

SPACE WEATHER INFORMATION AND FORECAST SERVICES

(SWIFtS)

WEEKLY SPACE WEATHER NEWS

Periode: March, 17th – 23th 2017

SOLAR ACTIVITY

For this past week, Solar activity was very quiet due to the fact that the Sun was spotless, there were no active regions appear on the Sun. Nevertheless, there was one active region with alpha magnetic configuration. The region only lasted for one day. No significant activity recorded, no flare, no radio burst, and no CME detected for the past week. The spotless Sun has been occurred since last week.

GEOMAGNETIC ACTIVITY

Geomagnetic activities during March, 17th – 23rd 2017 were in quiet to active level. The minimum Dst index was -42 nT on March 23rd, 2017. Maximum Kp index reached 5 on March 22nd, 2017. Solar wind speed were increase from 300 km/s to 750 km/s. Enhancement of solar wind speed occurred on March 22nd 2017. IMF condition reached -15 nT to 15 nT on March 22nd 2017 and return to normal condition on the next day. Geoeffective coronal hole was on equator moved to western hemisphere and the others on northern, southern, and eastern hemisphere were not geoeffective. Coronal holes polarity on eastern and southern hemisphere were negative (-) and the others were positive (+). The high intensity of substorm which less than 1500 nT occurred on March 21st 2017 to March 23rd 2017. Electron fluxes were in low to high level. When Dst index reached minimum condition on March 23rd 2017, electron flux in high level and rose on the next day.

IONOSPHERIC CONDITIONS

Ionosphere conditions in this week generally were in quiet condition. Only one day was moderate disturbances level on March 22, 2017.

The moderate level disturbances in the ionosphere was occurred due to the depression of critical frequencies of F/F2 layers (*foF2*) for up to 3 hours and 30 minutes duration. 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 quiet condition. There was no increment of *fmin* that could be a source of disturbance in the HF radio communication which known as *Shortwave Fadeout* (SWF). The error positioning conditions were in normal level condition with W index up to -1.

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