India Meteorological Department

FDP STORM Bulletin No.59(03-05-2017)

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

SYNOPTIC FEATURES:

The trough at mean sea level from northwest Rajasthan to southeast Uttar Pradesh across southwest Uttar Pradesh persists.
The upper air cyclonic circulation over north Rajasthan and adjoining Punjab & Haryana now lies over Haryana & neighbourhood and extends upto 1.5 Km above mean sea level. A trough runs from this system to Comorin area across West Madhya Pradesh, Madhya Maharashtra, Interior Karnataka & interior Tamilnadu and extends upto 0.9 km above mean sea level.
A trough runs from Maldive, Lakshadweep area to southwest Madhya Pradesh across north Kerala, interior Karnataka, Marathwada and Madhya Maharashtra between 1.5 to 2.1 km above mean sea level.
The upper air cyclonic circulation over east Assam & neighbourhood extending upto 0.9 km above mean sea level persists.
An upper air cyclonic circulation lies over south Chhattisgarh & neighbourhood and extends upto 0.9 Km above mean sea level.
The feeble Western Disturbance as a trough in mid-tropospheric westerlies now runs roughly along longitude 66.0°E and north of latitude 30.0°N, now runs roughly along longitude 68.0°E and north of latitude 30.0°N.
A trough runs from east Bihar to northwest Bay of Bengal at 1.5 km above mean sea level.
The trough from interior Odisha to Lakshadweep area across Coastal Andhra Pradesh, Telangana and South Interior Karnataka has become less marked.
The wind discontinuity from comorin area to South Interior Karnataka across interior Tamilnadu extending upto 0.9 Km above mean s ea level has become less marked.
The upper air cyclonic circulation over east Bihar & neighbourhood has become less marked.
The upper air cyclonic circulation over south Madhya Pradesh & adjoining Vidarbha and the trough from this system to North Interior Karnataka has become less marked.

SATELLITE OBSERVATIONS during past 24hrs and current observation:

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

Convective Activity and cloud description:

Cell No	Date/Time (UTC)	Area/Location	CTBT (-^{0}C)	Movement	Remarks If any
1	03/0800	Central Coastal Tamilnadu	70		Developing
	0900	-Do-	63		Developing
2	03/0900	Northeast Odisha	68		Developing

Scattered multi layered clouds were seen over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Northeast Rajasthan, Haryana, Delhi and Uttar Pradesh, Northwest Bihar in association with western disturbance over the area.
Scattered low/medium clouds seen over South Arunachal Pradesh, Meghalaya, Nagaland, Sikkim, Maharashtra, Telangana, Rayalaseema, Karnataka, Kerala and rest Tamilnadu Bay Islands.
Scattered low/medium clouds with embedded isolate moderate to intense convection seen over South Chhattisgarh, Odisha, exterior North Arunachal Pradesh,
Broken low/medium clouds with embedded moderate to intense convection seen over North Coastal Andhra Pradesh.
Scattered low/medium clouds with embedded isolate weak to moderate convection seen over Northeast Rajasthan, Madhya Pradesh,

Arabian Sea:

Scattered low/medium clouds with embedded isolate moderate to intense convection seen over COMORIN.

Bay of Bengal & Andaman Sea:

Scattered low/medium clouds with embedded moderate to intense convection seen over South Bay and South Andaman Sea.

Past Weather:

Convection: Moderate to Intense convection was observed over Karnataka Kerala Tamilnadu West Bengal West Assam. Weak to Moderate convection associated with Western Disturbance was observed over J&K Himachal Pradesh Rajasthan Punjab Haryana Delhi West Uttar Pradesh.

OLR: - Upto 200 wm^{-2} was observed over J&K.
Upto 230 wm^{-2} was observed over Himachal Pradesh Uttarakhand Sikkim Arunachal Pradesh.
Upto 250 wm^{-2} was observed over Punjab North-West Rajasthan South Kerala & South Tamilnadu.

Westerly Trough & Jet-Stream: Trough in Westerlies runs roughly along Longitude 68.0E North of Latitude 30.0N.

Dynamic Features: Negative shear tendency is observed over North-West parts of India and Positive shear tendency is observed over rest parts of India.
Medium to high wind shear is observed over India.
A positive Vorticity field is observed over Saurashtra Central Madhya Pradesh Vidarbha.
Positive Low Level Convergence is observed over Central parts of India and Negative low level convergence observed over rest parts of India.

Precipitation:

IMR: Rainfall upto 20 mm was observed over South Kerala.
Rainfall upto 10 mm was observed over J&K Punjab North Himachal Pradesh South Haryana West Rajasthan Gangetic West Bengal Arunachal Pradesh Karnataka North Kerala South Tamilnadu.
HEM: Rainfall upto 70 mm was observed over South-West J&K East Arunachal Pradesh South Kerala.
Rainfall upto 07 mm was observed over Gangetic West Bengal Assam Karnataka North Kerala Tamilnadu.

RADAR and RAPID observation:

Scattered significant convection was observed over Haryana, Delhi, Northeast Rajasthan, South Madhya Pradesh, South Chhattisgarh, Northeast Odisha and Tamilnadu In Radar Composite of 1610IST and multiple significant convection was seen over Jammu & Kashmir, Himachal Pradesh, Uttrakhand, Punjab, Haryana, Delhi and West Uttar Pradesh, South Maharashtra, Coastal Odisha, Karnataka, North Coastal Andhra Pradesh and Tamilnadu in RAPID RGB Satellite imagery of 1600hrs IST.

Environmental condition (dust etc) and its forecast based on 00UTC of date:

Dust concentration was observed over northern Africa and some parts of eastern Asia. Dust concentration is expected to increase over western and northern India for next five days.

High PM10 concentration was observed over north-western and northern India. PM10 concentration is expected decrease over northern India for next five days.

