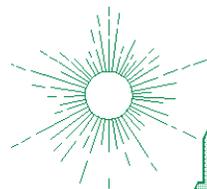


ADAW

4529 W. Park Place
Glendale, AZ 85306-1512



Happy Holidays!



ADAW

Arizona Desert Aire Waves

Vol 41, No 12 December 2016

CLUB MEETINGS SCHEDULE

QCWA

December
TBD
Cave Creek Area
11:00 AM

WVARC

Dec 5th
St Clement Catholic Church
Social Hall
7:00 PM

SuperstitionARC

Dec 20th
Charles K Luster Bldg
7:00 PM

ARA

Jan 26th
Denny's Restaurant - Tempe
7:30 PM

CLUB MEETINGS SCHEDULE

SARC

Dec 7th
Scottsdale Culinary Arts Facility
7:00 PM

AARC

Dec 8th
Red Cross Bldg. - Phx
6:30 PM

MARCA

Dec 20th
Denny's Restaurant - Tempe
6:30 PM

MARA

Dec 31st
Barrow's Pizza - Maricopa
9:00 AM

OPRC

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

TBARC

Dec 13th
Old Country Buffet
17125 N 79th Ave - Glendale
6:00 PM

ANSR

Dec 19th
via Skype
7:30 PM

YARC

Dec 1st
Mile High Middle School
7:00 PM

CARL

Jan 21st
AZ Science Center
TBA

CADXA

Dec 1st
PERA Club
7:00 PM

OVARC

Dec 16th
Ascension Lutheran Church
7:00 PM

ARCCC

TBD
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	Mike Zachary	KG7OSR	
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	Vince Jenkins	KC7IUI	vince.jenkins@meggitt.com
Secretary	Kim Jenkins		vince.jenkins@meggitt.com
Treasurer	Bill McLean	K7WWM	bmclean1@gmail.com

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

THUNDERBIRD AMATEUR RADIO CLUB

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

President	Gary Duffield	WK7B	602.843.7724
Vice President	Chris Johnson	K6OZY	623.866.2777
Secretary	Gary Cline	AF7BJ	
Treasurer	Darren Johnson	AF7CO	
Board Members	Jim Moore	WB7ENX	
	Rick Tejera	K7TEJ	
	Joe Arnold	AD0X	
	Andrew Cornwall	KF7CCC	
Past President	Walt Reinert	N7GDP	602.938.8219

For further information about the ThunderBird Amateur Radio Club, visit our website at <http://w7tbc.org>, send an e-mail to: info@w7tbc.org or call 602.938.8219. Mailing address: PO Box 83615, Phoenix, AZ 85071-3615.

OLD PUEBLO RADIO CLUB

The Old Pueblo Radio Club meets the **SECOND WEDNESDAY** of each month (except June, July and August) at 7:15 p.m. in the Marshall Conference Center at Tucson Medical Center. Visitors are welcome.

President	Ron Kalish	N7SPW	520.207.3852
Vice President & Treasurer	George Devich	N9IUK	520.760.0125
Board of Directors:	Bill Price	N7GUO	
	Cliff Hauser	KD6XH	
	Jim Ulmer	KC7THU	
	Lin Donnelly	KF7CNR	
WebMaster	Ted Willis	AA7HX	520.790.3828
	(www.oprc.org)		
Trustees:	(all repeaters operating under the K7TRA call)		
Primary	Cliff Hauser	KD6XH	
	146.660, 146.820, 147.220-		
	Paul VanBeverhoudt	KA7LFX	224.06+
Secondary	Ted Willis	AA7HX	146.66-
	Ralph Turk	W7HSG	146.82-
	Paul VanBeverhoudt	KA7LFX	224.06+

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

AZ RED CROSS COMMUNICATIONS CLUB

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

President	Frank Engstrom	KB7IQ	480.209.7300
Vice President	Larry Buchanan	AA0LB	623.703.9161

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



ADAW Member Clubs

BARRY M GOLDWATER, ARIZONA CHAPTER QUARTER CENTURY WIRELESS ASSOCIATION

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

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

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

President	Tom Fagan	K7DF	520.574.1129
Vice President	John Marshall	WA7BST	623.334.2583
Secretary	Clifford Hauser	KD6XH	520.235.7393
Treasurer	Dave Hanson	W7BJ	w7bj@outlook.com
Webmaster	John Marshall	WA7BSR	623.334.2583

Web Site: <http://azqcwa.org> Email: azqcwa@gmail.com.
DUES: \$7.00/year and current national QCWA membership.

MINGUS MOUNTAIN REPEATER GROUP

Meetings are held twice a year, an annual board meeting in Phoenix and a picnic meeting in Chino Valley. Dates, times, and locations are announced in the newsletter.

President	Bob Sitterley	K7POF	928.636.2146
Vice President	Raymond Tyrrell	N6MY	n6my@gmail.com
Treasurer	David Hanson	W7BJ	602.615.3444
Secretary	Lori Cripps	WA7EDI	602.955.7517

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

MARICOPA AMATEUR RADIO ASSOCIATION

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

President	Josh Babb	W3JB	801.358.1078
Vice President			
Secretary	Bob Beltz	KU4ZG	770.680.1204
Treasurer	Heather Canevit	KG7MUY	
Board Members:	Steve Miller	W6SDM	602.290.1603
	David French	N7FAN	480.430.9426
	Bob Howard	W8RH	520-709-6176
	Curt Steger	NA7CS	520-568-9471
	Ronald Beasley	KG7MUV	520-568-4880
PIO:	Steve Miller	W6SDM	602.290.1603
Webmaster:	David French	N7FAN	480.430.9426

The Maricopa Amateur Radio Association is a 501(c)(3) non-profit organization. DUES: \$25.00/year individual, \$30.00/year family. Apply on-line at www.copahams.org. Mailing address: P O Box 3025, Arizona City AZ 85123

WEST VALLEY AMATEUR RADIO CLUB

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

President	Mike Corder	K7MJC	602.439.1303
Vice President	Alex Munro	K7AEM	
Secretary	Sharon Blaylock	KI7DOK	623.584.6974
Treasurer	Jim Rogers	N7YTI	623.214.9219
Membership	Tom Connor	W7TLC	623.444.7956
Club Directors:	Bob Paul	KG7FIL	623.252.0149
	John Siepman	N9NA	630.209.4116
	Martin Fitzpatrick	WB7X	wb7x@cox.net
	Tom Connor	W7TLC	623.444.7956

WVARC, P O Box 1573, Sun City, AZ 85372-1573. DUES: \$15.00/YR for family residing at the same address. MEMBERSHIP YEAR - January - December. Web Site: <http://www.westvalleyarc.org>.

