



India Meteorological Department

FDP STORM Bulletin No. 33 (08-04-2018)

1. CURRENT SYNOPTIC SITUATION:

NWFC INFERENCE (0300UTC of the Day):

- ◆ The feeble Western Disturbance as an upper air cyclonic circulation over south-eastern parts of Jammu & Kashmir & neighbourhood persists and now seen at 3.1 km above mean sea level.
- ◆ A trough runs from northwest Rajasthan to west Assam across south Uttar Pradesh, south Bihar & northern West Bengal at 0.9 km above mean sea level.
- ◆ The fresh Western Disturbance as an upper air cyclonic circulation at 3.1 km above mean sea level over Iran & neighbourhood persists.
- ◆ A cyclonic circulation lies over north Madhya Maharashtra and adjoining Vidarbha & southwest Madhya Pradesh and extends upto 1.5 km above mean sea level.
- ◆ A cyclonic circulation lies over south Gujarat region & neighbourhood at 3.1 km above mean sea level.
- ◆ A cyclonic circulation lies over South Interior Karnataka & neighbourhood at 0.9 km above mean sea level.
- ◆ The cyclonic circulation over West Bengal and adjoining Bangladesh persists, now seen between 1.5 & 3.1 km above mean sea level.
- ◆ The trough in easterlies from southeast Arabian sea to south Madhya Maharashtra across Lakshadweep area and Coastal Karnataka at 1.5 km above mean sea level persists.

SATELLITE OBSERVATIONS during past 24 hrs and current observation:

Current Observation (based on 0300UTC imagery of INSAT 3D):

Western Disturbance (WD):

Scattered multi-layered clouds seen over Northeast Saudi Arabia, Persian Gulf, East Iran North Afghanistan, North Pakistan Northwest Jammu & Kashmir and in association with Western Disturbance over the area.

Clouds descriptions within India:

Scattered low/medium clouds with embedded moderate to intense convection seen over extreme Northwest Jammu & Kashmir (**Minimum CTT Minus 64 DEG C**), Telangana, and Bay Islands. Broken low/medium clouds with embedded isolated weak to moderate convection seen over North GWB, Bihar, Odisha, Jharkhand, Assam, Meghalaya, Arunachal Pradesh, Manipur, Mizoram and Tripura. Scattered low/medium clouds with embedded isolated weak to moderate convection seen over Himachal Pradesh, Uttarakhand, northern parts of West Uttar Pradesh and East Uttar Pradesh. Scattered low/medium clouds seen over South GWB, West SHWB, Nagaland and North Chhattisgarh. Scattered low/medium clouds with embedded weak to moderate convection seen over Vidarbha, Marathwada and isolated over South East Rajasthan and Madhya Pradesh, Tamilnadu, South Rayalaseema & South Interior Karnataka,

Arabian Sea:-No significant clouds over the area.

Bay of Bengal & Andaman Sea:

Scattered low/medium clouds with embedded moderate to intense convection seen over Southeast Bay Andaman Seas Arakan Coast.

Past Weather:

Convection (during last 24 hrs):

Moderate to Intense convection was observed over J & K, N MP adjoining South UP, Odisha GWB, Bihar, Meghalaya, Vidarbha, Marathwada, Telangana and Assam .

OLR:

Upto 230 wm^{-2} observed over J & K, HP, Uttarakhand, Telangana adjoining Marathwada, Bihar, adjoining UP and NE States.

Dynamic Features:-

Up to 20 knots wind shear is observed over North-West India and Up to 40 knots wind shear observed over rest India.

Negative Shear tendency is observed over North-West Uttar Pradesh & neighbourhoods and Positive Shear tendency over rest India.

A positive Vorticity field (about $100 \times 10^{-5}/s$) at 850 hPa is observed over North west Gujarat Madhya Pradesh North Chhattisgarh adjoining Jharkhand.

Negative Low Level Convergence ($-5 \times 10^{-5}/s$) observed over Himachal Pradesh adjoining area & North Bangladesh adjoining areas and Positive Low Level Convergence observed over rest India.

Precipitation:

HEM:

Rainfall upto 20-70 mm observed over NW J & K and South Odisha.

Rainfall upto 1-20 mm observed over Vidarbha, Telangana Marathwada, Bihar UP Jharkhand, Odisha and NE States.

RADAR and RAPID RGB Observation:

Moderate Isolated/multiple echoes were seen on DWR Srinagar (dBZ >50 and height > 10km). Light Moderate Isolated/multiple echoes were seen on DWR Agartala, Bhopal, Cherrapunjee and Lucknow domain at around 1330 IST.

RAPID RGB Satellite imagery at 1330IST indicates significant convection over Southeast Rajasthan, Central parts of Bihar, Jharkhand, East Gangetic West Bengal and South Chhattisgarh adjoining Odisha.

Environmental Condition (dust etc) and its Forecast based on 00UTC of date:

Higher Dust concentration was observed over Arab countries and western part of India. Dust concentration is expected to decrease over north-western part of India in next few days.

Particulate matter concentration is expected to remain in moderate category for next 2 days in Delhi.

Delhi – SAFAR analysis & Forecast	08.04.2018	09.04.2018
PM10 (micro-g/m ³)	130	143
PM2.5 (micro-g/m ³)	62	68

2. NWP MODEL GUIDANCE:

NCMRWF (NCUM forecast based on 00UTC the day):

1. Weather Systems:

Low level CYCIRS, Troughs: 12 UTC of Day 1: 925 & 850 hPa CYCIR over east-UP and adjoining Bihar

Confluence & Wind Discontinuity regions: 12 UTC of Day 0-3: at 925 & 850 hPa SW-NE discontinuity over MP-Chhattisgarh, Jharkhand

Synoptic Systems: 12 UTC of Day 3-4: Trough at 500 hPa west of J & K

2. Location of jet and jet core (>60kt) at 500hPa:-----

3. Convergence at 850 hPa:

Day/Index: Subdivisions with Lower Level Convergence $> 15 \times 10^{-5} /s$

Day0: West MP, Tamilnadu, Puducherry, Kerala,

Day1: West MP, Madhya Maharashtra, Tamilnadu, Puducherry, SI Karnataka, Kerala,

Day2: Gangetic WB, Jammu Kashmir, West MP, Madhya Maharashtra, Tamilnadu, Puducherry, SI Karnataka, Kerala,

Day3: Assam Meghalaya, Gangetic WB, Jharkhand, West UP, Uttarakhand, Haryana, Chandigarh, Delhi, Punjab, Jammu Kashmir, West Rajasthan, East Rajasthan,, Madhya Maharashtra, Marathwada, Tamilnadu, Puducherry, NI Karnataka, SI Karnataka, Kerala,