2. NWP MODEL GUIDANCE:

NCMRWF (NCUM Forecasts based on 00UTC of the day):

1. Weather Systems: 12UTC Charts of Day-0,1 and 4 feeble trough in MSLP is seen over J & K.
12UTC charts on all days from Day0-4 show two zones of wind discontinuity at 925 hPa due to persistent anticyclonic flow over Arabian Sea :(i) SW-NE extending from northern Karnataka-Telangana region to Odisha & WB region. (ii) S-N extending from southern parts of TN to northern parts of Telangana-AP region.
Trough at 850 hPa: over GWB and SHWB in Day0-4.
At 500 hPa trough: over west of J & K in Day-0. Strong east-west ridge over peninsula is prominent in Day-1 to Day-4

2. Location of jet and jet core at 500hPa:-**500hPa Jet core (>60kt)**: Weaker core winds at 12 UTC on all days over India. Core winds of about 40-50 kt is seen over the SHWB and adjoining Assam region Day-1-Day-2

3. Convergence at 850 hPa:

Day0: West UP, Odisha, West MP, East MP, Madhya Maharashtra, Marathwada, Vidarbha, NI Karnataka,
Day1: Arunachal Pradesh, Assam Meghalaya, East UP, Madhya Maharashtra, TN Puducherry, SI Karnataka, Kerala,
Day2: Assam Meghalaya, Uttarakhand, Himachal Pradesh, Madhya Maharashtra, Chhattisgarh, SI Karnataka,
Day3: Assam Meghalaya, NE NMMT, Jharkhand, Odisha, West MP, East MP, Madhya Maharashtra, Marathwada, Vidarbha, Chhattisgarh, Telangana,
Day4: Gangetic WB, Jharkhand, East MP

4. Low level Vorticity:-Positive Vorticity (>15 x 10^{-5}/s):

Day0: Assam Meghalaya, Bihar, West UP, East RJ,
Day1: Arunachal Pradesh, Assam Meghalaya, Sub Himalayan WB,
Day2: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Gangetic WB, Jharkhand, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Odisha, Coastal AP,
Day3: Arunachal Pradesh, Assam Meghalaya, Bihar, East UP, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Odisha, TN Puducherry,
Day4: Assam Meghalaya, NE NMMT, Gangetic WB, Bihar, East UP, Uttarakhand, Himachal Pradesh, Konkan Goa,

5. Showalter Index: Day-wise Sub-divisions with Showalter index <-4:

Day0: Arunachal Pradesh, Sub Himalayan WB, Gangetic WB, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Odisha, Konkan Goa, Madhya Maharashtra, Coastal AP, Telangana, TN Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,
Day1: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Konkan Goa, Madhya Maharashtra, TN Puducherry, Coastal Karnataka, SI Karnataka, Kerala,
Day2: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Bihar, Uttarakhand, Jammu Kashmir, Saurashtra Kutch, Konkan Goa, Madhya Maharashtra, Coastal AP, TN Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

Day3: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Odisha, Konkan Goa, Madhya Maharashtra, Chhattisgarh, Coastal AP, Telangana, TN Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

Day4: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Odisha, Konkan Goa, Madhya Maharashtra, Vidarbha, Chhattisgarh, Coastal AP, TN Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

6. K-Index: Daywise Sub-divisions with K-index >40:

Day0: Arunachal Pradesh, Sub Himalayan WB, Gangetic WB, Uttarakhand, Himachal Pradesh, Odisha, Madhya Maharashtra, Vidarbha, Chhattisgarh, Coastal AP, Telangana, Rayalaseema, TN Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

Day1: Arunachal Pradesh, Assam Meghalaya, Sub Himalayan WB, Gangetic WB, Bihar, East UP, Uttarakhand, Jammu Kashmir, Odisha, Konkan Goa, Madhya Maharashtra, Vidarbha, Chhattisgarh, Coastal AP, Telangana, Rayalaseema, TN Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

Day2: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Bihar, Uttarakhand, Odisha, Konkan Goa, Madhya Maharashtra, Vidarbha, Chhattisgarh, Coastal AP, Telangana, Rayalaseema, TN Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

Day3: Arunachal Pradesh, NE NMMT, Bihar, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Odisha, Madhya Maharashtra, Chhattisgarh, Coastal AP, Telangana, Rayalaseema, TN Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka,

Day4: Arunachal Pradesh, NE NMMT, Sub Himalayan WB, Bihar, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Odisha, Madhya Maharashtra, Chhattisgarh, Coastal AP, Telangana, Rayalaseema, TN Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka,

7. Spatial distribution of TTI: Daywise Sub-divisions with TTI >52:

Day0: Arunachal Pradesh, Sub Himalayan WB, West UP, Uttarakhand, Himachal Pradesh, Jammu Kashmir, West RJ, East RJ, Odisha, West MP, Coastal AP,

Day1: Arunachal Pradesh, Assam Meghalaya, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Odisha, Vidarbha, Chhattisgarh, Telangana,

Day2: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Jharkhand, Bihar, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Odisha, Saurashtra Kutch, Konkan Goa, Madhya Maharashtra, Vidarbha, Chhattisgarh, Coastal AP,

Day3: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Odisha, West MP, East MP, Konkan Goa, Madhya Maharashtra, Marathwada, Vidarbha, Chhattisgarh, Coastal AP, Telangana, Rayalaseema, Coastal Karnataka, NI Karnataka,

Day4: Arunachal Pradesh, NE NMMT, Sub Himalayan WB, Gangetic WB, Jharkhand, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Odisha, Madhya Maharashtra, Marathwada, Vidarbha, Chhattisgarh, Coastal AP, Telangana, Coastal Karnataka, NI Karnataka,

8. Rainfall: Daywise Sub-divisions with Precipitation>2cm:

Day1: Arunachal Pradesh, Assam Meghalaya, Sub Himalayan WB, Uttarakhand, Jammu Kashmir, SI Karnataka, Kerala,

Day2: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB,

Day3: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB,

Day4: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Odisha, Chhattisgarh,

Day5: Assam Meghalaya, NE NMMT, Jammu Kashmir, Kerala,

IMD GFS (T1534) based on 00UTC the day:-

1. Weather Systems: The model analysis shows that in the lower tropospheric levels, a CYCIR over Delhi and adjoining areas along with a north-south oriented trough extending up to interior Karnataka. Another northeast-southwest trough from SHWB to Telangana is seen and adjoining areas. In the forecasts, the CYCIR moves eastward over east Bihar and adjoining east UP in day 1 and a northeast-southwest trough forms extending from SHWB and adjoining Bihar up to Vidarbha and adjoining areas which persists over the region till day 5. The north-south trough over peninsular India from Vidarbha to interior Karnataka also persists till day 5. The wind at 500 hPa shows a weak trough in westerlies moving eastward crosses over J&K and Punjab and adjoining northwest India on day 1. The trough reaches over northern parts of NE states on day 3 and moves eastward in day 4.

