things would not go well. I think this was the best turn out of people to come out on Friday to help out. We all actually got to go home and get a little sleep Friday night. THANK ALL OF YOU SO MUCH.

I also would like to thank Gordon West for coming out to the SuperFest. He may not think so, but he is kind of a celebrity in the ham radio world and I was honored to meet him. It was just as much an honor to meet Fred Lloyd, AA7BQ President and Founder of QRZ. It is QRZ's 25th anniversary and the club celebrated with them for a while with a big cake the SuperFest crew had made for them. That was a highlight of the day. Congratulations Fred and the QRZ team.

Thank you to all the guys in the Central Arizona Mesh group for coming out and setting up the mesh stuff and putting on some presentations. Also thank you to Andy, KD4ABB for your stealth antenna presentation. This was the first time we have ever had presentations at the hamfest and all was good. I think we will offer more next year.

Thank you to Dan, W7TWR for bringing out the monster tower and Hex beam antenna. I think the crew at the GoTo Station had a blast. We know it takes a lot of work to bring that thing out and set up all the equipment and we all appreciate you for it. Thanks also to Bill, N9EIV for bringing out the bucket truck to help put up the sound system for the event.

# **Board Election Results from November**

Steve Estes, KB7KWK will serve his eleventh year as President of the Club in 2019, along with VP Andy Keels, Secretary Brent Butler and Treasurer Douglas Mitchell.

On the Board, two seats have changed hands with new officeholders Rod Fritz – WB9KMO and Tony Manzo – W7KLV being elevated to the Board. Congratulations!

# Superstition Continued from Previous Column

Please see Page 3 of the Member Clubs section for our 2019 Officers and Board at the front of this ADAW.

# **Christmas Party SuperFest Report**

The club had a turnout of 52 at our December Christmas Party and they got to hear the figures in the outcome of the December SuperFest.

It was a wonderful day in so many ways and a great turnout and good weather for our December 1<sup>st</sup> SuperFest. We had QRZ,com's founder and owner Fred Lloyd, AA7BQ and amateur radio study materials publisher Gordon West, WB6NOA, present. Virtually everyone reading this has either used or heard of Gordy's study guides

We drew 675 attendees with over 120 commercial + tailgate vendors – the space was FULL! Mesa Community College Amateur Radio Club (KM7CCO) sponsored the classrooms we used for VE Testing and Presentations. Mesa Community College ARC, we thank YOU!

You may see numerous companies' on our websites being thanked for their many contributions of hourly prizes. The club wants to thank them all here, and if you see their sponsorship credits, please order something from these great supporters of the Superstition SuperFest!

The club came out in the black with room to spare.

Thank you to all who came and made 2018 one of our biggest success stories! The club starts work on preparing for Saturday, December 7, 2019 on January 15 at 6:15 PM ahead of our 7:00 PM General Meeting in the next room.

# December 18, 2018 Special Board Meeting Called

A special Board meeting has been called for this third Tuesday, December 18, 2018 at the Black Bear Diner to introduce our new Board members. On the agenda is a discussion to set the procedure for the Junque Auction. Page 3 in ADAW has our Board meeting time and address.

The next article has been written before that meeting takes place. Please see the Superstition ARC (.org) website for exact details.

# January 15, 2019 Junque Auction and Club Meeting 7:00 PM - Mesa

Using past auctions as a guideline, I can suggest this much: Sellers, please arrive no later than 6:00 to 6:15 PM to be checked-in. Please bundle items or accessories to be sold together ahead of arrival. A user manual is a good selling point, too. It will help us if you include a description, working order, accessories, and optional minimum bid.

Bidders, please arrive by 6:15 to 6:30 to browse the auction and receive a bid card.

Meeting starts at 7:00 PM, with bidding to begin soon after. Thank you for taking part!

73, Larry Kuck, WB7C, for Superstition ARC

# Help Wanted

The Arizona Frequency Coordination Committee is looking for someone to take over the database conversion effort. We are looking for an individual with programming skills to help convert, maintain and add functionality to the state's official coordinated repeater databases.

You must be proficient in Microsoft Office – especially Excel. Experience in BASIC, VB (or any other programming language) is preferred. A few days out of the month, is all that's required.

