

Rainbow Canyons Amateur Radio Club

Cedar City, Utah

Mar 2017

Club Officers:

President:

KG7BPX
Linda Shokrian

Vice-President:

KR7KR
Ken Richter

Treasurer:

AL7BX
George Gallis

Secretary & Editor:

K6QOG
Bill Stenger

Local Repeats:

146.980 Mhz
Tone 100 hz

146.940 Mhz
Tone 100 hz

146.760 Mhz
Tone 123.0 hz

Remote Base
449.500 Mhz
Tone 100 hz

Remote Base
449.925 Mhz
Tone 100 hz

IRLP/Echolink
449.900 Mhz
Tone 100 hz

RCARC Websites:

<http://www.rcarc.info> and <http://www.rainbowcanyons.com>

NOTE:

Club meets on the second Tuesday of each month at the Senior Center 489 E 200 S

RCARC NETS:

Breakfast Net: 7:00am 146.76 Mhz, 123 hz PL tone required, Mon.-Sat.
Friendship Net: 9:00pm 146.76 Mhz, 123.0 hz PL tone, every evening.

Club Monthly Breakfast is April 1st, 9 am at the Pastry Pub. Come in and place your order then come to the side room to be with other hams and your order will be brought to you. It is a most relaxing and friendly environment.

Next club meeting is Tuesday, March 11th at 7:00 pm

Local Activities

by Linda Shokiran KG7PBX

2017 Participation Award

To encourage participation and remind us how much fun Ham Radio can be, RCARC is offering a Participation Award for 2017 of a Yaesu 857d All Band Radio to be drawn for at the December 2017 meeting. Tickets will be given for participating in various activities all year long in 2017. For ways to earn tickets, please read the meeting handout for more information.

2017 Technician Class

The class and testing is over. Our Teachers did a fantastic job as our success rate is still outstanding. 28 students took the Technician test and 25 passed. 3 went on to get their General.

2 Techs came (Jon Caldwell, KI7DKB and Bruce McDonald, KI7DRB) and passed their general and Terry Lee KD7TTT took and passed his Extra. Congratulations everyone.



Emergency Communications Group

EComm meets every other month in even months. There was no March meeting. April 20th is the Utah Great Shakeout and is also SWUPHD Hospital Radio drill at 10 am. Next EComm meeting is scheduled for April 20th, 2017 at 6 pm at the Visitor's Center. Ecomm members mark your calendars - looks like April 20th is going to be a busy day.

CERT

There was no CERT meeting held this month due to the fact no one showed up for one! Rather embarrassing since our speaker/presenter came up from St. George to give a talk on Shelter Management.

Next CERT meeting is scheduled for April 20th, at 7 pm at the Visitor's Center. CERT Trailer inventory and care will be discussed.

The next CERT Basic class is scheduled for April 28th & 29th and May 5th and 6th. See Linda KG7PBX if you want more information or wish to take the class.

LEPC

LEPC (Local Emergency Planning Committee) meeting was held Wednesday, March 15th, 2017 at the Hospital. Unfortunately, Linda KG7PBX, was sick and unable to attend. However, she was told that Paulette Valentine from St. George updated everyone on the success of the Rural Preparedness Summit.

If you wish a copy of the monthly LEPC minutes, please contact Linda KG7PBX at Lgshokrian@gmail.com and she will send you a copy when it becomes available.

The next LEPC meeting is scheduled for Wednesday, April 19, 2017 at 12 noon at the Heritage Center.

Upcoming events - call Linda KG7PBX (435-867-5914) to register or for more information

Her address is 2438 W Carmel Canyon Dr. (Just South of the New Temple)

Tape Measure Antenna building workshop - 1 pm Saturday April 8th in Linda's Garage

Field Day Planning, April 12th at Linda's home.

Easter Egg Fox Hunt & Pot Luck Luncheon Social - starts 9 am Saturday April 22, 2017 out at 3 Peaks large pavilion - sign up sheet will be at the April Meeting

New Ham Elmer Night - 7 pm Wednesday April

26th, 2017 at Visitor's Center West Conference Room
The above events all qualify for participation tickets

A TRIP NORTH - DIGITAL CONFERENCE

George AL7BX and Bryan KG7OOW attended the Utah Digital Communications Conference in Sandy UT on March 25. They attended seminars on Mesh networks, Raspberry Pi for ham radio, FLDigi and generally rubbed elbows with like minded people.