2. Location of jet and jet core at 500 hPa:-500 hPa Jet core (>60kt): No presence of jet core over the Indian region.

3. Low level Vorticity:-Positive Vorticity 850hPa (>12 x 10^{-1}/s): Mostly along the foot hill of Himalaya over NW and NE India. Prominent vorticity zones are found along troughs over east, central and south peninsular India during next 5 days and sometimes over Rajasthan orienting northwest-southeast direction during morning hours.

4. Spatial distribution of T-Storm Initiation Index, Lifted Index, Total Total Index, CAPE, CINE and Sweat Index (High potential for thunderstorm):

T-Storm Initiation Index (> 4): Less than threshold value all over the country. The values between 3-3.5 mostly along east coast, eastern part of the country covering Bihar, GWB, parts of Jharkhand and Andhra Pradesh also along west coast and over Gujarat during nest 5 days prominently during morning hours.

Lifted Index (< -2): Less than threshold value mostly reiterates the coverage like T-storm index during next 5 days but most prominent during evening hours.

Total Total Index (> 50) : Above threshold value over the most parts of northwest and central India and reaching over west parts of east India during afternoon hours.

Sweat Index (> 300): Along east coast, along west coast, GWB, Bihar and adjoining areas eastern part of India and parts of north eastern states during next 5 days.

CAPE (> 1000): Has nearly similar features of sweat index during all hours.

CINE (50-150): Mostly along east coast, west coast, Gujarat and adjoining areas, parts of north eastern states, over eastern India during morning hours for next 5 days.

5. Rainfall and Rainfall activity:

10-70 mm: rainfall along foothills of Himalaya on day 1.

10-40 mm: rainfall over NE states during next 5 days.

IMD WRF (based on 00UTC of the day):

Model Reflectivity:

15-30 dBZ: over parts of Punjab, Haryana, Delhi and adjoining east UP, north Rajasthan, north MP during next 24 hours.

15-35 dBZ: over parts of over parts of SHWB and NE states during next 2 days and confines over Arunachal Pradesh and adjoining Assam on day 3.

Spatial distribution of Total Total Index, K-Index, CAPE and CINE:

Total Total Index (> 50) : Above threshold value over most parts of the country except extreme south peninsula, J&K and parts of NE states during next 72 hour.

CAPE (> 1000): Mostly along east coast of India, over eastern parts of India, parts of NE states, west coast and coastal Gujarat during next 3 days.

CINE (50-150): Over north Rajasthan and adjoining MP, Delhi and east UP on day 1. Higher values: over coastal regions of India. Some parts of eastern India, Gujarat and south peninsula during morning hours of next three days.

Rainfall Activity:

10-40 mm: over SHWB and North-eastern states during next 3 days.

10-20 mm: rainfall over Kerala and adjoining interior Karnataka 1. Spatial coverage and intensity decreases thereafter in next 2 days.

3. IOP ADVISORY FOR 24 and 48Hrs:

Summary and Conclusions:

Presently, the upper air cyclonic circulation over east Assam & neighbourhood extending upto 0.9 km above mean sea level which will give rise to thunderstorm with hail over Assam, Meghalaya and thunder squall with gusty wind over NMMT on Day-1.

The upper air cyclonic circulation over Haryana & neighbourhood and extends upto 1.5 Km above mean sea level. This will give rise to thunderstorm with hail over Himachal Pradesh and Uttrakhand on Day-1. Similar activities may prevail on day-2 also. However, Punjab, Haryana and west and east Uttar Pradesh may experience thunder squall with gusty wind on Day-1.

Due to a trough in easterlies runs from Maldives Lakshadweep area to southwest Madhya Pradesh across north Kerala, interior Karnataka, Marathwada and Madhya Maharashtra, the southern parts of country may experience thunder squall with gusty wind on Day-1. Thunder squall with gusty wind over south Chhattisgarh, Marathwada, Vidarbha and Orissa on Day-1 is also possible.

24 hour Advisory for IOP:

Assam, Meghalaya, Nagaland, Manipur, Mizoram, Tripura
Jammu and Kashmir, Himachal Pradesh, Uttrakhand, Punjab, Haryana, Delhi, Uttar Pradesh, West Madhya Pradesh
Kerala, South and North Interior Karnataka, Interior Tamilnadu, Telangana, Coastal Andhra Pradesh,
GWB, Orissa, Jharkhand, Sub Himalayan West Bengal and Sikkim
South Chhattisgarh and South Madhya Maharashtra,

48 hour Advisory for IOP:

Jammu and Kashmir, Himachal Pradesh, Uttrakhand, Punjab, Haryana, Delhi, North Rajasthan
Arunachal Pradesh, Assam, Meghalaya, Nagaland, Manipur, Mizoram, Tripura
Kerala, Interior Karnataka, Interior Tamilnadu
GWB
Sub Himalayan West Bengal and Sikkim

