

# NCARC

## DECEMBER 2013



# TRIBANDER

# NORTHERN COLORADO AMATEUR RADIO CLUB

## Officers

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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
145.205-	100.0 Hz	WØUPS	NCARC	GEN. BACKUP/ LINKED 224.840
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

## Message from the PRESIDENT

The November meeting featured members showing off a lot of really cool old-technology electronic gear. This coming Saturday's meeting will feature homebrew gear built by our members and is sure to show off the talent in our group!

Congratulations to our newly-licensed members, and a big thank you to the VE team and instructors for making the class and test session happen.

The next big thing, of course, is our annual hamfest at The Ranch. The hamfest committee has put in a lot of time and effort, and we're all looking forward to another successful show!

I would like to thank the board and the membership for all of your efforts I hope that you and yours have a very Merry Christmas and a happy, healthy, and prosperous New Year!

73,

Bob, WA9FBO

## Message from the VICE PRESIDENT

## Merry Christmas to ALL

REMEMBER CLUB MEETING GOLDEN CORRAL  
LOVELAND, CO  
TIME: 0800 BREAKFAST  
MEETING: 0900

SANTA IS CHECKING HIS LIST TO SEE WHO  
WAS NAUGHTY AND NICE



HOPE TO SEE EVERYONE THERE

SB QST ARL ARLB030

ARLB030 ARRL Files "Symbol Rate" Petition with FCC

The ARRL has asked the FCC to delete the symbol rate limit in §97.307(f) of its Amateur Service rules, replacing it with a maximum bandwidth for data emissions of 2.8 kHz on amateur frequencies below 29.7 MHz. The ARRL Board of Directors adopted the policy underlying the petition initiative at its July 2013 meeting. The petition was filed November 15.

"The changes proposed would, in the aggregate, relieve the Amateur Service of outdated, 1980s-era restrictions that presently hamper or preclude Amateur Radio experimentation with modern high frequency (HF) and other data transmission protocols," the League's petition asserted.

"The proposed rule changes would also permit greater flexibility in the choice of data emissions." Symbol rate represents the number of times per second that a change of state occurs, not to be confused with data (or bit) rate.

Current FCC rules limit digital data emissions below 28 MHz to 300 baud, and between 28.0 and 28.3 MHz to 1200 baud. "Transmission protocols are available and in active use in other radio services in which the symbol rate exceeds the present limitations set forth in §97.307(f) of the Commission's Rules, but the necessary bandwidths of those protocols are within the bandwidth of a typical HF single sideband channel (3 kHz)," the ARRL's petition pointed out.

The League said that while bandwidth limitations are reasonable, the symbol rate "speed limit" reflective of 1980s technology, prohibits radio amateurs today from utilizing state-of-the-art technology. Present symbol rate limits on HF "actually encourage spectrum inefficiency," the League argues, "in that they allow data transmissions of unlimited bandwidth as long as the symbol rate is sufficiently slow." The League said eliminating symbol rate limits on data emissions and substituting a "reasonable maximum authorized bandwidth" would permit hams to use all HF

data-transmission protocols now legal in the Amateur Service as well as other currently available protocols that fall within the authorized bandwidth but are off limits to amateurs.

The League said it's been more than three decades - when the Commission okayed the use of ASCII on HF - since the FCC has evaluated symbol rate restrictions on radio amateurs as a regulatory matter. "The symbol rate restrictions were created to suit digital modes that are no longer in favor," the ARRL noted in its petition.

Modern digital emissions "are capable of much more accurate and reliable transmissions at greater speeds with much less bandwidth than in 1980."

As an example, the League pointed to PACTOR 3, which is permitted under current rules, and PACTOR 4, which is not. Despite PACTOR 4's greater throughput, both protocols can operate within the bandwidth of a typical SSB transmission.

"If the symbol rate is allowed to increase as technology develops and the Amateur Service utilizes new data emission types, the efficiency of amateur data communications will increase," the ARRL concluded.

ARRL General Counsel Chris Imlay, W3KD, has emphasized that there is no broader plan on the League's part to seek regulation by bandwidth.

The FCC has not yet assigned an RM number and put the League's petition on public notice for comments, and there is no way to file comments until that happens



**NCARC WISHING YOU  
A MERRY CHRISTMAS**

**HAMFEST**

**Jan 18, 2014**

**We need volunteers for the hamfest**