SUPERSTITION AMATEUR RADIO CLUB

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

President	Steve Estes	KB7KWK
Vice President	Jeff Machesky	K7ZLX
Secretary	Jeff Harris	KD2DFE
Treasurer	Douglas Mitchell	W7ADD
Board Members:	Brian Betz	W7JET
	Dale Schmidt	N7QJK
	Dan DeVliieger	KC7MSU
	J.D. Smaylis	KF7VOX
	Andy Keels	KD4ABB
	Charlie Brown	NJ7V
	Steve Gurley	KY7W

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



ADAW Member Clubs

MARCA, Inc. / W7MOT

MARCA is an Arizona 501(c)(3) Non-Profit organization. The club call sign in W7MOT. Membership is open to all amateur radio enthusiasts. Meetings are held the **THIRD TUESDAY** of each month at 6:30 p.m. at Denny's Restaurant located at 1343 Broadway in Tempe (SE corner of Broadway & Priest). Monthly presentations cover a broad spectrum of interesting subjects. Visitors are welcome to attend. Come early for dinner and socializing. Repeater Problem Reports are encouraged. A Repeater Problem or Comment Reporting is available at <http://www.w7mot.org/index.php/repeaters/report-a-repeater-problem>. Site Managers and officers will take reports for any W7MOT repeater. Contacts are found on website. Club activities include providing voice, aprs, packet, DStar, and Fusion repeaters Central Arizona; ARRL Field Day, special interest groups in SDR, APRS, antennas, digital modes.

President	Paul Boyce	KJ7KY	
Vice President	Dave Hall	N7ZPY	
Secretary	Norm Johnson	AA7OO	480.278.2886
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, 1343 W. Broadway, Tempe, AZ, on the southeast corner of Priest and Broadway. 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	Frank Bender, K8FB	president@w7yrc.org
Vice-President	John Stevens, N9JYO	vice_president@w7yrc.org
Secretary	Kathy Laing, KJ6KMK	secretary@w7yrc.org
Treasurer	David Hanson, W7BJ	treasurer@w7yrc.org
Past President	Don Bauer, WB7TPH	wb7tph@w7yrc.org
Board Members	Bill Noe, W7PVA	w7pva@w7yrc.org
	Chuck Zappala, KE7SA	ke7sa@w7yrc.org
	Randy Dashiell, W6TYV	w6tyv@w7yrc.org

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

ORO VALLEY AMATEUR RADIO CLUB

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

President	Steve Wood, W1SR	president@tucsonhamradio.org
Vice-President	Bob Molczan, KA7VPR	vicepresident@tucsonhamradio.org
Secretary	Carl Foster, KB7AZ	secretary@tucsonhamradio.org
Treasurer	Hanna Eckert, KG7TPD	treasurer@tucsonhamradio.org
Board Members	Scott Boone, K7ADX	
	Lanny Voight, KF7LV	
	Ross Eckert, K4WBR	
	Fred Bresani, W2HZ	
	Bob Stephens, AF9W	

DUES: \$25.00/year (Household members living at same address \$15.00 each additional). To join or for additional information, visit website at <http://www.tucsonhamradio.org/>.

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

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

ADAW Member Clubs

CENTER FOR AMATEUR RADIO LEARNING

The Center for Amateur Radio Learning is a hands-on amateur radio station, W7ASC, located within the Arizona Science Center at 600 E. Washington, Phoenix. Board meetings are held the last month of each quarter at the AZ Science Center. Annual meeting for all volunteers is held the **THIRD SATURDAY** of January. Watch ADAW for details.

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

Board Members:

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

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

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

CENTRAL ARIZONA DX ASSOCIATION

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

President	Lee Finkel	KY7M	ars-ky7m@cox.net
Acting V P	Bob Davies	K7BHM	k7bhm@cox.net
Secretary	Bill Poole	AA4Q	bill@poole.com
Treasurer	Alton Chaney	W7ACX	w7acx.480@gmail.com
Past President	Tom Kramer	NQ7R	tkramer@azci.net
Board Members	Larry Loen	WO7R	lwlloen@gmail.com
At-Large	Mickey LeBoeuf	K5ML	k5ml@arrl.net

CADXA, P.O. Box 24616, Tempe, AZ 85285-4646. Email: cadxa@cox.net. Dues are \$25 per year (\$12.50 per additional family member). For more information, DXing resources, and a membership application, visit our website: www.cadxa.org.



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*

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From The Editor's Desk

Happy Holidays!

It's amazing how quickly time goes by. 2016 is drawing to a close and 2017 looms right around the corner.

The last hamfest of 2016 will be held on December 3rd at Mesa Community College. The Superstition Superfest promises to be bigger and better than last year. There will be grand prizes, door prizes and hourly prizes. VE testing will be held with registration from 8:00 a.m. until 9:00 a.m. and testing beginning at 9:00 a.m. ARRL card checking will be available. There will be a special event station to commemorate the USS Arizona, a GOTA station, a fox hunt, and a food vendor as well. Gates open at 8:00 a.m. and the event closes at 4:00 p.m. Don't miss it.

December 3rd is also the annual SKYWARN Recognition Day. From 0000z until 2400z, SKYWARN amateur radio operators will be visiting NWS (National Weather Station) offices and will contact other amateurs across the world. The objective for amateur radio stations is to contact as many NWS stations as possible during the 24-hour period. Operation will take place on 80, 40, 20, 15, 10, 6, and 2 meter bands - plus the 70-centimeter band. NWS stations will work various modes and will append NWS to their call when working digital modes. Exchange call sign, signal report, QTH and a one or two-word description of the weather you are having.

For more information and instructions on submitting your log, visit <http://www.arrl.org/skywarn-recognition-day>.

Have you sent an email to Senator McCain and Senator Flake (for those in Arizona - insert your senators if you're in another state) to urge them to support the Amateur Radio Parity Act? (That is if you support it.) The ARRL is asking for your help. The legislation has passed the House of Representatives and is currently in the Senate in two forms - H.R. 1301 and a packaged bill, S. 253. With the year drawing to a close, it's important to remind every Senator to approve the bill.

There are more than 730,000 licensed Amateurs in the United States. Not all live in deed restricted areas, but the number of those areas is increasing. Send an email today! You can go to the ARRL website at <https://arrl.rallycongress.net/ctas/urge-us-senate-to-pass-amateur-radio-parity-act> and follow the prompts.

Last year, I wrote about all the different names this holiday season goes by - or more accurately - all the different celebrations that are held at this time of the year. So keeping in that vein -

Happy Christmas, Hanukkah, Kwanzaa, Festivus, Chrismukkah, and Winter Solstice! Hope you also have a very Happy and Prosperous New Year! (Happy Hogmanay)

Chris, N7PVL



It is with great sadness that we must pass along news of a great supporter of MMRG, James Craig Ball, WB7UZV. James died on October 20, 2016 at his residence after a lengthy illness. He was net control on the MMRG Tuesday night net for several years, and he was an Extra Class Accredited Volunteer Examiner for the ARRL. He will be missed by all of the MMRG.

A recent note from MMRG board member, Ray Tyrrell, N6MY, tells of his recent radio experiences and expresses his gratitude toward Bob Sitterley, K7POF. We all appreciate Bob's efforts. This is Ray's note:

"Been trying to work some HF QSO's using my preferred mode, CW. HF band conditions have not cooperated with me, so it has been a hit-or-miss proposition over the past few months. Thankfully, I can still maintain some semblance of ham radio activity using the always reliable MMRG repeater. Thanks to Bob, K7POF, for keeping the repeater in great working order."

