

## April Club Events

Regular Club Meeting  
Tuesday April, 10  
7PM  
Cedar City Senior Center  
489 E. 200 South

## 2018 Club Officers

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# Rainbow Canyons Amatuer Radio Club

March 2018

## RCARC Ham Radio Monthly Meeting March 13, 2018

In Attendance: Isaiah Arnold KI7SXJ, Michelle Arnold KG7YID, Carolyn Bauer KG7YIB, Larry Bell N7SND, Tony Bennett KA7HGX, Brad Beidermann WA7HHE, Bruce Bishop KI7LUM, Sherry Bishop, Don Blanchard WA7GTU, Daniel Carlson KI7LUR, Don Carter KB7OWE, Sylvia Clements KB7UMU, Larry Coles KI7DRE, Johnny Ellison KE6ZIM, George Gallis AL7BX, Fred Govedich KI7TPD, Brad Gunderson KD6SFS, Collette Gunderson KI7LUU, John Higley KI7SCX, Wayne Holcomb, KI7QZA, Lance Jackson KA7J, Brody Johnson K7VXV, Terry Lee KD7TTT, Bruce McDonald KI7DRB, Tammy Nesmith KI7LVB, Burton Nichols KI7DRA, Ed Padgett KK7ZL, Dick Parker K7ZI, Mel Parks NM7P, Ken Richter KR7KR, Monti Rugebregt KG7WEN, Fred Sheffield KF7GPZ, Linda Shokrian KG7PBX, Kevin Truman KA7SWA, Nathan Sorensen.

President Brad Gunderson KD6SFS opened the meeting at 7:03pm

The Board presidency introduced themselves then Brad asked for any visitors to introduce themselves. Mel Parks NM7P, the ARRL Society Manager and President of the VHF Society stood, John Higley KI7HGX, the ECOMM Coordinator stood, and Nathan Sorensen, an employee from Radio Shack (working on getting his license) stood and introduced themselves.

The minutes written in the February Monthly Meeting Minutes were approved. Brody Johnson K7VXV motioned to accept, and Don Blanchard WA7GTU seconded..

Larry Bell N7SND, Treasurer reported \$2512.60 in the bank that does not include the \$300 to the insurance that was just processed today. Don Blanchard WA7GTU motioned to approve and Lance Jackson KA7J seconded.

REPEATER STATUS: All the repeaters are up and working. Some are getting a real workout. A lot of new HAMS from Salt Lake, Provo and Malad are connecting through the Intertie. We discourage written traffic to be sent along the Intertie. Those who use it please disconnect when you are finished with it. 76 has been worked on. John Hunter K7JH, out of the goodness

of his heart, has put in a brand new repeater worth \$2000. It is slightly different, more sensitive and the timer has been set for 1 minute. (There have been many people who have requested it remain at 1 minute. So talked quicker or shorter.)

#### Q & A: Terry Lee KD7TTT Moderated:

1 An e-mail was sent to Terry with the question: "I have just put in a vertical antennae. Do I need radials?" The instructions say they are NOT REQUIRED, however, the last page of the instructions clarifies this by saying: You don't need radials to cover the western United States, however, if you want to use it to contact Europe, you will need radials. It is recommended that you make the length of the radials conductive to 80 meter band, the other bands will take care of themselves. Radials increase the efficiency of your antennae and make the load shoot out further. Dipole antennae don't need radials, it is a built feature.

2 I just bought a PL259 connector. Do I need to solder the braid to the conductor? Yes, you need to connect the braid to the connector. It is the other half of the antennae. You can buy one for \$60 at Home Depot. Or, you could use a shower drain cover, or hog panels.

3 Field Day is coming up.

4 Panguitch Net meets Wednesdays at 8 pm. Rowberry is connected to Dutton.

5 10 meter net meets Saturday at 7 pm. But it's tough, even locally. Terry Lee KI7TTT was talking to Ken Richter KR7KR and could barely hear him.

