

SPACE WEATHER INFORMATION AND FORECAST SERVICES
(SWIFtS)

WEEKLY SPACE WEATHER SUMMARY

Periode: 1 – 7 April 2016

SOLAR ACTIVITY

For the most part of the early week, the solar activities can be considered as in quiet level, and only on the last of the week, three C-class flares occurred. The largest one was C1.4 4/6/2016 16:51 associated with weakened NOAA 2526 while two others came from an active region beyond the east limb. All the active regions tend to short-live and already decayed. Two weak halo CMEs detected. There is no strong indications that the situation of solar activities will change considerably.

GEOMAGNETIC ACTIVITY

Geomagnetic activities for this week, from April, 1st – 7th 2016 experienced 2 times of minor storm. First storm peaked on 2 April 2016 at 24:00 UT and was preceded by shock at 15:00 UT. Dst minimum was on -56 nT and Kp index was 5. Recovery phase taken place for about 2 days until April 4th. After the storm event, geomagnetic activity return in to quiet level and began to be disturbed again on 7 April 2016. Second minor storm happened on 7 April 2016 when the Dst index gradually decreased to -58 nT and still lower down. The Kp index reached 5. Substorm occurrence during the week were correspond to the storm and index Ae less than 2000 nT. While at the quiet times, the substorm with index Ae reached 500 nT with a longer duration than on storm condition.

IONOSPHERIC CONDITIONS

Ionosphere in this week were between quiet and minor level disturbance conditions.

Quiet conditions occurred almost all weeks except for 6th April 2016 which has minor level. The disturbances occurred due to the depression of F/F_2 critical frequencies (f_oF_2) with duration from 15 minutes 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* (s_4) condition for this week were in quiet. Though on 1 April 2016 Scintillation in severe condition with high scintillation > 0.5 is occurred last to 2 hours. These conditions of *scintillation* could lead levels of *loss of lock* disturbances conditions. The maximum values of *Total Electron Content* (TEC) values for this week were between 48 to 55 TECU which tends to decrease from last week. However 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 or please e-mail us for request by facsimile*



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