I, too, appreciate both Bob and Linda, and I recently bought them a Christmas present that they haven't yet received. I hope they play cards, because they are getting a very special personalized deck of cards. One day while visiting the Sitterleys, my sneaky camera took a picture of a picture that was hanging on the Sitterleys' wall. The picture was captioned:

TWO REAL HAMS LIVE HERE

BOB

LINDA

K7POF

W7POF

Take a look at the picture of the back of the gift deck of cards. No resemblance at all to the two real hams who live in Chino Valley.

73 and a Merry Christmas to all,
Lori Cripps, WA7EDI

ADAW

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.

December Test Sessions

Dec 1st - 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

Dec 3rd - Venture Out ARC -- 9:00 AM

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

Dec 3rd - ORO Valley ARC -- 10:30 AM

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

Dec 5th - AARC & WVARC -- 8:00 PM

St. Clement Church, 15800 N Del Webb Blvd, Sun City
Contact - Joseph Cutitta 623.215.2226

Dec 8th - QCECG -- 7:00 PM

Queen Creek Town Hall, 22350 S Ellsworth Rd, Queen Creek
Contact - Dave Martin 520.560.6589

Dec 10th - Venture Out ARC -- 9:00 AM

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

Dec 10th - Yuma ARC -- 9:00 AM

Yuma County Sheriff's Office, Training Rm 2, 141 S 3rd Ave, Yuma
Contact - Robert Spencer 928.941.7069
No Walk-Ins - Appointment Only

Dec 12th - Radio Society of Tucson -- 7:00 PM

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

Dec 17th - W7GAA -- 10:00 AM

Suddenlink Community Ctr, 2380 3rd St, Bullhead City
Contact - Keith Bruecker 928.719.8433

Test Sessions Continued from Previous Column

Dec 17th - Unsponsored -- 10:00 AM

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

Dec 17th - Venture Out ARC -- 9:00 AM

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

Dec 19th - East Valley VE Team -- 6:00 PM

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

Dec 20th - 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

Dec 21st - Thunderbird ARC -- 6:00 PM

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

Dec 24th - 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



ADAW

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CHAPTER 16
BARRY M. GOLDWATER ARIZONA CHAPTER

Things always get busy around the holidays, especially at TBARC! At the October general meeting we had nominations for the club officers and board - and I think we may have had a record number of people who volunteered to run. Thanks to all of them - your willingness to help is what keeps the club interesting!

And of course, after the nominations come the election. By the time you read this we'll have had the vote. I know at least one of the board members is giving up his seat to make room for new people, so there's going to be at least one new director in 2017. A number of the executive positions are uncontested - but since all that's in the future as I write this, I'll stop making predictions. Thanks to everyone who took the time to vote. At this point I think we've all had enough elections for a while. And many thanks to the election committee (Israel Vicente AD7ND, Andy Durbin K3WYC and Walt Reinert NJ8G) for making things happen this year - it's a lot of work behind the scenes!

Election results will be announced at the December dinner. You do not have to be present to win!

After the holidays, you'll have a few minutes to catch your breath. But not too long - get ready for the Thunderbird Amateur Radio Club hamfest. That's on Saturday, January 14, 2017 at Northwest Community Church (16615 North 43rd Avenue in Phoenix). This is the same location we've had the last couple of years, and once again the church has kindly provided space for us. We're always looking for a few hands to help with set up (on the Friday before) and logistics/parking on the day of the hamfest - any assistance you can provide would be wonderful! To volunteer, send an email to hamfest@w7tbc.org - or get in touch with one of the many people who are helping to coordinate it already.

The hamfest starts on Saturday at 8:00 a.m. local time (7:00 a.m. for vendors) and will run until noon. Admission is \$3 and vendor places are \$10 per parking spot. We'll have educational seminars, VE testing and DXCC card checking along with the usual tailgating and information booths. If you have questions, please send an email to hamfest@w7tbc.org. See why we're one of the fastest growing hamfests in the valley!

Very soon after that is a General class course that our education coordinator, Andy Durbin K3WYC is scheduling. If you've got a technician license and would like to upgrade to

If you have been an Amateur Radio Operator for 25 years or more, you are eligible to be a member of the Quarter Century Wireless Association. The Barry M Goldwater, Chapter 16, here in Arizona has four lunch meetings around the state each year with really good presentations.

Contact us at azqcwa@gmail.com for more information.

Tom Fagan K7DF
Arizona QCWA president

ADAW

TBARC Continued from Previous Column

general, now's your chance. Get on the HF bands in 2017! The class is free to members. For a nonmember, it will be \$25 - in other words, just join TBARC and you'll get it for free. Send an email to course@w7tbc.org for more details.

Speaking of memberships - the end of the year is coming up, which means it's time to renew your TBARC membership. There will be a renewal link on the web to let you renew by PayPal, or you can bring a check, cash or credit card to a general meeting. Last year there were prizes for some people who renewed early - maybe you'll be lucky this year!

December's an unusual month. There's no general meeting. Instead we're going to gather at the Old Country Buffet restaurant at 17125 North 79th Avenue in Glendale for our party. Because of the restaurant's schedule, we're going to meet there on a different night, too. We hope you can make it on Tuesday, December 13, 2016 at 6:00 p.m. local time. Cost is \$13.25 per person at the door - tell them you're with TBARC and you'll get the group rate. It will be a relaxing evening with good company. See you there!

Andrew Cornwall
KF7CCC
kf7ccc@arrl.net

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The Arizona Amateur Radio Club at Saguaro National Park (NP45) - November 12, 2016
329 contacts were made

Greetings from the Saguaro National Park (NP49). That is where the Arizona Amateur Radio Club is at the time of this writing. This weekend the AARC is broadcasting, activating the Saguaro National Park from Signal Hill during this year that the national parks are celebrating their hundredth birthday. The following AARC members operated from the Saguaro National Park on November 12, 2016: Gary Hamman, K7GH; Ingrid Geissler, W7ISG; Reinhard Geissler, K7RGG; Lori Cripps, WA7EDI; Steve Tolnai, W7WSV; Frank Engstrom, KB7IQ.

The total number of contacts made by the AARC from Saguaro National Park on November 12 was 323. One of our aims during this weekend was to contribute to the goal of the "One Million NPOTA QSO's" for this year. The group operated using solar power and battery power. Operation was on SSB on 17, 20 and 40 meters and FM on 2 meters. Steve Tolnai operated using CW. Ray Sara, W7USA; Arturo Fonda, WB7ATA; and John Collings, KI7CXM, were in attendance at the event as guests, but did not operate.

Some of our group stayed overnight at a campground nearby and enjoyed a very special treat, the beautiful Supermoon that was visible that evening. In addition to the enjoyment experienced by AARC members who were able to participate in a hobby they love, we all enjoyed the beauty of the environment.

We are all grateful to Gary Hamman, K7GH, the president of the Arizona Amateur Radio Club, who organized a great outing and the club's first NPOTA activation.