There were over 100 participants for this first ever event in Utah and a 2018 conference is already scheduled.

DIY Project ANYONE CAN DO

HOW TO WATERPROOF YOUR COAX CONNECTORS

Coax connectors (either where you joined two cable ends, or at the antenna connection point) are NOT waterproof. When left exposed to the elements they will overtime deteriorate resulting in a poor connection to your antenna.

The procedure below is used by many HAM's to waterproof their connections outdoors with good success. Many ways to do it, description below is what I was taught by a fellow HAM that does commercial cellular installs.

What you need:

- Good quality electrical tape, I recommend Scotch Super 33+ (<http://www.3m.com/product/informatio...ical-Tape.html>) or the Super 88 if you want to use some thicker tape

- Scotch Linerless Rubber Splicing Tape 130C (<http://3mcollision.com/products/tape...ape-41717.html>)

The splicing tape isn't cheap, but it's the stuff that really waterproofs the connection. It's so called self-amalgamating tape. This synthetic rubber will bond to itself very quickly.

There are other (silicon based) tapes that behave similarly; I have no experience with those.

1) Put your antenna system together and measure it to make sure you get a good SWR on the frequencies you care about for transmitting. Little tip, the PL239 connector (the male) often has teeth at the end. Before you screw the connector down, twist it to make sure the teeth fall in the matching holes on the SO239 (female) connector. If you screw it down without making sure it's properly seated, you might make a connection with just the tips of the teeth.

2) Wrap your connection in electrical tape. This does nothing for waterproofing it, but you will thank

yourself if you ever want to get to the connector again. The amalgamating tape is a <beep> to get off after it bonded.

3) Cut the length of 130C needed for your connector. I usually cut 10-15cm, ideally it's a continuous piece. Start in the MIDDLE of your connector; make sure that the tapes sticky side is facing OUT. Hold the end of your tape down with your finger and put some good stretch on the tape while you wrap it around the connector (this can be tricky when in cramped spaces). Make sure that you overlap each turn 50% over the previous wrap. Work your way to the end, make sure that you also cover at least 1cm of the cable going into the connector. With one or two extra wraps, work your way back to the middle and repeat the process to the other end.

4) Use your hands to put some heat into the tape (people in warmer climates can laugh at us in the colder parts of the world and massage it. This will help to quickly bond the different layers.

5) Wrap another layer of electrical tape around the 130C. Again not for water proofing, this layer is for sun protection. The rubber in the 130C does not tolerate UV very well (although even untapped it might still outlast the car)

6) Put a small, black tie-wrap over the end of your electrical tape. No matter the quality of the tape, the end will always come off over time.

The connection you just waterproofed should give you no trouble for the next 10 years! If you didn't do this to your connector, you might want to open up your connection and check for sign of water on the inside of the connector. A sure sign of trouble is rust on the inside. Over time the water will work its way thru the connector to the braid of the coax, which will in turn start rusting. This will change the properties of the coax, and negatively impact the SWR.

All of the above is probably overkill, but I know all the people that we haven't heard back from wished they had done this!

Enjoy!

Bas / VE7RIJ

ARRL News

New Bands! FCC Issues Amateur Radio Service Rules for 630 Meters and 2,200 Meters

The Amateur Service will officially get two new bands in the near future. The FCC has adopted rules that will allow Amateur Radio access to the 630 and

2,200-meter bands, with minor conditions. A Report and Order (R&O) was released on March 29. The new rules become effective 30 days following publication in The Federal Register.

The FCC said the Amateur Radio service rules it has adopted for 630 meters and 2,200 meters allow "for co-existence with Power Line Carrier (PLC) systems that use these bands." Utilities have opposed Amateur Radio use of the MF and LF spectrum, fearing interference to unlicensed Part 15 PLC systems used to manage the power grid.

Amateurs operating on 472-479 kHz would be permitted a maximum equivalent isotropically radiated power (EIRP) of 5 W, except in parts of Alaska within 800 kilometers (approximately 496 miles) of Russia, where the maximum would be 1 W EIRP. Amateurs operating in the 135.7-137.8 kHz band could run up to 1 W EIRP.

