R F Feedback Moultrie Amateur Radio Klub

Regular monthly meeting will be held at the Coles County Airport at 7 pm Those wanting to have a bite to eat prior should come at 6 pm All amateurs all welcome
Bring your check books or cash The dues
Are payable now….

There were no minutes of the last meeting =This was our annual Christmas Dinner at Yoder's Kitchen in Arthur We all had a good time Those in attendance were W9LYN & Wife K3BY & Wife K9BFA & Wife, KA9Z & Wife & guest ? N9RBQ & Wife WB9ZCN & Wife ,KA9LRZ & Wife, KC9S,KC9GIK & Wife K9SWY & Wife K9MCR & Wife

The K7RA Solar Update
A nice sunspot group -- number 1010 -- appeared for five days from January 9-13. Daily sunspot numbers ranged from 11 to 20, and this one was another Solar Cycle 24 appearance. The Cycle 23 sunspots seem to be gone, while the new Solar Cycle 24 isn't picking up very quickly. 1010 was here for five days, following a whole solar rotation -- 27 days of no sunspots since 1009 was visible for just three days, December 10-12. Prior to that, there were 23 spotless days since seeing sunspot 1008, visible for eight days from November 10-17. Sunspot numbers for January 8-14 were 0, 14, 17, 20, 12, 11 and 0 with a mean of 10.6. The 10.7 cm flux was 68.7, 69.7, 70.9, 70, 69.3, 70.5 and 71.2 with a mean of 70. The estimated planetary A indices were 3, 4, 4, 2, 0, 3 and 5 with a mean of 3. The estimated mid-latitude A indices were 2, 4, 2, 1, 0, 2 and 6 with a mean of 2.4.

This minimum looks longer and lower than the last solar minimum, but there are many ways to slice the data. Check out this Web site. Search the rather cluttered home page and click the "Sunspots" tab to the right of "Trend Charts" toward the upper right on the page, then inspect the bar graph titled "Spotless Days vs. Cycle 23 Minimum," the second one down from the top on the right. Click on it to fill the page, and see the comparison of spotless days per month for the period June 2007-November 2008, with the earlier period June 1996-November 1997.

With all that red showing for spotless days in the recent period, this certainly looks like a big difference between the recent period and the one 11 years ago, but there is an inherent bias in comparing May 2008 and May 1997. This comparison might be valid if solar cycles were precisely 11.0 years long (or in this case, 11 years from a cycle minimum to the next cycle minimum), but this is not the case. Eleven years is an approximation; if you average all 23 of the previous Solar Cycles, the average number is less than 11 years.

The problem becomes apparent if we look at the data and compare spotless days for the five months prior to the beginning of this graph, January through May. It turns out that those months had a 68 percent higher number of spotless days back in 1996 than the same months 11 years later. From January 1, 2007-May 31, 2007, there were 40 spotless days. But January 1, 1996-May 31, 1996 had a total of 67 spotless days.

Data that is uncertain is in August 2008, which is listed with all spotless days. But on August 21-22, there was a brief sunspot appearance, although it wasn't widely reported because there was some speculation regarding whether it was big enough to be counted as a sunspot. Check here -- on the archives area at the right side of the page, change the date to August 21, 2008 and note that under the "Daily Sun" on the left margin, it shows the daily sunspot number as 11. To the right of the "Daily Sun," you can click on the photograph under the heading "New Sunspots" for a closer look.

Now check August 22 and see the same sunspot number 11. It is easy to inspect this data and make comparisons if you download the Solar Data Plotting utility mentioned in our first bulletin of the year. The GRAPH.dat file for this program has sunspot and solar flux numbers since the start of 1989; if you copy it into your documents folder and rename the file to graph.doc, you can page through it easily with a word processor. You can also take this file and load it into a spreadsheet program.

At least with our quiet Sun, the geomagnetic indices continue to stay quiet. Geophysical Institute Prague predicts quiet days from January 16-22, except January 18 is predicted to be unsettled, and January 19 as quiet to unsettled. NOAA Space Weather Prediction Center, along with the US Air Force, predict quiet conditions with a planetary A index of 5 for the rest of January, except 8 on January 19, 10 and 8 on January 27-28, and 8 again on January 30.

Last week's bulletin mentioned the STEREO mission and how to find out what the current satellite positions were, relative to Earth and the Sun. John Fors, WD7Z, of Capulin, New Mexico, sent a link to a page which allows you to see the positions for any date or time. John said that from February 2011 onward, STEREO should get a detailed simultaneous view of all sides of the Sun. This will give a precise reading of activity soon to rotate into view. Currently, it shows the two satellites at nearly a 90 degree angle from each other. Six months from now, the angle will be 104 degrees and a year from now it should be at 134 degrees. Two years from now, they will be nearly opposite each other at 177.6 degrees. The last date I can generate the listing of angles for is January 21, 2012 when STEREO-B is 113.669 degrees relative to Earth and STEREO-A is 107.583 degrees relative to Earth. Beyond that date, users can continue to generate the visual plots, and ideally the two satellites and Earth would all be ultimately positioned 120 degrees relative to each other for maximum coverage.

No six meter reports from North America this week, but there was one from Spain. Joaquin Montoya, EA2CCG, reported that on January 12 he worked OE1SOW in Vienna, followed by another Austrian, then Poland, Germany, Croatia, Slovak Republic and Slovenia. He used a Moxon antenna broken during a recent ice storm, hanging from the tower, and signals were S5-S7 with QSB. Joaquin said 10 meters was open on the same day, and that he could hear European beacons. He worked the TS7C DXpedition on Kerkennah Islands in Tunisia on 10 meters that morning.

Amateur solar observer Tad Cook, K7RA, of Seattle, Washington, provides this weekly report on solar conditions and propagation. This report also is available via W1AW every Friday, and an abbreviated version appears in The ARRL Letter. Check here for a detailed explanation of the numbers used in this bulletin. An archive of past propagation bulletins can be found here. You can find monthly propagation charts between four USA regions and 12 overseas locations here. Readers may contact the author via e-mail.

Notice: Your dues are payable January 2009 You may pay by check or cash Make check payable to MARK P O Box 91 Lovington, IL 61937 or give it to Alan KA9Z at the meeting Monday evening at the Coles Co Airport….

WEEKLY NETS

Tuesday 7 pm 80 mtrs Informal Net 3.825 Initial contact 444.925 then over to 80 mtrs

Saturday Night 10 Mtrs Net 28.400 USB 8 pm

Sunday Night 2 Mtrs Net Tone 162.2 8 pm NCS KA9LRZ

OUR OFFICERS

KC9S Clint	**President**
K3BY Sam	**Vice- President**
KA9Z Alan	**Treasure**
KD9AC Dave	**Secretary**

OUR BOARD OF DIRECTORS

K3BY Sam	**3 Year Term Expires**	**September 2009**
K9BFA Byron	**3 Year Term Expires**	**September 2010**
WC9V Ralph	**3 Year Term Expires**	**September 2011**

Mark P O Box 91 Lovington IL 61937

mailto:mark_infolist@googlegroups.com