



India Meteorological Department
FDP STORM Bulletin No.53(27-04-2017)

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

SYNOPTIC FEATURES:

The Western Disturbance as an upper air cyclonic circulation over Jammu & Kashmir and neighbourhood extending upto mid tropospheric level persists.

Another Western Disturbance as an upper air cyclonic circulation lies over west Afghanistan & neighbourhood at 3.1 Km above mean sea level.

The trough from east Bihar to north Bay of Bengal now seen as an upper air cyclonic circulation over east Bihar & neighbourhood and extends upto 0.9 Km above mean sea level.

A trough runs from this cyclonic circulation to south interior Odisha across Jharkhand and extend upto 0.9 Km above mean sea level.

An upper air cyclonic circulation lies over northwest Uttar Pradesh & neighbourhood and extends upto 1.5 Km above mean sea level.

The trough from north Telangana to Comorin area persists with two embedded upper air cyclonic circulations one over interior Karnataka & neighbourhood and another over Comorin area at 1.5 Km above mean sea level.

The upper air cyclonic circulation over West Rajasthan & adjoining Pakistan now lies over central Pakistan & neighbourhood and extends upto 1.5 Km above mean sea level.

The trough at mean sea level from north Uttar Pradesh to northern parts of West Bengal across Bihar 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 (-°C)	Movement	Remarks If any
3	27/0800 0830	Manipur -Do-	60 55		Developing
4	27/0800 0830	Exterior Northwest Rajasthan Exterior Northwest Rajasthan adjoining Southwest Haryana	35 59		Developing

Scattered low/medium clouds seen over Punjab, Uttar Pradesh, Manipur.

Scattered low/medium clouds with embedded moderate to intense convection seen over Southwest Haryana adjoining Northwest Rajasthan

Scattered low/medium clouds with embedded weak to moderate convection seen over South Chhattisgarh, Odisha, West Gangetic West Bengal, Sikkim, Arunachal Pradesh, Telangana, North Coastal Andhra Pradesh, Rayalaseema Karnataka, North Kerala and Nicobar islands.

Arabian Sea:

No Significant clouds over the region.

Bay of Bengal & Andaman Sea:

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

Past Weather:

Convection: Moderate to Intense convection was observed over N Rajasthan south Haryana Delhi NW Uttar Pradesh NE states Kerala Tamil Nadu south Interior Karnataka.

OLR: - Up to 260 w m^{-2} was over J&K Himachal Pradesh Uttarakhand NW Rajasthan south Haryana Delhi Andhra Pradesh south Karnataka Kerala Tamil Nadu coastal Odisha south Gangetic West Bengal and NE States .

Westerly Trough & Jet Stream:

No Trough & Jet stream observed.

Dynamic Features:

Negative shear tendency observed over n Madhya Maharashtra Vidarbha Madhya Pradesh N Chhattisgarh east Uttar Pradesh Bihar and Positive shear tendency observed over rest parts of India.

Medium to high wind shear is observed over India.

A positive Vorticity field is observed over NW Rajasthan, south Haryana, Delhi, West Bengal, north coastal Odisha, Karnataka .

Negative low level convergence observed over Rajasthan Gujarat Madhya Maharashtra Konkan south Tamil Nadu coastal Odisha Bihar Uttar Pradesh Jharkhand north Madhya Maharashtra Gujarat Uttar Pradesh Bihar & Jharkhand and Positive Low Level Convergence observed over Vidarbha Odisha and south Andhra Pradesh.

Precipitation:

IMR: Rainfall upto 10 to 20 mm was observed over east Meghalaya north Manipur extreme south Tamil Nadu & south Kerala. Rainfall upto 20 mm was observed over J&K Himachal Pradesh NE Uttarakhand NE Punjab south Haryana Delhi NE Rajasthan extreme NE Uttar Pradesh south Arunachal Pradesh Assam Nagaland east Meghalaya north Andhra Pradesh and south Tamil Nadu.

HEM: No data/picture available.

RADAR and RAPID observation:

Multiple significant convective activities observed over of Northeast Rajasthan adjoining South Haryana and West Uttar Pradesh, and another multiple significant convective activities over Andhra Pradesh adjoining South Odisha Radar Composite of 1620UTC and in RAPID RGB Satellite imagery of 1600hrs IST including south interior Karnataka and North Kerala.

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

Dust concentration was observed over northern Africa and some parts of middle-east and eastern Asia. Dust concentration is expected to decrease over west and north India for next five days.

High PM10 concentration was observed over 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 to Day-4 show feeble trough in MSLP over J & K.

12UTC Charts of Day-0 to Day-4 show weakened low pressure and its extension over IG plains is prominent with MSLP is at around 1000 hPa.

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 and Bay of Bengal :(i) SW-NE extending from northern Karnataka-Telangana region to Odisha 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. CYCIR over (i) NW of India covering Punjab and adjoining Pakistan region at 850 hPa, from Day-2 to Day-4.(ii) East Srilanka on Day-2 moving to over Srilanka in Day-3 and 4. Trough at 500 hPa: over J & K region in Day-2 and Day-3 affecting entire NW India.

2. Location of jet and jet core at 500hPa:-500hPa Jet core (>60kt): Weaker core winds at 12 UTC on all days over India.

3. Convergence at 850 hPa: At 12UTC Day-0&1: high values over isolated locations over Maharashtra and Chhattisgarh and adjoining Odisha coast, parts of WB and over parts of Assam.

At 12UTC Day-2&3: high values prominent over NW India Punjab and adjoining Pakistan and over HP and Uttarakhand and eastern UP. Some isolated locations over western ghats of Maharashtra, Jharkhand and Bihar and Assam

At 12UTC Day-4: Prominent over western ghats of Maharashtra, eastern UP Jharkhand and Bihar and Assam

At 00UTC very high values : over several places in Assam and over Assam-Arunachal region in Day-0 & 2.

4. Low level Vorticity:-Positive Vorticity (>15 x 10⁻⁵/s): At 12UTC on Day-0-1: mainly over Assam & Arunachal. At isolated locations in Odisha and WB. On day-1-2 enhanced activity at isolated locations over WB, Assam and GWB, SHWB and Bihar. On Day-3: over NW India over isolated locations over Haryana-Punjab west UP and over NE in Assam.