#### ANNOUNCEMENTS:

Ribbons: For Friendship Net: 1<sup>st</sup> Place: Bruce Bishop KI7LUM, Fred Govedich KI7TPD; 2<sup>nd</sup> Tony Bennett KA7HGX, Sylvia Clements KB7UMU; 3<sup>rd</sup> Lance Jackson KA7J, Jim Beal KG6LFU. Breakfast Net: 1<sup>st</sup> Tony Bennett KA7HGX, Sylvia Clements KB7UMU, 2<sup>nd</sup> Johnny Ellison KE6ZIM, Wayne Holcomb, KI7QZA, Jerel Johnson KI7SDA; 3<sup>rd</sup> Linda Shokrian KG7PBX, Fred Govedich KI7TPD, Ed Padgett KK7ZL.

Don Blanchard announced that he has this years VHF Society Books for those who have joined. It is only \$15 a year.

OLD BUSINESS: The Insurance is in effect until April 1 of next year 2019.

#### NEW BUSINESS:

1. Russ Chaffee can no longer be Net Control for the Breakfast Net. We need volunteers: Monday-KI7TPD Fred Govedich, Tuesday-KK7ZL Ed Padgett, Wednesday-KA7HGX Tony Bennett, Thursday-KI7PBX Linda Shokrian, Friday-KD6ZIM Johnny

Ellison, and Saturday-KI7QZA Wayne Holcomb. Send this information to Terry Lee so he can update the computer links on Net Control. (Cancel this request. There is no need to update the computer if it will not be used for Breakfast Net.)

A couple of the operators don't use computer. We took a vote on keeping the use of the computer to keep track of Check-in Participation and it was voted down. We will take the Breakfast Net information off of the computer and there will be a paper list available for download for those Net Control operators for Breakfast Net.

2. We have volunteers for food and water for the April Meeting.

3. May is the Scout-A-Rama Expo. The official hours are from 9 am to 1 pm, but we would encourage those volunteering to have the booth set up between 8 and 8:30. Linda Shokrian has a table, shade cover and the Club Banner. We set up at the Cedar High School Soccer Field. We would like to stagger the hours of 4 volunteers. Please e-mail Brad Gunderson if you are interested.

4. We will hold an Elmer Night in late April or early May.

5. Dick Parker K7ZI brought a Show and Tell item. He has an Anderson Power Pole Plug that he has put together to mount on the outside of his trailer camper. They can be purchased on QuickSilver.com for \$18. You will have to add your own wire.

6. George Gallis AL7BX suggested that we apply for our Field Day Call Sign. Don Blanchard was asked to do that, and he accepted. If anyone is interested on being on the committee they should contact Brad Gunderson KD6SFS

7. Sylvia Clements KB7UMU asked that when Melody gets back into town someone help her get connected to Echo Link so she can stay in contact when she is out of the area. George Gallis AL7BX said he could help her.

8. Tammy Nesmith KI7LVB announced that beginning now, we can say "Monitor Only" when we just want to quickly check-in and get participation credit without having to wait to see if there is any traffic or comments.

