India Meteorological Department

FDP STORM Bulletin No.1 (07-03-2018)

1. CURRENT SYNOPTIC SITUATION at 0300UTC of the Day:

♦ The western Disturbance as a trough in mid tropospheric westerlies with its axis at 5.8 Km above mean sea level now runs roughly along Long 65°E to the north of Lat 25°N.
♦ The cyclonic circulation over west Assam and neighbourhood extending upto 0.9 km above mean sea level persists.
♦ A trough of low at mean sea level lies over Equatorial Indian Ocean and adjoining southeast Bay of Bengal and Nicobar Islands.
♦ The cyclonic circulation over Comorin area and neighbourhood now lies over Lakshadweep area & neighbourhood and extends upto 0.9 km above mean sea level.
♦ The trough now runs from the above cyclonic circulation over Lakshadweep & neighbourhood to Telangana across interior Karnataka and extends upto 0.9 km above mean sea level.

SATELLITE OBSERVATIONS during past 24hrs and current observation:

Current Observation (based on 0900UTC imagery of INSAT 3D):

Westerly Trough:

Trough in westerlies runs roughly along long 65.0ºE & north of lat 25.0ºN

Clouds descriptions within India:

Scattered low medium clouds with embedded isolated weak to moderate convection seen over East Jammu & Kashmir. Scattered low medium clouds with embedded isolated weak to moderate convection seen over Nicobar Islands. Scattered low/medium clouds seen over rest Jammu & Kashmir, North Himachal Pradesh, North Uttarakhand, South Chhattisgarh, Odisha, Sikkim, Arunachal Pradesh, Assam, Meghalaya, Manipur, Mizoram, Southeast Rajasthan, East Gujarat, West Madhya Pradesh, Madhya Maharashtra, West Vidarbha, North Coastal Andhra Pradesh and Kerala.

Arabian Sea: No significant clouds are seen over the region.

Bay of Bengal: Scattered low/medium clouds with embedded isolated weak to moderate convection seen over South Bay, South of Lat 10.0ºN and South Andaman Sea.

Past Weather:

Convection (during last 24 hrs):-

Weak to Moderate convection was observed over Arunachal Pradesh North-East Assam and Nagaland.

OLR:-

Upto 230 wm^{-2} was observed over J&K Himachal Pradesh North Uttarakhand Sikkim Arunachal Pradesh.

Westerly Trough & Jet-Stream:-

Trough in westerlies runs roughly along longitude 60.0ºE & north of latitude 25.0ºN.

Dynamic Features:-

Negative shear tendency is observed over North-West India and Positive shear tendency over rest parts of India.
Medium to high wind shear is observed over North & Central India.
A positive Vorticity field is observed over Uttarakhand North Uttar Pradesh Bihar.
Negative low level convergence is observed over Punjab Haryana Rajasthan North-East States and Positive Low Level Convergence over rest parts of India.

Precipitation:
IMR:
Rainfall upto 20 mm was observed over East Arunachal Pradesh and
Rainfall upto 10 mm was observed over J&K North Himachal Pradesh .
HEM:.
Rainfall upto 70 mm was observed over East Arunachal Pradesh.
Rainfall upto 14 mm was observed over Nagaland.

RADAR and RAPID Observation:
No significant convection is seen on available DWR domain at around 1645 IST.
Light convection was seen over southeast Rajasthan and West Madhya Pradesh in RAPID RGB Satellite imagery at 1600IST

Environmental condition (dust etc) and its forecast based on 00UTC of date:
Not Received

2. NWP MODEL GUIDANCE:

NCMRWF (NCUM Forecasts based on 00 UTC of the day):-
Not Received
IMD GFS (T1534) based on 00UTC the day:-
Not Received