At 00UTC: very high values along the line of low level confluence and strong convergence

5. Showalter Index: Day-wise Sub-divisions with Showalter index <-4: Day0: Arunachal Pradesh, Assam, Meghalaya, NENMMT, Sub Himalayan WB, Gangetic WB, Uttarakhand, Jammu & Kashmir, West Rajasthan, Odisha, Konkan, Goa, Coastal AP, TN, Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

Day1: Arunachal Pradesh, Assam, Meghalaya, NENMMT, Sub Himalayan WB, Uttarakhand, Himachal Pradesh, Jammu & Kashmir, Odisha, Saurashtra, Kutch, Chhattisgarh, Coastal AP, Telangana, TN, Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

Day2: Arunachal Pradesh, Assam, Meghalaya, NENMMT, Sub Himalayan WB, Bihar, Uttarakhand, Himachal Pradesh, Jammu & Kashmir, Odisha, Chhattisgarh, Coastal AP, Telangana, TN, Puducherry, Coastal Karnataka, SI Karnataka, Kerala,

Day3: Arunachal Pradesh, Assam, Meghalaya, NENMMT, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, Uttarakhand, Himachal Pradesh, Jammu & Kashmir, Odisha, Chhattisgarh, Coastal AP, Telangana, TN, Puducherry, Coastal Karnataka, SI Karnataka, Kerala,

Day4: Arunachal Pradesh, Assam, Meghalaya, NENMMT, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, Himachal Pradesh, Jammu & Kashmir, Odisha, Chhattisgarh, Coastal AP, Telangana, TN, Puducherry, Coastal Karnataka, SI Karnataka, Kerala,

6. K-Index: Daywise Sub-divisions with K-index >40: Day0: Arunachal Pradesh, Assam, Meghalaya, Sub Himalayan WB, Gangetic WB, Uttarakhand, Himachal Pradesh, Jammu & Kashmir, West Rajasthan, East RJ, Odisha, Konkan, Goa, Madhya Maharashtra, Vidarbha, Chhattisgarh, Coastal AP, Telangana, Coastal Karnataka, NI Karnataka,

Day1: Arunachal Pradesh, Assam, Meghalaya, NENMMT, Sub Himalayan WB, Gangetic WB, West UP, Uttarakhand, Hry, Chd, Delhi, Punjab, Himachal Pradesh, Jammu & Kashmir, West Rajasthan, East RJ, Odisha, Guj Reg, Saurashtra, Kutch, Konkan, Goa, Madhya, Maharashtra, Chhattisgarh, Coastal AP, Telangana, Rayalaseema, TN, Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

Day2: Arunachal Pradesh, Assam, Meghalaya, NENMMT, Sub Himalayan WB, , Jharkhand, Bihar, East UP, West UP, Uttarakhand, Hry, Chd, Delhi, Punjab, Himachal Pradesh, Jammu & Kashmir, West Rajasthan, East RJ, Odisha, West MP, Guj Reg, Saurashtra, Kutch, Konkan, Goa, Madhya, Maharashtra, Vidarbha, Chhattisgarh, Coastal AP, Telangana, Rayalaseema, TN, Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

Day3: Arunachal Pradesh, Assam, Meghalaya, NENMMT, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, WestUP, Uttarakhand, Hry, Chd, Delhi, Punjab, Himachal Pradesh, Jammu & Kashmir, Odisha, Konkan, Goa, Madhya Maharashtra, Chhattisgarh, Coastal AP, Telangana, Rayalaseema, TN, Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

Day4: Arunachal Pradesh, Assam, Meghalaya, NENMMT, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Punjab, Himachal Pradesh, Jammu & Kashmir, Odisha, Vidarbha, 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, Assam, Meghalaya, Sub Himalayan WB, Uttarakhand, West Rajasthan, Odisha, Madhya, Maharashtra, Chhattisgarh, Coastal AP, Telangana, Rayalseema, TN, Puducherry, Coastal Karnataka, SI Karnataka, Kerala,

Day1: Arunachal Pradesh, NENMMT, Sub Himalayan WB, Himachal Pradesh, Jammu & Kashmir, Odisha, Chhattisgarh, Coastal AP, Telangana, Rayalaseema, TN, Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

Day2: Arunachal Pradesh, Assam, Meghalaya, NENMMT, Sub Himalayan WB, Bihar, Uttarakhand, Jammu & Kashmir, Odisha, Chhattisgarh, Coastal AP, Telangana, Rayalaseema, TN, Puducherry, Coastal Karnataka, SIKarnataka, Kerala,

Day3: Arunachal Pradesh, NENMMT, Sub Himalayan WB, Gangetic WB, Bihar, Odisha, Chhattisgarh, CoastalAP, Telangana, Rayalaseema, TN, Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

Day4: Arunachal Pradesh, NENMMT, Sub Himalayan WB, Gangetic WB, Bihar, East UP, Odisha, Vidarbha, Chhattisgarh, Coastal AP, Telangana, Rayalaseema, TN, Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

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

Day1: Arunachal Pradesh, Assam, Meghalaya,

Day2: Arunachal, Pradesh, Assam, Meghalaya, Sub Himalayan WB, Jammu & Kashmir, Coastal AP, SI Karnataka,

Day3: Arunachal Pradesh, Assam, Meghalaya, NENMMT, Sub Himalayan WB, Himachal Pradesh, Jammu & Kashmir,

Day4: Arunachal Pradesh, Assam, Meghalaya, NENMMT, Sub Himalayan WB, Himachal Pradesh, Jammu & Kashmir,

Day5: Arunachal Pradesh, Assam, Meghalaya, NENMMT, Sub Himalayan WB,

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

1. Weather Systems: The analysis and forecasts based on 00 UTC show a low level quasi-stationary trough extends from Sub-Himalayan West Bengal to south peninsula and persists for the next 5 days. Forecasts show a CYCIR over Punjab and adjoining areas would persist during next 3 days. Forecasts also show the feeble CYCIR over extreme NE parts of India will persist for the next 5 days. Contour at 500 hPa shows a feeble WD would affect the northern parts of the India during next three days.

2. Location of jet and jet core at 500 hPa:-500 hPa Jet core (>60kt): No presence of jet core over the Indian region for the next 5 days.

3. Low level Vorticity:-Positive Vorticity 850hPa (>12 x 10⁻¹/s): Mostly along the trough at 850 hPa, along the foot hill of Himalaya and parts of central India during next 5 days.

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): 3-3.5 mostly along east coast, eastern part of the country, along west coast and over Gujarat and adjoining south Rajasthan but less than threshold value 4 all over the country during next 5 days.

Lifted Index (< -2): Less than threshold value mostly along east coast, over Gangetic West Bengal, south peninsula and over Bihar, Jharkhand and parts of north eastern states during next 5 days.

Total Total Index (> 50): Above threshold value over the most parts of central and eastern parts of India at 06 UTC and 12 UTC during next 5 days.

Sweat Index (> 300): Mostly along east coast, along west coast, Gujarat and adjoining areas of Rajasthan, eastern part of India and north eastern states during next 5 days.

CAPE (> 1000): Mostly along east coast, west coast, extreme south peninsula, Gujarat and adjoining areas of Rajasthan, over eastern part of India and parts of north eastern states during next 5 days.

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

5. Rainfall and Rainfall activity:

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

10-40 mm: rainfall over Gangetic West Bengal during day3 to day5.

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

Model Reflectivity: 15-35 dBZ Model reflectivity over parts of NE states and over some parts of J&K and HP during next 3 days.
5-15 dBZ: over parts of Delhi and adjoining areas, eastern parts of India and south peninsula during next 72 hours.

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

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

K-Index (> 35): Less than threshold value is observed over the country during the next 72 hour.

