

# *NCARC*

# **TRIBANDER**



BAOFENG UV-5R

***NORTHERN COLORADO AMATEUR RADIO CLUB***

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## Local Repeaters

Frequency	Tone	Call Sign	Operated By	Services
144.390 Simplex APRS Digipeaters / No Tone		WØUPS	NCARC	GEN. BACKUP
		WØQEY	CSU	?
		WØLRA	LRA	?
145.115-	100.0 HZ	WØUPS	NCARC	BATTERY / GEN. BACKUP AUTOPATCH
146.625-	100.0 Hz	WØUPS	NCARC	NONE
146.850-	100.0 Hz	WØUPS	NCARC	NONE
147.000+	100.0 Hz	KCØKWD	WARS	CONTINUOUSLY LINKED IRLP node 3839 ECHOLINK
147.195+	100.0 Hz	WØLRA	LRA	BATTERY BACKUP AUTOPATCH
147.270+	100.0 Hz	NØENO	LARC	AUTOPATCH
147.360+	100.0 Hz	WØQEY	CSU	NONE
224.520-	100.0 Hz	WØUPS	NCARC	GEN. BACKUP
224.840-	100.0 Hz	WØUPS	NCARC	GEN. BACKUP / LINKED 145.205
447.275-	100.0 Hz	WØUPS	NCARC	GEN. BACKUP AUTOPATCH
448.800-	88.5 Hz	WØENO	LARC	NONE
448.025-	100.0 Hz	WØUPS	NCARC	NONE
448.475-	100.0 Hz	KCØKWD	WARS	CONTINUOUSLY LINKED IRLP node 3839 ECHOLINK
449.575-	100.0 Hz	WØLRA	LRA	BATTERY BACKUP
449.725-	127.3 Hz	KØOJ	KØOJ	AUTOPATCH
449.850-	100.0 Hz	WØQEY	CSU	NONE
927.825-	100.0 Hz	ABØSF	ABØSF	NONE
927.875-	DPL 114	NØZUQ	NØZUQ	NONE
927.950-	100.0 Hz	K1TJ	K1TJ	GEN. BACKUP
1283.550-	100.0 Hz	K1TJ	K1TJ	NONE
Frequency	Tone	Call sign	Operated By	Services

# NCARC MEETING

May 16, 2015

AT THE

## GOLDEN CORRAL

1360 Sculptor Dr,

Loveland, CO

BREAKFAST – 0800

MEETING - 0900

**REMEMBER**

**MAY 7, 2015**

**NCARC SOCIAL DINNER**

**J. GUMBO'S**

2842 Council Tree Ave  
Fort Collins, Colorado

Time 1800

Come and Have FUN  
Members and Guest Welcome

# Radio Information



Baofeng has its price series placed aggressively making it very competitive in the market. Baofeng has been trending with Baofeng UV5R for some time now. The affordability factor is one good reason that you should consider investing in this device, loaded with good features and functionalities. The cast is made up of durable material making it ideal for rough use. The good looks and lightweight body is definite to get your attention. This handset is strong and sturdy and has been built keeping in mind rough usage. The device's ergonomic design and respectable looks are one of the best features. Extremely comfortable to hold and can be operated easily. Baofeng UV5R is dominated with long battery life.

## General information

Voice transmission is loud, clear, and crisp in spite of bad weather conditions. With moderate usage, the battery even lasts up to 2 days, which is very interesting as their competitors that provide similar handsets with the same range fail to achieve the same! In fact, there are many complaints with similar devices from other brands stating that the batteries drain out excessively soon. Credit should go to Baofeng, for manufacturing a product that does not only look good but is rich in functionality too

## Accessories

The USB programming cable is compatible for Baofeng UV-5R UV-3R and is most commonly purchased, with the Talkie. Two ways radio with driver cd can also enhance the experience. The

Baofeng BF-S112 2 way radio speaker would also be an add-on if used with this device. However, one can still do without the use of any accessory, and mostly buyers do not prefer to invest further in accessories, which is justifiable.