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
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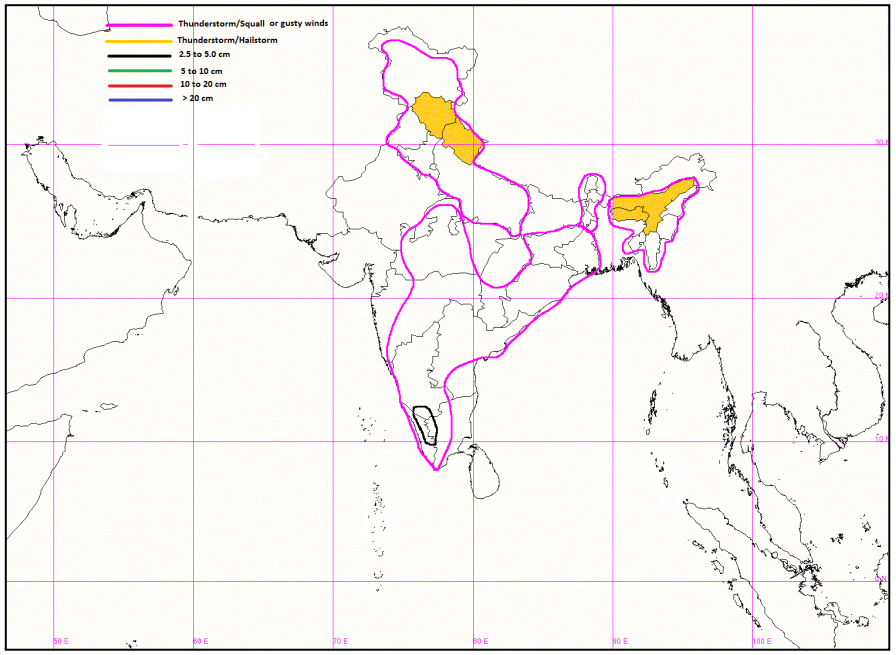
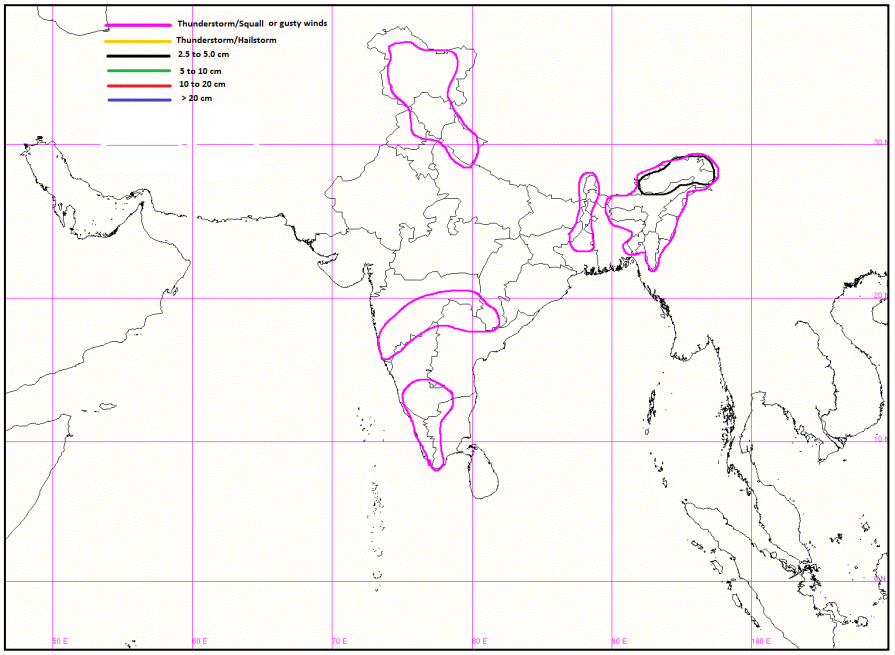
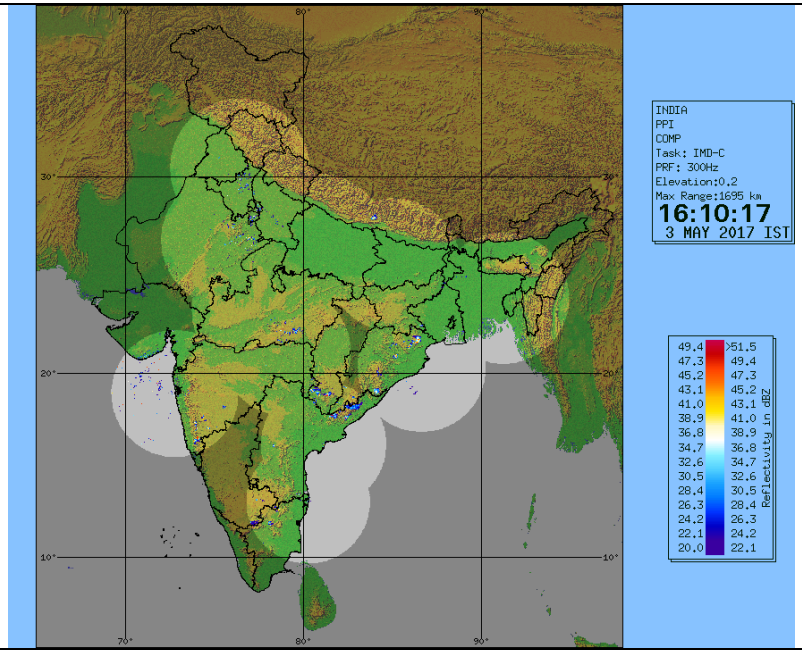
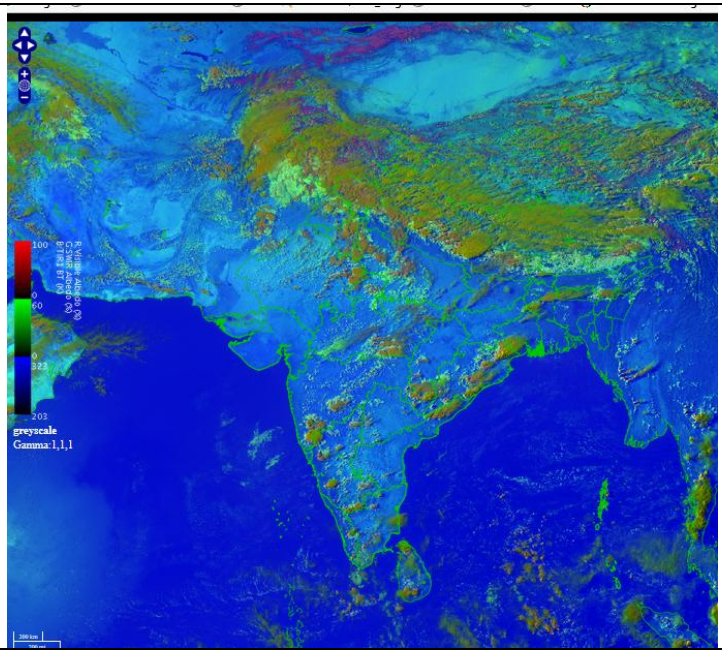
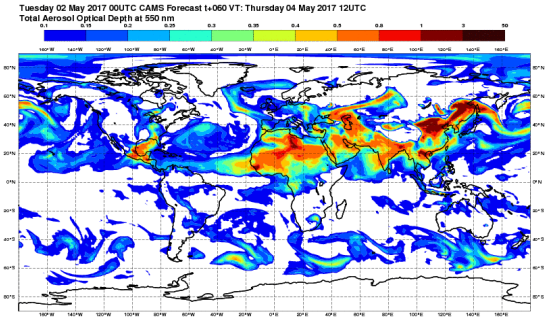