Please contact Lance Halle for more details if interested - lance@hallesservice.com

73,

The Arizona Frequency Coordination Committee www.azfreqcoord.org

# No Reports Received









# Superstition ARC Repeaters

**147.120 MHz** (+) 162.2 Hz - Usery \*

448.275 MHz (-) 100.0 Hz - Usery - FUSION

449.600 MHz (-) 100.0 Hz - East Mesa \*

KB7KWK-L Echolink Node 538499 \*

\* - Linked Full Time

# Club Nets

Morning Drive Time Net: Mon-Fri, 7:00-8:00 AM - Trivia City of Mesa CERT Team Monthly Net: First Tuesday of month, 7:00 PM

**Weekly 6 Meter Sideband Net:** Wednesdays, 7:00 PM on 50.140 MHz, W7ASL-L EchoLink, and 145.575 FM Simplex **Club Net:** Wednesdays, 8:00 PM - Discussion, Elmer Q&A. **Mesh Information Net:** Mondays and Thursdays, 7:00 PM - Net control Steve, KB7KWK

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

**Club Membership** is open to anyone with an interest in Amateur Radio. Visit: <a href="https://superstitionarc.org">https://superstitionarc.org</a> for more information.

# Superstition SuperFest

The Superstition SuperFest is held on the first Saturday of December. Visit <a href="www.superstitionsuperfest.org">www.superstitionsuperfest.org</a> for the latest information.











In December the Thunderbird Amateur Radio Club goes into holiday mode. Our usual meeting date of the third Thursday of the month is way too close to the 25th for everyone's comfort, so instead we hold a party on the second Tuesday of the month.

This makes things tricky for the newsletter. Our current president, Brian AK7F will announce the new executive at the party, and will also let us know who the Ham of the Year is this year. But as I write this, that announcement is still in the future. So instead I'll go over some of the highlights that the club did in 2018.

This was our first year as a 501(c)(3) organization. We moved to a new Gmail mail system. We participated in the Arizona Science and Technology Festival. We got new hard plastic badges. Our repeater system has been significantly improved, and now reaches most of the Valley on 2m and 70cm. We had a successful Field Day (although we didn't quite surpass Post 599 for points - next year)! Our Extra class gave several hams the freedom to transmit anywhere in band. We're in the process of revitalizing our emergency communications activities. We moved our hamfest to a new location, which we hope will lead to mutual benefit and more friendships. And we hit top score in the AZ QSO Party for "Multi-Op Unlimited Tx - Arizona."

What's coming up in 2019? I know our executive is interested in getting more events to operate radios, more excellent presentations, more workshops to build and make things, and more educational opportunities. And that's where you come in. The new executive wants you! Do you have something you can share with your fellow hams? Have you made something you'd like to show others how to make? Can you teach five new hams how to solder? Send mail to info@w7tbc.org and let us know - together we'll make it happen!

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. Because we don't have a board meeting in December, as of press time I'm not sure who the presenter will be. Which is as good a reason as any to come see who ends up presenting! Find out about a topic



# **Arizona Red Cross Communications Club**

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

On behalf of the ARCCC, Happy Holidays!

Your Humble Scribe, Mark, N7KKQ



# TBARC Continued from Previous Column

in ham radio - something you haven't heard before, or maybe something where you're an expert and can contribute your knowledge. Join us at the meeting!

Andrew Cornwall KF7CCC kf7ccc@arrl.net



Alana, KG7NGF (Election Committee)
with the Ballot Bag



For more information, visit my web site or email/call me.

www.K7VZ.com k7vz@arrl.net 623-850-1441

# Vote Virgil Silhanek K7VZ for ARRL Arizona Section Manager

- Arizona needs a leader with the energy, experience, and can-do attitude to represent all clubs and individuals.
- We should be working together, one united section.
- We need to focus on properly using all modes of communication (radio, newsletters, email, social media, etc.) to promote amateur radio in Arizona.
- Appoint and support all section level volunteers to effectively represent amateur radio in the areas of emergency communications, volunteer monitoring, government relations, and public relations.
- Recruit and provide training to new hams. More than getting them to pass the Technician test, we need to provide them the tools to become active, productive, and involved members of the ham community.