## Pros

- Small, just the size of an [iPod](#)
- Good frequency range
- Easy to use
- Durable and extremely strong
- Good frequency range
- High two colors LED definition display
- Need not use any audio accessory

## Cons

- Manual programming could be a lot better
- Selecting the desired channels is slow
- VFO function has no copy memory channel
- Scanning is a little slow
- No copy to memory channel
- No voice prompts
- PPT lock out function unavailable

## Conclusion

Good value for money that has been spent makes it an excellent product. The compatibility with third party softwares makes this device even more exceptional. Good for emergency as it has the ability to cover HAM and LMS. An eponymous bunch of devices is what I would call them. Overall, Baofeng has tried to make its new Baofeng UV5R as rich as possible. While most users would not have a problem with this, fans of Baofeng will be sure to be impressed. Have all the potential qualities to make it big in the market and can be a longtime favorite!

### Key specifications:

- Brand: Baofeng UV-5R
- Battery: 24 hours, one [Lithium ion batteries](#) require
- Coverage: One Lithium ion batteries required.
- Display: LCD Screen
- Frequency range: 25 KHz/12.5KHz Switchable
- Height: 8.3 inches
- Width: 6.5 inches
- Depth: 3.7 inches
- Weight with battery: 1.1 pounds

- Ideal for: Baby monitoring, floorwalkers, adventure sports, retail, and manufacturing industries
- Price range: \$38.48
- Number of channels: 128 Channels
- Special features: LED Flashlight
- Warranty: 12 months

## NEWS

ARLB016 FCC Proposes to Permit Amateur Access to 2200 and 630 Meters

Amateur Radio is poised to gain access to two new bands! The FCC has allocated a new LF band, 135.7 to 137.8 kHz, to the Amateur Service on a secondary basis. Allocation of the 2.1 kHz segment, known as 2200 meters, was in accordance with the Final Acts of the 2007 World Radiocommunication Conference (WRC-07). The Commission also has proposed a new secondary 630 meter MF allocation at 472 to 479 kHz to Amateur Radio, implementing decisions made at WRC-12. No Amateur Radio operation will be permitted in either band until the FCC determines, on the basis of comments, the specific Part 97 rules it must frame to permit operation in the new bands. Amateur Radio would share both allocations with unlicensed Part 15 power line carrier (PLC) systems operated by utilities to control the power grid, as well as with other users.

In addition, the FCC has raised the secondary Amateur Service allocation at 1900 to 2000 kHz to primary, while providing for continued use by currently unlicensed commercial fishing vessels of radio buoys on the "open sea."

The allocation changes, associated proposed rules, and suggested topics for comment are contained in a 257-page FCC Report and Order, Order, and Notice of Proposed Rulemaking addressing three dockets - ET-12-338, ET-15-99, and IB-06-123 - which affect various radio services in addition to the Amateur Service. The FCC released the document on April 27.

With respect to the new LF sliver band at 135.7-137.8 kHz, the FCC concluded that Amateur Radio and PLC systems can coexist there. "Since the Commission last considered this issue, amateurs have successfully operated in the band under experimental licenses without reported PLC interference," the FCC said. "We are also encouraged by the fact that numerous fixed radionavigation beacons, which operate at much higher powers, share spectrum with PLC systems without reported interference."

In 2003 the FCC turned down an ARRL proposal to create a 135.7-137.8 kHz Amateur Radio allocation, after utilities raised fears of a clash between Amateur Radio and PLC systems operating below the AM broadcast band. This time, the FCC said, "It is clear that we will

have to establish appropriate requirements for amateur use of the band, if we are to ensure compatibility with PLC systems." WRC-07 set a maximum effective isotropic radiated power (EIRP) limit of 1 W, which is what the FCC is proposing.