IOP Advisory for 24 hours

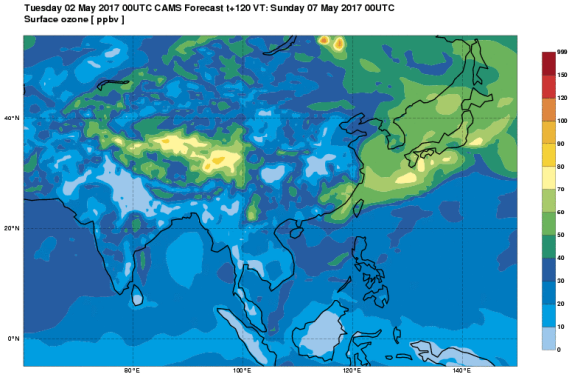


IOP Advisory for 48 hours

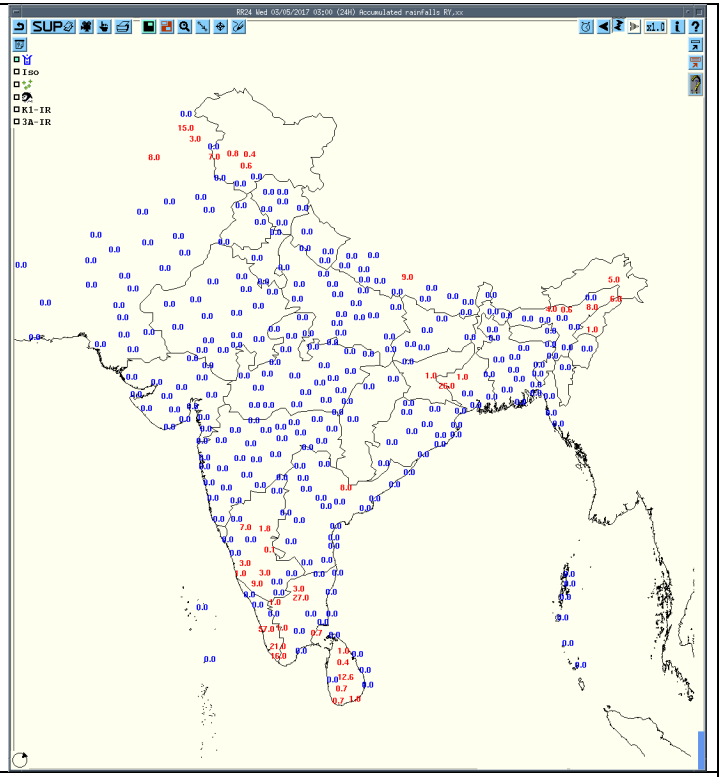
	
DWR Composite at 1610hrs IST of today	**RAPID RGB Image of INSAT 3D at 1600 hrs IST of today**



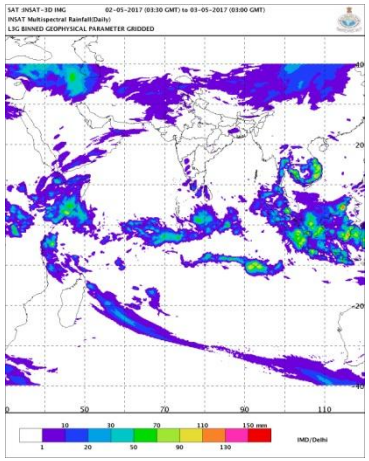
Forecast Dust Concentration for 00UTC of 7th May



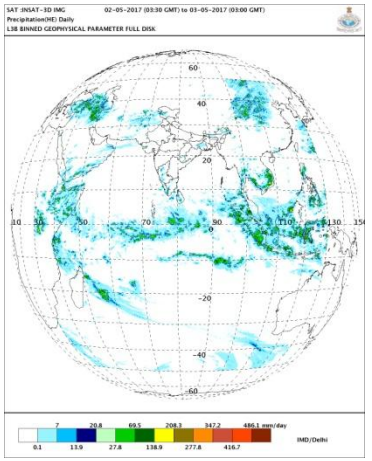
PM10 Forecast for 00UTC of 7th May



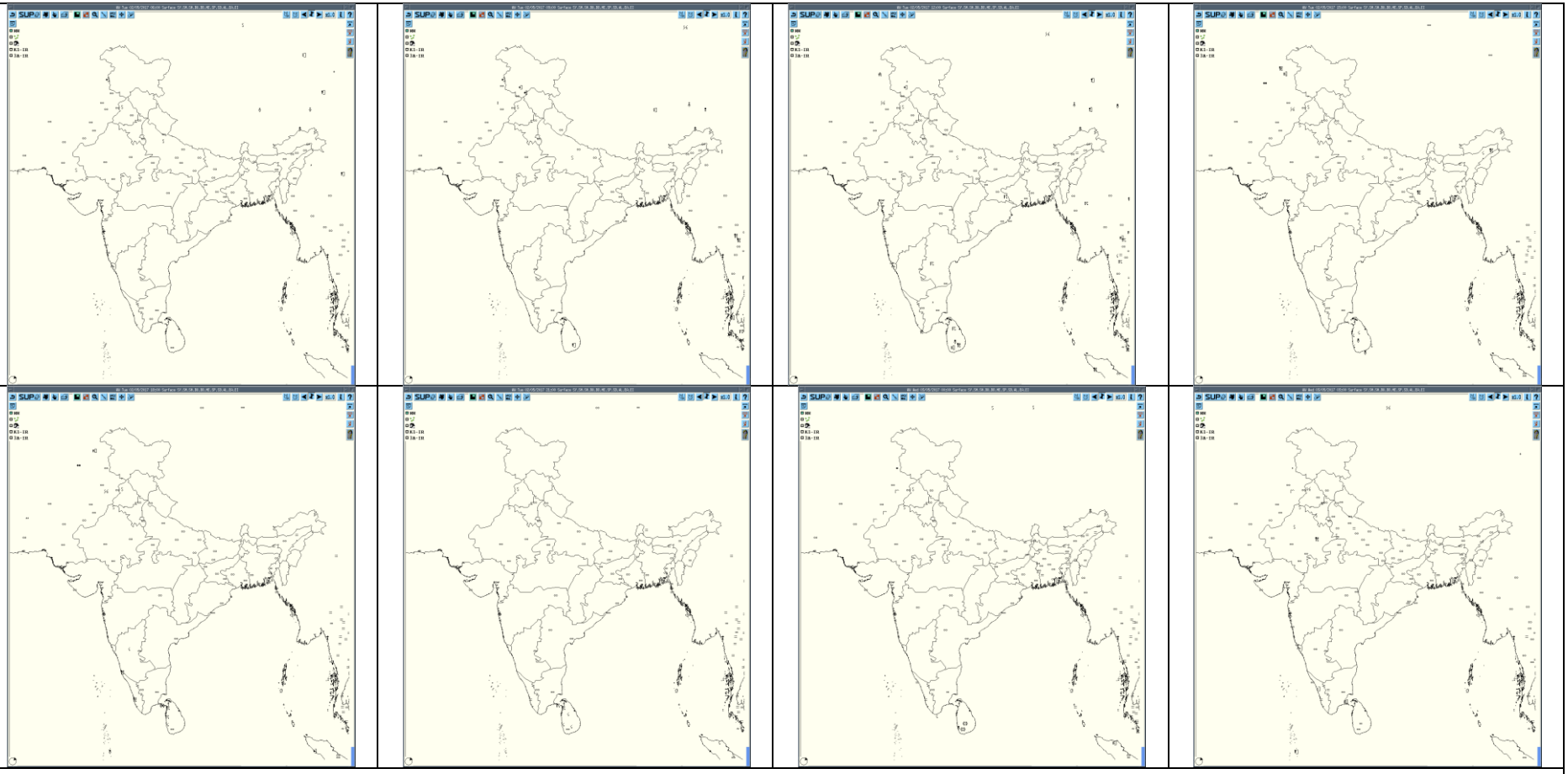
Accumulated 24 Hour rainfall (in red) recorded at 0300UTC of today