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

CINE (50-150): CIN values are mostly less than threshold value over coastal regions, higher than over central parts of India and within threshold limit over parts of north eastern states during next three days.

Rainfall Activity:

Rainfall activity (10-70 mm): over parts of NE states during next 3 days.

10-40 mm: over parts of south peninsula on day2.

10-40 mm: over parts of J&K on day2 and day3.

3. IOP ADVISORY FOR 24 and 48Hrs:

Summary and Conclusions:

Day 1 & Day 2:

Presently, an upper air cyclonic circulation lies over east Bihar & neighbourhood and extends upto 0.9 Km above mean sea level. A trough runs from this cyclonic circulation to south interior Odisha across Jharkhand and extend upto 0.9 Km above mean sea level. This system will give rise to heavy to very heavy rainfall activity over Meghalaya and NMMT specifically eastern parts of Arunachal Pradesh on Day-1. However, the intensity of the rainfall may slightly decreases on Day-2 over NMMT areas.

The trough from north Telangana to Comorin area persists with to embedded upper air cyclonic circulation one over interior Karnataka & neighbourhood and another over Comorin area at 1.5 Km above mean sea level. Due to this system, Kerala, South Karnataka, Rayalaseema will experience thunder squall with gusty wind on Day-1. North coastal Andhra Pradesh may experience thunderstorm with hail activities on Day-1.

An upper air cyclonic circulation lies over northwest Uttar Pradesh & neighbourhood and extends upto 1.5 Km above mean sea level. This system will have the thunderstorm with hail activities over Uttrakhand and West Uttar Pradesh on Day-1.

24 hour Advisory for IOP:

Assam, Meghalaya, Nagaland, Manipur, Mizoram, Tripura and Arunachal Pradesh
Telangana, Coastal Andhra Pradesh, Rayalaseema, North & South Interior Karnataka, Interior Tamilnadu
Sub Himalayan West Bengal, GWB, Sikkim
North Rajasthan, South Haryana, South J & K, NW Himachal Pradesh, West Uttar Pradesh, Uttarakhand,

48 hour Advisory for IOP:

Assam, Meghalaya, Nagaland, Manipur, Mizoram, Tripura and Arunachal Pradesh
Rayalaseema, South Coastal Andhra Pradesh, South Interior Karnataka, Kerala

ForNCMRWFNWPproducts:(<http://www.ncmrwf.gov.in/HomePage/NEPS-prod-1.php>)

ForIMDNWPproducts:(http://nwp.imd.gov.in/diagpro_new.php)

ForSynopticplotteddataandcharts

<http://amssdelhi.gov.in/>

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

ForRAPIDtool:

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

LowLevelWinds

http://satellite.imd.gov.in/archive/INSAT-3D-IMAGER/3D-PRODUCTS/AMV/LLW/MAR_2017/?C=M;O=D

Upperlevelwinds

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

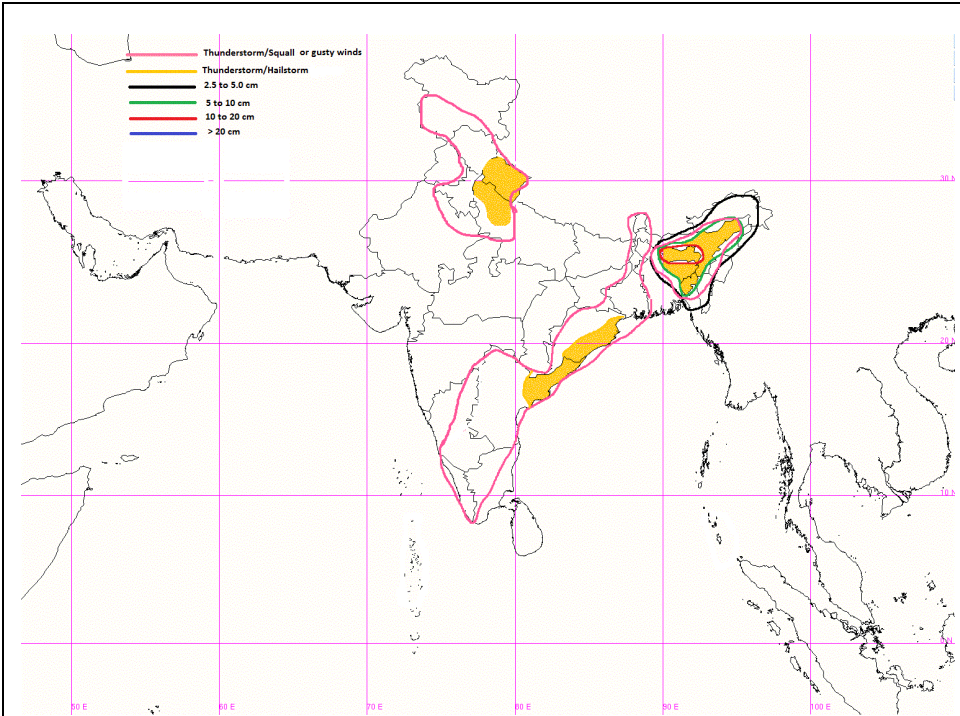
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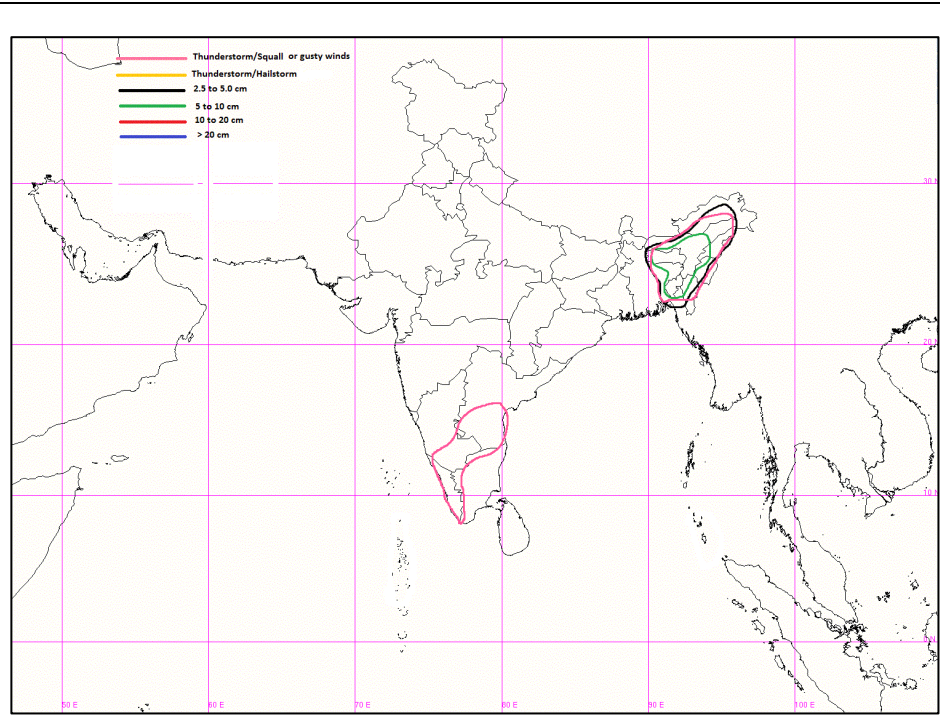
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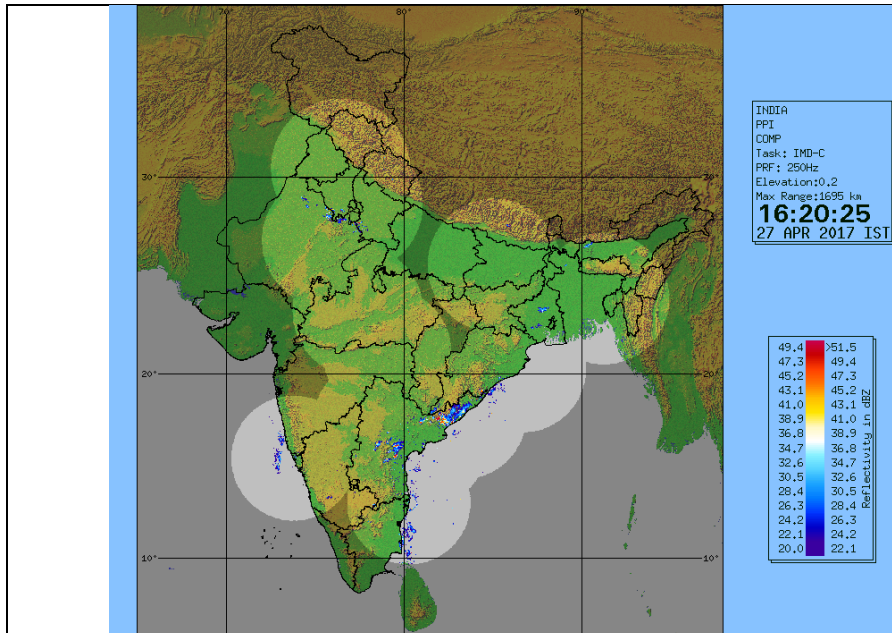
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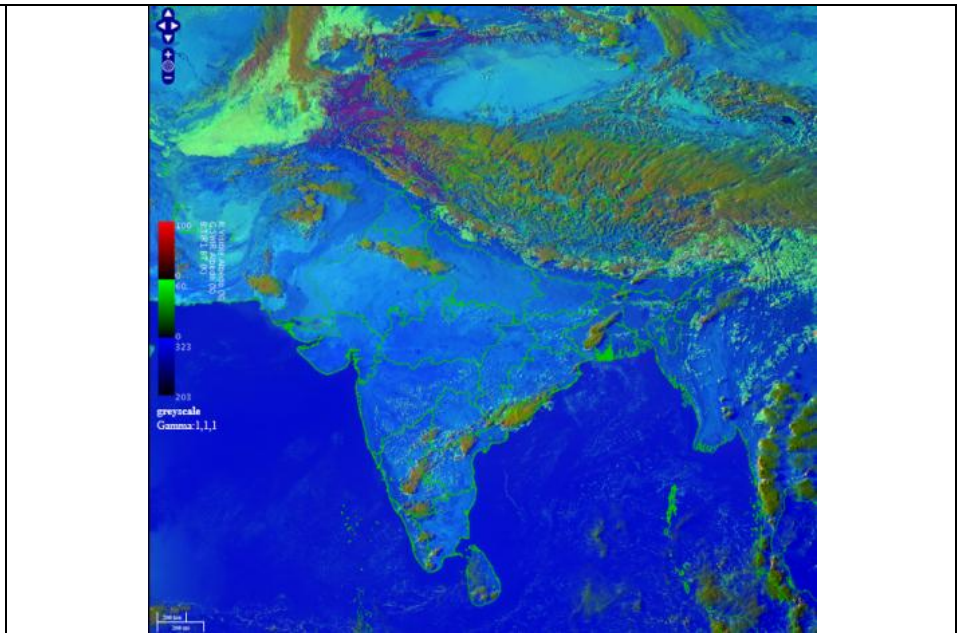
IOP Advisory for 24 hours



