

THE PLATTSMOUTH AMATEUR RADIO CLUB

Communicator

June 2022

Military Exploring Increased Use of HF

(ARnewsline 5/20/22) HF radio is making a comeback for the United States military, which has been struggling with reliable means of over-the-horizon communication in the Indo-Pacific. That massive region's communications needs are served largely by undersea fiber cables and satellites, both of which are deemed vulnerable to both deliberate and accidental damage. The U.S. Defense Information Systems Agency is eyeing HF as a reliable backup should an interruption occur in either of the other two delivery modes.

Officials acknowledge that HF's slower data transmission rate and the military's use of a smaller bandwidth would not make HF ideal for fulltime connectivity but it is nonetheless a viable alternative when no other option exists.

According to an article in Signal, a publication of the nonprofit AFCEA, testing is already underway in the part of the Pacific that includes Malaysia, Australia, Fiji and Singapore. The Indo-Pacific Command's relief network has been testing HF out as part of its humanitarian assistance and disaster relief work, using a transmitter in Oahu.

Meanwhile, a combat communications squadron of the United States Air Force, based in Guam, is working with the single sideband shortwave transmitters of the Air Force High Frequency Global Communications System for voice communications.

Elsewhere, modes used in the annual Pacific Endeavor interoperability exercise are being widened to include newer HF technologies for basic data communications. One official told the Signal website that these actions are being taken to expand the mode's reliability.

Beyond compensating for satellite and fiber optic vulnerability, officials say they also look forward to the next generation of HF technology which will allow higher speeds and wideband transmission, making full-motion video possible for surveillance, airborne intelligence and related activities from the air.

<https://www.arnewline.org/>

Power Transmission by Microwave

(ARnewsline 5/6/22) The still-experimental practice of beaming power over microwave frequencies to transfer electrical power using so-called "ground bounce" has completed its most successful test to date. The United States Naval Research Laboratory recently completed a trial in which 1.6 kilowatts of power was transmitted terrestrially using a 10-GHz beam over a distance of 1 kilometer, or six tenths of a mile. This kind of point-to-point transfer of electrical power is an emerging technology that is becoming increasingly favorable for scientists looking to expand its application. An IEEE paper published late last year said the use of the ground-based transmitter is part of ongoing exploration that researchers hope will eventually open the door to space-to-earth wireless transmission of power. Scientists believe that limiting the frequencies in use to those below 10GHz will lessen the loss of power during transmission.

Paul Jaffe, KJ4IKI, the project lead, said in an April 20th press release that the systems have been developed keeping safety limits in mind for animals and people.

The 10 GHz band is already well-used by the amateur radio community on a secondary basis. Amateurs may operate between 10 and 10.5 GHz with amateur satellites operating at frequencies between 10.45 GHz and 10.5 GHz.

<https://www.arnewline.org/>

<https://www.nrl.navy.mil/Media/News/Article/3004608/nrl-conducts-successful-terrestrial-microwave-power-beaming-demonstration/>



2022 PAID MEMBERSHIP

2022 Paid Members in Bold

- AGØL Steve Loyd [E]
- AIØN **Chuck Engberg*** [E]
- KØEO Kary Cluck [E]
- K3CRF..... **Dave Smith** [E]
- K5LBS..... Jerry Gault [E]
- KBØFSI..... **Pat McCollum** [T]
- KBØLF**Fred Eriksen** [E]
- KBØOGO..... **Roger Behrns*** [E]
- KCØHYD..... **John Titsworth** [G]
- KCØHYE**Shirley Titsworth** [T]
- KDØNMD Dudley Allen [G]
- KDØPXX Steve Carter [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]
- WØJRN**Jim Nelson** [E]
- 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 6 PM

PLATTSMOUTH AMATEUR RADIO CLUB

KBØSMX

P.A.R.C. Officers

- President**
KBØOGORoger Behrns
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- Vice President**
KCØHYDJohn Titsworth
- Secretary**
WØDBW.....Derek Winterstien
- Treasurer**
KIØPY Kevin Faris
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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.

Web Site
www.kb0smx.com
 Maintained by Derek (WØDBW)

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MINUTES of the MEETING

The monthly meeting was held on April 30 at Mom's Café. The meeting was called to order by President Roger Behrns at 8:20 am.

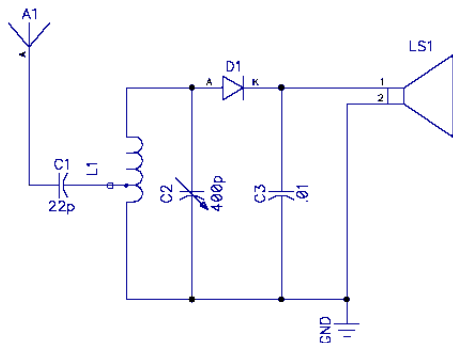
Those in attendance were Roger (KBØOGO), Ray (N5SEZ), Chuck (AIØN), and Jim (WØJRN).

The Minutes of the March meeting were approved on a motion by Chuck and second by Ray.

No Treasurer's report was available. It was noted that the Insurance bill had been paid.

The Murray Village Board approved our request to hold Field Day in Murray again on June 25-26.

The meeting adjourned at 8:21 am on a motion by Ray and second by Chuck.



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?			

Meeting Calendar

8am, Sat May 28, 2022
 at Mom's Café

Field Day is June 25-26.
 8am, Sat July 30, 2022