

THE PLATTSMOUTH AMATEUR RADIO CLUB

Communicator

November 2016



Kevin recently removed a DB-224 antenna from a tower near Tecumseh that had been in place for around 20 years. It was 320 feet above ground and the highest thing within 10 to 20 miles. It really shows the power of lightning. He noted that you will often see marks from lightning, but notice the size of the hole in the mast. Amazing what a few electrons can do!

Know the Rules:

I received the following from Bill, KE0XQ, the Nebraska Section Official Observer Coordinator which explains a provision in the FCC regulations that frequently causes confusion.

“Normally, amateurs are prohibited from benefiting monetarily from amateur communications, but there are several narrow exceptions. Amateur operators may notify other amateur operators of the availability for sale or trade of apparatus normally used in an amateur station, provided that such activity is not conducted on a regular basis [97.113(a)]. A "regular basis" means "not every day." The FCC staff has also said that mentioning the price over the air is okay, but the "haggling" should be handled on the telephone.”

Remember, as a licensed Amateur Radio Operator you are responsible for knowing the regulations. You can find a copy at www.ecfr.gov and select Title 47 then part 97. If you have any questions feel free to give Bill a call.

Meeting Calendar

8am, October 29, 2016

8am, November 26, 2016

at Mom's Café

No Meeting in December

Annual Dinner will be Sunday,

January 29, 2017

**2016
PAID MEMBERSHIP**

- AGØLSteve Loyd [E]
- AIØN..... Chuck Engberg* [E]
- K3CRF.....Dave Smith [E]
- K5LBS Jerry Gault [E]
- KBØFSI Pat McCollum [T]
- KBØLFFred Ericksen [E]
- KBØOGORoger Behrns* [E]
- KBØSJB.....Tom Katalenich [G]
- KCØHYD John Titsworth [G]
- KCØHYE.....Shirley Titsworth [T]
- KDØNMD.....Dudley Allen [G]
- KDØBXB..... Kim Allen [T]
- KEØXQ.....Bill McCollum [E]
- KGØKRBeth Engberg* [E]
- KIØPY Kevin Faris [E]
- N5SEZ..... Ray McNally[E]
- WØDBW.....Derek Winterstien [G]
- WØZYDave McLaughlin[E]
- WØZYD..... Debbie McLaughlin[G]

**Charter Members #New Ham*

Note: Thanks to all who have paid their dues and many who have given additional donations. All donations are greatly appreciated. Please let me know of any corrections.

Meetings are 8am the last Saturday of most months at Mom's Café in Plattsmouth.

Tuesday night get-togethers at Plattsmouth Burger King at 7 PM



P.A.R.C. Officers

President
KBØOGORoger Behrns
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Vice President
KCØHYDJohn Titsworth

Secretary
N5SEZ.....Ray McNally

Treasurer
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Repeaters:

443.45⁺ is located in downtown Omaha

443.225⁺ is located in Murray.

147.48 Simplex is also in Murray.

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**MINUTES of
the
MEETING**

The September 24, 2016 meeting was called to order at 8:03 am at Mom's Café by President Roger Behrns.

Those in attendance were Roger (KBØOGO), Kevin (KIØPY), Derek (WØDBW), Bill (KEØXQ), Fred (KBØLF), Gary (KBØKYT), and Keith(KAØIJY).

The Minutes of the August meeting were approved on a motion by Kevin and second by Bill.

The treasurer reported \$260 in the repeater fund and \$702.85 in the general fund for an ending balance of \$1012.85. Derek moved to accept the treasurer's report and Fred Seconded. Passed.

There was no other business that need to be transacted.

The meeting adjourned at 8:05 with a motion by Bill and second by Kevin.



View of the Canberra Complex showing the 70m (230 ft.) antenna and the 34m (110 ft.) antennas. The Canberra Deep Space Communications Complex, located outside Canberra, Australia, is one of the three complexes which comprise NASA's Deep Space Network.

PLATTSMOUTH ARC MEMBERSHIP REGISTRATION FORM					
Name		Call Sign		Class	
Address		City		State	Zip
E-Mail			Phone #		
Spouse Name			Call Sign		Class
Membership Type <input type="checkbox"/> Primary(\$15) <input type="checkbox"/> Spouse (\$5) <input type="checkbox"/> Student (\$5) <input type="checkbox"/> New Ham		● Additional donations are gratefully accepted. ● New Hams are free during the year they receive their first license. ● Please give this form and dues to the club treasurer or any club officer.		Donation for: <input type="checkbox"/> Repeater fund <input type="checkbox"/> Insurance <input type="checkbox"/> Other _____ <input type="checkbox"/> General	
Any additional e-mail or cell phone #s?		Amount: <input type="checkbox"/> I prefer my donation to be anonymous.			