IOP Advisory for 48 hours



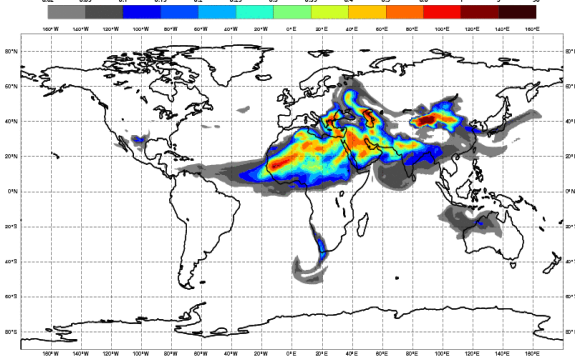
DWR Composite at 1620hrs IST of today



RAPID RGB Image of INSAT 3D at 1600 hrs IST of today

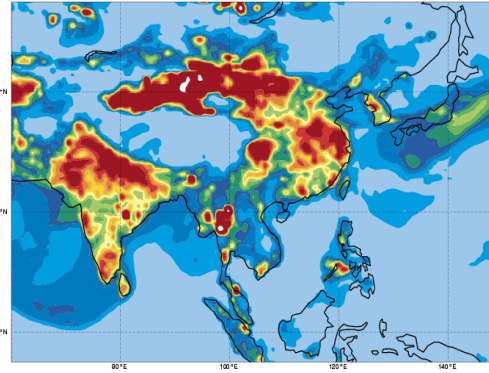
Wednesday 26 April 2017 00UTC CAMS Forecast +120 VT: Monday 01 May 2017 00UTC

Dust Aerosols Optical Depth at 550 nm



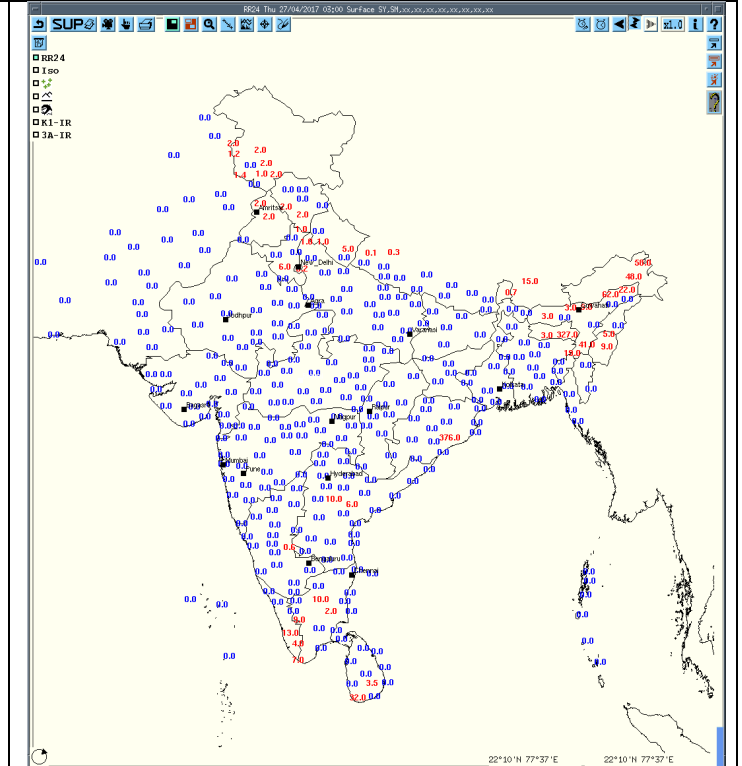
Wednesday 26 April 2017 00UTC CAMS Forecast +120 VT: Monday 01 May 2017 00UTC

