

## OSCAR Newsletter August 2012

### OSCAR Meeting

The next OSCAR meeting is 11-August @ 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 21-August @ 7:00 PM, the third Tuesday of the month. Meetings are held at the Owatonna Fire Station.

### Steele Co. Free Fair – Shared Booth with CERT and SKYWARN

The SCFF (<http://www.scff.org>) begins on 14-Aug and runs through 19-Aug. The mass casualty trailer used in previous years on Safety Alley (north end of fair grounds) will return for volunteer groups to staff. SKYWARN, RACES/ARES, and CERT will coordinate together. If you have the ability to spend a couple of hours promoting the volunteer groups at the fair, contact Shirley Woodfill ([mswooddy50@msn.com](mailto:mswooddy50@msn.com)). Shirley is coordinating the master schedule of volunteers across groups.

If severe weather develops, visitors and participants may be told to seek shelter. It would take a long time to get everyone to a safe location. In order to mitigate this risk, Steele county SKYWARN is being asked to help provide as much advance notice as possible. We will respond by deploying sooner and over a larger area. Please give extra consideration to responding to during SCFF week because of the number of people that will be outdoors.

### Volunteer Exam Session

Freeborn Co. VE session at the Glenville Fire hall, for all ham radio license levels

**Date:** Aug 15, 2012 **Time:** 7:00 PM (Walk-ins allowed)

**Contact:** Rodger J. Baseman (507) 383-8061 Email: [jrbaseman@gmail.com](mailto:jrbaseman@gmail.com)

**Location:** Glenville Fire Department, 221 W Main St, Glenville MN 56036-9506

### First Ham Radio Recommendations...

There has been a lot of talk on the air waves lately about “What is the best choice for a first ham radio?” While that question has many good answers and each Elmer will gladly give you his or her opinion with little hesitation. After doing some searches on the internet I found a few good resources on this very subject.

First I found a very good video on Youtube which provides some guidance...

<http://www.youtube.com/watch?v=Dz5BKPvByNQ>

I also found this great article on Eham.net...

<http://www.eham.net/newham/firstradio>

This write up on the World Wide Radio Forum was also good...

<http://www.worldwidedx.com/general-ham-radio-discussion/38230-how-choose-your-first-ham-radio.html>

**Don't let the debate continue... get out there, buy a radio and get talking!**

## **Ultimate DX: Listening for the Mars reconnaissance orbiter and lander...**

From Amateur Radio Newsline, Bruce Tennant, K6PZW, in Los Angeles.

Want to try your hand at some truly out of this world DX listening? With the successful landing of NASA's rover Curiosity on Mars, some hams are thinking of trying to catch signals from the new rover directly or those from the Mars Reconnaissance Orbiter circling the Red Planet.

Thanks to some research by the Southgate News, it turns out the Curiosity rover transmits on frequencies around 401 MHz but the transponder on the Mars Reconnaissance Orbiter or MRO has a CCSDS Forward Frequency in the 437 MHz Amateur Satellite Service band. This is because 435 to 438 MHz is shared with the Military and 432 to 438 MHz is also a Space Surveillance Radio Band. In fact, general space usage extends beyond that.

The Mars Reconnaissance Orbiter has a UHF transponder known as MELACOM that operates between 401 to 437 MHz. It also has a pair of patch antennas to communicate with any landed asset on Mars surface supporting the CCSDS Proximity-1 protocol. And with it all working the way it has throughout this mission, signals from the Mars Reconnaissance Orbiter are being received back on Earth.

While NASA's Deep Space Network has no problem in hearing the Mars Reconnaissance Orbiter, the question might be if a ham radio station with its simple equipment might be able to do the same. If you want to give it a try there are two papers from NASA that might be of assistance.

The first describes the operation of the Mars Reconnaissance Orbiter. It can be found at <http://www.tinyurl.com/mro-operations>. The other is titled Mars Express and the NASA landers and rovers on Mars - Sustaining a backup relay in an interplanetary network. Its URL is <http://www.tinyurl.com/space-communications>. Both of these documents are in Adobe .PDF format.

## **Radio Tech: NXDN Digital Audio Spec to be made public...**

Amateur Radio Newsline's Jim Davis, W2JKD

Another Digital protocol will soon be available.

The Southgate news reports that the technical specification for NXDN which is an FDMA digital voice technology supported by Icom and Kenwood, is being opened to the public domain. According to a press release the chair of the NXDN Forum has announced that the Forum Steering Committee has decided to open the NXDN technical standards to the telecommunications industry.

For the past 5 years both ICOM and Kenwood have been producing VHF/UHF mobiles, handhelds and repeaters to the NXDN standard. The equipment has a transmitted bandwidth of 4.0 kHz and is typically used in 6.25 kHz channel spacing systems. NXDN Digital products are deployed throughout the world in hundreds of thousands of professional radio applications.

The specification is currently available in response to an e-mail request but the NXDN Forum indicates it will be available for direct download later in the year. Interested companies can obtain the information for the NXDN technical standards by following the instructions on the forum web site at [www.nxdn-forum.com/instructions](http://www.nxdn-forum.com/instructions)

### **HAM Radio in space: New 2 Meter radio to launch to the ISS** (ARISS)

A new VHF ham radio system will soon be headed to the International Space Station. At the July 17 ARISS meeting Kenneth Ransom, N5VHO, reported that his group is in the final stages of preparing the flight certification for of the replacement hardware for the degraded Ericsson 2 meter radio. That rig is part of the 2nd ISS amateur radio station that is located in the Columbus module.

According to Ransom, they had been hoping to launch of the equipment on flight 33-S on December 5th. Now however comes word that the new radio could be carried aloft ob flight 49-P that's slated to launch on November 1st. As such, Ransom's group is trying to finish the certification process in time for this earlier flight option.

The degraded Ericsson VHF radio may be returned on flight 32-S in October. The team is very interested in trying to determine what the problem has been with this particular piece of gear.

### **Ham Radio Politics: RAC announces new structure for Ontario Canada** (RAC)

Radio Amateurs of Canada has announced that as of September 1st that its current Ontario Section will be replaced by four new Sections. These are Ontario North, Ontario East, Ontario South, and the Greater Toronto Area. A map depicting the new section boundries is available for viewing at [tinyurl.com/ontario-new](http://tinyurl.com/ontario-new).

In the meantime, word is that the American Radio Relay League has already recognized the four new sections and they will be effective for the ARRL November Sweepstakes contest.

Radio Amateurs of Canada adds that several vendors of logging and contest software have also announced changes to coincide with the new make-up of the Ontario sections. Unfortunately, some of these will not available or effective until January of 2013.