Day4: Arunachal Pradesh, Assam Meghalaya, East UP, West UP, Himachal Pradesh, Jammu Kashmir, Vidarbha, Tamilnadu, Puducherry, NI Karnataka, SI Karnataka,

4. Low level Vorticity:-Positive Vorticity:

Day/Index: Subdivisions with Lower Level Vortex $> 15 \times 10^{-5} /s$

Day0: Telangana,

Day1: Arunachal Pradesh, Assam Meghalaya, Gangetic WB, Uttarakhand, Punjab, Saurashtra Kutch,

Day2: Assam Meghalaya, Bihar, West UP, Uttarakhand, Haryana, Chandigarh, Delhi, Punjab, East Rajasthan,,

Day3: Arunachal Pradesh, Assam Meghalaya, Bihar, East UP, West UP, Punjab, Jammu Kashmir,

Day4:

5. Showalter Index: -3 to -4[Very unstable]:

Day/Index: Subdivisions with Showalter Index < -4

Day0: Arunachal Pradesh, Sub Himalayan WB, Jharkhand, Bihar, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Odisha, Konkan Goa, Vidarbha, Chhattisgarh, Coastal AP, Telangana, Tamilnadu, Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

Day1: Arunachal Pradesh, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Odisha, Konkan Goa, Madhya Maharashtra, Vidarbha, Chhattisgarh, Coastal AP, Coastal Karnataka, SI Karnataka, Kerala,

Day2: Arunachal Pradesh, Assam Meghalaya, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, West UP, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Odisha, Saurashtra Kutch, Konkan Goa, Madhya Maharashtra, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

Day3: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Haryana, Chandigarh, Delhi, Punjab, Himachal Pradesh, Jammu Kashmir, Odisha, Tamilnadu, Puducherry, Coastal Karnataka, SI Karnataka, Kerala,

Day4: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Haryana, Chandigarh, Delhi, Punjab, Himachal Pradesh, Jammu Kashmir, Odisha, Coastal AP, Tamilnadu, Puducherry, Kerala,

6. Spatial distribution of TTI: TTI >50 [Scattered Thunderstorms few severe]:

Day/Index: Subdivision with Total Totals Index > 52

Day0: Arunachal Pradesh, Sub Himalayan WB, Bihar, Uttarakhand, Punjab, Himachal Pradesh, Jammu Kashmir, East Rajasthan,, Odisha, West MP, Saurashtra Kutch, Konkan Goa, Madhya Maharashtra, Vidarbha, Chhattisgarh, Coastal AP, Telangana, Rayalaseema, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

Day1: Arunachal Pradesh, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Haryana, Chandigarh, Delhi, Punjab, Himachal Pradesh, Jammu Kashmir, West Rajasthan,, East Rajasthan,, Odisha, West MP, Konkan Goa, Madhya Maharashtra, Vidarbha, Chhattisgarh, Telangana, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

Day2: Arunachal Pradesh, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Haryana, Chandigarh, Delhi, Punjab, Himachal Pradesh, Jammu Kashmir, West Rajasthan,, Odisha, West MP, East MP, Saurashtra Kutch, Konkan Goa, Madhya Maharashtra, Vidarbha, Chhattisgarh, Coastal Karnataka, NI Karnataka, SI Karnataka,

Day3: Arunachal Pradesh, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Haryana, Chandigarh, Delhi, Punjab, Himachal Pradesh, Jammu Kashmir, West Rajasthan,, East Rajasthan,, Odisha, East MP, Vidarbha, Chhattisgarh, Tamilnadu, Puducherry,

Day4: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Haryana, Chandigarh, Delhi, Punjab, Himachal Pradesh, Jammu Kashmir, West Rajasthan,, Odisha, Vidarbha, Chhattisgarh, Telangana,

7. K-Index :-> 35[Very Unstable thunderstorm likely]:

Day/Index: Subdivisions with K Index > 40

Day0: Arunachal Pradesh, Sub Himalayan WB, Uttarakhand, Punjab, Himachal Pradesh, Jammu Kashmir, Odisha, Madhya Maharashtra, Chhattisgarh, Coastal AP, Telangana, Tamilnadu, Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

Day1: Arunachal Pradesh, Sub Himalayan WB, Gangetic WB, Jharkhand, West UP, Uttarakhand, Jammu Kashmir, Odisha, West MP, Konkan Goa, Madhya Maharashtra, Chhattisgarh, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

Day2: Arunachal Pradesh, Sub Himalayan WB, Gangetic WB, Jharkhand, West UP, Uttarakhand, Haryana, Chandigarh, Delhi, Himachal Pradesh, Jammu Kashmir, Odisha, Konkan Goa, Madhya Maharashtra, Vidarbha, Chhattisgarh, Coastal AP, Tamilnadu, Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

Day3: Arunachal Pradesh, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, Uttarakhand, Punjab, Himachal Pradesh, Odisha, Vidarbha, Chhattisgarh, Tamilnadu, Puducherry, Coastal Karnataka, SI Karnataka,

Day4: Arunachal Pradesh, NE NMMT, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, Punjab, Himachal Pradesh, Jammu Kashmir, Odisha, Chhattisgarh, Coastal AP, Telangana, Rayalaseema, Tamilnadu, Puducherry, Coastal Karnataka, SI Karnataka, Kerala,

8. Rainfall and thunder storm activity:

Day/Index: Subdivisions with Precipitation > 2 cm

Day1: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Jammu Kashmir, Andaman Nicobar, Tamilnadu, Puducherry, Kerala,

Day2: Arunachal Pradesh, Assam Meghalaya, Sub Himalayan WB, Jharkhand, Bihar, Jammu Kashmir,

Day3: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Gangetic WB, Himachal Pradesh, Jammu Kashmir,

Day4: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Bihar, East UP, West UP, Uttarakhand, Haryana, Chandigarh, Delhi, Punjab, Himachal Pradesh, Jammu Kashmir,

Day5: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, East UP, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Tamilnadu, Puducherry,

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

1. Synoptic Systems:

The analysis based on 00 UTC indicates a cyclonic circulation in lower troposphere (925 hPa) over northern part of West Madhya Pradesh and adjoining area. The forecast shows it will move south eastwards to Marathwada across Vidarbha and adjoining area on day 1. The Analysis also indicates a trough in easterlies from SE Arabian Sea to South Madhya Maharashtra across Lakshadweep, Coastal Karnataka persists. The analysis shows an East-West trough extending from southwest Rajasthan to Jharkhand across Madhya Pradesh and Chhattisgarh. The analysis also shows a cyclonic circulation over west Rajasthan and adjoining area where a trough runs from NW Rajasthan to west Assam across UP, Bihar & Northern West Bengal. The forecast shows a cyclonic circulation over North Pakistan and adjoining area on day 1 and it will move Eastwards to West Uttar Pradesh and adjoining areas on day 4.