IMD WRF (based on 00UTC of the day):
Not Received

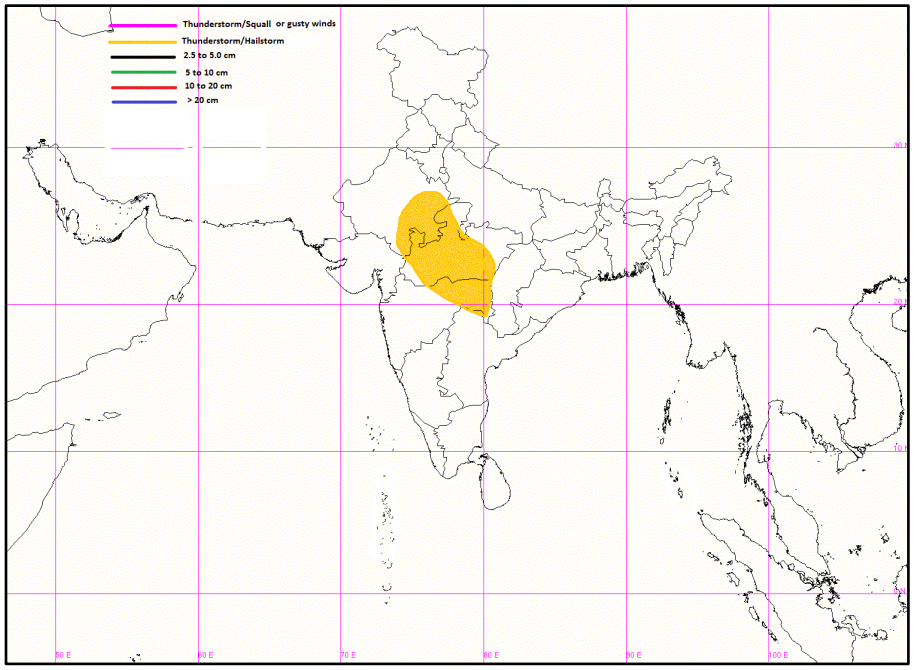
3. IOP ADVISORY FOR 24 and 48Hrs:

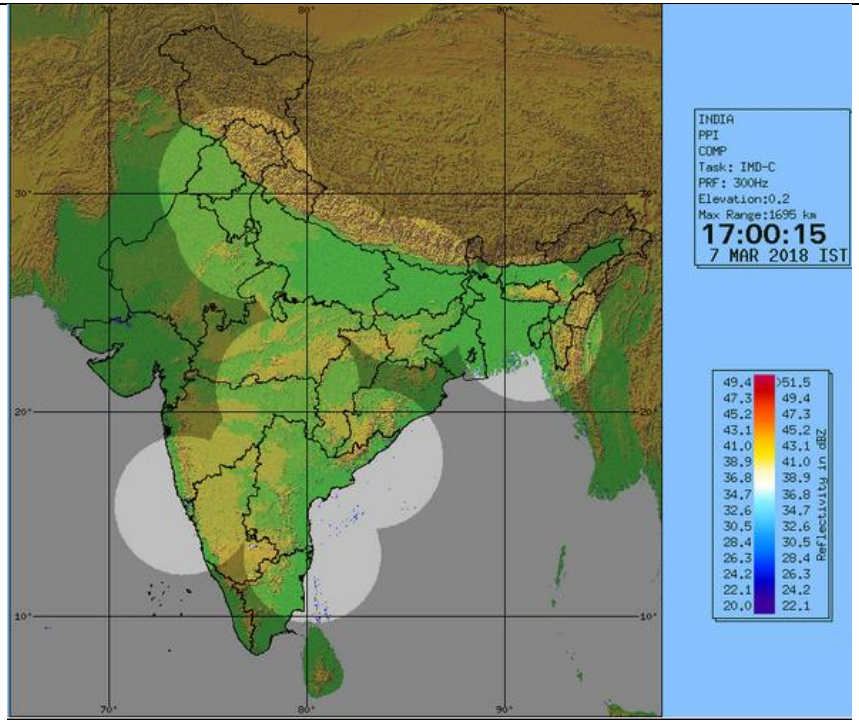
Summary and Conclusions:

Day-1 & Day-2:

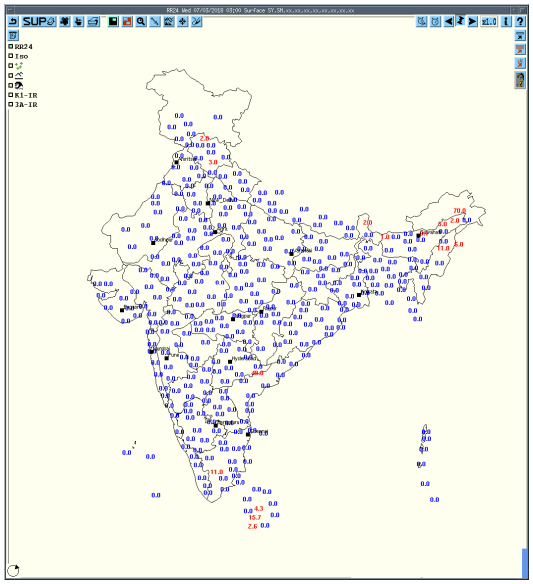
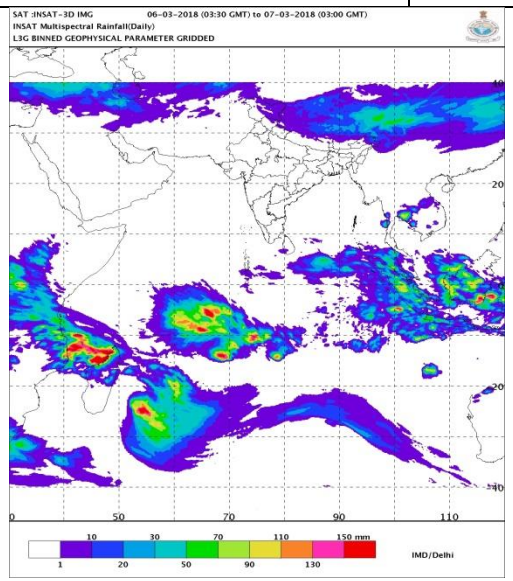
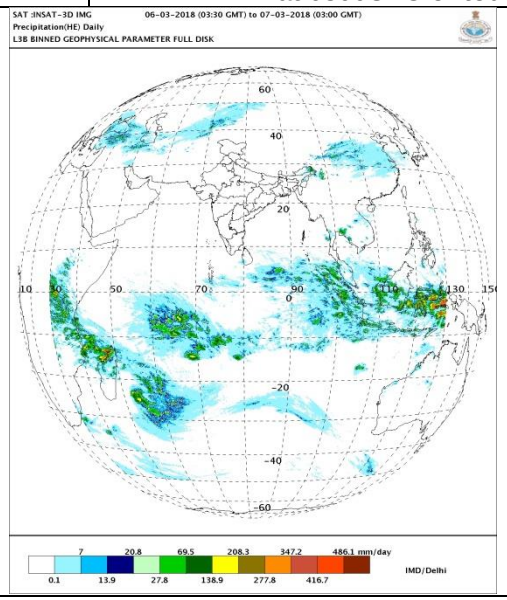
In association with the trough that runs from the cyclonic circulation over Lakshadweep & neighbourhood to Telangana across interior Karnataka and the position of the anticyclones- one over the North Bay of Bengal, and the other over north central India, a north-south oriented region of wind discontinuity is developing over Madhya Maharashtra and adjoining Marathwada. Associated weather in the form of isolated thunderstorms is expected over west central India on day 1. On day 2, the wind discontinuity is shifting eastwards and associated thunderstorms accompanied by hail, are expected over central India. Also, this zone of thunderstorms is likely to be extended north-westwards into east Rajasthan on day 2, in association with the eastward movement of the western disturbance to over the Indian region.