The FCC is requiring a 1-kilometer separation distance between radio amateurs using the two new bands and electric power transmission lines with PLC systems on those bands. Amateur Radio operators will have to notify UTC of station location prior to commencing operations.

The FCC also placed a 60-meter (approximately 197 feet) above-ground-level (AGL) height limit on transmitting antennas used on 630 meters and 2,200 meters. The bands would be available to General class and higher licensees, and permissible modes would include CW, RTTY, data, phone, and image. Automatically controlled stations would be permitted to operate in the bands. More details soon, on the ARRL website.

Amateur Radio Links Search for Amelia Earhart's Plane with ISS Crew, Classroom

One of the enduring mysteries of the 20th century was the 1937 disappearance of famed aviator Amelia Earhart and her flight companion and navigator Fred Noonan, while she was attempting to circle the globe. It appeared that Earhart's plane went down in the South Pacific in the vicinity of Howland Island; her last-known radio transmission came from there. On February 18, a team from Nauticos -- with stratospheric explorer Alan Eustace and aviation pioneer Elgen Long, W7FT -- departed Honolulu for the vicinity of Howland Island, some 1,600 miles to the southwest, to complete the Eustace Earhart Discovery deep sea search for Earhart's lost Lockheed Electra. Nauticos provides ocean technology services

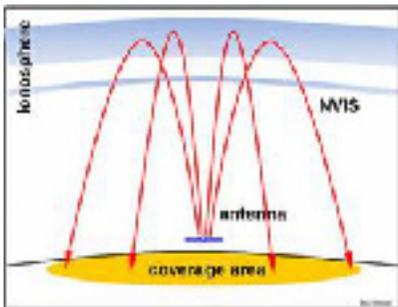
to government, science, and industry.

The team has been conducting a sonar survey of about 1,800 square miles of sea floor where it's believed the aircraft may rest, and Amateur Radio has provided a means to link the crew of the research vessel Mermaid Vigilance with youngsters following the expedition, as well as with the International Space Station (ISS) crew.

For more information see THE ARRL LETTER FOR MARCH 30, 2017.

NVIS Research Paper Available

A thorough and fully annotated discussion of Near Vertical Incidence Skywave (NVIS) is available in the research paper, "Radio Communication via Near Vertical Incidence Skywave Propagation: An Overview," by Ben A. Witvliet, PE5B/5R8DS, and Rosa Ma Alsina-Pagès.



First investigated in the 1920s, NVIS propagation was rediscovered during World War II as "an essential means to establish communications in large war zones such as the D-Day invasion in Normandy," the paper notes, adding that the US Army subsequently sponsored a lot of NVIS field research, especially between 1966 and 1973. More recently, NVIS has become a popular means to enable close-in communication on Amateur Radio HF bands between 3 and 10 MHz. NVIS can be used for radio communication in a large area (200-kilometer radius) without any intermediate manmade infrastructure, and it has been found to be especially suited for disaster relief communication, among other applications, according to the paper.

For more information see THE ARRL LETTER FOR MARCH 30, 2017.

ARRL Weighs In on New California "Driving While Wireless" Statute

ARRL is recommending that Amateur Radio be specifically excluded from a California statute prohibiting the use of "wireless communication devices" while driving. ARRL Southwestern Division Vice Director Marty Woll, N6VI, is taking point on the effort to revise the statute, known by its legislative bill number AB 1785. It was signed into law last

September, and it took effect on January 1, amending §23123.5 of the state's Vehicle Code.

ARRL General Counsel Chris Imlay, W3KD, pointed out that that the prior statute excluded Amateur Radio by definition. The new law, which completely replaced the earlier statute, never mentions Amateur Radio, but instead contains an open-ended definition of an "electronic wireless communications device," the operation of which while driving is prohibited. According to the statute, this "includes, but is not limited to, a broadband personal communication device, a specialized mobile radio device, a handheld device or laptop computer with mobile data access, a pager, or a two-way messaging device."

For more information see THE ARRL LETTER FOR MARCH 16, 2017.