2. Location of Jet and Jet Core (>60kt) at 500hPa: Although the presence of strong westerlies is found over east and northeast India but no jet core over the Indian region for the next 3 days.

3. Low Level Vorticity {850hPa Positive Vorticity (>12 x 10⁻¹/s)}:

Low level Positive Vorticity is seen mostly over the cyclonic circulation and along the trough for next 3 days. It is inferred that some parts of Haryana, Delhi and adjoining areas & Madhya Pradesh has Positive Vorticity on day 1.

4. Spatial distribution of T-storm Initiation Index, Lifted Index, Total Total Index, CAPE, CIN and Sweat Index [High potential for thunderstorm]:

T-Storm Initiation Index (> 3): The threshold value of the index > 3 over coastal areas of Gangetic West Bengal and Kolkata, parts of Orissa, Bihar, Jharkhand, Uttar Pradesh, Andhra Pradesh, Telangana, Rayalaseema, Kerala, Karnataka, Tamil Nadu, parts of Gujarat, South west Rajasthan, coastal Maharashtra including Mumbai, Konkan & Goa, Vidharbha adjoining Chattisgarh, coastal areas along the east coast and west coast, extreme south peninsular India, Tripura and adjoining area, SHWB during all 3 days; over parts of Punjab, Haryana, Delhi, Himachal Pradesh and adjoining Uttarakhand on day 2 and 3; Maximum value of the index is seen over parts of Gujarat, northern parts of coastal areas along the west coast, Konkan and Goa, coastal Maharashtra, Orissa, Chattisgarh, Jharkhand, coastal Andhra Pradesh, GWB, Telangana and adjoining area on all 3 days; over parts of Bihar and East Uttar Pradesh on day 1 and 2; over parts of East Vidharbha and south west Rajasthan from day 2 onwards.

Lifted Index (< -2): The threshold value of the index is below -2 over parts of Haryana, Delhi, Uttarakhand, Gujarat, Sourasthra region, Rajasthan, coastal Andhra Pradesh, coastal Karnataka, Telangana, Rayalaseema, Konkan and Goa, Kerala, Tamil Nadu, southern part of west coast, coastal areas along the east coast, Orissa, East Madhya Pradesh, Chhattisgarh, Vidarbha, GWB, Bihar, Jharkhand, Tripura and adjoining areas on all 3 days; over parts of East Rajasthan and west Madhya Pradesh region on day 1; over parts of Punjab and Himachal Pradesh on day 3; over parts of south west Rajasthan, Madhya Maharashtra and Marathwada region from day 1 onwards; maximum negative value of the index less than -8 is seen over parts of Bihar, Northern parts of coastal Maharashtra and GWB on day 1; over parts of coastal Karnataka, Konkan and Goa and some parts of Chhattisgarh on day 2; over parts of coastal Gujarat on day 3.

Total Index (> 50): The threshold value of the index is > 50 over most of the parts of Madhya Pradesh, adjoining Gujarat, Rajasthan, Vidarbha on all 3 days; over parts of Punjab and adjoining areas on day 2; over parts of Madhya Maharashtra and Marathwada region on day 2 and 3; maximum value of the index >60 is seen over west and east Madhya Pradesh region on all 3 days.

Sweat Index (> 300): Although the threshold value of the Index >300 is seen in most parts of the country but the maximum value of the index greater than 800 is seen over parts of Jharkhand and adjoining areas on day 1 and 2.

CAPE (> 1000): Mostly in areas of southern peninsular India, along west coast and east coast and coastal areas of GWB, Orissa, Andhra Pradesh, Telangana, Rayalaseema, Kerala, Tamilnadu, Karnataka, , Gujarat, South West Rajasthan, coastal Maharashtra, Konkan and Goa, Vidarbha, Bihar, Jharkhand, Uttar Pradesh, Chhattisgarh during all 3 days; over parts of East Madhya Pradesh from day 1 onwards; over Parts of Haryana, Delhi, Assam, Sikkim, SHWB and adjoining areas on day 3; Maximum value of the index greater than 2500 is seen mostly over parts of coastal Orissa, GWB, Bihar, Jharkhand, Coastal Andhra Pradesh and coastal Gujarat on day 1; over parts of Gujarat, coastal Karnataka, Konkan and Goa on day 2 & 3.

CIN (50-150): Although the threshold value of the Index lies in the range of (50–150) over most part of the country except during all 3 days but the maximum value of the index > 400 is seen over parts of Haryana, Delhi, West Uttar Pradesh and adjoining areas on day 1 and 2.

5. Rainfall Activity:

70- 130 mm Rainfall: over parts of Himachal Pradesh on Day 3 and Arunachal Pradesh on day 5.

40- 70 mm Rainfall: over few parts of GWB on day 3;

10-40 mm Rainfall: over parts of J&K, Himachal Pradesh, Uttarakhand, Sikkim, NE states, Foothills of Himalayas Jharkhand, Orissa, GWB, SHWB, Kerala, Karnataka, Coastal Andhra Pradesh on all 3 days; over some parts of HP, Uttarakhand, Sikkim, Assam, Arunachal Pradesh, Orissa & Kerala on day 4 & day5.

Up to 10 mm rainfall: Over parts of Sikkim, NE states, Foothills of Himalaya, J&K, Uttarakhand, Punjab, Haryana, Delhi, Himachal Pradesh, Gujarat, Rajasthan, Uttar Pradesh, Bihar, Jharkhand, Orissa, Chhattisgarh, Madhya Pradesh, Vidarbha, Marathwada, Madhya Maharashtra, GWB, SHWB, Andhra Pradesh, Kerala, Karnataka, Tamil Nadu, Telangana and Rayalaseema on all 3 days.

3. IOP ADVISORY FOR 24 and 48Hrs:

Summary and Conclusions:

Day-1 & Day-2:

- Most thermodynamic indices (SWEAT, T-STORM Initiation Index, Lifted Index) indicate high probability of thunderstorm occurrence along east, northeast and south peninsular coast of India. CAPE values are high all along the coast of peninsular India on day 1.
- Synoptic analysis indicates a cyclonic circulation lies over north Madhya Maharashtra and adjoining Vidharbha & southwest Madhya Pradesh. Another cyclonic circulation lies over South Interior Karnataka & neighborhood.
- This will give the thunderstorm activity with gusty winds over Kerala, Interior Tamil Nadu, South and North Interior Karnataka, East MP and Chhattisgarh on Day-1. This activity may continue to Day-2 over the same region.
- The cyclonic circulation over West Bengal and adjoining Bangladesh will give the thunderstorms with gusty winds over GWB, Jharkhand, Bihar and SHWB on Day-1. East Bihar, East Jharkhand, and SHWB may experience hailstorm on Day-1.
- The feeble Western Disturbance as an upper air cyclonic circulation over southeastern parts of Jammu & Kashmir & neighbourhood observed and this will give some thunderstorm activity with gusty winds over J&K and Himachal Pradesh on Day-1.