The AARC crew. Steve Tolnai W7WSV, Arturo Fonda WB7ATA, Frank Engstrom KB7IQ, Ray Sara W7USA (behind Frank), Lori Cripps WA7EDI, Gary Hamman K7GH, and Reinhard K7RGG and Ingrid W7ISG Geissler.



Gary Hamman, K7GH makes a contact from Saguaro National Park

ADAW





Don't forget the **Superstition SuperFest** on December 3, 2016 at Mesa Community College. See the website (www.superstitutionsuperfest.org) for all the details.

REMINDER: Due to the 4th Thursday of November falling on Thanksgiving Day, the ARA General Meeting is held on the Monday prior to Thanksgiving. Please join us at Denny's in Tempe on November 21st. Also, there is no ARA General Meeting in December. Merry Christmas and Happy Holidays everyone.

As 2016 wraps up, I think it's safe to say that the ARA has had another successful year. We have an amazing technical team that works hard to keep all of our repeaters and sites operational. As Lance KW7LH recently summarized, we have over 70 radios at 13 sites plus a portable trailer. When the amount of actual downtime vs. uptime is measured, there is a pretty impressive mean time between failures.

In the last month, we've topped the 500 active member mark for the first time in several years. Thank you to everyone for your support of the ARA. Each month I write an article for ADAW, but we also keep updates of various other ARA happenings on the web site, so be sure to check that out - <http://w7ara.org/> I also post regular updates to the ARA Facebook page where we've surpassed 250 likes. If you are a Facebook user, please like and share our page - <https://www.facebook.com/ArizonaRepeaterAssociation/>

Another feature that was recently added to our web site under the Membership page, is a listing of Silent Keys - <http://w7ara.org/mbr/SilentKey.aspx> This is a listing of everyone in our membership database that we know has passed on. Keep in mind that it only contains members who were active since the database was converted to electronic form as well.

I've mentioned it previously, but next year is the 50th anniversary of the ARA. We have a wonderful archive of old Squelch Tails that I've been sorting through. I'm still looking for any other old documentation or photographs, so if you have those, please contact me. For the ADAW articles next year, I plan to revisit and share with everyone the history of the ARA.

Virgil K7VZ
ARA President



Superstition ARC Repeaters

147.120 MHz (+) 162.2 Hz - Usery *

448.275 MHz (-) 100.0 Hz - Usery

449.600 MHz (-) 100.0 Hz - East Mesa *

KB7KWK-L Echolink Node 538499 *

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

Club Nets

Morning Drive Time Net: Mon-Fri, 7:00-8:00 AM - Trivia

Club Business Net: Wednesdays, 8:00 PM - Featuring Club News, Elmer Q&A and AR Newslines.

East Valley Swap Net: Thursdays, 7:30 PM

National History Net: Thursdays at 8:30 PM. Quizzes you on National History.

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

Morse Code Class Net: Saturdays, 7:00 PM

Club Membership is open to anyone with an interest in Amateur Radio. Send email to: membership@SuperstitionARC.org for more information.

Superstition SuperFest

The Superstition SuperFest is held on the first Saturday of December. Visit www.superstitutionsuperfest.org for the latest information.



Public Service Calendar

Maricopa County Emergency Communications Group Events

EVENT	LOCATION	DATE
Fiesta Bowl Half Marathon	Scottsdale Civic Center	12/11/16
Xterra - Whit Tanks	Waddell	01/08/17
Prickly Pedal	Cave Creek - Lake Pleasant	01/21-22/17
JOTC First Water	First Water North of Apache Junction	01/28/17
Runner's Den Pancake Run	EPhoenix Paradise Valley Mall	02/05/17
Black Canyon 100K	Spring Valley to Emery Henderson Trailhead	02/18/17
Lost Dutchman Marathon	Apache Junction	02/19/17
JROTC Lake Pleasant	West of Lake Pleasant	02/25/17
Xterra Black Canyon Trail Run	Black Canyon City	03/05/17
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

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.

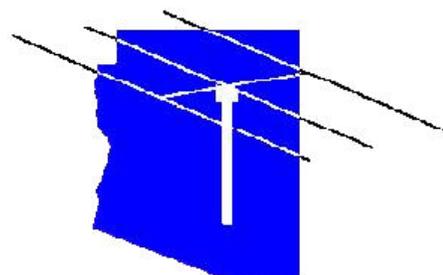


Want Ads

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



MARCA INC.

No Report Received. ed

ADAW

For Sale

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

A-4 Antenna For Sale - \$450

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

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

The **West Valley Amateur Radio Club** has radios and ALL kinds of supplies available for sale through the club. Request a listing from Ted by sending an email to kb5of@cox.net. 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.



Basic DXing, Part III, Confirming QSOs (QSL Basics)

by Larry Loen, WO7R

“The job isn’t over until the paperwork is done” is an old saw, but true. This is the third in a series of articles on basic DXing. Here, we begin to cover “getting credit” for the QSOs you care about.

Old Fashioned Postcards

You may already be familiar with the traditional route of confirming something – you send a postcard to DX0DX (if that is who you worked) and DX0DX sends one back. For many decades, this was the essential part of confirmations. It was all done with postcards and, one way or another, all done by postal mail.

Even in 2016, this remains an important way to confirm contacts. Designing a QSL card, if one takes it seriously, is a creative process. Truth is, almost any card will get responses, but, a well-designed card will get more responses than one not as good. Make sure your QSL card contains the following:

1. Your call.
2. Your name, address, and zip. Include “USA”.
3. A space for the DX station’s call (this should appear on the left side of the card).
4. Space for the accurate time of the QSO (always use UTC). Don’t worry about being perfect, but keep your clock to within five minutes of official time and record the QSO in your log as soon as possible after you make it. On Windows, the default timekeeping is usually good enough if you have internet access. Just make sure your logging software uses UTC.
5. Space for the Mode (SSB, RTTY, CW, etc.).
6. Space for the Band or the Frequency (at least one of these).
7. Space for the signal report (RST). The signal report is not officially needed, but put it in there because some stations think it is required.
8. Some indication of “two way” communications. Traditionally, either “Confirming our 2way QSO” or “2xMode” will work. You can pre-print these on the card.

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9. While optional, it is highly useful to have an area titled “via” in case the DX station has a QSL manager. Put that on the left side of the card as well.
10. It is a very good idea to pre-print your county on the card. Some DX hams are “county hunters” and care about this for awards.
11. A legible card is more important than a pretty card. Make sure the QSO information is large enough to be read by an 80 year old Japanese or Russian Ham whose daily alphabet is not the one we use. Put all the information that counts (including your call sign) on one side of the card. A single sided, no-frills card that is legible and complete will work just fine.
12. Another worthwhile thing is to leave room for two or three QSOs on the card. When DXing, or contesting (DXers often contest), you often work the same station on more than one band.

Here’s a really basic, simple card that will work very well to get DX cards back in return, following the above advice. It is printed as a “ham standard size” of 3 ½ by 5 ½ inches:

WO7R			
Larry W. Loen 43632 W Cydnee Dr Maricopa, AZ 85138 Pinal County AZ USA			
via:			
Confirming our 2way QSO			
Your Call	Date	UTC	PSE QSL Band
RST Mode Notes			

Getting Cards Back and Forth

There are three ways to go:

1. Send the card directly to the DX station.
2. Send the card directly to the DX station’s QSL manager.
3. Send the card to the Outgoing QSL Service and hope you get a response two years later from the Incoming QSL service.