Surface PM10 [$\mu\text{g}/\text{m}^3$]

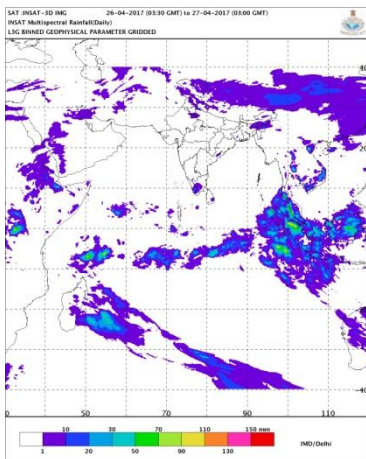


Forecast Dust Concentration for 00UTC of 1st May

PM10 Forecast for 00UTC of 1st May



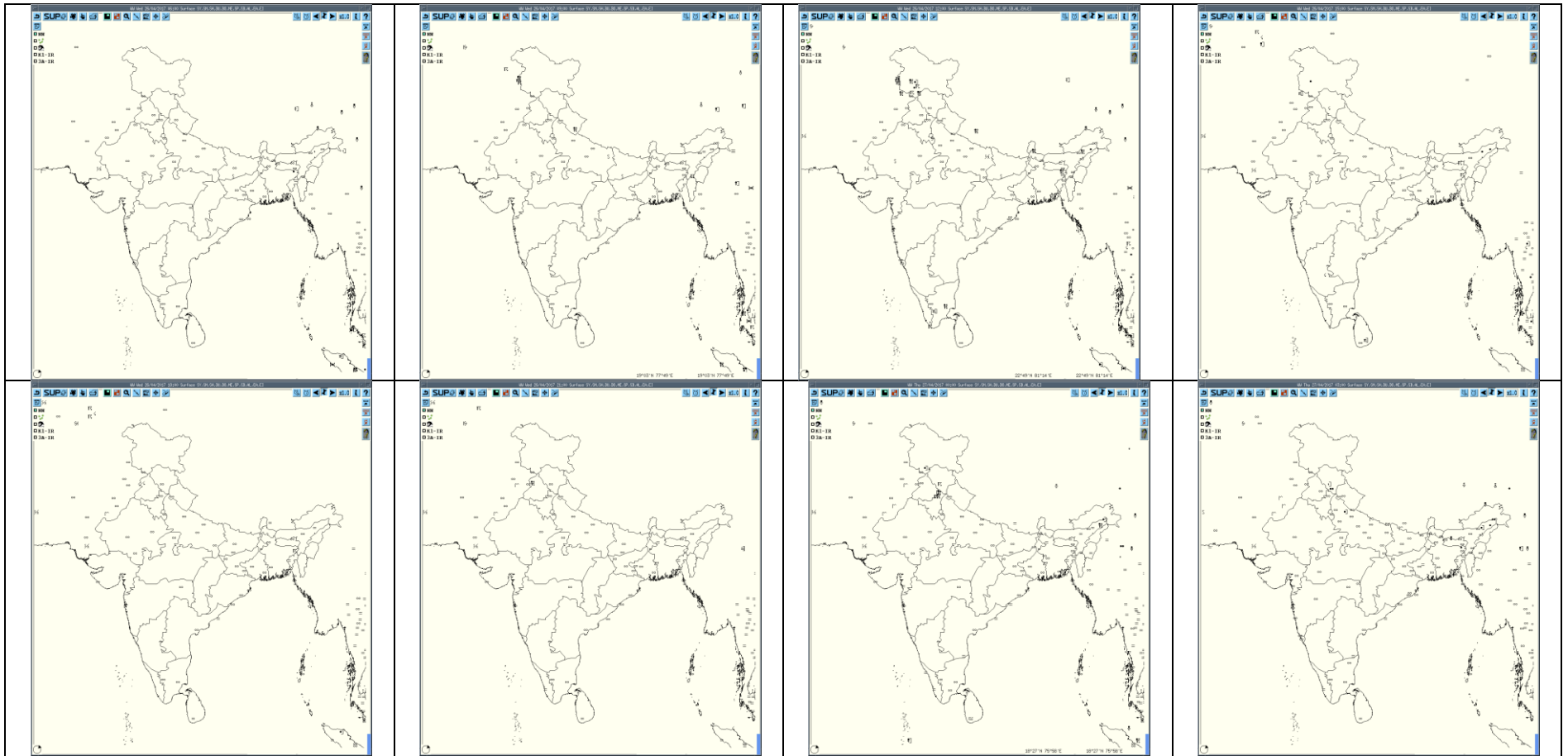
Accumulated 24 Hour rainfall (in blue) recorded at 0300UTC of today



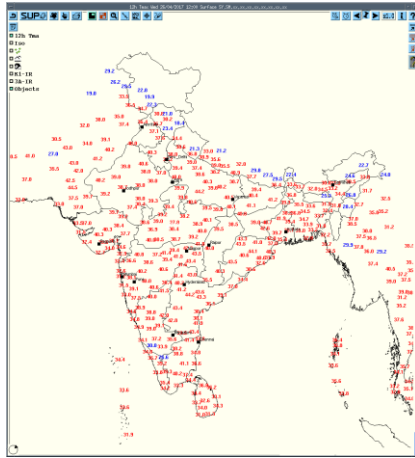
IMR Rainfall

Not available

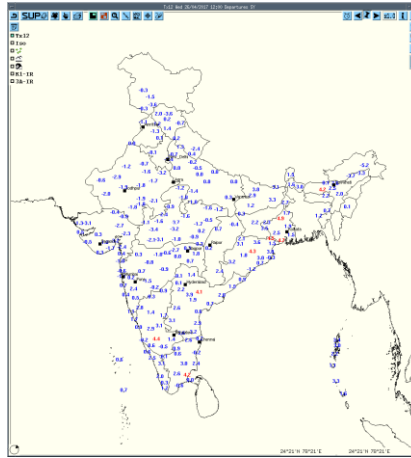
HEM Rainfall



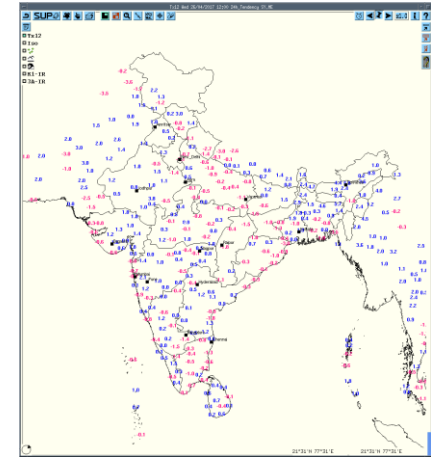
3hourly Past weather at 06, 09,12,15,18, 21UTC of yesterday and 00 & 03hrs UTC of today



