

SPACE WEATHER INFORMATION AND FORECAST SERVICES

(SWIFtS)

WEEKLY SPACE WEATHER NEWS

Periode: January, 27th – February 2nd 2017

SOLAR ACTIVITY

The Sun is entering the minimum activity phase and its last week activity was considered quiet with only one C2.8 flare occurred on January 28 at 20:56 UT. That flare erupted from the active region NOAA 2627 which was set on the west limb. Within a week, a couple active regions with maximum area of 160 units and low complexity (NOAA 2628, 2629, ..., 2632) emerged on the disk. There was no geoeffective coronal mass ejection that significantly disturbed space weather on Earth. Next week, Solar activity is expected to remain quiet since there will be no Earth-facing eruptive region.

GEOMAGNETIC ACTIVITY

Geomagnetic activities during January 27nd – February 2nd, 2017 was encountered one active level. On February 1st, 2017, local K index maximum from Kototabang Station reached 3, Dst index minimum was -48 nT. While to high and mid latitude region the geomagnetic condition was active on February 1st, 2017 shown by Kp index maximum reached 4. Solar wind speed increased for the last 3 days and reached 770 km/sec. This condition was due to geoeffective coronal holes that elongated from equator to southern part of solar. Substorm during the weekend begin its activity on January 1st, 2017 with intensity less than 1500 nT and occurred for 3 days until February 2nd, 2017.

IONOSPHERIC CONDITIONS

Ionosphere conditions in this week were vary from quiet to moderate disturbance.

The moderate level disturbances in the ionosphere was occurred due to the depression of critical frequencies of F/F_2 layers (foF_2) from 30% its median value for up to 3 hours duration. The foF_2 depressions were impacted to the radiowave propagation over the ionosphere which known as the MUF Depression. The minimum frequencies ($fmin$) of the ionosphere in this week generally were in quiet conditions, only on 29 January was in minor level. There was increment of $fmin$ at day time on 29 January due to C class solar flare. The increment of $fmin$ could be a source of disturbance in the HF radio communication which known as *Shortwave Fadeout* (SWF). The error positioning conditions were in normal to slight level condition with W index up to ± 2 .

*For daily space weather information and forecast, please refer to our **Space Weather Information and***



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