The FCC said it "explicitly" rejects the suggestion that it choose one use of the spectrum over the other. "Our objective is to allocate spectrum on a secondary basis to amateur stations in a manner...compatible with existing PLC systems," the FCC said. "However, we also expect to permit amateur operators to make use of the allocation in a manner that is less burdensome and more productive than they are currently afforded under the experimental authorization process."

The Commission said that if it concludes, after considering the record, that Amateur Radio and PLC systems cannot coexist, it would "defer the adoption of service rules, and amateur users will have to continue to use the experimental licensing process to operate in the band."

With respect to the proposed 630 meter allocation, the FCC has proposed limiting amateur stations in the US to a maximum 5 W EIRP. In the US, 435-495 kHz is allocated to the Maritime Mobile Service on a primary basis for federal and non-federal use, and to the aeronautical radionavigation service on a secondary basis for federal use.

The ARRL submitted a Petition for Rule Making in 2012 asking the FCC to allocate 472-479 kHz to the Amateur Service on a secondary basis and to amend the Part 97 rules to provide for its use. Several countries, including Canada, already have access to the band. The ARRL has pointed out that during its extensive course of experimentation in the spectrum around 500 kHz, no interference reports have been received.

The FCC said that the "cornerstone" of the technical rules it's proposing for both bands is "physical separation between amateur stations and the transmission lines" carrying PLC signals. "Such a separation, in conjunction with limits on the amateur stations' transmitted EIRP and antenna heights, will enable PLC systems and amateur stations to coexist in these bands," the FCC asserted. "In addition, we propose to limit amateur stations to operations at fixed locations only, to ensure that this separation distance can be maintained reliably."

The FCC said it wants to hear from both PLC system users and radio amateurs regarding technical requirements it would have to put into place to permit both users to operate comfortably and without compromising the PLC systems. The Commission suggested that other requirements might include limits on antenna heights, transmitter power limits, and operating privilege limits based on license class or mode. The ARRL will file comments in the proceeding.

The FCC will accept comments for 60 days following publication of the Report and Order, Order, and Notice of Proposed Rulemaking in the Federal Register. Reply comments would be due 30 days after the comment deadline.



## ==== Upcoming Hamfests, Tailgates and Conventions ====

Apr 18	Cloud Peak Radio and Electronics Group Swapfest (Sheridan, WY)
Apr 25	Albuquerque Spring Tailgate Swapfest (Albuquerque, NM)
Jun 6	Montrose ARC Tailgate Party (Delta, CO)
Jun 27-28	Field Day
July 23-26	Central States VHF Conference (Denver, CO)
Jul 31-Aug 2	2015 ARRL Rocky Mountain Division Convention (Bryce Canyon, UT)
Aug 16	Denver Radio Club Hamfest (Golden, CO)

# Jokes

## Some Amateur Radio Definitions

For those new to ham radio, here are some useful definitions, pertaining to antennas and DX-ing.

- S.W.R. -- A term, applied to any part of the antenna system, which means: "Savings-to-Watt Ratio". Based on the inverse relationship of dollars in the bank and effective radiated power. Characteristic Impedance The usual reaction of your spouse when told about the proposed antenna system.
- Traps -- Devices installed in antennas to collect rain-water, to keep it from running further down the antenna.
- Wind Loading -- The measure of how much more awkward it gets to handle a big beam as you ascend the tower.
- Balun -- (Pronounced: "balloon" by many). An anti-surveillance device, installed in coaxial lines at the antenna, to prevent nosy neighbors from eavesdropping on you through their TV sets.
- Transmatch -- A device mistakenly believed to decrease S.W.R.. The premise is that this device allows you to load up into a mis-matched antenna. Unfortunately, it the cost of one that lowers your S.W.R.
- House Bracket -- A device which secures the house and the tower together. It lets the tower do double-duty by holding up the house during severe windstorms.
- Rotator Control Box -- A device which is designed to let you monitor antenna "windmilling".
- Windmilling -- A technique whereby prevailing winds are allowed to rotate the antenna, enabling the operator to "scan" the radio horizon.
- Dummy Load -- A measure of the stress exerted on a tower by a ham who climbs the tower without a safety belt.
- Coax -- (Usually mis-pronounced as two syllables). A term applied to the maneuvering of a piece of transmission line through the attic or walls of a house.
- Db's Gain -- A bunch of yellow-jacketed wasps found a great place to build their nest, at the bottom of the rotator housing on my tower.

