3-day Space Weather Forecast (SUPARCO)

Friday, March 06, 2015, 1500 PST

SUPARCO

LOCAL CURRENT IONOSPHERIC CONDITIONS			
DATE	**6-Mar-15**	**7-Mar-15 (noon)**	**8-Mar-15 (noon)**
foF2	12 MHz	12 MHz	12 MHz
h`F2	311 km	300±5 km	300±5 km
MUF	34 MHz	34-5 MHz	34-5 MHz
TEC	65 TECU	60±4 TECU	60±7 TECU

Local ionospheric conditions are nominal with normal MUF conditions. Try a higher frequency band in case of HF communication difficulty.

LOCAL GEOMAGNETIC CONDITIONS			
Kp	3	3	3
Ap	7	10	12
F	49700 nT (SON: 44800nT)	49700±20 nT	49700±25 nT

The local geomagnetic field is in quiet for now (as shown in green).

SOLAR CONDITIONS			
SN	31	89 (SSN-predicted)	84 (SSN-predicted)
F 10.7	130 sfu	135 sfu	130 sfu
V_{SW}	501 km/sec (varied in the past 12 hrs between 502 & 415 km/s)	Expected to increase till 550 km/s.	Expected to increase till 600 km/s.
Solar flares	M 1.3 (M 3.4 at 09:57 PST, R1 radio storm, frequencies below 8 MHz were affected in the Indian ocean region)	Solar flare activity is expected to remain at C/M-class levels.	Solar flare activity is expected to remain at C/M-class levels.
IMF Bt	8.2 nT (varied in the past 12 hrs between 9.2 & 4.2 nT)	Expected to remain around 15 nT	Expected to remain around 15 nT
Bz	+1.3 nT (varied in the past 12 hrs between +4.7 & -5.6 nT)	Expected to remain around ±10 nT	Expected to remain around ±10 nT

**Solar conditions are at <u>low</u> levels with background X-ray flux at <u>M</u>-class levels. Local HF working frequencies are <u>nominal</u> compared to monthly average predicted values.**

Daily Sun: 6 March 2015

Quiet local geomagnetic and nominal ionospheric conditions have been observed for today.

Currently there are no active regions on the solar disk that tends to produce any strong solar flares.

03 CHs are discernible on the solar disk which could elevate the solar wind in the next 02 days as expected.
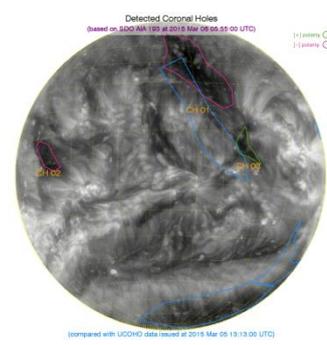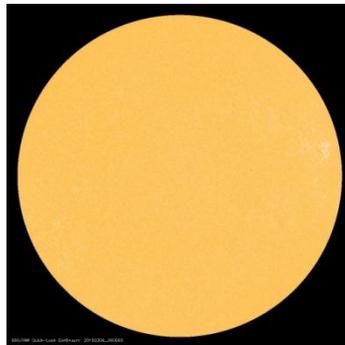
2-Day Forecasts

Low solar activity is likely to persist. Normal MUF conditions are expected. Geomagnetic conditions might get slightly unsettled due to the influence of a CH high speed stream as anticipated for the next two days.

DEFINITIONS OF TERMINOLOGIES USED IN THIS SUMMARY	
foF2	Maximum frequency of F2-layer of the ionosphere
h'F2	Virtual height of the F2-layer
MUF	Maximum usable frequency for 3000 km
Kp, Max Kp	Planetary index defining geomagnetic conditions, predicted value during geomagnetic unsettled conditions
Ap, Max Ap	Planetary A index defining geomagnetic conditions, predicted value during geomagnetic unsettled conditions
F	Magnitude of the total geomagnetic field vector (unit in nano Teslas)
SON, difference	Sonmiani Geomagnetic Observatory mean value, <u>difference limit</u> from night time value of quiet conditions: 25-30 nT, max: 260 nT
ISP	Islamabad Geomagnetic Observatory mean value
SN	Relative sunspot numbers
V_{SW}	Solar Wind Speed (km/s)
F10.7	Solar radio flux at 2.8 GHz (10.7 cm wavelength)
sfu	Solar flux unit (defines the solar radio 10.7 cm flux)
Solar Flare	Could be B, C, M and X depending upon the intensity of x-rays being emitted (each type has further 10 classes based on amount of energy released by the flare)
IMF	Interplanetary magnetic field (the source of which is the Sun)
Bt	Total IMF (unit in nano Teslas)
Bz	Vertical component of IMF (could be north/upward/positive or south/downward/negative) (unit in nano Teslas)
AR	Active Regions on the sun currently in view
CME	Coronal Mass Ejection
CH	Coronal Hole
KASI	Korean Astronomy & Space Science Institute
SWFs	Short-wave fadeouts, caused by M/X class flares on the daylit side of the hemisphere absorbing lower frequencies.
SSN-predicted	Smooth Sunspot Number-it is an estimated value using a mathematical relation to forecast it.

For information on radio blackout levels, please follow the link:
http://www.swpc.noaa.gov/NOAAscales/