

# THE PLATTSMOUTH AMATEUR RADIO CLUB

# Communicator

# November 2017

## SSTV Goes Very High Profile

(ARRL 10/26/2017) In late September, University of Alaska-Fairbanks researcher Chris Fallen, KL3WX, was attempting to produce an RF-induced airglow — or artificial aurora — using the High Frequency Active Auroral Research Program (HAARP) facility near Gakona, Alaska, to warm up the atmosphere. Clouds hampered his experiment, but Fallen alerted his Twitter followers that he also had embedded a few Slow-Scan Television (SSTV) frames in the powerful HAARP signal, which were copied in British Columbia and in Colorado.

“The SSTV images, aside from being a fun way to engage hams in some of the ionosphere-heating science performed at HAARP, will be useful for understanding radio propagation from Arctic or high-latitude sources,” Fallen told ARRL.

HAARP consists of multiple transmitters feeding 180 phased-arrays and is capable of producing 3.6 MW (that’s megawatts) of RF. HAARP’s signal is essentially aimed straight up.

The assistant professor at the UAF’s Geophysical Institute transmitted two UAF logos, a photo of his cat — appearing as a giant feline next to the HAARP antenna field, and — most unusual — a QR code granting the recipient 0.001 Bitcoin. The SSTV images were not the best, and you almost need to use your imagination to make out the cat.

His transmissions were on three discrete frequencies in the 2.8 MHz range. Fallen used different frequencies and antenna phase settings to determine if those factors would affect the airglow.

“I used Scottie-1 encoding for the images, because it is widely used in North America and the ~120-second duration fit nicely into the airglow experiment,” Fallen said. “The antenna was directed toward the HAARP magnetic zenith, which, at ~75° elevation, is nearly vertical but has often been found by previous scientists to maximize artificial airglow. One factor affecting both the airglow experiment and the reception is that local foF2 had dropped below the transmission frequency of approximately 2.8 MHz at the time of the experiment.” He believes the British Columbia and Colorado reports came from the side lobes of HAARP’s primary beam.

Fallen told ARRL he still has some HAARP time left from his September campaign, although he’s not certain what he’ll use it for. His next opportunity to experiment further won’t be until early next spring. HAARP conducts just two experimental campaigns a year, due to staff and funding constraints.

<http://www.arrl.org/news/sstv-goes-very-high-profile>

## FCC Grants Experimental License to Help Provide Cell Service in Puerto Rico

(ARRL 10/10/2017) The FCC has granted an experimental license for “Project Loon,” led by Google’s parent company Alphabet, to help provide emergency cellular service in Puerto Rico.

“More than 2 weeks after Hurricane Maria struck, millions of Puerto Ricans are still without access to much-needed communications services,” FCC Chairman Ajit Pai said in a statement. He explained that Project Loon is aimed to provide the people of Puerto Rico with access to cellular service to connect with family and friends and to access life-saving information.

“I’m glad the FCC was able to grant this experimental license with dispatch, and I urge wireless carriers to cooperate with Project Loon to maximize this effort’s chances of success,” he concluded.

Project Loon is a network of balloons that provides connectivity to users on the ground. Now that the experimental license has been approved, it will attempt to initiate service in Puerto Rico. Project Loon obtained consent agreements to use land mobile radio (LMR) radio spectrum in the 900-MHz band from existing carriers operating within Puerto Rico.

More than 80% of cellular sites remain out of service in Puerto Rico, according to the FCC.

<http://www.arrl.org/news/fcc-grants-experimental-license-for-project-to-help-provide-cell-service-in-puerto-rico>

## Meeting Calendar

8am, October 28, 2017

8am, November 24, 2017

at Mom's Café

No Meeting in December

Dinner on Sunday, Jan. 28, 2018

**2017  
PAID MEMBERSHIP**

- AGØL.....Steve Loyd [E]
- AIØN.....Chuck Engberg\* [E]
- K3CRF .....Dave Smith [E]
- K5LBS.....Jerry Gault [E]
- KA0IJY ..... Keith Keene [E]
- KBØFSI .....Pat McCollum [T]
- KBØOGO ..... Roger Behrns\* [E]
- KBØZZT..... George Bellairs [T]
- KCØDTK..... Joan Bellairs [T]
- KCØHYD.....John Titsworth [G]
- KCØHYE.....Shirley Titsworth [T]
- KDØNMD.....Dudley Allen [G]
- KEØBXB ..... Kim Allen [T]
- KEØXQ..... Bill McCollum [E]
- KGØKR ..... Beth Engberg\* [E]
- KIØPY .....Kevin Faris [E]
- N5SEZ ..... Ray McNally[E]
- NØLZH .....John Harrington[T]
- WØDBW.....Derek Winterstien [G]
- WØZY .....Dave 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**  
**KBØOGO .....Roger Behrns**  
**rb55930@windstream.net**

**Vice President**  
**KCØHYD .....John Titsworth**

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**KIØPY ..... Kevin Faris**

**Newsletter Editor**  
**KBØOGO .....Roger Behrns**  
**rb55930@windstream.net**  
**513 Vine St.**  
**Louisville, NE 68037**  
**(402) 234-6775**

**Repeaters:**

443.45<sup>+</sup> is located in downtown Omaha  
 443.225<sup>+</sup> is located in Murray.  
 147.48 Simplex is also in Murray.

**Web Site**  
**[www.kb0smx.com](http://www.kb0smx.com)**  
 Maintained by Derek (WØDBW)

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**MINUTES of  
the  
MEETING**

The September 30, 2017 meeting was held at Mom's Café in Plattsmouth. The meeting was called to order at 0837 by President Roger Behrns

Those in attendance were Roger (KBØOGO), Kevin (KIØPY), Ray (N5SEZ), John (KCØHYD), Shirley (KCØHYE), Derek (WØDBW), Keith (KA0IJY), John (WR5I), and Gary (KBØKYT).

The Minutes of the August meeting were approved on a motion by Gary and second by John.

The treasurer noted that last month \$17.50 was also paid to Fred for half of a plaque for the Nebraska QSO party which leaves \$260 in the repeater fund and \$705.35 in the general fund for a balance of \$965.35. The report was approved on a motion by John and second by Gary.

John moved and Gary seconded that we again hold our annual dinner on the last Sunday of January at 5 pm at Famous Dave's in Bellevue. The motion carried. Shirley will make the arrangements.

It was noted that JOTA will be the 3rd weekend in October.

Outreach to new hams was discussed.

The meeting adjourned on a motion by John and second by Gary at 0843.



**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	Amount:  <input type="checkbox"/> I prefer my donation to be anonymous.
Any additional e-mail or cell phone #s?			