**Mel Parks NM7P, President of the Utah VHF Society and Section Manager for the state of**

### **Utah of ARRL was invited to speak.**

He is serving a 2 year term. He has passion and a fun time filling both jobs. House Bill 64 was an amendment concerning "Distracted Drivers Law." Carol Spackman Moss is a spokesperson. She tried to make it illegal for ANY wireless communication devise to be used in a vehicle. Mel was asked to comment as a concerned citizen and HAM radio operator to talk about the benefits of having HAM radio communication. He spoke for 2 minutes and as he was ready to sit down he was asked to share "What events have happened in the last 5 years that were helped by the use of HAM radio operators?" He said they have assisted in a couple of Search and Rescue missions, the Elizabeth Smart situation, St. George Flooding to name a few. The bill was defeated 5:3. And the representative who asked Mel to speak then quietly gave Mel his Call Sign. There is a Digital Contest (?) coming up on 24 of March. For one day only. Based on the Larry H. Miller Campus of Salt Lake Community College. We, RCARC, made an impression of the Field Day results. Out of 31 groups in Utah, we came in 5<sup>th</sup>. VHF Society benefits all who are members and have paid dues. The money collected goes to repeaters and other equipment. Door prizes for our Annual Swap Meet are also purchased from the dues collected. We spent \$11,000 for maintenance and repairs in Utah (some to Idaho). We also have generous donors who give more than \$15. Along the same lines: Our swap meet had 400 + people attending. There are various swap meets through out Utah. Hamfest is also growing interest. We have grown and had to move the venue. The new location is in Ogden, at the Weber State University. He suggests attending other Hamfests throughout the state or encouraging a Hamfest centered in St. George. Mel encourages all to participate in many events, support local events: Bike races, races. Just get out and enjoy! He was impressed with our Q&A time at the beginning of our meeting. He thanked us for all the support we have given. He was asked a question about a Congressional Bill associated with ARRL. He said he didn't want to talk about it, but he did. This is a special type of bill that has been started again this year. It doesn't go before a vote. It is passed by acclamation. Someone proposes to pass, if there are no objections, it passes. Last year it almost passed but one person from Florida objected so it was killed. He was involved with a Home Owners Association. We're hoping we've convinced him to let us pass the bill.

The special bill would allow ALL COMMUNITIES to give consideration to put moderate antennae on our own houses or condos. (One man was not approved but found a way to get around the rule and was approved for a flagpole in his yard. It also makes a great

antennae.) He encourages all to be considerate. He talked a bit about "Summits on the Air." This is when HAMS climb on top of a mountaintop with all their radio equipment and make contacts all over the world. The participants go through all this extra work ... just to get a few more points for each contact. Most importantly: HAVE FUN!

**THE PRESENTATION:** Don Blanchard WA7GTU presented information and practical examples of Coax and Connectors.

RG58 a/u (The numbers are the important part.) (Cost is about \$.35/foot) This is a coax that is available in "stranded" or "solid" center conductor. He said that the "solid" center is not flexible and breaks easily. The "stranded" is better for our application.

RG 59 Typically you don't want it for HAM, it is used mostly for TV. It is solid and not stranded.

RG 8 (About \$.84/foot)

RG213 is close, slightly better it is made of copper.

RG 214 (\$5.90/foot) is silvered in 2 layers and is double shielded. This is great for repeater sites. New RG8X (\$.44/foot) This is a small 3/8" diameter which has a more flexible foam center. The center insulator is made of polyethylene which has less loss and it is surprising how much power it can handle.

RG174 a/u This is a tiny coax, only 1/8" diameter.

RG142 (\$3.85/foot) Rare. Not in Radio Shack ... maybe soon. Stiff. Double shielded. Nylon insulator. Use on repeaters for short distances.

LMR400 uf (Ultra Flexible) (\$1.46/foot) 50 ohm. Best ratio of weight and performance. Low loss 1/2 Superflex corrugated coax cable. 1/2" foam. Solid aluminum, center conductor, copper. No "braid," has a tendency to leak a bit. Regulation at all government sites.

BLM land, Government sites are required to run Heliaxe (spiral) or ribbed. Why not use it at home? It's expensive.

Heliax Type N Connector runs about \$23.95 / foot.

Common connectors:

DL 259 for HF

N (Neil) offers constant impedance

BNC (Baby Neil Connector) sometimes interchangeable with N

SMA Connectors: Male and Female. Beofeng did it right when they designed the antennae to be more likely to break than the connection inside the radio.