FOR OLD TIMERS:

International Crystal Manufacturing Going Out of Business

International Crystal Manufacturing (ICM) of Oklahoma City has announced that it will be going out of business, probably at the end of May. Royden Freeland Jr., son of the company's founder, posted a letter this week on the ICM website.

International Crystal produces RF control devices -- quartz crystals, oscillators, QCM crystals, filters, TCXOs/VCTCXOs, and precision crystals.

For more information see THE ARRL LETTER FOR MARCH 16, 2017.

What happened at the last Meeting?

RCARC Minutes for March 14, 2017

Ed. note (My apologies for being absent for the meeting and no minutes are available. The following is the agenda the meeting that President Linda Shokrian KG7PBX used.)

Welcome

Those attended: Ed Alpers W7AEA, Michelle Arnold KG7YID, Carolyn Bauer KG7YIB, Ken Bauer KG7YIC, Jim Beal KG6LFU, Larry Bell N7SND, Tony Bennett KA7HGX, Brad Biedermann WA7HHE, Mardi Biedermann KB7HHB, Bruce Bishop KI7LUM, Don Blanchard WA7GTU, Don Carter KB7OWE, Sylvia Clements KB7UMU, Larry Coles KI7DRE, John Ellison KE6ZIM, Brad Gunderson KD6SFS, Collette Gunderson KI7LUU, Lance Jackson KA7J, Merlin Mackay N7TCE,

Bruce McDonald KI7DRB, Dick Parker K7ZI, Ken Munford N7KM, Monti Rugebregt KG7WEN, Fred Sheffield KF7GPZ, Boyd Woolsey KG7YIA, Terry Lee KD7TTT, Ethan Bunker, KI7LUP, Leo Harrison KC7RKU, Gany Vetterli KD7STJ, Kristine Barsky KI7DQX, Steve Barsky KI7DQY, Roger Simister KC7UT, Dan Pointer KI7LVD, Lowell Barker KI7LUL, Scott Brim KI7LUN, Melody Brim KI7LUO, Linda Shokrian KG7PBX, Ken Richter KR7KR, George Gallis AL7BX

Introductions and How have you "played radio" recently

Last month's minutes - Secretary, Bill K6QOG
Treasurer's Report - George AL7BX - \$2,147.28
\$200.00 donation to VHF Society

Announcements:

Please be sure to join and support our Radio Club.
Get your dues to George AL7BX - \$15 individual or \$20 family per year.

Don't forget to get your participation ticket for joining VHF Society or RCARC in 2017.

Members who have signed in this evening will have their participation ticket put into the drum for them
Old Business:

Participation award for 2017 - pick up a flier for more information

Net Control Operators Needed - Learn how to direct traffic and have more fun on the radio

Please see Linda KG7PBX if you are interested (we especially need a Tuesday night)

We have secured the Senior Center for our future meetings beginning April 11, 2017

Cedar Senior Center address: 489 E 200 South (East of ACE hardware on north side by coal creek)

Please note NEW time - date stays the same (7:00 pm, 2nd Tuesday of the month)

Don Blanchard WA7GTU - Please Join and support our VHF Society to keep our repeaters up and running.- See

Don Blanchard WA7GTU for application Dues \$15 per year If you are a member make sure you get your 2017 booklet from Don

New Business:

Board has suggested to Donate \$200 to the VHF Society to help pay for repair costs to our downed repeaters

Minersville tested 8 last Saturday the 11th. 5 passed including Destry K9BDL's son Talon age 11

Technician Class Testing held today - # of new hams
Tech _____ General _____ Extra _____

Congratulations to all!

the winners of the 4 Baofeng 82HP giveaway radios were

*Field Day - First meeting for Field day will be held Tuesday, March 21st at 7 pm at Linda KG7PBX's home located at 2438 W Carmel Canyon Dr. (Just south of new temple) call 435-867-5914 for directions. Please sign

participation sheet if you are interested in helping out this year

*Fox Hunting - there will be a tape measure antenna workshop on Saturday, April 8th at 1 pm in Linda

KG7PBX's Garage. In order to keep the cost down, the Club will buy the supplies in bulk, so the cost to participants is \$15 per antenna. PLEASE SIGN THE SIGNUP SHEET if you plan on attending so we know how much supplies to get!

