SPACE WEATHER INFORMATION AND FORECAST SERVICES
(SWIFtS)
WEEKLY SPACE WEATHER NEWS
Periode: 29 July – 4 August 2016

SOLAR ACTIVITY

Within the last week, solar activity was at quiet level without erupting flare more than B class. Even so, 5 type III solar radio bursts were detected. Quiet condition occurred because the only remaining active region, NOAA 2570, was stable, quiet, even tend to decay at the end of week. According to CACTUS software, there was no significant CME occurred in the past week. Similar to the last week record, flux of high energy proton still far below threshold so that the activity level has been quiet.

GEOMAGNETIC ACTIVITY

Geomagnetic activity at the beginning of week from July 29th, 2016 to August 4th, 2016 was on quiet level. Disturbance at minor storm level occurred on 3 August 2016 with lowest Dst index was -53 nT and the maximum Kp index was 5 which stated minor storm level at mid and high latitude. K index from Agam and Sumedang station was 5 which means minor storm level at Indonesian Region. The 3 August 2016 geomagnetic disturbance might caused by CME on 29 July 2016 anh high speed plasma from coronal hole. Substorm with intensity <1500 nT taken place for 6 hours started from 2 August 2016 until 3 August 2016 then there are several substorm events occurs with intensity <1500 nT until 4 August 2016 .

IONOSPHERIC CONDITIONS

In this week, the ionosphere were experienced a disturbances conditions from minor to the strong levels. The disturbances in ionosphere occured due to the depression of critical frequencies of *F/F2* layers (*foF/F2*). The *foF/F2* depressions could impacting the radiowave propagation over the ionosphere which known as the Radio Blackout. Although the *foF/F2* experienced a deppression, the minimum frequencies (*fmin*) of the ionosphere were in normal conditions. The increment of *fmin* could be a source of disturbance in the HF radio communication which known as *Shortwave Fadeout* (*SWF*). The occurrences of *Spread-F* were noted always appear in several days. This occurrences of *Spread-F* could be a source of *Fading* disturbances for HF Radio communication. Beside the *Spread-F*, the *E-Sporadic* also reported always occurred in all days with values of the critical frequency (*foEs*) reach 10 MHz and above the foF/F2 values. The occurances of *E-Sporadic* could be a positive impact especially when the depression of *foF/F2* occurred. Based on the observations using GISTM over Biak, the scintillation (*S4*) condition for this week were in quiet level. These conditions of scintillation could lead to the quiet levels of *loss of lock*. The average value of W index in this week were between -3 and 3. Those values could affecting to the error positioning parameters in to the medium scale of disturbance conditions.

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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