

SB PROP @ ARL \$ARLP038
ARLP038 Propagation de K7RA

ZCZC AP38
QST de W1AW
Propagation Forecast Bulletin 38 ARLP038
>From Tad Cook, K7RA
Seattle, WA September 20, 2013
To all radio amateurs

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Solar activity continues to be weak, although there was an uptick on September 18-19 when solar flux rose to 104.1, then 107.9.
September

18 was the first day with solar flux above 100 since September 6. Average daily sunspot number for the reporting week (September 12-18) rose to 42.3, up from 37.7 for the previous seven days. The daily sunspot number on September 18-19 rose from 59 to 85.

Average daily solar flux dipped slightly, from 98.2 to 95.3 over the same seven day period. Average daily planetary A index and mid-latitude A index were both 6.3.

For the near term, solar flux is predicted at 110 on September 20-22, 105 on September 23-24, 100 on September 25-30, 95 on October 1-13, and 100 on October 14-27. Over the past few days all of the short term predictions for solar flux have been adjusted downward.

Predicted planetary A index is 8 on September 20, 5 on September 21-22, 8 on September 23-24, 5 on September 25-26, 8 on September 27, 12 on September 28, 5 on September 29 through October 9, then 10, 8, 5, 15, 10 and 8 on October 10-15, followed by 5 on October 16-18.

OK1HH sent us another geomagnetic forecast, and he thinks the geomagnetic field will be quiet to unsettled on September 20-21, mostly quiet September 22, quiet to unsettled on September 23, quiet on September 24-25, mostly quiet September 26, active to disturbed September 27, quiet to active September 28, mostly quiet September 29, quiet on September 30, quiet to active October 1, quiet on October 2-5, quiet to unsettled October 6-7, mostly quiet October 8, and active to disturbed October 9.

OK1HH also says a growing solar wind may cause "remarkable changes" in the magnetosphere and ionosphere on September 20-21, and on September 24.

The Autumnal Equinox is just a couple of days away. Fall officially begins in the Northern Hemisphere on Sunday, September 22 at 2044 UTC.

Check out this science blog, with observation about the current weak cycle at, http://www.science20.com/news_articles/solar_activity_smallest_sunspot_cycle_1906-120785.

The following interesting article has a lot of good information, surprising (to me) for an article from a financial and markets analyst who is not a science reporter.

The only minor quibble I have is with his apparent confusion between number of sunspots and sunspot number, which are very different, but otherwise this article is quite a good effort:

<http://www.trust.org/item/20130918115439-cn7ub/?source=hpbreaking>

Howard Lester, N7SO sent this article from Sky & Telescope.

<http://www.skyandtelescope.com/community/skyblog/newsblog/Glimpse-of-Suns-Interior-Befuddles-Theorists-223291961.html>.

Jon Jones, N0JK commented on N8II's recent report, and says that 10 meters has been good in Kansas as well, with F0/KH0PR on Disappointment Island worked on September 11 at 1955 UTC from his mobile using a modified CB mag mount on the roof.

Roland Anders, K3RA also commented on N8II's experience, "Jeff's excellent report about 12 meters prompts me to pass along that there was some 12 meter excitement in Maryland on Sept 10 around noon. I worked 9M6XRO at 1538Z on CW, and E20WKA on SSB at 1603Z. VOACAP modeling shows that possibility. European stations were coming through at the same time."

Larry Godek, W00GH sent these links for checking sunrise/sunset times around the world: <http://www.gaisma.com/en/> and <http://www.gaisma.com/en/dir/us-country.html> .

If you would like to make a comment or have a tip for our readers, email the author at, k7ra@arrl.net.

For more information concerning radio propagation, see the ARRL Technical Information Service web page at, <http://arrl.org/propagation-of-rf-signals>. For an explanation of the numbers used in this bulletin, see <http://arrl.org/the-sun-the-earth-the-ionosphere>. An archive of past propagation bulletins is at <http://arrl.org/wlaw-bulletins-archive-propagation>. More good information and tutorials on propagation are at <http://k9la.us/>.

Monthly propagation charts between four USA regions and twelve overseas locations are at <http://arrl.org/propagation>.

Instructions for starting or ending email distribution of ARRL bulletins are at <http://arrl.org/bulletins>.

Sunspot numbers for September 12 through 18 were 58, 40, 24, 12, 23, 80, and 59, with a mean of 42.3. 10.7 cm flux was 92.9, 91.6, 92.5, 92.8, 94.5, 98.7, and 104.1, with a mean of 95.3. Estimated planetary A indices were 7, 9, 6, 2, 5, 8, and 7, with a mean of 6.3. Estimated mid-latitude A indices were 5, 10, 6, 3, 6, 8, and 6, with a mean of 6.3.

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