*This will help prepare club members for an Easter Egg Fox Hunt Pot Luck Social at 3 Peaks on Saturday April

22, beginning with "How to do a Fox Hunt" at 9am, the actual hunt begins at 10 am and the *Pot Luck Social

can start anytime after 11:30 am (times are approximate so just come and have fun)

*starred club sponsored events are eligible for participation tickets for the 857 radio

Upcoming Events

1. New Ham Elmer night scheduled for Wednesday April 26th 7 - 9 pm at the Visitor's Center
2. RCARC will sponsor a contest "Most 2m Simplex Contacts Made" starting May 10th to June 10th - Rules to

be given out at April meeting. Suggestions are being taken for appropriate prizes/awards. See Linda with ideas

Tonight's Presentation

Vice President - Ken KR7KR

Presentation: Ken Munford N7KM - CW

Close - Motion to Adjourn?

CONGRATULATIONS TO OUR NEW HAMMS!

Cedar City Test

Adams, Thomas Y KI7LUI
Andrews, Jeremy R KI7LUJ
Ansell, James W KI7LUK
Barker, Lowell W KI7LUL
Bishop, Bruce L KI7LUM

Brim, John S KI7LUN
 Brim, Melody A KI7LUO
 Bunker, Ethan C KI7LUP
 Caldwell, Jonathan L KI7DKB
 Carlson, Daniel F KI7LUR
 Carpenter, Daniel J KI7LUQ
 Davis, Kevin K KI7LUS
 Dolan, Melissa A KI7LUT
 Gunderson, Collette KI7LUU
 Hansen, Helen KI7LUV
 Jackson, Benjamin A KI7LUW
 Lee, Terry KD7TTT
 Lewis, Timothy B KI7LUX
 Lunt, James M KI7LUY
 Matthews, Ericka D KI7LUZ

Mcdonald, John B KI7DRB
 McIntyre, Brenda R KI7LVA
 Nesmith, Tamera L KI7LVB
 Nesmith, Timothy E KI7LVC
 Pointer, Dan W KI7LVD
 Stephenson, Chris KI7LVE
 Williams, Charadee J KI7LVF
 Williams, Stephen D KI7LVG

Minersville Test

Balch, Jennifer KI7LVP
 Balch, Talon KI7LVO
 Goff, Sadie KI7LVQ
 James, Keith B KI7LVN
 Wayman, Jade B KI7LVM

INFO FROM Jack, WA7LNW

I wanted to share with you and Dixie Amateur Radio Club membership, James (Jim) Rodenkirch, K9JWV has become a silent key. Jim licensed since 1958, resided in St. George and enjoyed QRP/QRPP CW contesting and general operating, primarily focusing on low bands 160 / 80 / 40 meters using only wire antennas. Jim's first QRP experiences began with a W8DIZ 160, 1 watt transceiver on the evening of Nov. 15, 2015.



Here is a picture of Jim taken last year during our Multi-Operator 7QP QRP Mobile effort.

RCARC - ECOMM Calendar April 2017

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1 9 am Breakfast @ Pastry Pub
2	2	4 ***ORCA Net	5	6	7	8 *1 pm - Tape measure Antenna Workshop
9 **7 pm EComm NBEMS Practice	10	11 7 pm RCARC monthly meeting @ Senior Center (NEW TIME & PLACE)	12	13	14	15
16 HAPPY EASTER	17	18 ***ORCA Net	19 12n LEPC @ Heritage Center	20 GREAT UTAH SHAKEOUT 10 am Hospital Radio Drill 6 pm - EComm mtg & 7 pm CERT mtg at Visitor's Center	21	22 9 am - Easter Egg Fox Hunt & Potluck Luncheon at 3 Peaks
23 30	24	25 ***ORCA Net	26 7 pm - New Ham Elmer Night at Visitor's Center	27	28	29

* In Linda's KG7PBX Garage - 2438 W Carmel Canyon Dr - Just South of new Temple - call 435-867-5914 for directions

** EComm Practice with voice 449.925 MHz and Digital/FLDigi on 146.98 MHz - Everyone invited to join in

*** ORCA Net - 8:30 pm 3.581 MHz 1500 Waterfall MFSK32 - talk frequency 449.925