**SPACE WEATHER INFORMATION AND FORECAST SERVICES**
**(SWIFtS)**
**WEEKLY SPACE WEATHER NEWS**
Periode: April, 21st – April, 27th 2017

## SOLAR ACTIVITY

Within the last week, solar activity was in quiet condition with no flare more than B class. Active regions on the solar disk (NOAA 2650-2653) had simple configuration and tend to stable along this week. CME events occurred several times with the speed of around 1000km/s, yet those angular diameters were small. Elsewhere, filament eruption was also observed on April, 24th 2017 at around 03:30 UT on the east region. Next week solar activity is predicted to remain quiet as the probability of very active sunspot region emerging from the east limb of the Sun is small.

## GEOMAGNETIC ACTIVITY

Geomagnetic activity during April, 21st – 27th 2017 was on minor storm level on April 22nd, 2017. Dst index gradually decreased since April 21st, 2017, the storm has been reaching its main phase at 9 UT. Minimum Dst index was -62 nT, while maximum Kp was 5. The minor storm was triggered by fast stream emerged from geoeffective coronal hole. Maximum velocity of solar wind has reached 724 km/s, with density range from 7 to 13 per $cm^3$. Meanwhile in the same time, substorm occurred at high latitude region with maximum AE index around 200 nT, and has taken about 88 hours of duration. Recovery phase went on gradually, and geomagnetic activity back to quiet state on April 27th, 2017. Due to the minor magnetic storm, electron flux reached very high level (>100.000 partikel $cm^{-2}s^{-1}sr^{-1}$) until weekend and is potentially disturb satellites around radiation belt.

## IONOSPHERIC CONDITIONS

Ionosphere conditions in this week were in quiet to moderate condition.
The moderate level disturbances in the ionosphere was occured due to the depression of critical frequencies of *F/F2* layers (*foF2*). The *foF2* depressions were impacted to the radiowave propagation over the ionosphere which known as the MUF Depression. MUF depression occurred due to minor storm on geomagnetic activity. 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). Based on the observations using GISTM over Bandung and Biak, the scintillation (*S4*) condition for this week were quiet level. The error positioning conditions were generally in slight level condition with W index up to 2.

*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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