To decide, you would start by looking up the station on QRZ.COM. If it is DX0DX, you would enter: <http://qrz.com/db/dx0dx> and see what it says. Just about all DX stations and many US stations have an entry under QRZ.com. If the station does, you will see either the DX station’s contact information OR you will see information to send your card to the DX Station’s QSL manager. If there is a QSL manager (this is always obvious), you must send the card there.

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Almost all DX stations, whether via a manager or doing it themselves, expect you to provide return postage. This is usually done by including well-hidden dollar bills (“green stamps”) in the mailing. The “price” is usually stated, but if it is not, assume two US dollars. Once you get the hang of “direct” QSLing, you will get about a 95 per cent success rate. That is, from weeks to several months later, you will get whatever you send out about 95 per cent of the time.

If you get tired of paying three, four, and five dollars per card (including your international postage to get it there), you may want to use the QSL bureau. This is an ancient system where you send cards to a common point (in the US, ARRL headquarters), they get sorted, distributed around the world, and delivered to the various DX stations. Then (one hopes) the DX station returns a card to you. Sounds great, but there is a catch: Many DX stations do not participate in the “buro” system and there’s almost no way to find out if they do. Worse, the buro is all volunteer and run on the cheap. So, you don’t know if the buro “worked” until two or more years later from when you sent your card. In my experience, you get about a 50% return rate using the buro. You also get many cards you didn’t ask for (at least if you contest much). Being a good ham citizen and responding to these is getting pricey. Also, you must be an ARRL member to use the Outgoing Buro (you need not be a member to get things from the Incoming Buro, but if you aren’t participating in the Outgoing Buro, the Incoming ones aren’t going to matter as much).

Electronic Confirmation (avoid the cards and the hassle)

Logbook of the World (LOTW)

The most efficient way to skip the cards is to use the ARRL’s Logbook of the World (LOTW). Most DXers are interested in ARRL’s awards, so you want to be part of this. I’ll be up front about it: Joining LOTW is tedious and it puts many people off. Don’t be one of them. Once you go through the joining process (just read the instructions carefully and follow them exactly), then the rest is very easy. You get an “account” and you can then upload QSOs to LOTW. If the other station is also on LOTW, and they upload your QSO, you get a “match” or an LOTW-style QSL, and you can use it forever for any ARRL award you please. With LOTW, there aren’t any cards, just confirmations in the ARRL’s database. You must pay to redeem them for an award, but the costs are far less than any other form of QSLing, about twelve cents each and you pay only for the QSLs you use.

eQSL and Clublog.

eQSL (eqsl.cc) supports a surprising variety of non-ARRL awards, particularly Worked All Zones, the various German Worked All Europe awards, and County Hunting. Some hams

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avoid it (it tries too hard to be a true replacement for QSLs and some don’t like the side effects of that). However, if you chase non-ARRL awards, it is very useful and you can join for free. Clublog (clublog.org) is something a little different. Its main mission is to be a collective “hive” of everyone’s QSOs. But, it has evolved to more than that. First off, it provides direct support now for the Islands on the Air (IOTA) Award. But many people upload to Clublog to take advantage of its OQRS service.

Clublog OQRS – A Good Way to Get Cards

OQRS (On-line QSL Request System) is not exclusive to Clublog (a few top QSL managers and DXpeditions have their own version), but it is by far the biggest. Uploading to Clublog during a DXpedition can tell you (if the DXpedition uploads its logs during the expedition) whether or not your QSO was “good” by checking for a match. That can soothe anxiety and also keep you out of more pileups. But, as a bonus, if the DX participates, you can ask for your QSL directly from the Clublog “match” screens when the expedition ends. This saves you at least the international postage to reach the DX and I have found it a very good way to go. Truth is, many DXpeditions don’t want or need your QSL card. So, if they use OQRS, you send them return postage (via PayPal) and they send you their card directly. It is very convenient for everyone.

December CADXA Meeting

Our speaker on Thursday, December 1st will be Bill Davis, W7EXG. Bill’s presentation is entitled “Lessons Learned from the Tucson / Heard-Island Experience” and will focus on low band propagation. Please join us at the PERA Club at 7:00 p.m. Bill is coming up from Tucson to make this presentation. It was very well received at both the Copafest and the recent SADXA meeting. Check our website for a map and directions. Visitors and guests are always welcome.

Lee, KY7M
CADXA President

ADAW

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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.

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Hamfest Calendar

3 December 2016 - **SuperFest 2016** - hosted by the Superstition Amateur Radio Club will be held at Mesa Community College, 1833 W Southern Avenue in Mesa. Hours are 8:00 AM to 4:00 PM. Vendor set up beginning at 6:00 AM. Admission \$5.00 per person, 12 years and under free. (Each paid admission includes one door prize ticket.) Tailgate - \$10.00 per space. Grand Prizes (tickets \$2 ea), Hourly Prizes (tickets \$1 ea). VE Testing, ARRL Card Checking, K7A Special Event Station, GOTA Station, Fox Hunts, Great Food and Drinks, and Live Music by John J. KD8PC. For more information, visit the web site at superstitionsuperfest.org.

14 January 2017 - **Thunderbird Hamfest 2017** - hosted by the Thunderbird Amateur Radio Club will be held at Northwest Community Church, 16615 N 43rd Avenue in Phoenix. Hours are 8:00 AM until 12:00 Noon with vendor set up beginning at 7:00 AM. Commercial Vendors may also set up Friday night after 5:00 PM. General Admission: \$3.00 per person. Tailgate and Vendor: \$10.00 per Parking Spot. Door Prizes every half hour, VE Testing (exam fee \$15.00), and Seminars. Snacks and Beverages will be Available. Talk-In on 146.700 -600 KHz, 162.2 P1 or 446.150 -5 MHz, 100 P1. Email hamfest@w7tbc.org for more details. Sorry - this is a church/school property - no firearms, alcohol or drugs are permitted.

17 - 18 February 2017 - **2017 Arizona Section Convention/ Yuma Hamfest** - hosted by the Yuma Amateur Radio Hamfest Organization will be held at the Yuma County Fairgrounds, 2520 E 32nd St in Yuma. Hours are Noon - 5:00 PM Friday and 8:00 AM - 5:00 PM Saturday. Gates open Thursday, 16 February, at 2:00 PM for camping. Admission \$5.00 per person. Talk-In frequency - 146.840 (-) P1 88.5 Hz. Check web site at www.yumahamfest.org for full details. Email contact: info@yumahamfest.org.

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

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

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

ADAW





After a successful Copafest 2016/ARRL Arizona state convention, MARA is taking a breather before planning anything for the upcoming year. Our club bylaws call for elections in November for officers to take office next January.

We are continuing with work to get two of our System Fusion repeaters back on the air. Our two-meter repeater will be located at the Central Arizona College, Maricopa campus. We have reached an agreement with the college to host our repeater on their 100-foot tower.