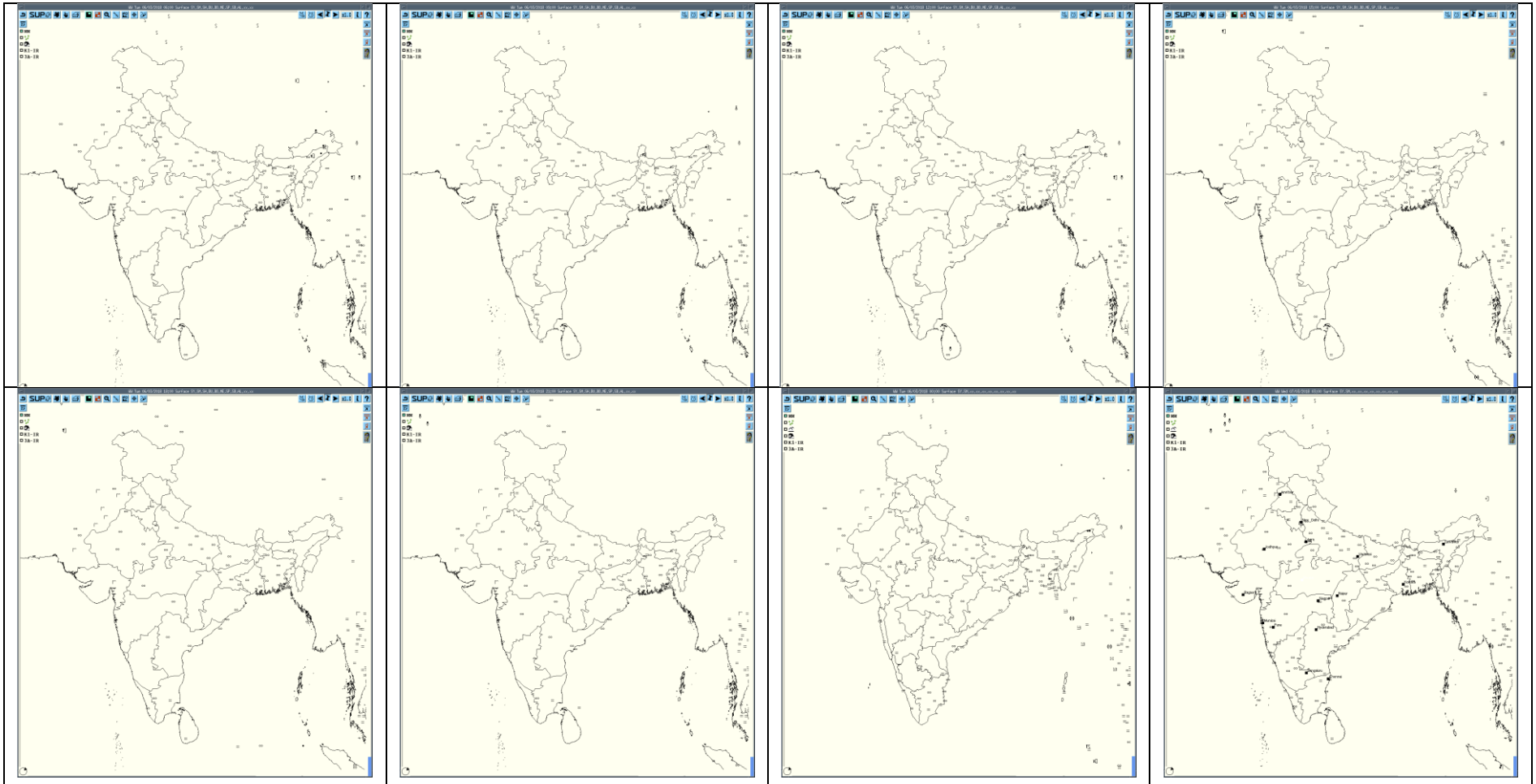
24 hour Advisory for IOP:	**48 hour Advisory for IOP:**
Rainfall: Nil **Thunderstorm with associated phenomena:** Nil	**Rainfall:** Nil **Thunderstorm with associated phenomena:** Vidarbha, Madhya Pradesh, East Rajasthan