24 hour Advisory for IOP:

Significant Rainfall:

Nil

Thunderstorm with squall or gusty winds:

Jammu & Kashmir Himachal Pradesh, West Uttar Pradesh
Odisha, Gangetic West Bengal, Jharkhand
East Madhya Pradesh, Vidarbha, Chhattisgarh,
Madhya Maharashtra, Marathwada,
Telangana, Coastal Andhra Pradesh, Kerala, Tamilnadu, Interior
Karnataka
Nagaland, Manipur, Mizoram and Tripura

Thunderstorm with squall and hail

Sub Himalayan West Bengal, East Bihar, East Jharkhand , Assam,
Meghalaya

Thunderstorm/Duststrom:

Rajasthan

48 hour Advisory for IOP:

Significant Rainfall:

Nil

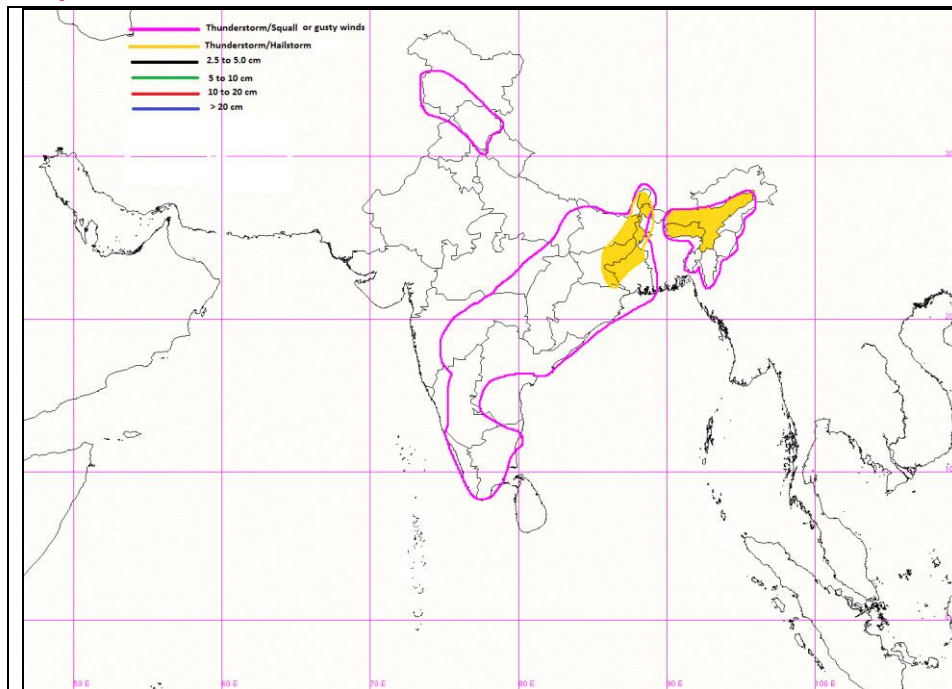
Thunderstorm with squall or gusty winds:

Interior Karnataka, Telangana,
Vidarbha, Chhattisgarh,

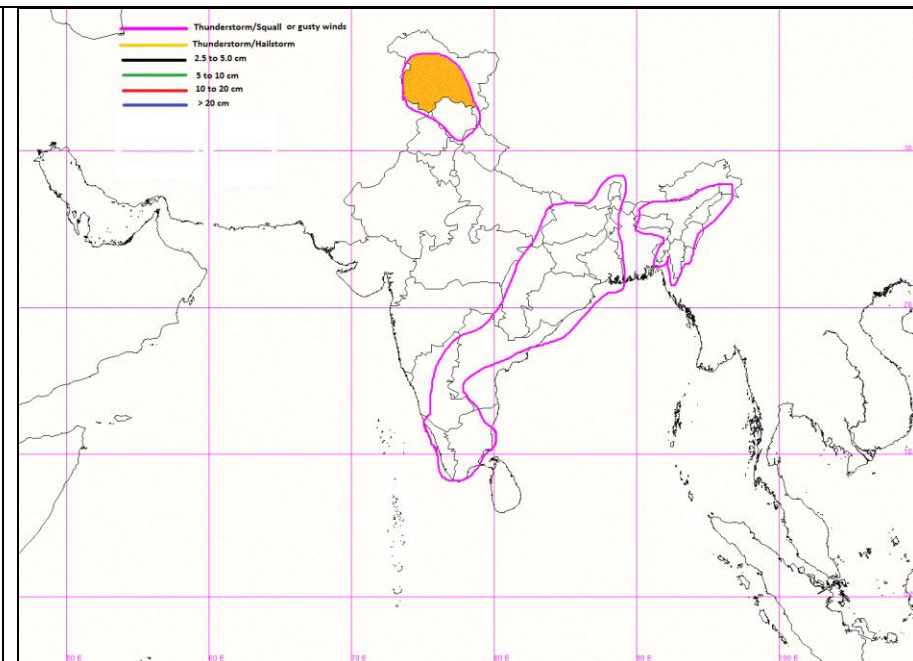
Thunderstorm with squall and hail

Sub Himalayan West Bengal, Assam, Gangetic West Bengal,
Jharkhand

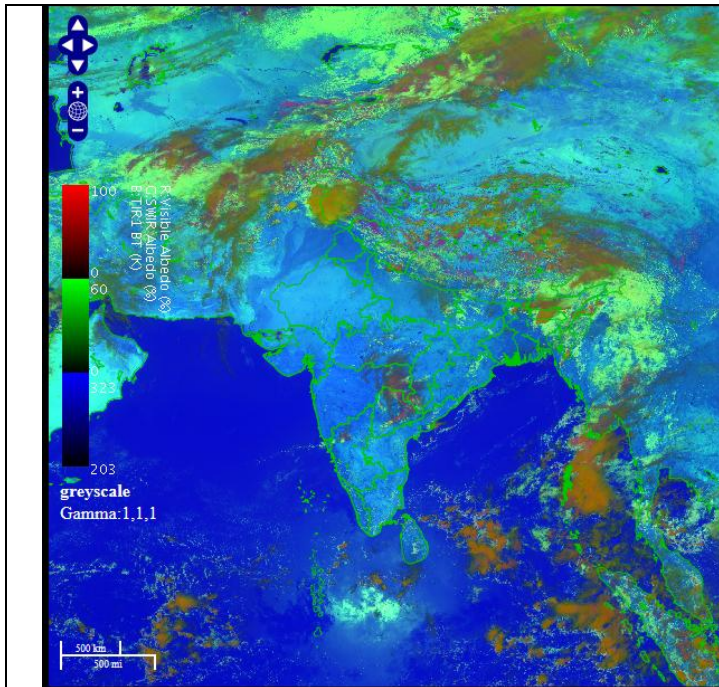
Graphical Presentation of Potential Areas for Severe Weather:



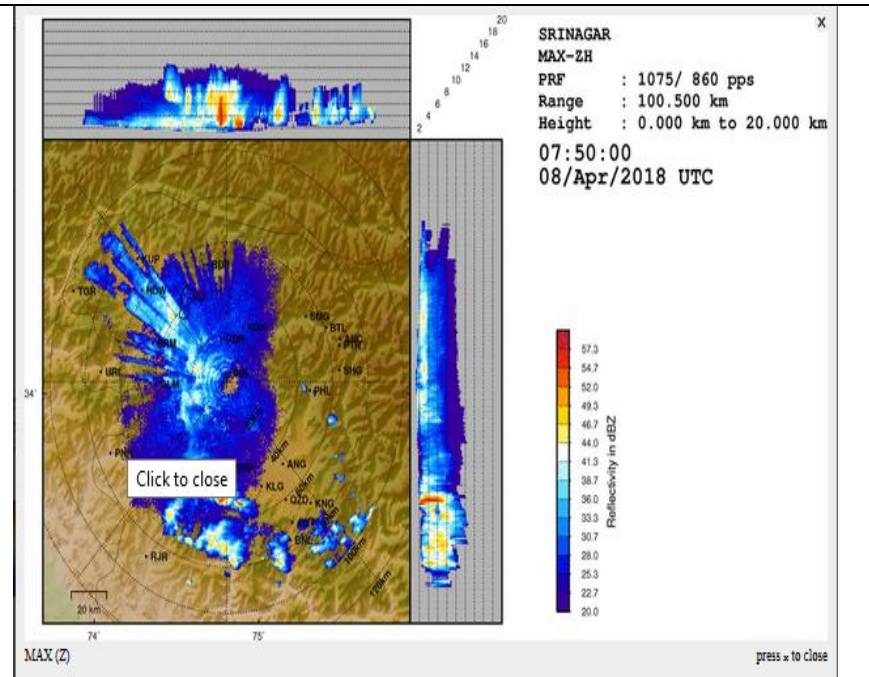
IOP Advisory for 24 hours



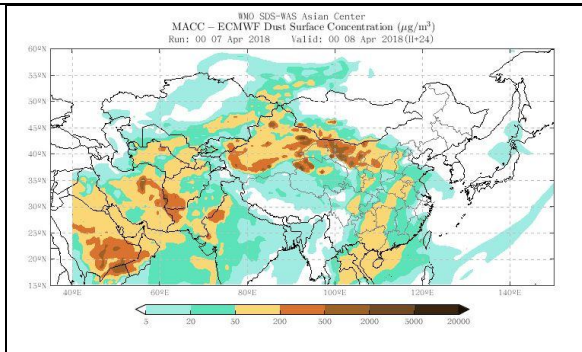
IOP Advisory for 48 hours



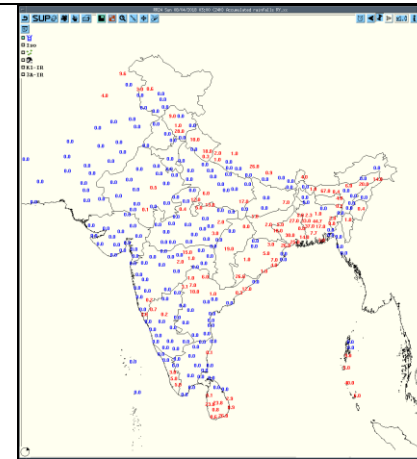
RAPID RGB Imagery at 1230 IST of the Day