We have also reached an agreement with the Thunderbird Farms Water Improvement District to install a 70-cm System Fusion repeater at a water tank that's currently under construction. The combination of these two repeaters will provide reliable dual band digital and analog coverage throughout the Maricopa area from Chandler in the north to Stanfield/Interstate 8 in the south. The communities served will be Maricopa, Thunderbird Farms, Papago Farms, and Hidden Valley.

In addition, we continue to work with the Maricopa Fire Department and CERT organization to improve our contribution when called upon for assistance with disaster or public event communications. We're looking forward to 2017 as a good year for the club to grow and increase our contribution by providing licensing for new hams, increasing public awareness of amateur radio, and being of service to the community.

Elections were held at the November 19th meeting. The following officers were elected and will take office on January 1, 2017:

- Steve Miller, W6SDM - President
- Chris Canevitt, W7CGC - Vice President
- John Wiltberger, NO7IN - Secretary
- Curt Steger, NA7CS - Treasurer

Steve

CW - PRACTICE MAKES PERFECT

O.V.A.R.C., through our Chief Elmer Tom W8TK, has launched a new slow speed CW net. In order to hear everyone locally Tom has selected a frequency of 28.310. The net begins at 7:30 P.M. and is typically over by 8:00 P.M. The net is intended for hams new to CW and hams that are trying to improve their listening and sending skills. Everyone is welcome to join. If you can hear the net control station, please join us.



NPOTA

Our NPOTA Team has had two activations now that the weather has cooled down. In September Ft. Bowie was activated which is close to the New Mexico border. The elevation helped us to accumulate a significant number of contacts. In October we operated from The Chiricahua National Monument at Massai Point near Wilcox, AZ. This is a great park and one that has paved road all the way. Here again, the high elevation helped us with our tally.

MEMBERSHIP

December and January are the months where we encourage our current members to join us for another year. Likewise, we are continually looking for new members who are interested in joining a very active club. Whether you just like the camaraderie or you like getting your hands dirty during operating events, O.V.A.R.C. has something for everyone. Please see our website for more details: www.tucsonhamradio.org.

ADAW

ADAW



Old Pueblo Radio Club INTERMOD

President's Column

As the year 2016 winds down, so does the 25th Anniversary of the Yavapai Amateur Radio Club. It has been a great year with many accomplishments. Our club is now well over 250 members. Many are active in public service events. Notable among these is the annual Whiskey Row Marathon, for which the club provides communications.



We have an active and growing presence in ARES/RACES as well. At the December meeting, we will honor the many YARC members who have faithfully served the club and community during the year.

Another of YARC's diverse interests is a small, but active, Summits on the Air (SOTA) group, who recently activated Mt. Humphries. Pictured are intrepid climbers Jo Schultheiss KF7WOT and Bud Semon N7CW.



Continued Next Column

It is with great sadness that the Old Pueblo Radio Club announces that Wilfred L. "Bill" Price, N7GUO, became an SK on October 13, 2016. He was a long time member of the club and was a member of the board of directors.

At the November meeting, it was noted that several key members will be out of town on the scheduled meeting date. Because the bylaws of the club require a general meeting to be held in December, a pro forma meeting will be held, but will be continued until the January meeting.

Ronald J. Kalish, N7SPW
President, OPRC

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



YARC Continued from Previous Column

YARC continues our series of licensing classes for people interested in Ham radio. A Technician license class recently completed at Embry-Riddle Aeronautical University provided license training for 36 students. For more information contact Brian at bvlastelich@aol.com

In addition YARC offers discounted "HamTestOnline" subscriptions. Upcoming regular test sessions are January 14, 2017 and March 11, 2017.

The next Prescott hamfest will be Saturday, June 10, 2017 at Embry-Riddle. Watch for details as they become available.



SARC Continued from Previous Column

everything. I will figure this out, but if you have a suggestion, please let me know.

The HF bands have been poor lately, but I have made a few q's on 40 meters. Pete, W7GDU, always gives us a report on the band conditions during the Tuesday night net. So if you are into HF, give us a listen and he can tell you where the action is.

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

I know a lot of you guys out there have run into this a time or two. The space dedicated for your ham equipment needs to get much smaller. My ham shack was in a corner of a 12 by 16 room and there was open space. I decided to move my home office into the same room to make room for a much needed store room. There is where the problems began. The home office has 2 computers and computer desks, 2 large file cabinets and 3 book cases - plus reference tables, an under counter refrigerator and all kinds of miscellaneous stuff. Needless to say, everything did not fit in too well, but I can live with it. During this move, however, I have lost track of my computer note book that has most of the passwords I have used for all kinds of places, like banks, etc. Disaster! It has to be here someplace, but so far, no luck.

Last month's general club meeting saw our election of board members for 2017. The board remained the same as last year. At the December Board Meeting, the board members will select the club officers for 2017.

The program for the November club meeting was a presentation by Pete Leahy, W7GDU on modern SDR radio equipment. He presented a slide show with an enormous amount of detail and information on the type of equipment I hope to be able to afford some day. I am very sorry I did not get any pictures of the club meeting or presentation. This was a super program. Great job, Pete!

Our weather conditions have been fabulous lately. I have been laid up with some recurring joint problems, but I am getting out as much as possible to walk around the block. Bonnie and I are going to a fitness center to work on some of our minor aches and pains. I believe I am improving somewhat, but it will be a slow rehab. Too old? NAH!

Every year at this time we plan on our annual Christmas Party and Banquet. This year, as like the last few years, we will be going to the Scottsdale Community College Culinary Arts Facilities at the Scottsdale campus. This year the Motorola Amateur Radio Club of Arizona will be joining us in our annual celebration. There will be the best gourmet dinner in town followed by a terrific presentation by Ned Stearns, AA7A. Invitations and menus have been sent out to all club members and we hope to see you all there. At the end of the evening, there will be a drawing for gifts of great worth.

I am finally getting around to putting my radio in the new truck. I bought it last November and I am only now getting to the task. I need to work out where the antenna will work the best. The hood and cap are both plastic and so, no ground plane. The truck is tall and the roof works well, but the antenna hits



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



INSIDE W7ASC

The Station is still in the final phase of those actions that were driven by the roof repair project that was completed in late summer. The antennas have been reinstalled and seem to be functioning. All that remains is to install new coax, from the antennas to the station. The coax is, or was, in the station closet.

Since there is some lead time, between the time that this newsletter is drafted, and the publication date, it is entirely possible that the work has been completed. The nice weather has arrived, so the task is less punishing than it would have been in three-digit temperatures.

We are happy to report that we have some new volunteers at the Shack. There is still room for a few more. Each new volunteer brings something new and special to W7ASC. Different background, different skills and different Ham experience. We see many repeat visitors, so it is great that each visit is a bit different. It is not at all uncommon for a repeat visitor to remark that they thought that they had heard and seen everything that there is to see and know about Ham radio on the previous visit. But this time there was more! The volunteer on duty usually assures that visitor that there is still more – much more – to see and hear about Ham radio.

