

# SPACE WEATHER INFORMATION AND FORECAST SERVICES

(SWIFtS)

## WEEKLY SPACE WEATHER NEWS

Periode: March, 25<sup>th</sup> – 31<sup>st</sup> 2016

### SOLAR ACTIVITY

For the last seven days, solar activities can be considered as in quiet level with one three C-class flares and several B-class flares detected. The C2.1 flare occurred on March, 28 at 02:28 UT in the active region NOAA 2524 and lasted for approximately 14 minutes. Several type III radio burst were detected in a week, mostly associated with B-class flares. There were only two active regions observed lately, NOAA 2524 and 2526. The latter region possesses relatively large area, reaching 200 millionth hemisphere, but it is uni-polar such that low activity is expected from this region. There were two CME events with angular width larger than 50 degrees that occurred on March 26 and 28. Both events were non-geoeffective. Solar activity is predicted to be stay in quiet level for the next week since no large active region is expected to rise.

### GEOMAGNETIC ACTIVITY

Geomagnetic activities for this week, from March, 25<sup>th</sup> – 31<sup>st</sup> 2016 in quiet condition. Kp index was in 3, AE index was about <1500 nT, minimum of Dst index reached -27 nT on Maret, 31<sup>st</sup> 2016, coronal holes at northern, western, and equator of Sun were geoeffective, while at southern and eastern were not geoeffective. There was no CME with angular width >90<sup>0</sup>. IMF condition was in -5 until 10 nT. Electron flux was in low condition.

### IONOSPHERIC CONDITIONS

Ionosphere in this week were between quiet and strong level disturbance conditions. Quiet conditions occurred from 25th to 28th March 2016. Moderate and Strong level disturbance conditions occurred at 29th and 30th March 2016, respectively. The disturbances occurred due to the depression of  $F/F_2$  critical frequencies ( $f_oF_2$ ) with duration from 4 to 6 hours in post midnight time. Those conditions impacting the HF radio communication which defined as *Radio Blackout*. There was no increment of minimum frequencies ( $f_{min}$ ) which is a source of *Shortwave Fadeout* (SWF) disturbance, neither the occurrence of *Spread-F* which is a source of *Fading*. Based on the observations using GISTM over Biak, the *scintillation* (s4) condition for this week were in quiet. The quiet conditions of *scintillation* related to the slightly levels of *loss of lock* disturbances conditions. The maximum values of *Total Electron Content* (TEC) values for this week were between 50 to 70 TECU. Those values could affecting to the error positioning parameters into 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](http://swifts.sains.lapan.go.id) or please e-mail us for request by facsimile*



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