Vote for Virgil K7VZ in January 2019



# **Rick Pacquette W7RAP**

CANDIDATE FOR ARIZONA ARRL SECTION MANAGER

CURRENTLY: ARRL-AZ SECTION MANAGER W7RAP@ARRL.ORG AZPAQUETTES@GMAIL.COM

- Rick (W7RAP) has been a Radio Amateur since 1975 and holds an Amateur EXTRA class license.
- He retired as Design Manager at Hughes/(Raytheon) in 2007.
- He has served as ARRL Section Manager since 2017, as Assistant Section Manager from 2011 through 2017, and as a ARRL VE team lead since 1998.
- Rick is certified as a VE with the ARRL, W5YI, and Laurel VECs.
- For over Ten Years he led VE teams conducting test sessions at AZ State conventions and Hamfests.
- He has been making ARRL presentations at major hamfests and activities throughout Arizona since 2004.
- He is a ARRL registered License Instructor as well as one of Gordon West's (WB6NOA) certified Instructor/ Elmers: He participates with Gordo in making presentations at Arizona Hamfests.
- He is past President of the General Dynamics Ham Club and Catalina Radio Club in Tucson.
- He is currently a member of several Amateur organizations: CADXA, SARBA, CARBA, Kachina, and the Cactus Intertie System.
- Has been an AMSAT member, ARES qualified in 1990. RACES certified in 1993. and is a former ARCA representative.
- He maintains a linked UHF Remote Base repeater at his home in Oro Valley, and a Repeater and APRS Digipeater on Greens Peak.
- He participates daily in HF Nets, UHF Nets and D-Star. Meet him on 3.933 MHz any evening at 5:30 PM.
- Rick has been mentoring young Arizona Hams for years, His goal is to help assure that new Hams are welcomed into our activities.
- He wants to boost the number of Arizona Amateurs and get more of them involved in ARRL activities throughout the state.

# HAM RADIO OUTLET

WWW.HAMRADIO.COM

# Special HRO Holiday Pricing!



# IC-9100 | The All-Round Transceiver

- HF/50MHz 144/43vvv0 (440) MHz and 1200MHz\*1 coverage
   100W on HF/50/144MHz, 75W on 430 (440) MHz, 10W on 1200MHz\*1 Double superheterodyne with image rejection mixer

# IC-7851 | HF/SOMHz 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



# IC-7700 | HF/50MHz Transceiver

The Contester's Rig • HF + 6m operation • +40d6m ultra high intercept point • IF DSP, user defined filters • 200W output power full duty cycle • Digital voice recorder



# IC-7610 | HF/50 MHz All Mode Transceiver

 Large 7-inch color display with high resolution real-time spectrum scope and waterfall \* Independent direct sampling receivers capable of receiving two bands/two modes simultaneously



# IC-7300 | HF/50MHz Transcelver

 RF Direct Sampling System • New "IP+" Function • Class Leading RMDR and Phase Noise Characteristics • 15 Discrete Band-Pass Fitters • Built-in Automatic Antenna Tuner



#### IC-7200 | HF Transceiver

 150-10M • 100W • Simple & tough with IF DSP • AGC Loop Management • Digital IF Filter • Digital Twin PBT • Digital Noise Reduction • Digital Noise Blanker • USB Port for PC Control



# IC-7100 | All Mode Transceiver

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



#### 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 • IF shift • 101 memories.



# IC-2300H | VHF FM Transceiver

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



# 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® headest • Easy-to-See large white backlight LCD • Controller attachment to the main Unit



# IC-R8600 | Wideband Software Defined Receiver

 10 kHz to 3 GHz Super Wideband Coverage • P25, NXDN™, dPMR™, D-STAR Mode • Large Dot Matrix LCD Display w/ Quick Spectrum Scope • SD Card Slot • Remote Control Function



#### ID-5100A Deluxe

#### VHF/UHF Dual Band Digital Transceiver

 Analog FM/D-Star DV Mode • SD Card Stot for Voice & Data Storage • 50W Output on VHF/LHF Bands • Integrated SPS Receiver • AM Airband Dualwatch



# ID-4100A | VHF/UHF Dual Band Digital Xcvr

 Compact, Detachable Controller for Flexible Installation •
 DV:FM Near Repeater Search Function • Ages for iOS™ and Android™ devices • Wireless Operation with VS-3 & UT-137 Bluetooth® Headset & Module • MicroSD Card Slot



# IC-R30 | Digital/Analog Wideband Xcvr

- 100 kHz to 3.3 GHz Super Wideband Coverage •
   P25 (Phase 1), NXDNTM, dPMRTM, D-STAR Mode
- 2.3" Large LCD Display & Intuitive User Interface
   MicroSD Card Slot for Voice & Data Storage USB Charging & PC Connection
- ID-51A PLUS2

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



Happy holidays to all of you from all of us at HRO Phoenix!

Thank you for a great 2018 & we look forward to seeing all of you in 2019!

. . . and in case you need to grab something, we are open on 12/24 and 12/31 from 10 a.m. to 3 p.m.

(We are closed 12/25 and 1/1/19)

Now serving you at our Phoenix store:

Manager Mike KB6VHF, Steve W7QY, Mike K7DD, Jim K7EOG, Jim KE7EEU, and Laura KB6UHF