RWC-India report01 July 2024

From: RWC-India [Regional Warning Center (RWC) of India for Space Environment], CSIR-NPL, New Delhi-110012

Relative Sunspot Numberfor30Jun 2024is**174**

10.7 CM Fluxfor30Jun 2024is**199**

Magnetic Activity [Ap]for30Jun 2024is**013**

Solar Activity Summary: from 29/2100Z to 30/2100Z:
Solar activity has been at low levels for the past 24 hours. The largest solar event of the period was a C3 event observed at 30/0618Z from Region 3734 (N08E59). There are currently 15 numbered sunspot regions on the disk.

Solar Activity Forecast:
Solar activity is expected to be low with a chance for M-class flares on days one, two, and three (01 Jul, 02Jul, 03 Jul).

Geophysical Activity Summary29/2100Z to 30/2100Z:
The geomagnetic field has been at quiet to unsettled levels for the past 24 hours. Solar wind speed reached a peak of 586 km/s at 30/2015Z. Total IMF reached 9nT at 29/2102Z. The maximum southward component of Bz reached -8 nT at 30/0046Z. Electrons greater than 2 MeV at geosynchronous orbit reached a peak level of 118 pfu.

Geophysical Activity Forecast: The geomagnetic field is expected to be at quiet to active levels on days one, two, and three (01 Jul, 02Jul, 03 Jul).

10.7 CM Predicted

01 Jul-03 Jul 180/180/175

Magnetic Activity Ap Predicted

01 Jul-03 Jul: 015-012-12

Energetic Particle

24 hr Summary
The greater than 2 MeV electron flux was at normal to moderate levels
and the greater than 10 MeV proton flux was at background levels.

Forecast
The greater than 2 MeV electron flux is expected to continue at normal to moderate levels on 01-03 Jul and the greater than 10 MeV proton flux is expected to persist at background levels.

Solar Wind

24 hr Summary
The solar wind environment remained slightly enhanced this period. Total field strength ranged 5-10 nT and the Bz component varied +/-8 nT. Wind speeds increased from a low of 400 km/s early in the period to around 550 km/s. The phi angle was positive.

Forecast

Enhanced solar wind conditions are expected to prevail over 01-03 Jul due to the anticipated arrival of multiple CMEs from 26-29 Jun.

Global Propagation Summary
Latitude Band
Date Low Middle High
30 Jun Normal Normal Normal

PCA Event : No event.
Global Propagation Forecast

Latitude Band
Date Low Middle High
01 Jul Normal Normal Normal-fair
02 Jul Normal Normal Normal
03 Jul Normal Normal-fair Fair

COMMENT: HF radio communication conditions on UT day 30-Jun were
generally normal, with some degradations at high latitudes during local night hours. HF radio communication conditions are expected to be mostly normal over 01-02 Jul, with normal to fair conditions at middle to high latitudes on 03-Jul. Shortwave fadeouts are possible.

Regards,

RWC-India
Date:01/07/2024.