Broadcasters, Jammers Wreak Havoc on Amateur Radio Bands

(ARRL 10/25/2016) The battle continues between Radio Eritrea (Voice of the Broad Masses) and Radio Ethiopia, which is said to be jamming the Eritrean broadcaster with broadband white noise. The problem for radio amateurs is that the battle is taking place in the 40 meter phone band — 7.145 and 7.175 MHz — with the jamming signal reported by the IARU Region 1 Monitoring System (IARUMS) to be 20 kHz wide on each channel. The on-air conflict has been going on for years; Ethiopia constructed new transmitting sites in 2008 and is said to use two or three of them for jamming purposes. The interfering signals can be heard in North America after dark. According to IARUMS Region 1 Coordinator Wolf Hadel, DK2OM, Radio Eritrea is airing separate programs on each frequency. He said in the IARUMS September newsletter that telecommunications regulators in Germany, Austria, and Switzerland have been informed, so they could file official complaints.

Other AM broadcast intruders on 40 meters include Radio Hargeisa in Somaliland on 7.120 MHz, which, Hadel said, is even audible in Australia and Japan. He further reports that the Voice of Iran's signal on 7.205 MHz is splattering up to 5 kHz on either side of its channel, while Radio France International, which operates on the same frequency, is splattering down to 7.185 MHz.

Other odds and ends on 40 meters include the so-called "V beacon" on 7.091.5 MHz. The looped CW signal, which sends the letter "V" over and over, is audible every day. Hadel said the signal originates in Kazakhstan.

Hadel has reported HF radar signals from Russia on 40 and 20 meters, with "long-lasting transmissions, often with many spurious emissions."

A Russian Air Force frequency-shift keyed signal identifying in CW as "REA4," has been active on 7.117 MHz, while a Russian Navy FSK signal "Sevastopol" has been observed on 14.180. Hadel said Germany's telecommunications regulator has filed an official complaint. Other Russian military signals have been heard on 7.016 MHz.

Chinese broadband OTH radars on 14 MHz generated some "Woodpecker" complaints, "but this was not the Russian 'Woodpecker,'" Hadel clarified. Mario Taelubel, DG0JBJ, observed 11 OTH radars on 40 meters, 40 on 20 meters, 13 on 15 meters and 2 on 10 meters during September.

Hadel reports that signals from Spanish and Portuguese, UK, and Irish fishing operations, Indonesian and Philippine pirates, and OTH radar signals are sprinkled throughout 80, 40, 20, and 15 meters, while signals from oceangoing sensor buoys are heard widely on various discrete frequencies on 10 meters.

<http://www.arrl.org/news/broadcasters-jammers-wreak-havoc-on-amateur-radio-frequencies>



The 70m antenna at Goldstone, California against the background of the Mojave desert. The antenna on the right is a 34m High Efficiency Antenna. The Goldstone Deep Space Communications Complex, located in the Mojave Desert in California, is one of three complexes which comprise NASA's Deep Space Network (DSN). The DSN provides radio communications for all of NASA's interplanetary spacecraft and is also utilized for radio astronomy and radar observations of the solar system and the universe.

Deep Space Network Talking for 58 years

We occasionally hear about the Deep Space Network (DSN) communicating with planetary probes, but it always seems to be assumed that they "just work"! The DSN got its start in January 1958 when JPL, under contract to the Army, deployed some portable tracking stations to track Explorer I, the nation's first successful satellite. When NASA was formed in October of that year, the DSN was transferred to its control.

The DSN now consists of three complexes: Canberra, Australia; Madrid, Spain; and Goldstone, California. The three locations are 120 degrees apart so that they can provide overlapping communication. They are situated in semi-mountainous, bowl shaped terrain to help shield against interference. All three communicate back to JPL in Pasadena, California.

Each location has a 70 meter dish, a 26 meter dish and multiple 34 meter dishes.

You can view the real-time status of the communications from each dish, which spacecraft, distance, data rates, power and more. As I write this New Horizons is 5.55 billion km away (that's 10.29 hours round trip) and the 70 meter dish is receiving a -142 dBm signal.

Main web site: <http://deepspace.jpl.nasa.gov/>

Real time Status: <http://deepspace.jpl.nasa.gov/dsnnow/>

https://en.wikipedia.org/wiki/NASA_Deep_Space_Network