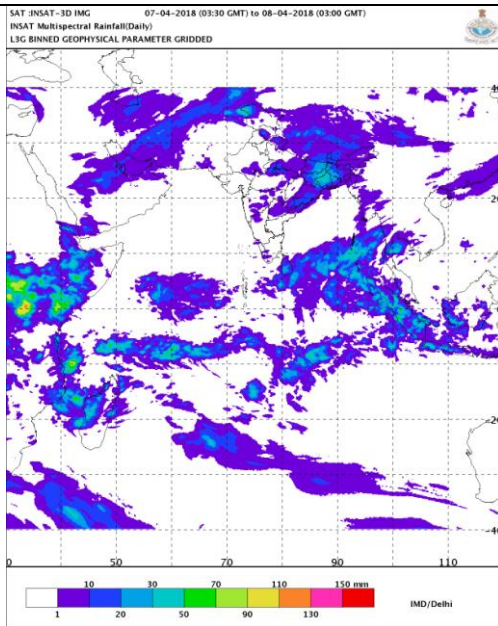
DWR Srinagar at 1320 IST of the Day



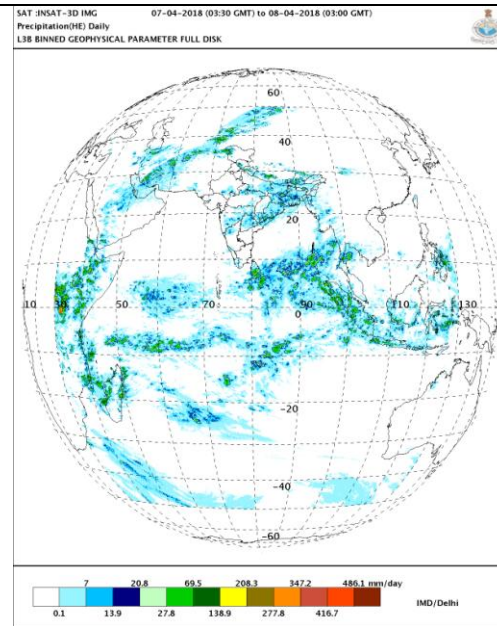
Dust Forecast



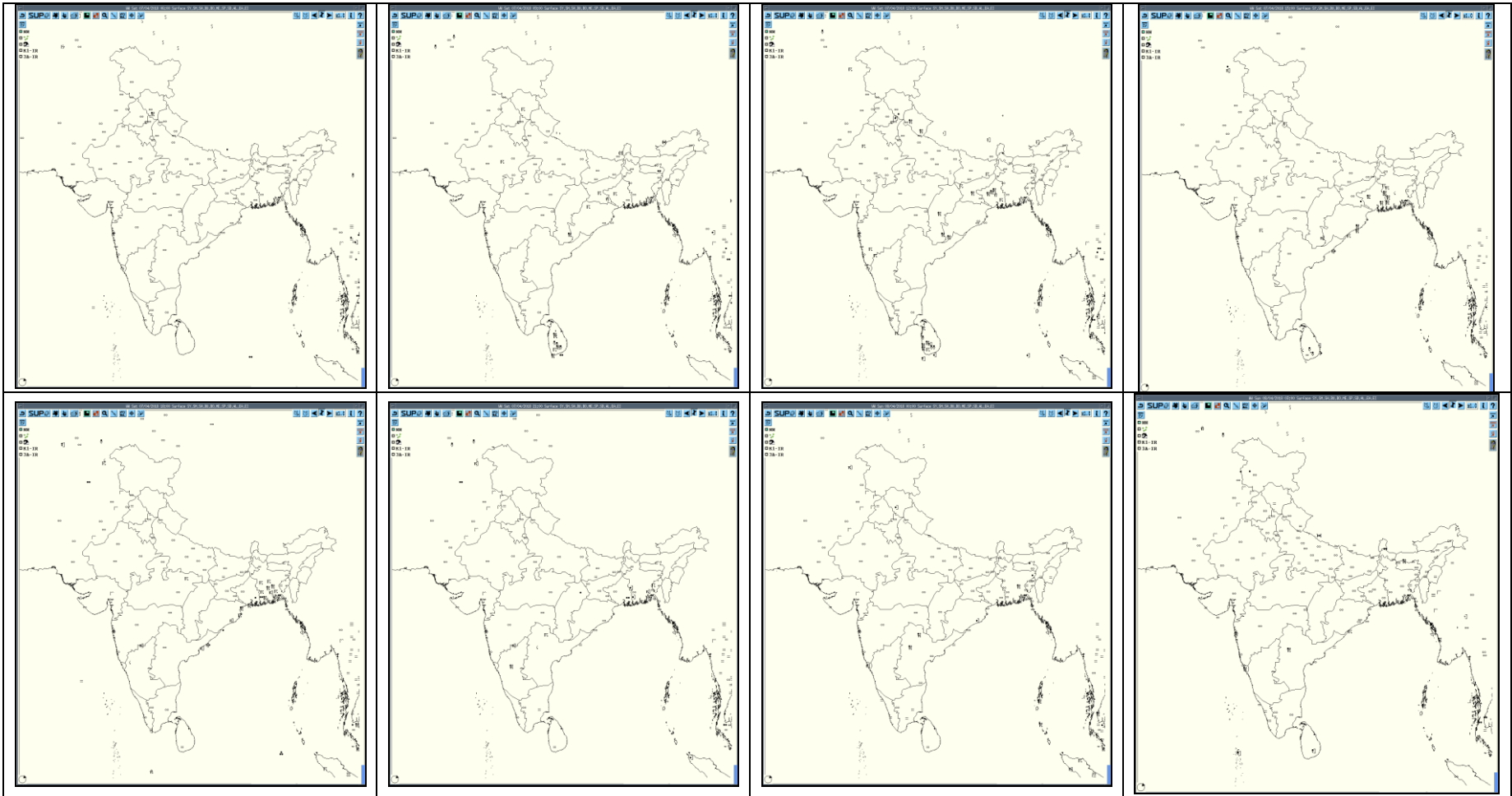
Accumulated 24 Hour rainfall (in red) recorded at 0300UTC of today



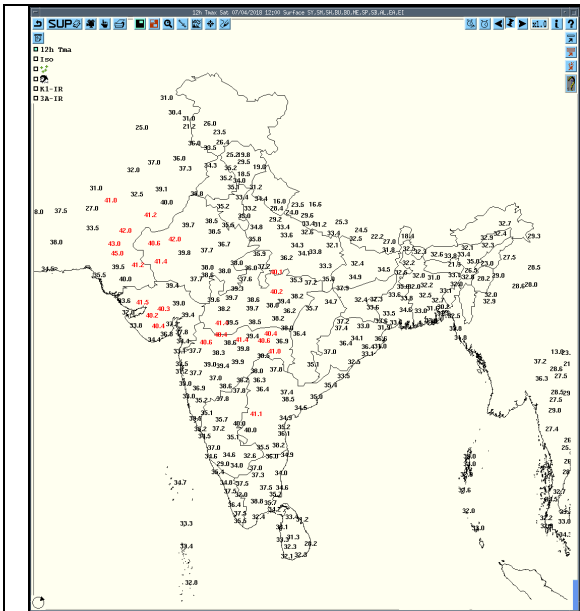
IMR



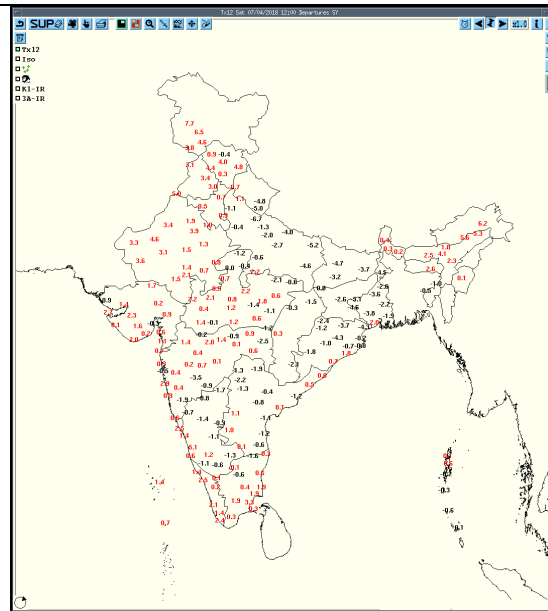
HEM



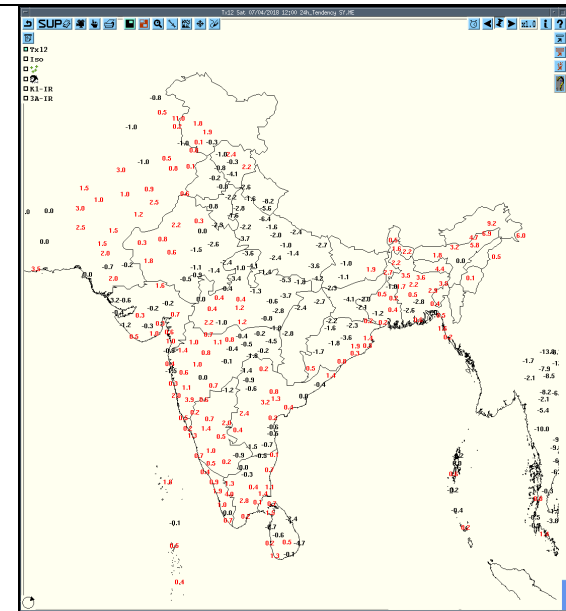
3hourly Past weather at 06, 09, 12, 15, 18, 21 UTC of yesterday and 00 & 03 hrs UTC of today



