SPACE WEATHER INFORMATION AND FORECAST SERVICES
(SWIFtS)
WEEKLY SPACE WEATHER NEWS
Periode: 24 June – 30 June 2016

SOLAR ACTIVITY

Within the remaining past of the week, solar activity was again quiet as it occurred at fist week of July, without C class flare. There were only two active regions on the solar disk, NOAA 2556 and 2557. Both sunspot regions had less activity, with only erupted several B class flares and two type III radio bursts. Among several CMEs detected by CACTUS system, only a CME occuring on May, 25 2016 at 02:48 UT was categorized as partial halo but not in geoeffective position. For the next week, Solar activity is expected to remain quiet and less eruptive.

GEOMAGNETIC ACTIVITY

Geomagnetic activity during June 24th, 2016 to June 30th, 2016 was on quiet level. Lowest Dst index was -22 nT on June 24th, 2016 at 03:00 UT. The maximum Kp index reached 4 on June 26th, 2016 which means active level at high and mid latitude regions. The highest K index from Agam Geomagnetic Station was 2 several times of 3 hours during the week which means quiet geomagnetic conditions. Even though K index of Sumedang Geomagnetic Station stated the same level of geomagnetic activities as Agam Station, it was monitored that geomagnetic K index reached 3 at the third of 3 hours (around 06:00 – 09:00 LT) on June 27th, 2016. Substorm occurence with its greatest intensity was <1000 nT monitored on early June 24th , 2016 and lasted for 12 hours from June 23rd, 2016. Later on June 26th, 2016 another substorm occurred that lasted for 20 hours with intensity less than 1000 nT. Substorms and disturbance that occurred at high and mid latitude region were caused by geoeffective coronal holes at near equator that moves westward from June 22nd, 2016 to June 24th, 2016

IONOSPHERIC CONDITIONS

In this week, the ionosphere conditions were dominant in minor to strong level of disturbances.
The quiet condition was only occured for one day which is in the June 27th. In the other days the *foF/F2* of the ionosphere were experienced a depression for some durations. This depression could impact to the radiowave propagation over the ionosphere which known as the *Radio Blackout*. Although the *foF/F2* experienced a deppression, the minimum frequencies (*fmin*) of 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 this week. This occurrences of *Spread-F* were a source of *Fading* disturbances. Beside the *Spread-F*, the *E-Sporadic* also reported always occurred every days with the critical frequency (*foEs*) reach 14 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 average value of W index in this week were between -3 and 3. Those values could affecting to the error positioning parameters in 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*

Space Science Center
Deputy of Space and Atmospherics Science
Indonesian National Institute of Aeronautics and Space (LAPAN)
Jl. Dr. Djundjunan 133 Bandung 40173
Ph../Fax. (022) 6012602/6014998
E-mail: swifts@lapan.go.id