

SPACE WEATHER INFORMATION AND FORECAST SERVICES

(SWIFtS)

WEEKLY SPACE WEATHER NEWS

Periode: 9 Desember – 15 Desember 2016

SOLAR ACTIVITY

Within the past week, the Sun was in quiet condition, even though there was a slight increase of NOAA 2615's activities which erupted one flare C4.0 at December 10th, 2016. No significant CME as well as type II radio bursts were observed in the past week. In addition to NOAA 2615, there were two other active regions (NOAA 2617 and NOAA 2618) which were not eruptive at all.

Based on the current observations of from the far side of the sun, there is an indication that one active region is going to emerge at east limb. The new region appear to be quiet. Thus, the solar activity next week is expected to remain at the quiet level.

GEOMAGNETIC ACTIVITY

Geomagnetic activities during Desember, 9th –15th 2016 were in quiet to active level. Active level (based on Dst index) occurred on Desember 9th, 2016 at 19 UT with the minimum of Dst index reached -33 nT, while the K index from Station of Agam showed in active level with K index reached 4 on Desember 10th, 2016. Active condition of Geomagnet due to high speed stream from geoeffective coronal hole that have occurred for a week. Substorm occurred in Desember, 9th-12th 2016 with intensity less than 1500 nT. The conditions of electron flux in this week were in high to very high level. The very high level observed for 3 days since Desember 12th, 2016.

IONOSPHERIC CONDITIONS

In this week, the ionospheric condition were quiet level disturbance.

The disturbances due to the depression of f_oF_2 critical frequencies (foF_2) more than 30% from it's median values. The depression of foF_2 could disturbing the radiowave propagation over the ionosphere which known as the Radio Blackout. There was no increment of minimum frequencies (f_{min}) which is a source of *Shortwave Fadeout (SWF)* disturbance. However there was occurrence of *Spread-F* from Desember 12 to 14,2016 that could be a source of Fading disturbances. The Sporadic-E also reported occurred in several days during day and nighttime. The occurances of Sporadic-E could be a positive impact especially when the depression of foF_2 occurred. Based on the observations using GISTM over Biak and Bandung, 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 -1. Those values could affecting to the error positioning parameters into the normal 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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