Your faithful scribe was hard at work, slaving over the hot Morse code key for the benefit of a young visitor. An adult walked into the Shack and stood behind the Morse code student. That adult addressed yours truly in a voice that had a tone that was slightly skeptical. Your faithful servant was asked, in a challenging voice, if I “actually knew anyone who had actually used Morse code.”

Really a great question! And a great place to pose the question. This is the kind of question that any volunteer hopes to hear. It opens the door to so many interesting answers that have the potential to serve both the visitor and the Ham community.

This visitor, of course, could not know that this volunteer had spoken to another visitor, early in the summer, who proudly announced that he was now retired, but had been one of the last telegraphers who dispatched trains for one of the major railroads. Using Morse code. By hand.

Further, this volunteer could describe how he, personally, used Morse code while in the military. Under actual field

CARL Continued from Previous Column

conditions, not just in training.

That visitor waited her turn and then did her own name in Morse code. With a big smile and more questions about old communication methods, including Ham radio. That was very satisfying for this old brass pounder. When you think about it, probably the best part of volunteering at W7ASC IS when it gets personal.

With your permission, a little soap box oratory from your faithful scribe. We Hams are really excellent communicators – with other Hams! When it comes to getting our message across to the unlicensed multitudes, we do not score quite as well. When dealing with law makers, for instance, even ARRL characterizes our position as something that we Hams want. Big surprise that we want to ease the HOA restrictions. Why would that resonate with our representatives? Where is the incentive to help the Ham community who merely want to build huge towers right in the middle of residential communities?

If someone came to your door and offered to paint your house because they wanted the money, how would you react? Whether you are selling a product or asking for a change in the Law, it is imperative, if you wish your request to be honored, to state it in terms that are of value to the other party.

Hams exist in order to perform public service. Not just emergency communication, as you well know. But your listener probably does NOT know. In order to be better prepared, and equipped, to perform that Public Service, Hams need an incentive to spend money for better equipment, and to train. Hams, just like ordinary citizens, want to feel appreciated. A little easing of the antenna restrictions could show that appreciation. And we really have very little interest in erecting huge towers. Have some pictures of small wire antennas? Unobtrusive dipoles that are hung between trees? Send those with your letter in order to change the perception that Hams want only 200 foot high structures as that is the view that is held by many non-Hams!

W7ASC hopes to start Technician license classes again. Nothing definite, but plans are in the works. Do you like to teach ham radio? Or just volunteer at W7ASC. Call Bob KG7QJ at 480-961-1109, or email him KG7QJ@cox.net to discuss teaching, volunteering at that fun place W7ASC, or both! As the man in the ad says, CALL NOW!!!

If you have a story about a ham radio experience that would look good in this newsletter, send it to the undersigned, please. Our millions of readers will thank you.

Until next year,
de W4CIH Jean 480-664-7353
jeanjol@hotmail.com

ADAW

Continued Next Column



Arizona Red Cross Communications Club

Our repeater has a new antenna thanks to Frank and Larry. It should provide a bit more coverage as it has a much improved match, plus it's been pushed a couple feet higher. We knew from the day we installed the repeater that we would have to relocate it to another site eventually - one that provides better coverage to the NE, as well as the remainder of the valley. We have been looking, but if you know of a site available, please contact one of us.

As a Red Cross volunteer, you may have received an email describing the new volunteer training portal the Red Cross has introduced called EDGE. It went into effect on Nov. 11th. Log in and check it out.

We also have two new computers and monitors in the Red Cross ham shack. This is part of a systemwide upgrade at the Red Cross. As a volunteer, you'll need to request access before you can log in. Talk to Austin at the AZ Chapter HQ to get set up.

We have discussed the possibility of having badges made for our RC Ham volunteers. The design has not been formalized, but will most likely have the Red Cross logo, and your call and name engraved on it. The price will be determined upon the cost of materials, but we project it to be less than \$7.00 each. Let me know if you would be interested.

Would you also be interested in a weekly 2M net? It would be a great way for our Ham volunteers (and guests) to meet and get to know each other. As always, additional ideas and comments are welcome.

As mentioned in last month's article, we occasionally have the K7ARC-R Echolink node running with the K7ARC repeater (mainly weekends). Lots of people have checked into it and we've had some nice conversations with folks from all over the country (and some DX). Check it out if you see it operational.

Your Humble Scribe,
Mark, N7KKQ



Emergency Communications Since 1961

SHORT SKIP

SATURDAY, OCTOBER 15, 2016

First, I will not use the Scouts names for two reasons, one. I don't remember all their names, and two, security. Everything that I needed to do was done. I was a little worried that I would forget something.

I was expecting the Scouts and Brownies about 2:00 p.m. As I was making sure everything was in order, I looked outside and the first van pulled up. It was 12:00 noon. Oops, I was wrong about the time. Later, after they all left, I looked at my computer and found that I had the times reversed (Saturday and Sunday).

As the cub scouts started piling out, I started counting them, 1, 2, 3, 4, 5, 6, and two brownies, for a total of 8. There were two or three adults.

SHOWTIME.

After the scouts and adults were inside, I closed the garage door. I started looking for someone on 2 meters and found out that 2 meters had a problem. I went over to my HF on 20 meters and the door was closed. There were all kinds of traffic in the morning, so I went back to the other radio and tuned to 70 cm and who do I find - K7ADM out on White Tank Mountain. K7ADM did a great job working with all cub scouts and brownies. One boy would key the mic and start talking and forget to release PTT. Another boy got tongue tied and I had to help him with the microphone. Most of the boys talked for about one minute. The brownies were up last. The older one did a great job talking because K7ADM works with brownies and explained who he was and her eyes lit up. I should say now that the Scout leader did a great job recording the times of each scout, and the parents did a good job with their phones taking pictures.

SUNDAY, OCTOBER 16, 2016

Today I wanted to work with HF, but it wasn't going to happen. The cub scouts and boy scouts started getting here about 2:00 p.m. in vans, cars and trucks. The last time I looked, there were about ten vehicles in front of my house. I had a garage full of scouts, leaders, parents, and two babies (future

Continued Next Page

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VE Test Sessions Reports

Newbie Net

DeVry University Test Sessions

The next exam session is Saturday, January 7th, 2017. Exams start at 9:00 AM and all tests must be concluded by 11:00 AM. Check in at the Library on the second floor, southeast corner. ARRL VEC exam fee is \$15 exact change only for all elements taken once. Additional fee applies for retest of any element. Retest is at the option of the VEs. Please bring photo identification, original and copies of any current license, any Certificates of Successful Completion of Examination (CSCE) you might have, and a pen and pencil.

There will be no testing in December at DeVry. Go to the Superstition Superfest at Mesa Community College.

Five candidates were examined at the November 5th test session with four Technician Class and one General Class licenses being earned.

Administering VEs were:

David Morrill N7TWT Liaison, Daniel Ford K2LH, Joshua Montano WX7JM, Robert Miner KA7NPQ, and Verdamae KF7UJB and Joe W0SLC Cutitta.

West Valley ARC License Exams

Test sessions are held on the first Monday of each month, after the club's monthly meeting from 8:00 p.m to 9:15 p.m. at St. Clements' Church Social Hall located at 15800 N. Del Webb Blvd. in Sun City. Walk-ins are always welcome.

