SPACE WEATHER INFORMATION AND FORECAST SERVICES
(SWIFtS)
WEEKLY SPACE WEATHER NEWS
Periode: 8 – 14 July 2016

SOLAR ACTIVITY

In the past week, solar activity is at the eruptive level with tens of B and C class flares with a maximum of C8.6 flare that occurred on July 10, 2016, peaked at 00:59 UT from the active region NOAA 2564. This flare is also accompanied by type II radio bursts. There is five active region in the solar disk over the past week, which is NOAA 2561, 2562, 2563, 2564 and 2565. The area most actively producing flares are NOAA 2564. Also recorded several times type III radio bursts event. Several times coronal mass ejection is detected by CACTUS software but all have an angular narrow-angle and hurled to the east direction. For the next week, solar activity is expected at the level of quiet until eruptive.

GEOMAGNETIC ACTIVITY

Geomagnetic activity during July 9th, 2016 to July 14th, 2016 mostly was on quiet level. Active condition occurred on July 12th, 2016 lowest Dst index was -27 nT 10:00 UT. The maximum Kp index reached 4 on July 12th, 2016 which means active level at high and mid latitude regions. The highest K index from Agam Geomagnetic Station was also state active level at 4 for several times of 3 hours during the day. K index of Sumedang Geomagnetic Station stated the quiet level of geomagnetic activities, it was monitored that geomagnetic K index reached 3 at the second of 3 hours (around 03:00 – 06:00 LT) on July 12th, 2016. Substorm occurence with its greatest intensity was <1500 nT monitored on July 12th , 2016 and lasted for 22 hours from July 11th, 2016. Intensity of substorm during the week mostly less than 1000 nT and it might caused by high speed stream from geoeffective coronal holes.

IONOSPHERIC CONDITIONS

In this week, the ionosphere conditions were dominant in quiet and minor level of disturbances.
The quiet condition was occured on July 10th-11th. While on July 13th, the foF/F2 of the ionosphere were experienced slightly depression for some durations. So this depression could impact to the radiowave propagation over the ionosphere which known as the Radio Blackout in moderate scale 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 onces in hight scale appear in this week on July 12th. This occurrences of Spread-F were a source of Fading disturbances. Beside the Spread-F, the E-Sporadic also reported occurred with the critical frequency (foEs) reach 7 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 to moderate. 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