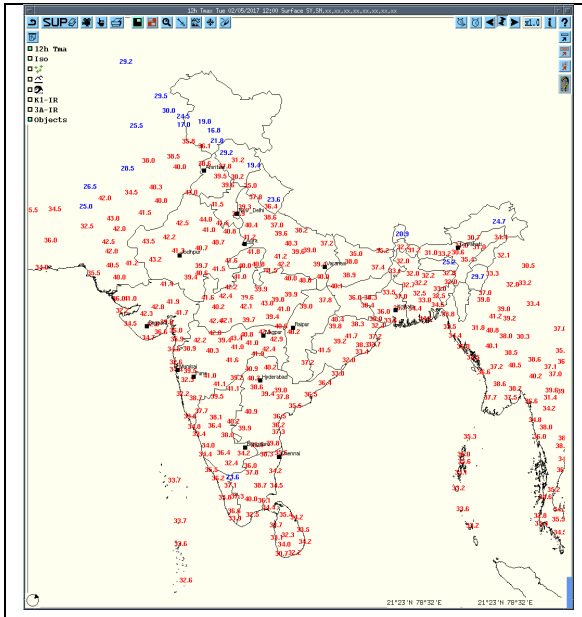
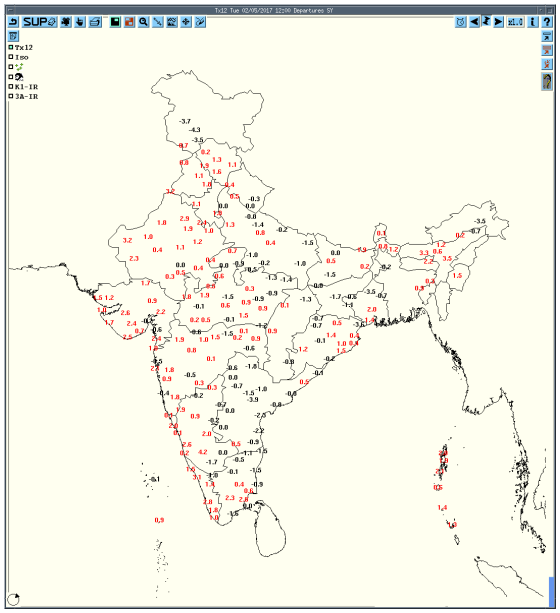
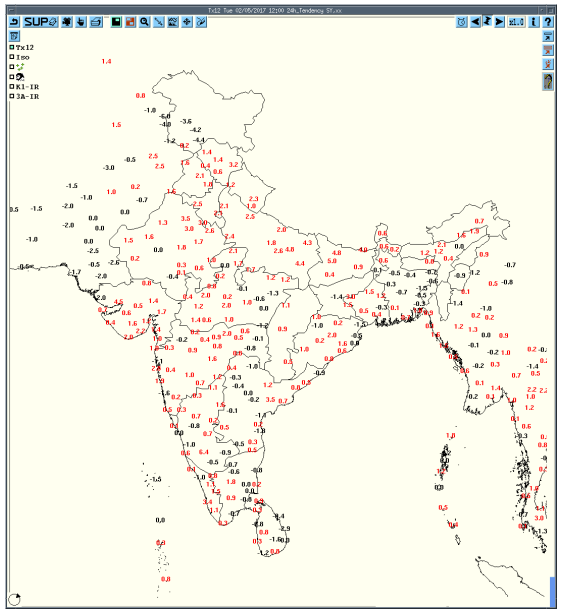
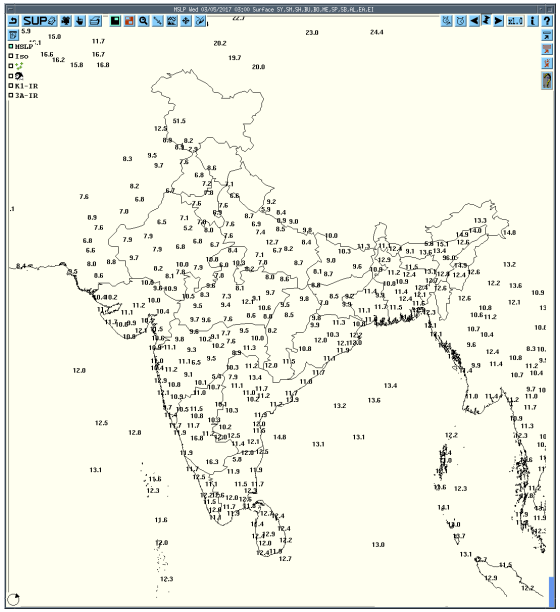
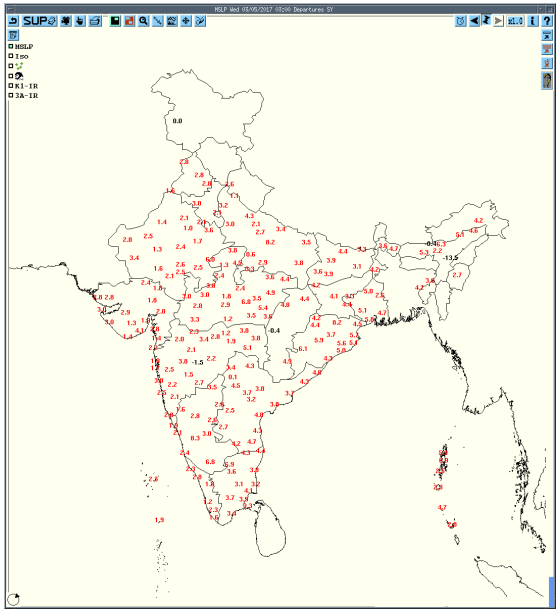
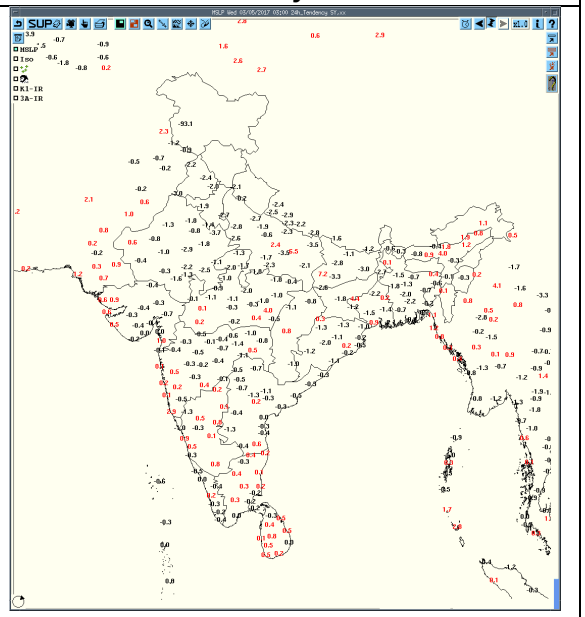
IMR Rainfall

