



# High-Country Static

September 2014

News and Information Concerning  
Amateur Radio in Northern Arizona and  
Beyond

For comments, suggestions, questions concerning the CARC newsletter please click  
[cocoazham@yahoo.com](mailto:cocoazham@yahoo.com)

**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.*

**New 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. (There are two buildings, both behind the vacant Sun West bank on Woodlands Blvd.)**

**Our meeting room is in the building on the left. Jason will have the door propped open. Big thanks to Bruce Sidlinger who is not only providing this room to CARC for free, but bought a table and some chairs for our use!**

## Officers:

President: Jason Bennett N2JLB  
Vice-President: Sandy Meadowcroft KF4JHC  
Secretary: Erv Perelstein, KE7QFI  
Treasurer: Pat Traber, KE7QFG  
PIO: Janice Enloe, KI6WCK

We will be needing a new vice-president come summer as Sandy will be vacating the offices. If you are interested please see Jason.

## 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.

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## 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>

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## Upcoming 2014 Events: Not all dates available yet

September

1 Williams 10K Labor Day Run

27-28 Flagstaff to Grand Canyon Run \*\*

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)

TBD Christmas party

\*\* Large event; all available amateur radio operators needed

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## MINUTES OF THE COCONINO AMATEUR RADIO CLUB MEETING

**August 14, 2014**

*Submitted by Phyllis Thompson, sitting in temporarily for Erv Perelstein*

**Meeting started at:** 7:00 pm, chaired by Sandy Meadowcroft, Vice-President, in Jason Bennett's absence.

**Secretary's Report:** Published in the July newsletter. Scott moved to accept as published, JD seconded. Unanimously accepted.

**Treasurer's Report:** The ending balance as of 8/12/2014 was \$1,560.03. Expenses from July 9 to August 12 included the bank fee and Field Day expenses. Income for the same period included dues, the 50-50 drawing, hats, shirts, and vests. Total membership for the year is 49, with 46 paid members and 3 lifetime members. Ken moved to accept the report, JD seconded. Unanimously accepted.

**President's Report:** Discussion items included:

### OLD BUSINESS

- Elections for club officers will be held in August. Nominations need to be in place in July. There was discussion of whether enough members were present for a quorum. Study of the by-laws revealed that 1/3 of membership is a quorum, and sufficient members were present. Sandy

Meadowcroft is willing to stand for President. Tom Shehan sent word via Scott Martin that he is willing to stand for Vice President. JD moved to accept the nominations and Ken seconded. Unanimously accepted.

- Past events in which CARC members offered radio support were reviewed: Snowbowl Hill Climb, Fat Tire Race, Big Brother/Big Sister Race. All went well. Mark Christian's work with the Snowbowl Climb was praised. Ron Gerlack noted that the Fat Tire Race grossed \$63,000 for Marine families and Toys for Tots. Thank you certificates for radio volunteers at the Sacred Mountain Prayer Run were handed out.

Discussion considered how to deal with the common problem of getting an accurate count of runners when large groups arrive at a check point (19 or 23 at a time). Various options were considered, with a commitment to talk next year with race coordinators in advance, perhaps asking groups to provide additional volunteers at checkpoints to ID runners and numbers. The question was raised about responsibility – all agreed that accurate counts are the responsibility of organizers. Radio operators are just helping.

- Future events are: *Flagstaff to Grand Canyon 100*, coordinated by Bill Smith and Joe Hobart. This is a big even and lots of people are needed! *Soulstice Run*, coordinated by Bob Meadowcroft. *November 18-19 State Communication Exercise*, Joe Hobart is involved. HF operators are needed.