Grounding and Lightning Protection is very important. Static builds up from friction. The protection is made to discharge static before it reaches a critical level. The porcupine style is one way. Ground your feed line. The reason you have a "ball" on top of your small whip antennae is to prevent arcing. Lightning Protection is required on all feedlines at government sites. Single Point Grounding is the best. (We have two in our club that are on the cover of the new VHF Society booklet. Don Blanchard is in two pictures and we can see the back of Brian.) The meeting was adjourned at 8:54 pm. Larry Bell N7SND motioned and Sylvia Clements KB7UMU seconded.

## ARRL Seeks To Expand Technician Class Privileges

ARRL has asked the FCC to expand HF privileges for Technician licensees to include limited phone privileges on 75, 40, and 15 meters, plus RTTY and digital mode privileges on 80, 40, 15, and 10 meters. The FCC has not yet invited public comment on the proposals, which stem from recommendations put forth by the ARRL Board of Directors' Entry-Level License Committee, which explored various initiatives and gauged member opinions in 2016 and 2017. "This action will enhance the available license operating privileges in what has become the principal entry-level license class in the Amateur Service," ARRL said in its *Petition*. "It will attract more newcomers to Amateur Radio, it will result in increased retention of licensees who hold Technician Class licenses, and it will provide an improved incentive for entry-level licensees to increase technical self-training and pursue higher license class achievement and development of communications skills." Specifically, ARRL proposes to provide Technician licensees, present and future, with phone privileges at 3.900 to 4.000 MHz, 7.225 to 7.300 MHz, and 21.350 to 21.450 MHz, plus RTTY and digital privileges in current Technician allocations on 80, 40, 15, and 10 meters. The ARRL petition points out the explosion in popularity of various digital modes over the past 2 decades. Under the ARRL plan, the maximum HF power level for Technician operators would remain at 200 W PEP. The few remaining Novice licensees would gain no new privileges under the League's proposal. ARRL's petition points to the need for compelling incentives not only to become a radio amateur in the first place, but then to upgrade and further develop skills. Demographic and technological

changes call for a "periodic rebalancing" between those two objectives, the League maintains. "There has not been such a rebalancing in many years," ARRL said in its petition. "It is time to do that now." The FCC has not assessed entry-level operating privileges since 2005. The Entry-Level License Committee offered very specific, data- and survey-supported findings about growth in Amateur Radio and its place in the advanced technological demographic that includes individuals younger than 30. It received significant input from ARRL members via more than 8,000 survey responses. "The Committee's analysis noted that today, Amateur Radio exists among many more modes of communication than it did half a century ago, or even 20 years ago," ARRL said in its petition. Now numbering some 378,000, Technician licensees comprise more than half of the US Amateur Radio population. ARRL said that after 17 years of experience with the current Technician license as the gateway to Amateur Radio, it's urgent to make it more attractive to newcomers, in part to improve upon science, technology, engineering, and mathematics (STEM) education "that inescapably accompanies a healthy, growing Amateur Radio Service," ARRL asserted. ARRL said its proposal is critical to developing improved operating skills, increasing emergency communication participation, improving technical self-training, and boosting overall growth in the Amateur Service, which has remained nearly inert at about 1% per year. The Entry-Level License Committee determined that the current Technician class question pool already covers far more material than necessary for an entry-level exam to validate expanded privileges. ARRL told the FCC that it would continue to refine examination preparation and training materials aimed at STEM topics, increase outreach and recruitment, work with Amateur Radio clubs, and encourage educational institutions to utilize Amateur Radio in STEM and other experiential learning programs. "ARRL requests that the Commission become a partner in this effort to promote Amateur Radio as a public benefit by making the very nominal changes proposed herein in the Technician class license operating privileges," the petition concluded.