Please bring photo identification, \$15.00 test fee in exact change, original and copies of any current license, any Certificates of Successful Completion of Examination (CSCE) you might have, and a pen and pencil.

For more information, please call Joe Cutitta W0SLC at 623.337.0040 or 623.215.2226.

Continued from Previous Page

cub scouts). I was amazed and glad so many of the parents came with their kids, both moms and dads.

Again, I asked the Scout leader to take notes of the times and names. I found a person on 2 meters (2m was working on Sunday) and he consented to talk to the scouts. I started with a young boy who was bashful, thinking that if he would talk on the radio everyone would and it worked. This time I worked the microphone. Some would talk more than others. I don't know how many times I would ask if they wanted to say more and they would shake their heads no, so I would tell them to say Over, and they did, and we would go to the next scout. I would like to say at this time that our new friend W7?GG did a great job with the scouts even when he was listening to his Washington football team play on the flat screen. Being an old scout himself, he was happy to work with the scouts.

I might add that I had all of the parents and scouts in my air-conditioned garage and still had some room. I had a lot of fun with this and am looking forward to next year. I think all the kids had a great time also.

From one Scout to the Next
Pastor Ralph W9ADW

ADAW

The net is held on the 1st and 3rd Friday of each month at 7:00 p.m. on the NY7S repeater, 147.300 Pl 162.2, on Del Webb Hospital in Sun City West, AZ. Everyone is welcome. This net is to help get you started with the procedures and protocols used in amateur radio.

Getting a tech license is one thing. Getting on the air is another. This site is geared to us "newbies," taking our first dip into the sea of amateur radio communications. We can tell you what we plan to include on this site, and welcome your input and questions about any of these areas. We know there are plenty of ELMERS (experienced hams who provide mentoring to new amateur radio operators) in the West Valley ARC that can help us.

We plan to include information on:

"Net-etiquette": The rules of the road, so to speak, on participating in one of the many amateur radio nets in our area.

Setting Up a Ham Shack: Where's the best place to set up my radio equipment, and perhaps more important, what do I need?

Purchasing My First Ham Radio Equipment: What do I need? Where's the best place to find it? How much should I expect to spend? What should I watch out for in purchasing older ham gear? What makes the best sense in terms of hand-held radios?

How Do I Find an ELMER? Who can I contact in the West Valley ARC to help me?

Getting Involved: As a new ham, how do I get involved in Club activities and committees?

We look forward to your comments, questions, and suggestions.

Stay tuned. More to come!

New Members

ALAN REALEY WB7JEP
BRUCE DEWETT KI7GFF



**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



ANSR Continued from Previous Column

balloon will reach burst diameter.

But he's not done there. Bob calculates ascent rate by considering balloon diameter, drag coefficient, air density and free lift (lift greater than total mass). The descent rate at landing is calculated based on parachute effective area, drag coefficient, total mass during descent and expected elevation at landing (air density). He also models time of descent based on the Standard Atmosphere as a check on my assumptions by calculating descent rate and time for each increment (100 feet) in the Standard Atmosphere from burst altitude to landing.

Bob's work is critical. Without it, we would likely never be able to find and recover the payload, rendering most of the experiments a failure. Also, because flight safety is of ultimate concern, we must constantly communicate our expectations for the flight to the FAA so that they can keep the pilots of nearby aircraft informed and aware of the balloon's presence. For the week before launch, Bob refers to Weather Underground to get a forecast of air temperature and barometric pressure and continue to update my model to more accurately calculate the gas required for the target lift. Each of us on the team gets an e-mail report letting us know what to expect on launch day.

After launch, he begins logging altitude and time to calculate actual ascent rate and compare the actual track to the predicted track. When the flight gets close to the expected burst altitude, he monitors closely to capture the actual burst altitude and the coordinates at burst. He then enters those coordinates and altitude into the HabHub website as "launch site location" with burst altitude as both launch altitude and burst altitude. The website immediately detects burst and predicts an updated landing location that I relay to the recovery team.

Bob's work is a continuing process as he tries to improve his modelling by accounting for as many variables as possible. I have to say that the chases I've been on, Bob's predictions bring us incredibly close to the payload. Sometimes something unexpected happens, like a fragment from the burst balloon tangling up in the parachute, which throws the predictions completely off. Because the payload is no longer subject to wind direction aloft but is more like a rock dropping from fifteen miles up, the payload can be anywhere short of the predicted recovery area.

When that happens, and even when it doesn't, we depend on our APRS beacons, GPS, and our CW beacon as a backup. I will go more into those technologies and talk a little about what it's like to be on the recovery team in a future article.

You're welcome to join us as an observer or as a member of the team. Our schedule for upcoming flights around the state can be found on our web site, ansr.org.

Steve Miller

Okay, you've seen us at hamfests around the state. Arizona Near Space Research is a group of hams that have managed to combine several interesting areas of ham radio into an activity that's fun and educational, plus it provides a valuable service in providing a platform to collect research data. We combine the use of APRS, real time tracking and identification through the use of radio transponders, backup recovery location reporting through the use of a CW beacon, and finally recovering the payload through off road exploration.

Our flights provide a platform for collegiate research into a variety of sciences including weather, atmospheric research, and electronics. Student engineers and researchers design and build the experiments. Our job is to deliver the packages to near space and recover the payload when it comes back to Earth. In this article, I would like to explain a little about what we do and how we get it done. High-altitude balloons are usually filled with either helium or hydrogen and then released into the stratosphere, generally attaining an altitude of 60,000 to 120,000 feet. That works out to be anywhere from eleven to twenty-three miles up, two to four times the altitude of a commercial airliner.

Everyone always asks, "What's the record?" The overall record was set in 2002, when a balloon with the flight designator BU60-1 attained an altitude of 32.9 miles (or 173,900 feet). That was a Japanese flight that was designed specifically to achieve the highest altitude possible. For Arizona Near Space Research, our record is a mere 117,000 feet or 22 miles.

The variables that control how high a balloon can go are the size and type of the balloon, the amount and type of gas used, and the weight of the payload. These same variables also impact the flight path and influence the recovery area. We depend on a launch crew, ground crew, and recovery team to execute a successful flight, re-entry, and recovery. We also depend on a lot of pre-flight planning and prediction.

So how do we figure out where a balloon is going and where the payload may finally arrive back on Earth? Bob Thompson, KC8BOB, uses a prediction website, predict.habhub.org. It's a British website that uses NOAA's GFS wind model to offer predictions as much as a week in advance. Average ascent rate, descent rate at landing, burst altitude, launch site coordinates, and elevation are all that are required for input to the prediction model.

Bob also has his own crystal ball, which is an Excel workbook he uses to model the input data about the flight for the website. He inputs variables like ambient temperature, launch site barometric pressure, and elevation to estimate the volume of gas required to yield the target lift. That volume of gas is then expressed as a percentage of the balloon volume at burst as determined from the manufacturer's specified burst diameter. He then does a lookup in the official Standard Atmosphere to determine at what altitude the

Continued Next Column

ADAW



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