SPACE WEATHER INFORMATION AND FORECAST SERVICES
(SWIFtS)
WEEKLY SPACE WEATHER SUMMARY
Periods: 27 May – 2 June 2016

SOLAR ACTIVITY

In general, last week solar activity can be considered as quiet or less eruptive. There was only three C class flares occurred in active region NOAA 2546, NOAA 2548, and NOAA 2550. The strongest was C1.4 occurring on May 30th peaked at 07:37 UT from NOAA 2550. Along this week there were only 5 active regions observed in solar hemisphere: NOAA 2546, 2548, 2549, 2550 and 2551. The most complex active region was NOAA 2551. Several type III radio bursts occurred in the past week, some of them were related to the flare events. From the coronal observation, several mass ejection were detected by CACTUS system from SOHO/LASCO C-2 observation, but none of them can be considered as halo CME. For the next week, solar activity is predicted to remain in quiet or less eruptive level. Proton flux was normal as it categorised in quiet level.

GEOMAGNETIC ACTIVITY

Geomagnetic activity during this week from 26 May to 2 June 2016, was on quiet level. Lowest Dst index was -33 nT on 29 May 2016 at 23:00 UT. Maximum Kp index was 4 on 30 May 2016. Maximum K index from geomagnetic station located in Agam was 3 on 29 May 2016 which means that regional geomagnetic condition still at quiet level. The highest substorm intensity was <1500 nT and occurred 2 times. First substorm occurred on 28 Mei 2016 and lasted for 13 hours and the second one occurred on 31 May 2016 lasted for 15 hours. Those substrom occurrence was disturb the geomagnetic condition at high latitude and sparked aurora, while in Indonesia region which is at low latitude the effect of 2 substroms were not significant.

IONOSPHERIC CONDITIONS

In this week, the ionospheric condition were between quiet to strong level disturbance.The disturbances occurred between May 27 th until June 1st, due to the depression of *F/F2* critical frequencies (*foF/F2*) more than 30% from it's median values. The depression occurred in day time until early morning with duration more than 6 hours. The depression of *foF/F2* could disturbing the radiowave propagation over the ionosphere which known as the Radio Blackout. There was no increment of minimum frequencies (*fmin*) which is a source of *Shortwave Fadeout* (*SWF*) disturbance. However there was occurrence of *Spread-F* in several days that could be a source of Fading disturbances. The E-Sporadic also reported occurred in several days with the critical frequency (*foEs*) values reach 10 MHz. 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. These conditions of *scintillation* could lead quiet levels of *loss of lock*. The value of W index in this week were -2 and 2. Those values could affecting to the error positioning parameters into 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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