## New ISS Crew Member's Ham Radio Contact to Highlight a Wider Educational Effort

Recent International Space Station (ISS) arrival Ricky Arnold, KE5DAU, will take the mic of the station's NA1SS on April 10 to answer questions posed by students at Pinson Valley High School in Alabama, where ham radio already has a foothold. Amateur Radio on the International Space Station (ARISS) will sponsor the ham radio event with Arnold, who arrived on station on March 23 with Drew Feustel and Oleg Artemyev. Pinson Valley HS already has its own Amateur Radio club, and students there recently took part in ARRL's School Club Roundup (SCR), in the process learning about setting up antennas, propagation, and the basics of making a ham radio contact. The April 10 contact will highlight a wider educational effort at Pinson HS. Students in earth and space science classes will learn how satellites are used in Amateur Radio, and an AMSAT member will demonstrate their use. Industrial maintenance classes will build antennas and a transmitter to participate in a transmitter hunt. The Birmingham Amateur Radio Club (BARC) and its Amateur Radio Advancement Group has pledged their support and equipment. The Blount County Amateur Radio Club has offered to follow up by offering Pinson HS students and faculty with Amateur Radio license testing on the school's campus. "This level of involvement helps to dispel the myth that ARISS contacts are only a one-shot event," ARRL ARISS Representative Rosalie White, K1STO, said. "Teachers, clubs, and ARRL members work hard, sometimes out of their comfort zones, to ensure that Amateur Radio is included in scheduled schools in a broader context."

## Apparent First 2200-Meter Transatlantic Contact by US Radio Amateur Reported

In late March, Paul Kelley, N1BUG, of Milo, Maine, completed what may have been the first transatlantic 2200-meter contact by a US radio amateur under Amateur Radio rules. Signals in this part of the spectrum and lower previously have spanned the Atlantic in one direction, and Canadian radio amateurs have reported transatlantic contacts on the band dating back several years. "To the best of my knowledge this is the first transatlantic two-way QSO from the US on 2200 meters under Part 97 operation," said Kelley, who told ARRL that he gravitates toward the more challenging, "weak-signal" aspects of Amateur Radio and has been experimenting and DXing for 37 years

now. "2200 meters is my new passion, and I am having a lot of fun with it!" he said. I had been dreaming of — and working toward — a transatlantic QSO on 2200 meters for some time. Recently, I asked Chris Wilson, 2E0ILY, if he would be interested in trying to work me on DFCW60 mode. Chris and I have heard each other on *WSPR*, but he does not hear me well enough yet for a JT9 or other digital QSO. Chris agreed to try DFCW60 — dual-frequency CW, 60 second dit length." This was not a quick contact. It took *four* nights to complete, using night-by-night sequencing. Kelley called that "the minimum possible time" for such a contact, which included an exchange of complete call signs, signal reports, and acknowledgements. Kelley said they used the TMOR reporting system, borrowed from the moonbounce world. "The QSO was completed at 0020 UTC March 28 when I received 'R' from Chris," Kelley said. He noted that the weather did not cooperate on his first night of transmitting, with snow squalls affecting antenna tuning. "Fortunately, I have a remotely controlled variometer at the antenna," he told ARRL. "Otherwise, I could not have kept the transmitter going — or alive — that night. For over 2 hours, I had to tweak it almost every key down — roughly every 90 seconds." Things calmed down to the point where he only had to adjust it every 10 to 15 minutes. Kelley's 2200-meter station consists of a QRP Labs Ultimate 3S transmitter, a home-built single FET 200 W class E amplifier, and a 90-foot top-loaded vertical antenna. "This gives me no more than 0.5 W EIRP, probably less," he said. For receiving, he uses a 30-foot "low-noise" vertical, homebrew band-pass filter, preamp, and a modified Softrock Lite II software-defined radio receiver kit, with the local oscillator modified for coverage on 2200, the front-end filter modified, and additional filter sections added.

## Have An Article?

Read or have something interesting you want to share with the club? Send your ideas and links to Tim, KI7LVC at [bigkickincountry@gmail.com](mailto:bigkickincountry@gmail.com) or Tammy, KI7LVB at [msnezzy@gmail.com](mailto:msnezzy@gmail.com) 73 until next month!