

OSCAR Newsletter – May, 2012

OSCAR Meeting

The next OSCAR meeting is 12-May @ 9:00 AM, the second Saturday of the month. Meetings are held in the meeting room at the Owatonna HyVee, 18th Street @ Oak Avenue.

SKYWARN Meeting

The next SKYWARN meeting is 15-May @ 7:00 PM, the third Tuesday of the month. Meetings are held at the Owatonna Fire Station.

ARRL member access From ARRL web site

The ARRL has announced two new ARRL membership benefits that will be introduced in June 2012. In addition to the print copy of QST, all members will have access to an online, digital edition of QST at no extra cost. You will be able to access QST from anywhere, on nearly any computer, laptop, mobile device, smartphone and tablet (including Apple iPad, iPhone, and devices using the Android operating system). Also in June, members will gain access to archived issues of QST from December 1915 to the present (previously, only issues through 2007 were available to members). If you are familiar with the current periodicals archive (which serves images of pages), that platform will be expanded to include all of QST from December 1915 through December 2011. A second, new archive will be introduced for issues beginning January 2012, featuring enhanced functionality including full-text search.

SE Minnesota 10 Meter Net to help get your HF feet wet... From Multiple Sources

Just got your Tech license? Or you've moved up to General. But, don't know the in's and out's of HF operations?. Then spin your radio dial over to the Ten Meters every **Tuesday** night at **8 p.m.** on **28.325 SSB**. There are sure to be Hams who would be more than happy to answer any of your questions. And even give you some free pointers on working DX as the Solar Cycle gears up. New General licensee? Try out that new rig on the open highways of HF. Talk local, learn International! Because Ten Meters will be a super band the coming years. Tune in and check it out...

For those of you interested in Digital communications... From Multiple Sources

Here are a few new ways to let you practice your art...

If you can reach Rochester's 147.255 repeater:

Southeast Minnesota Digital Net - Thursdays at 9 p.m. local time on the 147.255 (PL100) repeater. This net uses NBEMS protocol, FLDIGI, FLWRAP and FLMSG software to practice sending and receiving digital messages using the MT-63/2000 protocol, with long interleave and extended characters. The current version of FLDIGI should have the proper defaults for MT-63/2K. We take voice checkins for those who can't participate on MT-63.

If you can reach Faribault's 146.790 repeater:

Southern Minnesota Voice & Digital Net - Thursdays at 9 p.m. local time on the 146.790 (PL100) repeater. This net starts with voice check in and then switches to FL-digi for the second half, utilizing FLDIGI, FLWRAP and FLMSG software to practice sending and receiving digital messages using everything from "cave man" to advanced methods. This group is very helpful in regards to trouble shooting communication problems.

For those with HF and Digital capability:

Minnesota HF Digital Net - Thursdays at 8 p.m. local time on the 3583.5kHz

This net starts with Olivia 16/500, 1000Hz audio center on waterfall in FL-digi, again utilizing FLDIGI, FLWRAP and FLMSG software to practice sending and receiving digital messages.

NBEMS stands for 'Narrow Band Emergency Messaging System'. It is becoming a widely accepted standard for amateur emcomm digital communications.

Salt Water Power Generation From <http://www.newscientist.com>

Electrical energy can be derived from the interaction of salt water and fresh water. There is a lot of potential sites in the world where rivers and streams empty into the ocean. Reverse electro dialysis (RED) pumps salt water and fresh water into a series of membranes. Sodium ions in the salt water have a positive charged and flow across the membrane to the fresh water. Negatively charged ions from the fresh water flow through the membrane toward the salt water, and the movement of ions creates an electrical charge.

Antenna Array On A Chip From Multiple Sources

LOW Frequency ARray (LOFAR) is a multi-purpose sensor array for astronomical observations. The array has the capability to look in multiple directions at the same time. Instead of having a small number of large antennas, the concept utilizes a large number of small antennas. A researcher is taking this concept to another (smaller) level. The plan is to utilize an array of almost-flat antennas on a single microchip. Small processors would "aim" the array to receive satellite signals.

Magnetic Waves Talk Through Rock From <http://www.lockheedmartin.com>

It is no surprise that radio waves do not penetrate rock very far. Communication in underground areas, such as mines, can be achieved using extremely low frequencies. Lockheed Martin developed a system in direct response to the Sago, WV mining disaster several years ago. Communication using magnetic waves through the earth was achieved at distances in excess of 1500 feet.