- Db's Loss -- Fortunately, lightning struck the tower and the wasps were totally destroyed.
- Vertical -- A much-maligned antenna, said by some critics to "radiate equally poorly in all directions". This is not true, as many who have built one know. In fact, the vertical can have directional characteristics, and not radiate at all in some directions. I hope this clears up that myth once and for all!
- Sloper -- A variation of the vertical, where high winds have affected thin-walled aluminum tubing used in the construction.
- Inverted Vee -- A clever, but inferior, reverse adaptation of the true, "upright Vee", which allows the use of a single support instead of the usual two.
- Dipole -- Another modification of the true "Vee", and used where it is not possible to get the center feed point close to the ground.
- Ground Plane -- Usually, an array of 1/4-wavelength arms extending from the base of some verticals (or "slopers"). These arms are not recommended unless a rotator is also used, to take advantage of their directional features.
- Directional Coupler -- A device inserted into the transmission line which monitors the environment outside the shack, by utilizing the antenna as a remote sensor. For example, when the antenna responds to weather conditions such as severe icing or heavy winds, the coupler will produce indications of these responses. A special directional coupler has even been designed, presumably, to tell you when BIRDS are sitting on your antenna!
- Smith Chart -- An alias, to be used when you don't want people to know what chart you really used to design your antenna.
- Long Path -- The direction you are told to aim your antenna, to work a rare DX station, as suggested by the other fellows in the pileup.
- Element Spacing -- A critical antenna design factor which is optimized to place the tunable traps on a beam as far out of reach as possible, from the tower.
- Diversity Effect -- A property in which the quad-type antenna far excels over the yagi-type antenna. It relates to the number of directions an antenna can collapse into, under heavy winds.
- Selective Fading -- A quirk of propagation, whereby a signal arrives at a distant point by multipath, and where the different signal components arrive with varying phase relationships. This causes the signal to be "cancelled out" at some points. This wonderful effect helps eliminate some of the QRM from distant DX stations when you are trying to copy the pileup.
- "Off the back of the Antenna" -- A technique used by more experienced DX-ers, where the antenna is pointed away from the station being contacted. This creates a challenge similar to running QRP.
- QRP -- Restricting final input power to the transmitter to anything less than 500 watts, on 20 meters.
- Speech Processor -- A "state of the art" device which permits one to communicate with as many others at the same time as possible. However, beginner operators need to learn how to use one properly, to expand the signal beyond a narrow, 3 KHz bandwidth.
- "IMOKINCALLBK" -- An expression used in a CW QSO, to say: "you send me your QSL card first, turkey, and then I'll send you mine".
- IRC -- An economic instrument, administered by the Postal Service, to control the balance-of-trade deficit.
- Parasitic Element -- A person who takes lists for DX-stations.

- **LISTS** -- A method of making DX contacts, where some self-appointed person takes a list "on the air" (aka: his buddies on 2-meters) of people who wish to "work" a person in some DX location. This makes it easy for hams who do not have the patience or time to learn real DX skills to get a quick, easy contact. In fact, if you can't hear the actual report from the foreign station, the list-controller will often help ("...OK, there, WB6xxx, did you hear Jose give you a '59' signal report?").
  - **QSL Manager** -- The station you worked in Juan De Nova tells you to send a "Green Stamp" to a ham in Germany who is called a "QSL Manager". It is his duty to send your card to a ham in California, who then (after holding it for 8 months) sends you a QSL card.