No Severe Weather on D1	
IOP Advisory for 24 hours	**IOP Advisory for 48 hours**

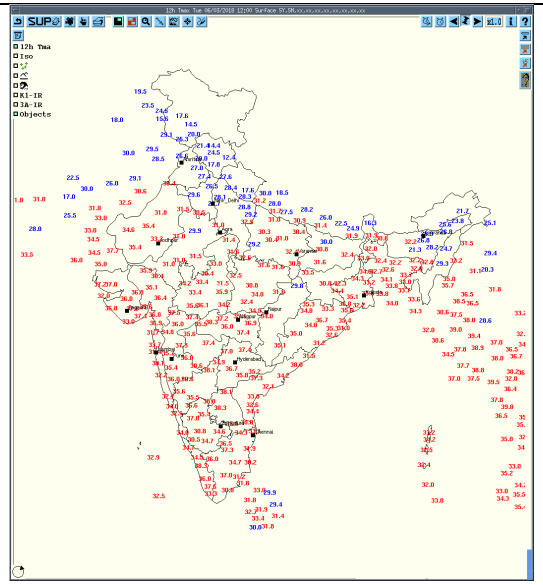
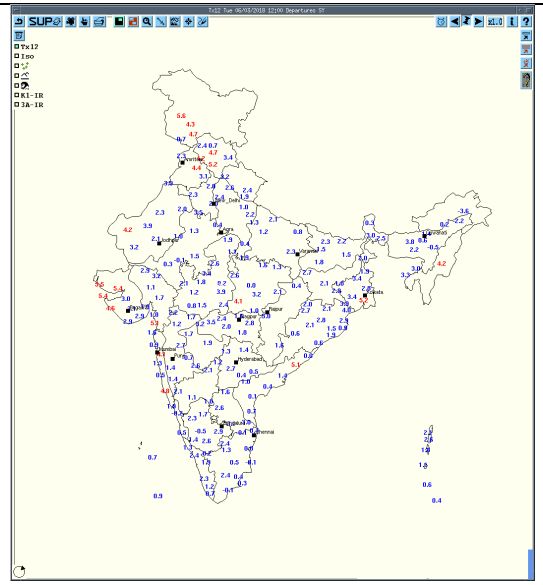
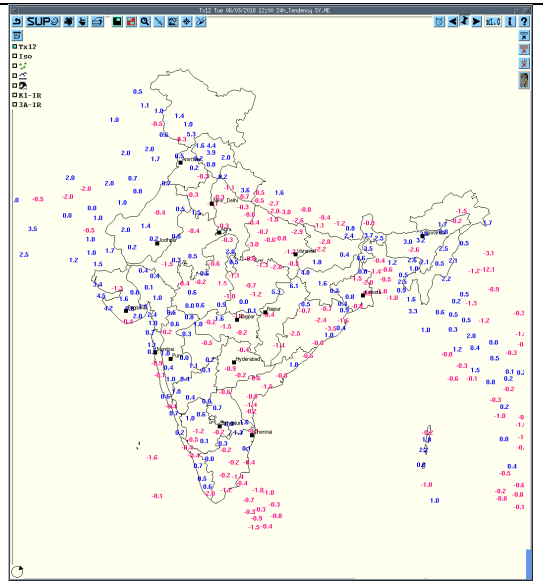
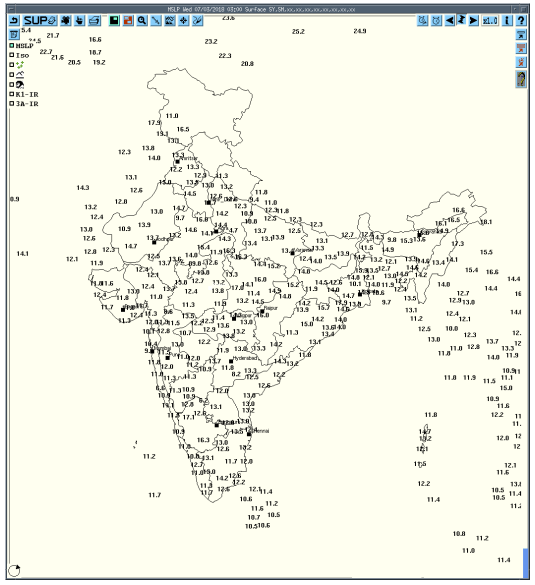
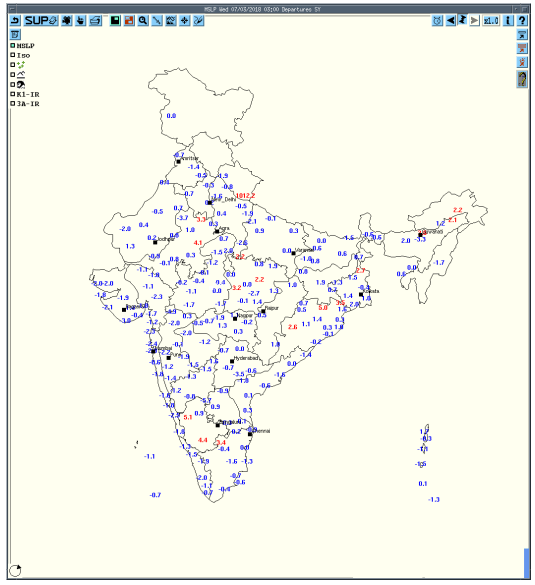
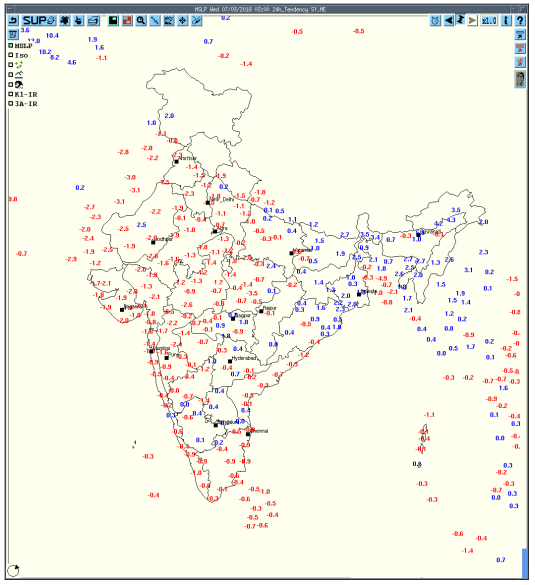


