

SPACE WEATHER INFORMATION AND FORECAST SERVICES

(SWIFtS)

WEEKLY SPACE WEATHER NEWS

Periode: January 22nd – January 28th, 2016

SOLAR ACTIVITY

In general, solar activity during the past week was at the eruptive level. Recorded about 24 times B class flares and only 11 times C class flares occurred. The maximum flares are C9.6 which occurred on January 28, 2016 at 12:00 UT coming from NOAA 12488. There are 5 active regions in the solar disk in the past week (NOAA 12 486, 12 487, ..., 124 890). The most active regions are NOAA 12488 which produced most of the C-class flares. Filament eruption also occurred during the past week that caused the particle mass burst into interplanetary space. It also noted several CME hurled to westwards potentially causing disturbance in the Earth's magnetic field. Solar activity is predicted for the next week is still at the eruptive level with potential major flare came from an active region NOAA 12488 before moving to the backside of the sun in the next few days.

GEOMAGNETIC ACTIVITY

Local geomagnetic activity during last week, from January 22nd until January 28th was on active level (K index = 4) due to recovery phase of the moderate storm which has been peaked at previous week. Dst Index minimum reached -38 nT then slowly returned to quiet level. At the end of the week, geomagnetic activity has encountered decrement of Dst Index, but still in quiet state. At higher latitude, there was 2 twice active level at January 23rd and 24th. Meanwhile at polar region, substorm occurred at January 28th has taken 7 hours of duration with AE index reached around 1000 nT. At least 2 geoeffective halo CMEs has occurred at January 25th and 26th, but their incoming particles seems would reach earth around January 30th 2016.

IONOSPHERIC CONDITIONS

Ionospheric conditions for this week were in quiet conditions. Generally, the critical frequencies of Ionosphere and the minimum frequencies were in normal variations. There were not Spread-F events. However, the E-Sporadic occurred during daytime and night time with maximum foEs up to 10.34 on Januari 26, 2016 at 18:00 LT. So, for this week HF Radio Blackout in quiet level, SWF in slightly condotions and fading also in slightly disturbance conditions. Based on the observations using GISTM in Bandung, for this week it the scintillation was in quiet condition also. The quiet conditions related to the quiet levels of Loss of Lock. The peak of TEC values for this week were between 45 to 62 TECU with the maximum peak value was 81.55 TECU on Januari 28, 2016 at 16:00 LT. The TEC value more than 50 TECU could affect the Error positioning for navigation application into the moderate disturbance conditions at 24th , 25th , 27th and 28th January 2016.

*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*



Space Science Center
Deputy of Space and Atmospheric Science
Indonesian National Institute of Aeronautics and Space (LAPAN)
Jl. Dr. Djundjunan 133 Bandung 40173
Ph../Fax. (022) 6012602/6014998
E-mail: swifts@lapan.go.id