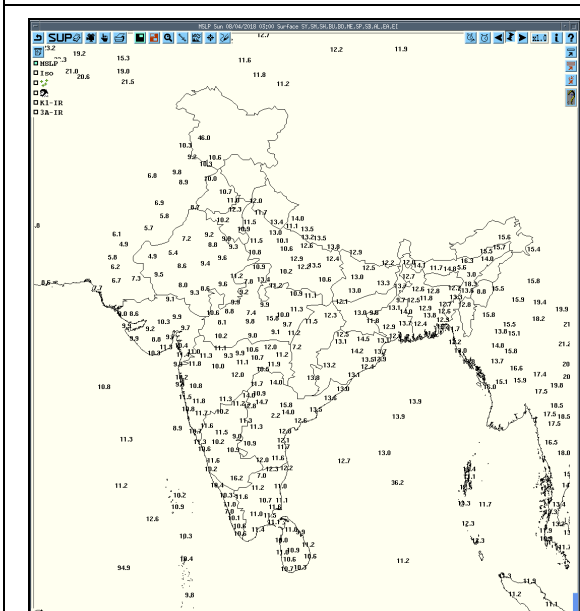
Tmax



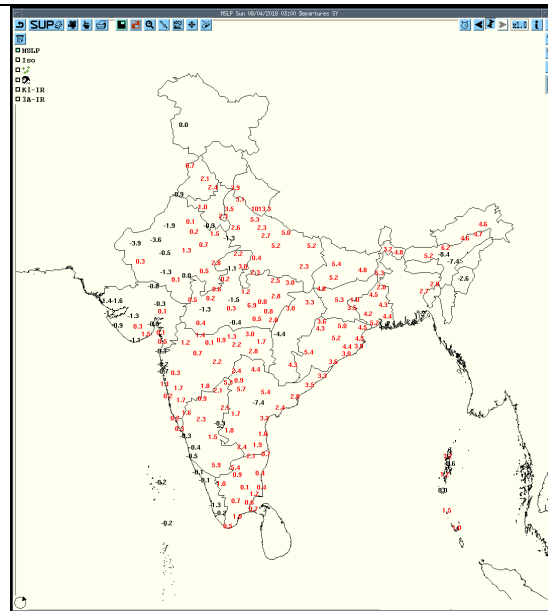
Departure Tmax



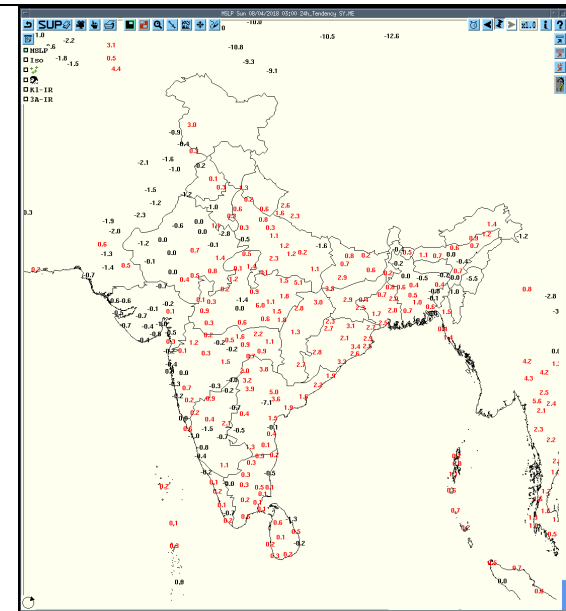
Tendency Tmax



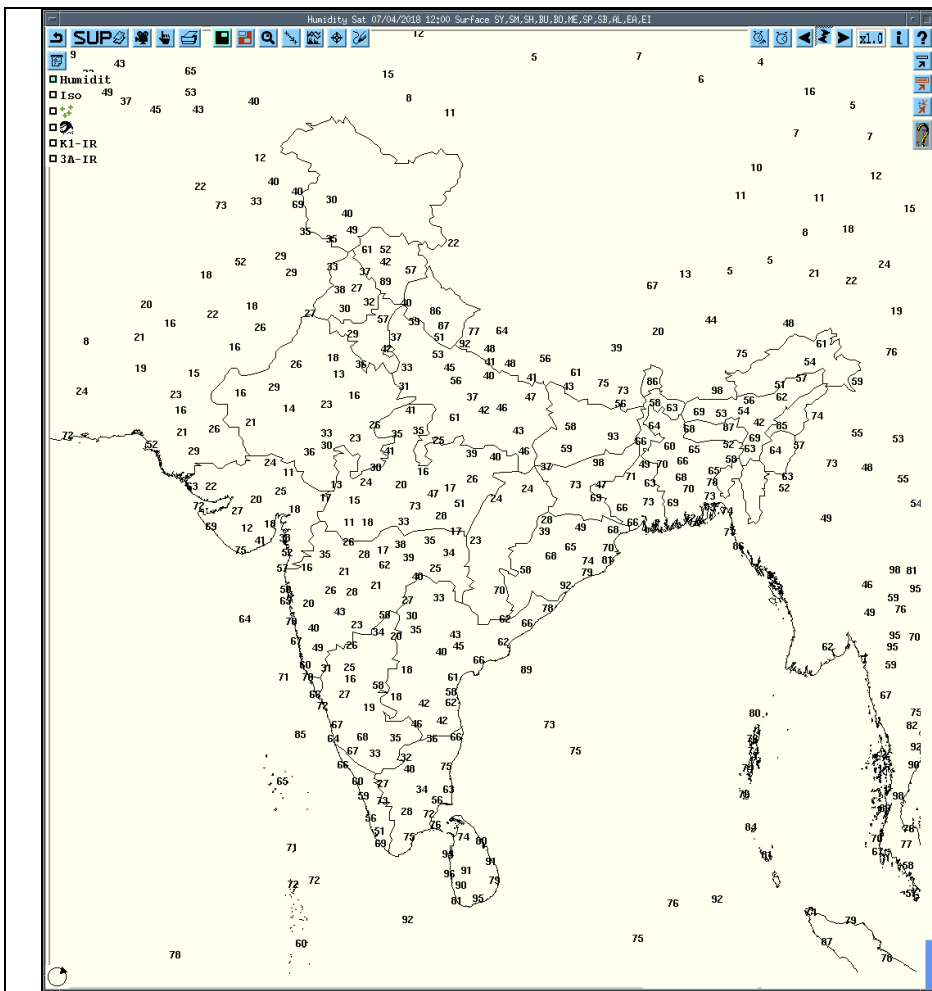
MSLP



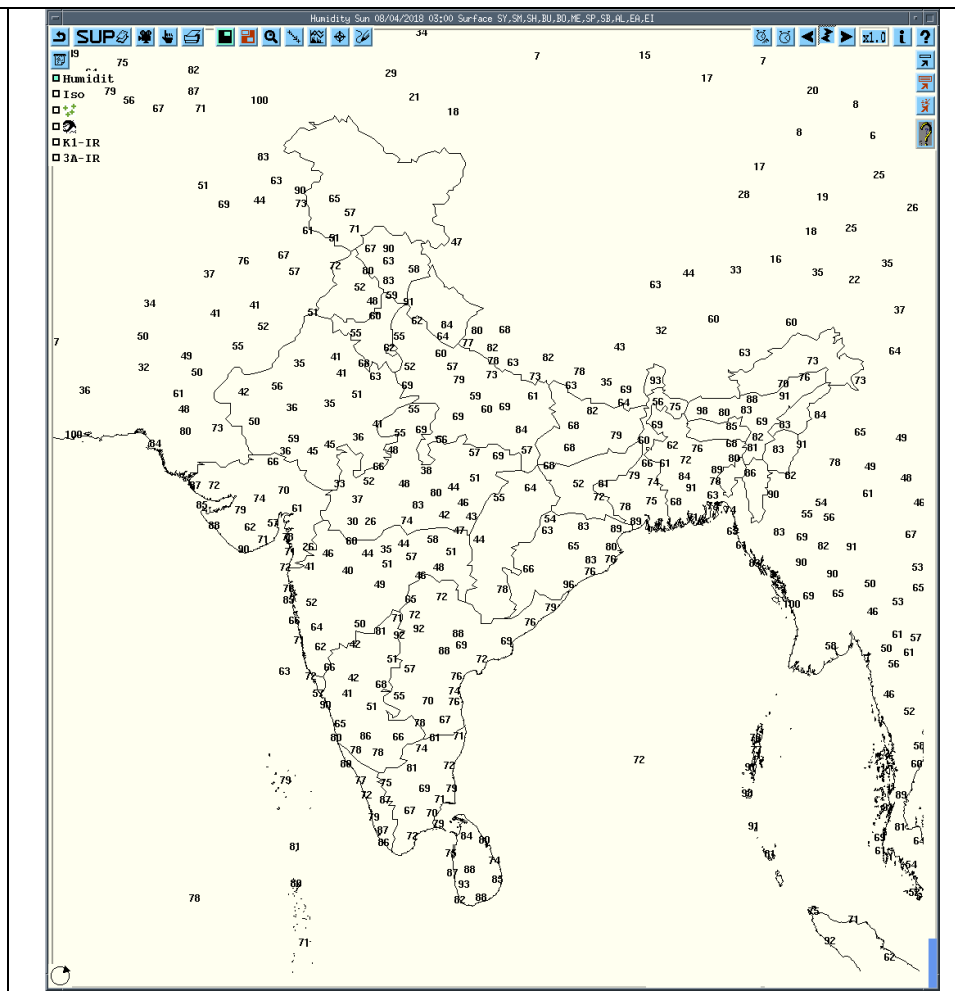
Departure MSLP



Tendency MSLP



RH at 12UTC yesterday



RH at 03UTC today

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
Visakhapatnam	07/04/18	0900	Multiple cb cells with maximum reflectivity of 60dbz with max. height of 12 kms	NW (215 kms) NNW(85 KMS) moving SE ly	Cb cells started developing from 0651 UTC and maturing at 0851 UTC	NIL	Koraput district of Orissa, Visakhapatnam and vizianagaram districts
Visakhapatnam	07/04/18	1200	Multiple cb cells NW with maximum reflectivity of 68dbz max. height of 13 kms	NNW(121 kms) NE (195 kms) moving SE ly	Since last observation cb cell matured at 1041 UTC	Gusty winds	Koraput district of Orissa vizianagaram
Visakhapatnam	07/04/18	1500	Convective strong region towards W, N and NNE with maximum reflectivity of 62dbz max. height of 13 kms	N and NNE(26 kms) W (195 kms) moving SE ly	Since last observation cb cell matured at 1041 UTC	Gusty winds, lightning and thunderstorm	Visakhapatnam, Vizianagaram, Srikakulam, East godavari(AP) and Koraput (Odisha)