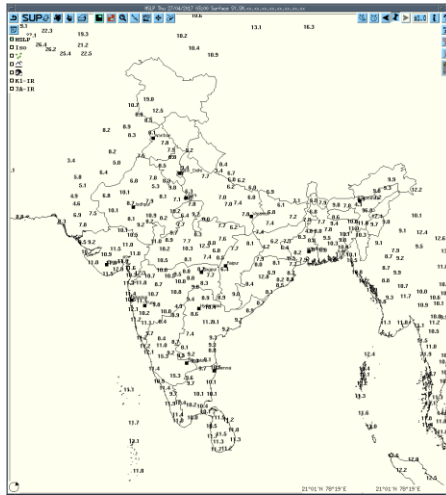
Tmax



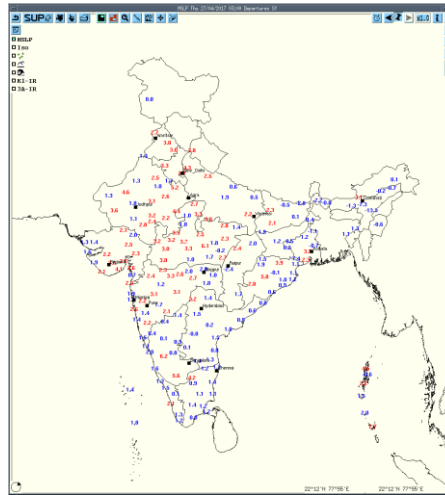
Departure Tmax



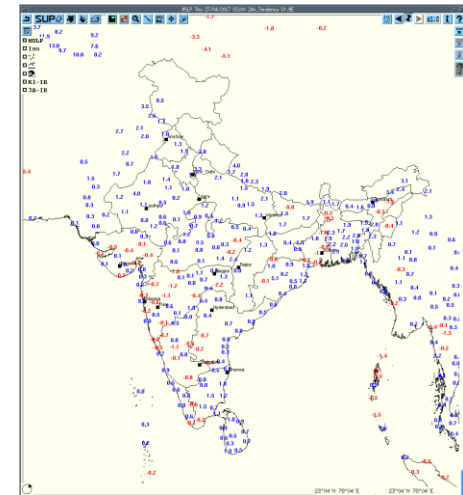
Tendency Tmax



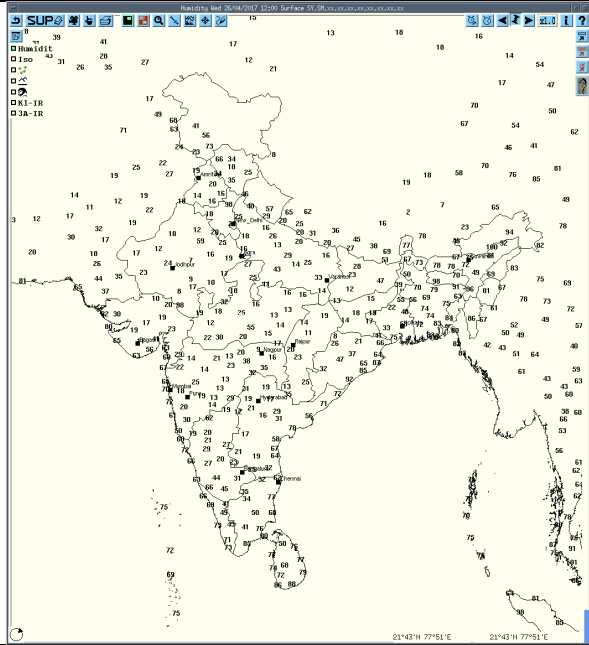
MSLP



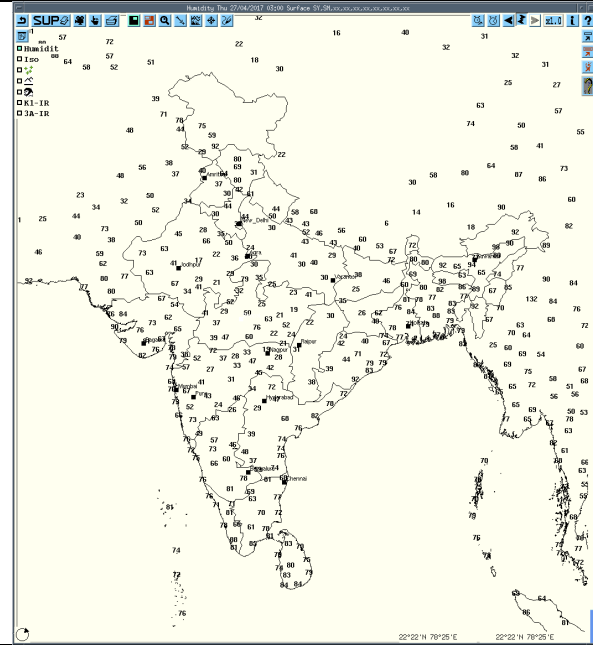
Departure MSLP



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
26-04-17	0600 UTC	Nil	Nil	Nil	Thunderstorm
26-04-17	0900 UTC	Mukteshwar	Northwest India	Uttarakhand	Thunderstorm
		Silchar	Northeast India	Assam	Thunderstorm
26-04-17	1200 UTC	Srinagar, Kukernag, Katra, Bholderwah	Northwest India	Jammu & Kashmir	Thunderstorm
		Gangtok	East India	Sikkim	Thunderstorm
		Cherrapunjee	Northeast India	Meghalaya	Thunderstorm
		North Lakhimpur	Northeast India	Tripura	Thunderstorm
		Thiruchirapalli, Kodaikanal	South India	Tamilnadu	Thunderstorm
		Trivandrum	South India	Kerala	Thunderstorm
26-04-17	1500 UTC	Sunder Nagar	Northwest India	Himachal Pradesh	Lighting
		Guwahati	Northeast India	Assam	Thunderstorm
		Shillong	Northeast India	Meghalaya	Thunderstorm
		Chitradurga	South India	Karnataka	Thunderstorm
		Trivandrum	South India	Kerala	Thunderstorm
26-04-17	1800 UTC	Amritsar	Northwest India	Punjab	Lighting
26-04-17	2100 UTC	Amritsar	Northwest India	Punjab	Thunderstorm
27-04-17	0000 UTC	Sunder Nagar	Northwest India	Himachal Pradesh	Thunderstorm
		Patiala	Northwest India	Punjab	Thunderstorm
		Ambala, Chandigarh	Northwest India	Haryana	Thunderstorm
		Dibrugarh	Northeast India	Assam	Thunderstorm
27-04-17	0300 UTC	Nil	Nil	Nil	Nil