## NEW BUSINESS

- Dan Boone sent an email inquiring about CARC policy on Life Membership. There was discussion of whether the question was about a lump sum payment for membership-for-life or about the honorary Life Memberships currently held by three people. Most agreed that a lump sum payment was not really in the spirit of CARC and that the criteria for Life Membership have not been made clear, though Dan Boone's contributions to the club probably qualified him. Janice Enloe, PIO, agreed to draft a letter for the August meeting identifying Dan's contributions and nominating him formally.
- Sandy Meadowcroft indicated that she hopes to compile a list of runs and other events that CARC members usually help out with, so that people can sign up in advance. She also looks forward to creating a checklist of what needs to be done for each event. It was noted that Ranger Bob Vance has asked for an advance "communications plan" be given to the Forest Service for every event on federal land. Bob Larkin said that he had a form we could use for guidance on this.
- Ron Gerlak (with Phil's help) is now handling the website: [www.cocoradio.org](http://www.cocoradio.org). They ask that everyone please look at the site and send any ideas or corrections to Ron at: [rbgerlak@gmail.com](mailto:rbgerlak@gmail.com)
- Ron is also coordinating the Route 66 Special Event Station at the Pioneer Museum on Highway 180. The event starts September 6<sup>th</sup>, with set-up on Sept. 5<sup>th</sup>. Help is needed – please contact Ron at the email above. Also, they need a vintage radio (for display only) and a code oscillator. The website for this event is: [www.w6jbt.org](http://www.w6jbt.org)
- Sandy reported that she is looking into possible speakers for coming meetings. A firefighter might be possible for September. Joe noted that Tony Nestor of Ancient Pathways (whose group is interested in ham radio licenses) might be interested, if we had specific topics we wanted him to discuss, such as snow survival. Sgt. Aaron Dick of Search and Rescue, Mark Christian, or Capt. Randy Murlin were also mentioned.
- A CARC vest and hats are available: Contact Bob Meadowcroft for the vest. Contact Scott Martin for hats.

**ARES Report:** Link transmitters to Page were down at the time of this meeting. More people are needed to check in to the net – not ahead of time, but actually during the scheduled time in order for all to be truly involved. The current active discussion for ARES is the November emergency exercise.

**Meeting adjourned:** 8:50 pm

**Drawing won by JD - \$16.00**

### **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**

**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](http://CocoRadio.org).

### **Soulstice Trail Run, Saturday, October 11, 2014:**

Just a heads-up for planning purposes - We'll need up to nine locations covered for this race, which is an early start (0800), with some travel time to some of the locations to be considered.. One or two of the locations could possibly be covered by mobile rigs; the rest would be handheld coverage, with these locations requiring some degree of hiking up the race course trail. More details about directions etc. will be provided later, but this is a call for interested participants to sign up at the September meeting, with final planning review at the October meeting, or contact Bob Meadowcroft ([meadowmuff14@yahoo.com](mailto:meadowmuff14@yahoo.com)) about availability. Those having indicated interest at the August meeting were: Janice KI6WCK, Ron KG7OH, (?Betty N8GNC), Sandy KF4JHC, and Bob KF4RKS and possibly David NJ0W, Erv KE7QFI, Kay KF7BRV, and Phil W7ZIP.

This is most likely our last run event of 2014 - don't miss out on the fun! Hope to hear from you!  
Thanks-  
Bob Meadowcroft

### **Radio Scouting Webinar Set**

A webinar, "What is Radio Scouting and What Does it Mean to Me?" is set for September 18 at 0100 UTC (**Wednesday, September 17, in US time zones**). The presenter will be Jim Wilson, K5ND, chairman of the Boy Scouts of America's Radio Scouting Committee, president of the K2BSA Amateur Radio Association, and member of the World Scouting JOTA-JOTI Team.

"Radio Scouting" includes all things Amateur Radio and Scouting. Topics will include the upcoming Jamboree on the Air (JOTA), the world's largest Scouting event, with 700,000 Scouts, 13,500 stations, and more than 22,000 Amateur Radio operators in 140 countries taking part. Advance [registration](#) is required. -- Thanks to [The ARRL Contest Update](#) via Keith Kaiser, WA0TJT





## 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 an increase in complaints of interference from hams, largely through no fault of the hams or their equipment.



The 1979 World Administrative Radio Conference (WARC-79) in Geneva remains one of the most significant conferences in International Telecommunication Union (ITU) history. The ground-breaking decisions at WARC-79 remain important to this day. [Photo courtesy of the ITU]

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*