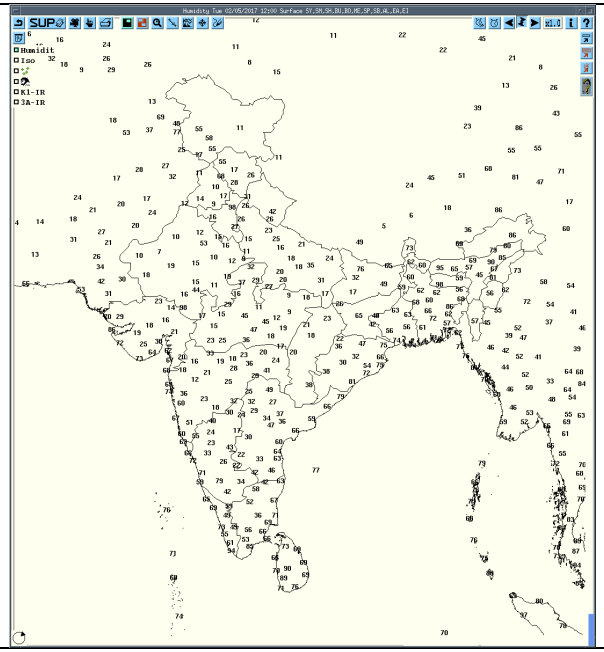
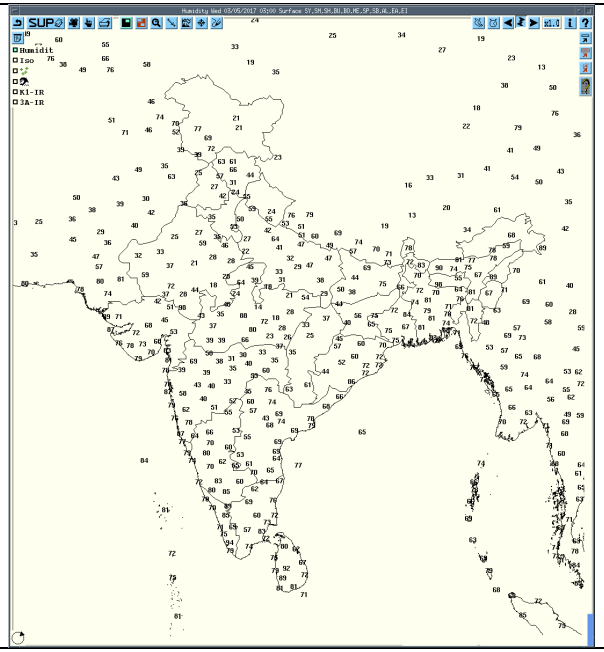


HEM Rainfall



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

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

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

Realized weather past 24hours (Based on SYNERGIE Products)					
Date	**Time of Reporting**	**Name of Station Reporting**	**Region**	**STATE**	**Weather Event**
02-05-17	0600 UTC	Nil	Nil	Nil	Nil
02-05-17	0900 UTC	Nil	Nil	Nil	Nil
02-05-17	1200 UTC	Kurnool	South India	Andhra Pradesh	Thunderstorm
		Thiruvanthapuram	South India	Kerala	Thunderstorm
02-05-17	1500 UTC	Dibrugarh	Northeast India	Assam	Thunderstorm
		Bankura	East India	West Bengal	Thunderstorm
02-05-17	1800 UTC	Baje	South India	Karnataka	Thunderstorm
		Kochi	South India	Kerala	Thunderstorm
02-05-17	2100 UTC	Imphal	Northeast India	Manipur	Thunderstorm
03-05-17	0000 UTC	Nil	Nil	Nil	Nil
03-05-17	0300 UTC	Jaipur	Northwest India	Rajasthan	Thunderstorm
		Tuni	South India	Tamilnadu	Thunderstorm