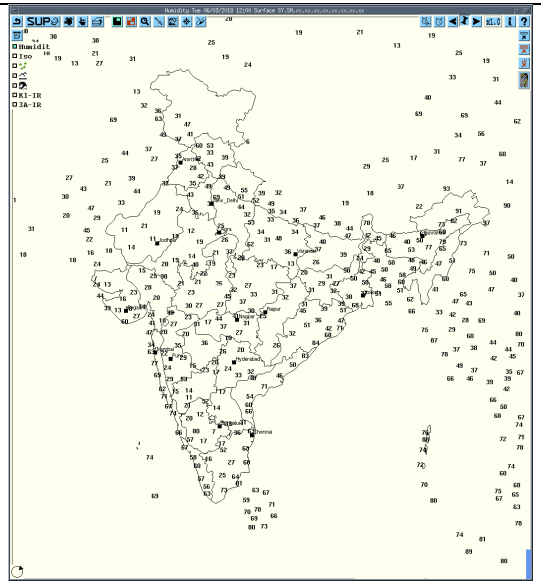
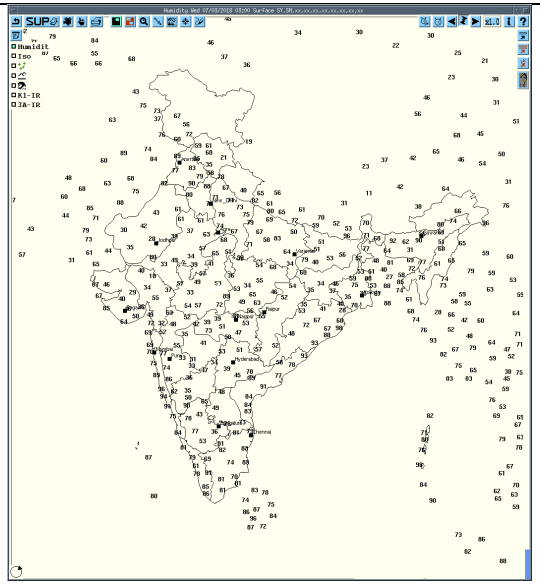
DWR composite at 1700 IST today

