SPACE WEATHER INFORMATION AND FORECAST SERVICES
(SWIFtS)
WEEKLY SPACE WEATHER NEWS
Period: 10 – 16 June 2016

SOLAR ACTIVITY

There were three active regions during past week, NOAA 2552, 2553 and 2554. Three flares occurred earlier on this week, C6.5 (11/06 21:59 UT), C1.8 (12/06 20:40 UT) and C3.0 (13/06 05:52 UT), all from NOAA 2552 that went to the west limb toward the far side of the Sun on earlier week. Several type III radio burst also occurred with one type II on 13-14 June period. For the remaining past of the week, the Sun remained quiet due to less activities from the remaining sunspots.
Two active regions NOAA 2553 and NOAA 2554 remain seen for the past week. NOAA 2554 is decaying and toward the west limb while NOAA 2553 remain stable near the center of the Sun disk. There is no strong indications that the situation of solar activities will change considerably.
For the past week, flux of high energy proton was far below threshold so that the activity level is quiet.

GEOMAGNETIC ACTIVITY

Geomagnetic activity during June 10th, 2016 to June 16th, 2016 was on quiet level. Lowest Dst index was -15 nT on June 14th, 2016 at 23:00 UT. The maximum Kp index reached 6 on June 14th, 2016. The highest K index from Agam Geomagnetic Station was 4 at early June 15th, 2016 which means active geomagnetic conditions were monitored at stations while Sumedang Geomagnetic Station monitored the geomagnetic K index reached 3 on the same day which states the geomagnetic conditions on quiet level. Substorm with the greatest intensity was <2000 nT occurred on June 14th , 2016 and lasted for 13.5 hours until June 15th, 2016. Geoeffective coronal hole and cover quite large region were on the equator and northern hemisphere of the sun which moved to the west solar disc since June 10th , 2016 to June 16th , 2016. Geomagnetic disturbance at high latitude region might be caused by fast speed stream from geoeffective coronal holes.

IONOSPHERIC CONDITIONS

In this week, the ionospheric were in quiet to strong conditions.
The strong conditions occurred at 13rd and 16th June 2016 due to the depression of *F/F2* critical frequencies (*foF/F2*) more than 30% from it's median values more than 2 hours. So there was interferences on HF radio communication . There was no increment of minimum frequencies (*fmin*) which is a source of *Shortwave Fadeout* (*SWF*) disturbance. However there was occurrence of *Spread-F* in several days that could be a source of Fading disturbance. The E-Sporadic also reported occurred in several days with the critical frequency (*foEs*) values reach 13.10 MHz. The occurances of E-Sporadic could be a positive impact especially when the depression of *foF/F2* occurred. Based on the observations using GISTM over Biak, the *scintillation* (S4) condition for this week mostly were in quiet except on June 15, 2016 was on moderate level. These conditions of *scintillation* could lead quiet levels of *loss of lock*. The value of W index in this week mostly were less than equals ± 2. Those values could affecting to the error positioning parameters into the slight 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*

Space Science Center
Deputy of Space and Atmospherics 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