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)**
Jaipur	Northwest India	Rajasthan	Thunderstorm	03-05-17	0720	0730
Vanasthali	Northwest India	Rajasthan	Thunderstorm	03-05-17	0530	0545
Bankura	East India	West Bengal	Thunderstorm	02-05-17	2003	2135
Jamshedpur	East India	Jharkhand	Thunderstorm	02-05-17	1720	2000
Ranchi	East India	Jharkhand	Thunderstorm	02-05-17	1620	1650
Passighat	Northeast India	Arunachal Pradesh	Thunderstorm	02-05-17	0930 1930	1130 2100
Dibrugarh	Northeast India	Assam	Thunderstorm	02-05-17	0830 1930	0845 2130
AMS Bajpe	South India	Karnataka	Thunderstorm	02-05-17	2100	2350
Kurnool	South India	Andhra Pradesh	Thunderstorm	02-05-17	1635	1730
Tirupathi AP	South India	Andhra Pradesh	Thunderstorm	02-05-17	1700 1813	1730 1830
Kodaikanal	South India	Tamilnadu	Thunderstorm	02-05-17	1920	2200
Kodaikanal	South India	Tamilnadu	Thunderstorm	03-05-17	0000	0200
Tondi	South India	Tamilnadu	Thunderstorm	02-05-17	2110	2310

Past 24 hours DWR Report:

	Date	Time interval of observation (UTC)	Organization of the cells (Isolated single cells/multiple cells/ convective regions/ squall lines) with height of 20dBZ echo top and maximum reflectivity	Formation w.r.t radar station and Direction of movement	Remarks	Associated severe weather if any	Districts affected
Machilipatnam	03Z of 02/05/17 to 03Z of 03/05/17	0801 to 0841 UTC	Isolated single cell with average height of 6.6 km with maximum reflectivity of 53 dBZ	NW(89KM) stationary	Cells started forming at 0801UTC at NW (89km) from radar with maximum reflectivity during 0801 to0831 and died down at 0841UTC	Possibility of Thunder storm with Rain and moderate winds.	Guntur District
	03Z of 02/05/17 to 03Z of 03/05/17	0751 to 0851UTC	Isolated Multiple cells average height of 8 km with maximum reflectivity of 57.5dBZ	N(30KM) and moving S ly direction with average speed of 6 kmph	Cell started forming at 0751UTC at N (28km) from radar with maximum reflectivity during 0751 to 0841 and died down at 0851 UTC	Possibility of Thunder storm with Rain and moderate winds.	Krishna District
	03Z of 02/05/17 to 03Z of 03/05/17	1001 to 1251UTC	Isolated Multiple cells average height of 10.5 km with maximum reflectivity of 57 dBZ	NE(165KM) and moving SW ly direction with average speed of 23kmph	Cells started forming at 1001UTC at NE (111km) from radar with maximum reflectivity during 1041 to 1241 died down at 1251 UTC	Possibility of Thunder storm with Rain and moderate winds.	East Godavari and West Godavari Districts
	03Z of 02/05/17 to 03Z of 03/05/17	1051 to 1301UTC	Isolated Multiple cells average height of 10.2 km with maximum reflectivity of 60 dBZ	NE(240KM) and moving SW ly direction with average speed of 21 kmph	Cells started forming at 1051UTC at NE (237km) from radar with maximum reflectivity during 1051 to1251 died down at 1301 UTC	Possibility of Thunder storm with Hail and moderate winds.	Visakhapatnam District
NAGPUR	02/05/17	0912-1152 0942-1252	**Multiple** **Single**	100 km NW, moving SE 160 km S, moving S	25 dBZ, ht. of cloud=1.4 to 5.5 km 36 dBZ, ht. of cloud=3.5 to 8.2 km		
	03/05/17	0002-0302	**Nil**				

Radar Station Name	Date	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	02-05-2017	0311-1131	NIL	NIL	NO ECHO	NIL	NIL
		1141- 1631	1. Multi celled system with maximum reflectivity of 67.5 dBz at 1431 UTC and maximum height of 16.93 Km at 1301 UTC.	W (249.4 km) Moving in E-ly direction with a speed of 49 kmph	First observed at 1141 UTC in W at a distance of 249.4 km from Radar. Matured and dissipated at 1631 UTC in WNW at a distance of 84.5 km from Radar	Hailstorm /Thunderstorm /Squall / Rain	N/A
		1631-2351	NIL	NIL	NO ECHO	NIL	NIL
	03-05-2017	0001 - 0301	NIL	NIL	NO ECHO	NIL	NIL
Paradeep	03/05/17	02/0300-02/2300 UTC	Isolated Single cell with height of 11 km and reflectivity of 41 dBZ.	Position: Lat:21.78 N Lon:85.55 E Range:204 km from the RADAR. Movement: NWly		TS with Rain.	Keonjhargarh, Dhenkanal and Angul.

Radar Station Name	Date	Time Interval Of Observation (UTC)	Organisation Of The 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
Patna	03/05 /2017	NIL	NIL	NIL	NIL	NIL	NIL
Lucknow	03/05 /2017	NIL	NIL	NIL	NIL	NIL	NIL
Patiala	03/05 /2017	NIL	NIL	NIL	NIL	NIL	NIL
Agartala	03/05 /17	020630 - 020750	Single cell with Maximum Height **10km** and maximum reflectivity **41 dBZ** (at 0700 UTC over East Meghalaya)	Formed 230 km NE of DWR AGT at 0630 UTC and moved NE-wards at around 25kmph	Cells Dissipated at 0750 UTC over East Meghalaya	N/A	N/A
Jaipur	03/05 /17	1042 - 1332	Single cell becomes multiple cell with average height of 5.0 km maximum reflectivity 35 dBZ	Forms Last day SW & moving towards EAST wards at speed 25 of km/hr to 30 km/hr	Cells continuous forming 1042 UTC SW Jaipur and multiple cell was observed and maximum reflectivity during 1212-1232 UTC and died down at 1332 UTC.		AJMER, RAJSAMAND
		1142-1652	Single cell with average hight 4.5 km maximum reflectivity 28 dBZ	Forms Last day NW & moving towards NORTH EAST wards at of speed 25-30 km/hr	Cell forms at 1142 UTC and maximum reflectivity observed at 1232 UTC		CHURU JHUNJHUNU
		2022-0300	Single cell becomes a multiple cell average height 4.5 km maximum reflectivity 35 dBZ	Forms at midnight of last day moving towards Eastwards/NE wards at of speed 40-45 km/hr	Cells forms at 2022 UTC and maximum reflectivity observed at 2232 UTC-0300Z (AND CONTINUE LATER ON)		Jaipur, Sikar, Dausa, Tonk, Jhunjhunu, Churu