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)
Srinagar	Northwest India	Jammu & Kashmir	Thunderstorm	26-04-17	1600	1745
Pahalgam	Northwest India	Jammu & Kashmir	Thunderstorm	26-04-17	1425	1530
Kukernag	Northwest India	Jammu & Kashmir	Thunderstorm	26-04-17	1535	1610
Banihal	Northwest India	Jammu & Kashmir	Thunderstorm	26-04-17	1400	1650
Batote	Northwest India	Jammu & Kashmir	Thunderstorm	26-04-17	1230 1810	1445 1830
Katra	Northwest India	Jammu & Kashmir	Thunderstorm	26-04-17	1701	XXXX
Bhaderwah	Northwest India	Jammu & Kashmir	Thunderstorm	26-04-17	1245 1650	1500 1810
Ambala	Northwest India	Haryana	Thunderstorm	27-04-17	0430	0550
Chandigarh	Northwest India	Haryana	Thunderstorm	27-04-17	0415	0600
Chandigarh IAF	Northwest India	Haryana	Thunderstorm	27-04-17	0315	0630
Patiala	Northwest India	Punjab	Thunderstorm	27-04-17	0510	0550
Amritsar	Northwest India	Punjab	Thunderstorm	27-04-17	0000	0430
MO Shimla	Northwest India	Himachal Pradesh	Thunderstorm	27-04-17	0600	0615
Sunder Nagar	Northwest India	Himachal Pradesh	Thunderstorm	27-04-17	0420	0545
Aligarh	Northwest India	Uttar Pradesh	Thunderstorm	26-04-17	1800	1830
Pilani	Northwest India	Rajasthan	Thunderstorm	26-04-17	1600	1800
MO Mukteshwar	Northwest India	Uttarakhand	Thunderstorm	26-04-17	1220 1245 1330	1225 1305 1610
Gangtok	East India	Sikkim	Thunderstorm	26-04-17	1630	1800
Tadong	East India	Sikkim	Thunderstorm	26-04-17	1718	1750
MO Kodaikanal	South India	Tamilnadu	Thunderstorm	26-04-17	1500	2300
Silchar	Northeast India	Assam	Thunderstorm	26-04-17	26/2000	26/2230
Silchar	Northeast India	Assam	Hailstorm (Diameter-0.2 cm)	26-04-17	26/1455	26/1505
Dibrugarh	Northeast India	Assam	Thunderstorm	26-04-17	26/2330	26/2400
Dibrugarh	Northeast India	Assam	Thunderstorm	26-04-17	27/0000	27/0615
North Lakhimpur	Northeast India	Assam	Thunderstorm	26-04-17	26/1645 26/1730	26/1730 26/1800
Guwahati	Northeast India	Assam	Thunderstorm	26-04-17	26/1850	26/2245
Cherrapunjee	Northeast India	Meghalaya	Thunderstorm	26-04-17	26/1630 26/2030	26/2030 26/2400
Cherrapunjee	Northeast India	Meghalaya	Thunderstorm	27-04-17	27/0000	27/0830

Past 24 hours DWR Report:

Radar Station name	Date	Time interval of observation (UTC)	Organization 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
Kolkata	27-04-17	26/0300-27/0300	NIL	NO SIGNIFICANT ECHO	NIL	NIL	NIL
Paradeep	27-04-17	26/0300-26/2300	Convective regions with average height of 5 kms. and average reflectivity of 20 dBZ and small areas having reflectivity values of the order of 40 dBZ.	SW and SE sector of RADAR (100-240 degrees) Range:80-250 kms from the RADAR. Movement: NWly	Mainly concentrated in SW sector in the sea.	TS with Rain	NIL
PATIALA	26-04-17 27-04-17	0300-0900 0900-1200 1200-1500 1500-1800 1800-2100 2100-0000 0000-0300	NO ECHO multiple cells, maximum 44.0 dBZ, HT 8-9 KMS, multiple cells, 45.0 dBZ, 7-8 KM multiple cells, 31.5 dBZ, 11.5 KM, multiple cells, 44.0 dBZ, 11.5 KM multiple cells, 59.0 dBZ, 10-12 KM multiple cells, 57.5 dBZ, 10-11 KM	NIL Direction of movement :ESE wards Direction of movement :SE wards, NW SECTOR DIRECTION SE wards NW SECTOR DIRECTION SE wards NW SECTOR DIRECTION SE wards. SW SECTOR DIRECTION EASTWARDS. NNW AND ESE SECTORS DIRECTION EASTWARDS		NIL	NIL Shimla Rohru Bhuntar Jhajjar Rewari Gangotri Uttarkasi Loharu Mohndrgarh Amritsar Gurdaspur Kapurthala Jalandhar Patiala Chandigarh Hoshiarpur Bhiwani Ludhiana Nawanshahar, Nalagarh, Solan, Shimla, Yamunanagar, Kurukshetra, Behat, Bhiwani.










Radar Station name	Date	Time interval of observation (UTC)	Organization 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
Hyderabad	27-04-17	26/1032-1152 UTC	Isolated cells with an average height of 10 Km with a max reflectivity of 55 dBZ at 1122 and dissipated by 1152	SE (228 Kms) moving in w- ly Direction at a speed of 6 Kmph.	Cells started forming at 1032 UTC at SE (210 Kms) from radar, Matured a bit in size. Max reflectivity was between 1052 and 1122 UTC	Moderate Thunderstorm with or without rain	Not known.
		26/ 1312-1422 UTC	Isolated cells with an average height of 10 Km with a max reflectivity of 56 dBZ at 1352 and dissipated by 1422	SE (163 Kms) moving in w- ly Direction at a speed of 6 Kmph.	Cells started forming at 1302 UTC at SE (210 Kms) from radar, Matured a bit in size. Max reflectivity was between 1052 and 1122 UTC	Moderate Thunderstorm with or without rain	Not known.
		26/ 1542 - 1722 UTC	Isolated cells with an average height of 9 Km with a max reflectivity of 53.5 dBZ at 1622 and dissipated by 1722	SSE (158 Kms) moving in S- ly Direction at a speed of 10 Kmph.	Cells started forming at 1542 UTC at SSE (150 Kms) from radar, Matured a bit in size. Max reflectivity was between 1642 and 1712 UTC	Light Thunderstorm with or without rain	Not known.
Machilipatnam	27-04-17	26/0841 to 1131 UTC	Isolated Multiple cells with average height of 12.5 km with maximum reflectivity of 66 dBZ	NE (210KM) and moving SE ly direction with average speed of 20 kmph	Cells started forming at 0841UTC at NE (210km) from radar. Maximum reflectivity during 0841 to 1121 and died down at 1131UTC	Possibility of Thunder storm with Hail and moderate winds.	Visakhapatnam District
		26/1051 to 1151UTC	Isolated single cell average height of 11.5 km with maximum reflectivity of 62.5dBZ	WNW(88KM) and moving NE ly direction with average speed of 30 kmph	Cells started forming at 1051UTC at WNW (88km) from radar. Maximum reflectivity during 1051 to 1141 and died down at 1151 UTC	Possibility of Thunder storm with hail and moderate winds.	Guntur and Krishna Districts
		26/1211 to 1431UTC	Isolated Multiple cells average height of 8.3 km with maximum reflectivity of 53dBZ	W(177KM) and moving NE ly direction with average speed of 19.2kmph	Cells started forming at 1211UTC at W (177km) from radar. Maximum reflectivity during 1211 to 1421 and died down at 1431 UTC	Possibility of Thunder storm with Rain and moderate winds.	Guntur District
		26/1311 to 1421UTC	Isolated single cell average height of 8.5 km with maximum reflectivity of 57.5dBZ	W(185KM) and moving NE ly direction with average speed of 15 kmph	Cells started forming at 1311UTC at W (185km) from radar. Maximum reflectivity during 1311 to 1411 and died down at 1421 UTC	Possibility of Thunder storm with Rain and moderate winds.	Guntur District