Visakhapatnam	07/04/18	1800UTC	Multiple cb cells towards SSW and S with maximum reflectivity of 51dbz max. height of 11 kms	SSW and S(35 kms) W (155 kms) moving SE ly	cb cell formed at 1731 UTC	-	Visakhapatnam and Bay of Bengal
Visakhapatnam	08/04/18	0000	Isolated single cells at SSW with maximum reflectivity of 45dbz max. height of 8 kms	SSW (147 kms)	cb cell formed since last observation and start dissipating from 1821 UTC	-	Bay of Bengal
Visakhapatnam	08/04/18	0300	Isolated single cells at SW with maximum reflectivity of 47dbz max. height of 8 kms	SW (214 kms)	cb cell formed since last observation and start dissipating from 0201 UTC	-	Ganjam(Odisha)

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 RANDHRA PRADESHID tool:

http://rAndhra_Pradeshid.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

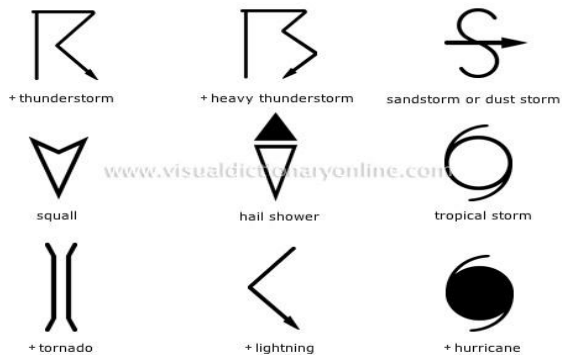
For Radar images of the past 24 hours including mosaic of images:

http://ddgmui.imd.gov.in/dwr_img/

Satellite sounder based T- Phigram

http://satellite.imd.gov.in/mAndhra_Pradesh_skm2.html

WEATHER SYMBOLS:



	haze
	smoke
	dust or sand storm
	fog
	drizzle
	rain
	snow
	showers
	hail
	thunderstorm

Weather Symbols