SPACE WEATHER INFORMATION AND FORECAST SERVICES
(SWIFtS)
WEEKLY SPACE WEATHER NEWS
Periode: 19th – May 25th 2017

SOLAR ACTIVITY

Solar activity during the last week is quiet without the flare that exceeds B class and also recorded 8 type III events of solar radio bursts. The most active region that produces B-class flare within the 1 week period is NOAA2660. There are 4 active regions visible on the solar disk (NOAA 2656-2660) with a very small area, have a simple magnetic configuration and look stable during the period of the week. Based on the observation of SOHO / LASCO C2, one wide angle CME is occurred and hurled to the west so that it is geoeffective. This CME is caused by a filament eruption near the western edge of the solar disk. Solar activity early next week is expected to remain at a quiet level and there is little chance of class C flares from the new emergence of a new active region from the east solar limb.

GEOMAGNETIC ACTIVITY

Geomagnetic activity during May 19th -25th, 2017 in general was on quiet to active level. Dst index has reached its minimum -37nT on May 20th 2017, which stated active geomagnetic conditions. Kp index indicated that geomagnet activity was on quiet to active level as well, with its maximum was 4 in the same time when Dst index reached its minimum. This active geomagnetic condition only last for 1 day and might caused by high speed stream that came from geoeffecetive coronal hole with negative polarity. In May 19th -20th 2017, the solar wind speed gradually increased and reched 650 kms/sec . Due to the fast stream, a substorm occurred with intensity of index Ae less than 1500 nT on May 19th 2017 to May 21st, 2017. Electron flux level that may influece the satellite operations on 19 – 20 May 2017 was still on low level (<1,000 particles $cm^{-2}s^{-1}sr^{-1}$) and increased to high level on 21 May 2017 and very high level on 22 May 2017 until today.

IONOSPHERIC CONDITIONS

Ionosphere conditions in this week were dominantly in quiet level. / relatively disturbed on minor level. The Minor level disturbances in the ionosphere was occured due to the depression of critical frequencies of *F/F2* layers (*foF2*) for more than 1 hours in 19th May 2017 and in 23rd May 2017 fot 15 minutes. The *foF2* depressions were impacted to the radiowave propagation over the ionosphere which known as the *MUF Depression*. Although the *foF2* experienced depression, the minimum frequencies (*fmin*) of the ionosphere in this week were in normal conditions. There was no increment of *fmin* that could be a source of disturbance in the HF radio communication which known as *Shortwave Fadeout* (SWF) or *Radio Blackout* (RB). Based on the observations using GISTM over Bandung and Biak, the scintillation (*s4*) condition for this week were dominantly quiet level except in 21st May 2017 with s4 index value lies between 0,25 – 0,5. The error positioning conditions were in normal conditions that determined by the index W values.

*For daily space weather information and forecast, please refer to our **Space Weather Information and Forecast Services (SWIFtS)** official website at **swifts.sains.lapan.go.id** or please e-mail us for request by facsimile*

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