Not Received	**Not Received**	
Forecast Dust Concentration for	**PM10 Forecast for**	**Accumulated 24 Hour rainfall (in red) recorded at 0300UTC of today**
		
IMR Rainfall		**HEM Rainfall**



3hourly Past weather at 06, 09, 12, 15, 18, 21UTC of yesterday and 00 & 03 hrs UTC of today

		
Tmax	**Departure Tmax**	**Tendency Tmax**
		
MSLP	**Departure MSLP**	**Tendency MSLP**

	
RH at 12UTC yesterday	**RH at 03UTC today**

Realised past 24hrs TS/SQ/HS Data:

Realised TS/HS/SQ during past 24 hours ending at 0300UTC of today(received from RMCs/MCs)						
Name of Station Reporting	**Region**	**STATE**	**Weather Event (TS/Hail/Squall)**	**Date**	**Time of Commencement (IST)**	**Time of end (IST)**
Passighat	Northeast India	Arunachal Pradesh	Thunderstorm	06-03-18	06/0840 06/1055 06/1605 06/1730	06/0940 06/1310 06/1620 06/1900
Itanagar	Northeast India	Arunachal Pradesh	Thunderstorm	06-05-18	06/0940 06/1200	06/0950 06/1210
N/Lakhimpur	Northeast India	Assam	Thunderstorm	06-03-18	06/0940 06/1220	06/1040 06/1240
Gangtok	East India	SHWB (Sikkim)	Thunderstorm	06-03-18	06/1245	06/1345
Tadong	East India	SHWB (Sikkim)	Thunderstorm	06-03-18	06/1315	06/1340

Past 24 hours DWR Report:

DWR Station Name	**Date of Report**	**Time Interval of Observation (UTC)**	**Organisation of cells (Isolated single cells/multiple cells/convective regions /squall lines) with height of 20 dBZ echo top and maximum reflectivity**	**Formation w.r.t. radar station and Direction of movement**	**Remarks**	**Associated Severe Weather if any**	**Districts affected**
Kolkata	07-03-18	060301-070300	NIL	NIL	NO ECHO	NIL	NIL
Agartala	07-03-18	060300-070300	NIL	NIL	NIL	NIL	NIL
Patiala	07-03-18	060300-070252	NO ECHO	--	--	--	--
Visakhapatnam	07-03-18	060600-070300	Nil	Nil	Nil	Nil	Nil
Lucknow	07-03-18	060600-070300	Nil	Nil	Nil	Nil	Nil
Jaipur	07-03-18	060600-070300	Nil	Nil	Nil	Nil	Nil

IMPORTANT LINKS:

For NCMRWF NWP products:(http://www.ncmrwf.gov.in/HomePage/NEPS-prod-1.php)

For IMD NWP products:(http://nwp.imd.gov.in/diagpro new.php)

For Synoptic plotted data and charts

http://amssdelhi.gov.in/

http://www.amsskolkata.gov.in/

For RAPID tool:

http://rapid.imd.gov.in/

Low Level Winds

http://satellite.imd.gov.in/archive/INSAT-3D-IMAGER/3D-PRODUCTS/AMV/LLW/MAR 2017/?C=M;O=D

Upper level winds

http://satellite.imd.gov.in/archive/INSAT-3D-IMAGER/3D-PRODUCTS/AMV/HLW/MAR 2017/?C=M;O=D

Past24hourHEMandIMRrainfall(upto03UTCoftoday)

IMR: http://satellite.imd.gov.in/img/3Ddaily imr.jpg

HEM: http://satellite.imd.gov.in/img/3Ddaily he.jpg

ForRadarimagesofthepast24hoursincludingmosaicofimages:

http://ddgmui.imd.gov.in/dwr img/

Satellite sounder based T- Phigram

http://satellite.imd.gov.in/map skm2.html

WEATHER SYMBOLS: