



High-Country Static

October 2014

News and Information Concerning
Amateur Radio in Northern Arizona and
Beyond

Welcome to the Coconino Amateur Radio Club (CARC) Monthly Newsletter. CARC is a non-profit club devoted to providing communication services to local volunteer agencies and events. Meetings are held the second Thursday of each month **1650 S. Plaza Way**, Flagstaff, at 7:00PM. All persons interested in amateur radio, whether licensed or not, are welcome to attend.

Coconino SkyWarn meets 1900 every Monday evening on the 146.98 repeater and at 1930 on the Navajo Mountain CACTUS repeater and 146.480 simplex.

Coconino ARES meets 1900 every Wednesday evening on the 146.98 repeater and at 1930 on the Navajo Mountain CACTUS repeater and 146.480.

Christmas Party Dec. 7 (afternoon) Meadowcroft's home near Hwy 180 and Snowbowl Rd.

Location for CARC meetings: 1650 S. Plaza Way. Pull in off S. Plaza Way and go to the far left behind the building on the left. Our meeting room is in the building on the left. Big thanks to Bruce Sidlinger who is providing this room to CARC for free.

Officers:

President: Sandy Meadowcroft KF4JHC
Vice-President: Tom Shehan W7TGS
Secretary: Erv Perelstein, KE7QFI
Treasurer: Pat Traber, KE7QFG
PIO: Janice Enloe, KI6WCK

October 9 next meeting

If you have not paid your 2014 dues yet please do so at this meeting: \$25 for individuals and \$30 for a family.

Thank you to all who have run the Monday and Wednesday night nets:
Jason, Dan, Pat, and Erv.

Next licensing exams

Oct 18 License Exam

<http://wireless2.fcc.gov/UlsApp/UlsSearch/searchLicense.jsp>

Arizona Newsletter: <http://www.arrl.org/>

Tutorials: <http://www.arrl.org/tutorials>

Upcoming 2014 Events:

October

TBD Northland Preparatory Academy solar observing

11 Soulstice Mountain Trail Run

18 Amateur Radio License Exams

18-19 Scout Jamboree On The Air (JOTA)

November

18-19 Arizona State Full Scale Communications Exercise

December

6 SkyWarn Recognition Day at NWS Belmont (UTC date)

8 County Table Top Exercise (Simulate winter flooding)

Dec. 7 (Sunday) Christmas party

MINUTES OF THE COCONINO AMATEUR RADIO CLUB MEETING 9/11/2014

Meeting Started: 7:00 pm

Secretary's Report: The minutes of the Aug meeting were prepared by Phyllis Thompson and distributed at this meeting. Thank you to Phyllis for doing this. Pat moved and J.D. seconded a motion to accepted the minutes as published. Unanimously accepted.

Treasurer' s Report: The closing bank balance for 9/9/2014 was \$1,603.16. Membership was 49, consisting of 46 paid members and 3 lifetime members. Diane moved and J.D. seconded a motion to accept the Treasurer's Report. Unanimously accepted.

Guest: Bob Vance, Special Uses and Licenses Administrator for the U.S. Forest Service. Bob is interested in the communications plans for special uses like races. He is very appreciative that the CARC will be providing safety communications for the 100 mile race. Joe explained how we put together the communications for a very long race like this. Bob had no idea that there was so much involved on our part. He thanked us for our efforts to ensure the participants' safety.

President's Report: There was no President's Report this month.

ARES Report: Joe thanked J.D. for his help in trying to get the Williams repeater fixed.

Joe told us that the 3 repeaters we use on Mt. Elden are having problems, (the Cactus Repeater is down, the Packet Repeater is down and our ARES Repeater is intermittent. There is a team coming up from Phoenix to work on them. Joe said that Bruce will give him a ride up there and he will let us know the status next week.

There was a report of Amateur Radio interference with Public Safety frequencies in Page, AZ. It turned out to be an old 2 Meter Ham radio that was putting out spurious signals on transmit. The interference was eliminated.

Joe reported that club members volunteered hundreds of hours in August which went into the monthly report to ARRL. He thanked everyone for their efforts.

Joe made an appeal for additional volunteers for the upcoming 100 mile Relay Race (Sep 27/28 weekend).

There was an M- Class CME on the sun this Tuesday which could cause a Communications Blackout and destroy equipment during the next few days. Joe warned everyone to take precautions like up-plugging electronics from the power grid, un-plugging antennas, etc. We should watch the news for power grid problems in the Northern States as an indicator of our safety down here.

Ken offered to bring his test equipment to the next meeting if we wanted him to check the frequency accuracy of our radios. Thanks to Ken for offering this to us.

Old Business: Sandy brought up the 50 Mile Endurance Run scheduled for Oct 4th. A discussion followed questioning whether the club wanted to support this "For Profit Event". Bobbie Brunner moved that the club not support this event. Sandy seconded it. The vote was unanimous to NOT support this event. It was made clear that any members who wanted to work were free to do so.

Joe is keeping track of assignments for the 100 Mile Stagecoach Run. He pointed out the need for a shelter and heaters at the finish line because Jason will not have his RV there this year and that location will have radio people there the longest of any location. Joe will request a shelter from the race organizers.

Bob Meadowcroft discussed the upcoming Soulstice Race. He said he still needs a few volunteers who can hike to the up trail locations. Bob also shared that the road up to Schultz Tank from Hwy 89 is much better than the one from Hwy 180. He recommended volunteers bring warm clothing, water and snacks.

Pat recommended that the club consider making Dan Boone a lifetime member of CARC due to the many years he has been an active member and served as an officer of the club. Ken so moved and Bob Meadowcroft seconded. Before the vote, it was recommended that we table this until the next meeting.

New Business: Ron discussed the CARC Website. He has been expending many hours updating the site for us. He asked for ideas for improvement from the members. He and Sandy will get together to discuss improvements. Please contact either Sandy or Ron if you have any ideas about our site.

Joe brought up the subject of Ham Licensing Classes. The discussion included: location, teachers, max number of students, equipment, number of sessions, length of sessions, etc. The consensus was about 2 months duration, classes of 2 hrs once a week. Phyllis suggested we think about establishing a non-credit class at Coconino Community College. J.D. moved and Ron seconded to investigate the possibility of setting classes up early next year. The motion was unanimously approved.

Joe introduced the state's plans for a full scale exercise on November 5th and our participation in that exercise. The disaster will be simulated flooding in Phoenix. We will discuss this again in October.

Pat recommended that we discuss financial aid to the Williams Repeater, which is not working. It was suggested that fixing it needs technical assistance as much as additional money. J.D. found an antenna for them and donated \$50.00 toward the price. Pat moved that we donate \$150 toward whatever is needed to fix it. Bill Smith seconded the motion which was unanimously approved.

Sandy brought up a discussion of our upcoming Christmas Party. She and Bob volunteered to host the party at their house again this year. Last year the party was on a Thursday which eliminated those members who work. Sandy recommended Saturday, Dec 7th at 2:00 pm. Phyllis so moved, and Pat seconded the motion. It was unanimously accepted. All thanked Sandy and Bob for their hospitality.

50/50 Drawing Dawnelle Shehan won the 50/50 drawing this month.

Meeting Ended: 8:50 pm. Phyllis moved to adjourn, Joe seconded the motion and it was passed unanimously.

CARC website: Hello to all CARC members, others who read the newsletter and everyone that views our website. We have updated some of the information on the website and made technical changes to improve it. Now we need your input. If you see anything that is incorrect or if you have ideas on how the website could be improved upon please let us know. Phil Brunner and I are committed to making the site informative and user friendly. Forward your ideas to Ron Gerlak <mailto:rbgerlak@gmail.com>. Visit the CARC website at CocoRadio.org.

ARES and RACES formal traffic handling:

We usually pass tactical traffic, which consists of short reports or requests. During the November Full Scale Communications Exercise, we may be asked to transmit and receive formal traffic. Formal traffic is a written and signed message from one person to another. This could be a welfare message sent through the amateur radio National Traffic System (NTS), or it could be a request from one emergency manager to another.

In both cases it is critical that the message be sent and received exactly as written. This may be a challenge if communications conditions are unfavorable. During the next two months, we will practice using NTS and ICS-213 message forms. To do this, I recommend everyone become familiar with and practice using the international phonetic alphabet:

<http://www.arrl.org/quick-reference-operating-aids>

(Select: International Telecommunication Union Phonetic Alphabet)

There is extensive information about traffic handling at:

<http://www.arrl.org/files/file/Public%20Service/MPG204A.pdf>

The most important item to remember is to SPEAK SLOWLY. The person receiving has to write the message down; give them time to write legibly. Speaking too rapidly is THE major cause of errors, and speaking too rapidly actually slows the passing of formal message traffic because the receiving operator has to ask for repeats.

I will send copies of the NTS and ICS-213 forms to the CARC mail list. Look over these forms; during September and October we will discuss how they are used.

Joe, W7LUX

A Century of Amateur Radio and the ARRL

When the 1979 World Administrative Radio Conference (WARC-79) concluded, Amateur Radio had gained new bands at 10, 18, and 24 MHz. Those bands would become available to US hams later, after the FCC had done its work to put them in place. The term "WARC bands" for 30, 17, and 12 meters persists to this day.

Also in 1979, the FCC issued a *Notice of Inquiry* on the subject of radio frequency interference (RFI). The great expansion of consumer electronic gear that was susceptible to RFI had led to an increase in complaints of interference from hams, largely through no fault of the hams or their equipment.

In the March 1980 issue of *QST*, VE2AEJ's article, "Observance of Long-Delayed Echoes on 28 MHz" concluded that long-delayed echoes are a result of transmitted signals getting into a natural duct, probably between the E and F layers of the ionosphere, and circling the globe many times before re-emerging. After the explanation of LDEs was set forth, scientists asked for hams to help with reports of their LDE experiences, to better understand the details of the propagation.

As *QST* articles in the 1980s reflected, the main topics of interest to the amateur community were new antenna ideas -- from simple and inexpensive to large, complex, and very expensive -- the use of new solid state technology in the ham shack, VHF/UHF/microwave equipment and activities, 2 meter FM and repeaters, DXing, contesting, and moonbounce communication.

When microprocessors and microcomputers emerged in the early 1980s, hams began putting them to work. Later, stand alone computers began to be integrated into the stations of hams who were pushing the state of the art. Another area where digital technology helped amateurs was the construction of frequency synthesizers.

In the late 1970s, the Soviet Union's "woodpecker" over-the-horizon (ionospheric) radar had started its strong and annoying *peck-peck-peck* that slowly swept through the HF amateur bands as well as the allocations of other radio services.

In 1980 the ARRL Board of Directors established a Long-Range Planning Committee, to look far into the future and plan for Amateur Radio to remain strong enough to weather the efforts of other radio services to chip away at our frequency allocations. The LRPC was also tasked to find ways to strengthen the cooperation between Amateur Radio and governmental agencies at all levels.

The Amateur Radio space effort suffered a huge disappointment in May 1980, when the first attempt to launch a Phase 3 (OSCAR 9) satellite was unsuccessful. The *Ariane* launch vehicle failed right after liftoff, and Phase 3 landed in the Atlantic Ocean. The AMSAT-OSCAR community regrouped and went to work building another Phase 3 unit. The ARRL Foundation launched a fund-raising drive for building the new Phase 3 satellite that was highly successful. -- *Al Brogdon, W1AB*