Radars Station name	Date	Time interval of observation (UTC)	Organization 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
Nagpur	27-04-17	26/0542-26/1102	Multiple, coming from SW	Moving NE'ly	< 15 dBZ	-	-
		27/0002-27/0302	Nil	Nil	Nil	Nil	Nil
Lucknow	27-04-17	26/0300 – 27/0300	Nil	Nil	Nil	Nil	Nil
Patna	27-04-17	26/0300 – 27/0300	Nil	Nil	Nil	Nil	Nil
Jaipur	27-04-17	26/0742 - 1502	Multiple cell average height of 8.8 km maximum reflectivity 51.5 dBZ	NNW & EAST wards at speed direction 45m km/hr	Cells started forming 0742 UTC, North & North west of Jaipur and multiple cell was observed and maximum reflectivity during 0822-0922 UTC and died down at 1500 UTC.	TSRA was reported at few places	Sikar, Jaipur, Dausa, Bharatpur, Pilani, Jhunjhunu, Churu, Alwar Districts
Srinagar	27-04-17	26/0300 – 27/0300	Multiple cells developed from SE and NE direction of DWR Srinagar at 0620 UTC and moved NE direction with average height 9 kms and max reflectivity45-50 dBZ	Developed from SE and NE directions of DWR site Srinagar and moved towards NE direction and dissipated around 1330 UTC	Thunderstorm observed/reported at Srinagar, Gulmarg, Kukernag, Pahalgam, Bhaderwah, Katra, Banihal and Batote	Light rain/thunder	Light rain at Srinagar Gulmarg/ Pahalgam//Banihal/ Batote/Katra/Bhaderwah

Radar Station name	Date	Time interval of observation (UTC)	Organization 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
Agartala	27-04-17	260300 - 261620	Multiple Cells continuously formed one after another over same area with Maximum Height 14 km and maximum reflectivity 43 dBZ	Started Forming 170 km NE of DWR AGT since 0740 UTC of 25.04.17 and moving ESE-wards at around	The cells dissipated at 1620 UTC of 26.04.17 over Southern parts of Assam	1.TS with heavy rain at Cherrapunje	East Khasi hills districts of Meghalaya, Cachar district of Assam
		261300 - 262020	Multiple Cells with Maximum Height 14 km and maximum reflectivity 44 dBZ (at 1440 UTC over Bangladesh-140 km NW of DWR AGT)	Formed 200 km NW of DWR AGT at 1300 UTC of 26.04.17 and moved SE-wards at around 35 kmph	The cells dissipated at 2020 UTC of 26.04.17 over Mizoram	N/A	N/A
		261540 - 262020	Multiple Cells with Maximum Height 13 km and maximum reflectivity 48 dBZ (at 1750 UTC over Bangladesh-120 km NNW of DWR AGT)	Formed 180 km NW of DWR AGT at 1540 UTC of 26.04.17 and moved ESE-wards at around 30 kmph	The cell dissipated at 2020 UTC of 26.04.17 over Southern parts of Assam	N/A	N/A
		262000 - 270300	Multiple Cells with Maximum Height 11 km and maximum reflectivity 41 dBZ (at 2320 UTC over Southern parts of Meghalaya)	Formed 170 km NNW of DWR AGT at 2000 UTC of 26.04.17 and moved ESE-wards at around 25 kmph	At 0300 UTC of 27.04.17, some cells still persist over SE Meghalaya and South Assam with max height <12km and reflectivity <40dBZ	1.TS with heavy rain at Cherrapunje 2.TS with	East Khasi hills districts of Meghalaya, Cachar district of Assam

Radar Station name	Date	Time interval of observation (UTC)	Organization 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
Visakhapatnam	27-04-17	0300 UTC-0600 UTC	Convective region at ENE with max reflectivity 40 dBZ 190km from radar and height 5kms.	Movement is not clear.	-	-	-
		0600 UTC-0900 UTC	Isolate cells on the East coast and at NE and WSW to this radar with max reflectivity 49dbz and average height 9kms.	Moving towards SW for NE cells and easterly for WSW cells.	Cells at WSW likely to intensify.	-	-
		0900 UTC-1200 UTC	Isolated cells formed in the Easterly and NE ly at 114kms East and 74kms NE with max reflectivity 62 dBZ and average height 11kms	Cells are continued to be formed and moving towards SE	CELL formed at 0841 UTC and dissipated at 1131 UTC in which the reflectivity dies from max 62 dBZ to nil.	-	-
		1200 UTC-1500 UTC	CONVECTIVE REGIONS NEly 100kms Ely 150 kms SWly 200 kms with max reflectivity 50 dBZ and average height 2kms	Cells are continued to be formed and moving SEly	Cells forming and dissipating without maturing	-	-
		1500 UTC-1800 UTC	CONVECTIVE REGIONS NEly and Ely 100 kms SWly 150 kms with max reflectivity 50dbz and average height 4kms	Cells are continued to be forming and moving SEly	Cells forming and dissipating without maturing	-	-
		1800 UTC-0000 UTC	CONVECTIVE REGIONS Ely, SEly and SSEly 150 kms with max reflectivity 50dbz and average height 4kms	Cells are continued to be forming and moving SEly	Cells forming and dissipating without maturing	-	-
		0000 UTC-0300 UTC	Convective region at SE 209 kms with max reflectivity 49 dBZ and height 8kms.	Moving SE ly	Dissipated and the reflectivity is totally dies at 01.51UTC.	-	-

∞	haze
☁	smoke
☁	dust or sand storm
☁	fog
☁	drizzle
•	rain
*	snow
▽	showers
△	hail
⚡	thunderstorm
Weather Symbols	

		
+ thunderstorm	+ heavy thunderstorm	sandstorm or dust storm
		
squall	hail shower	tropical storm
		
+ tornado	+ lightning	+ hurricane

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