



India Meteorological Department
FDP STORM Bulletin No.65(09-05-2017)

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

The upper air cyclonic circulation over Jammu & Kashmir and adjoining north Pakistan now lies over eastern parts of Jammu & Kashmir and neighbourhood at 3.1 above mean sea level.

The Western Disturbance as a trough in mid-tropospheric westerlies roughly along Longitude 67.0°E and North of Latitude 32.0°N now runs roughly along Longitude 70.0°E and North of Latitude 32.0°N.

The upper air cyclonic circulation over central Uttar Pradesh & neighbourhood extending upto 1.5 km above mean sea level, now lies over Bihar and adjoining East Uttar Pradesh and extends upto 0.9 km above mean sea level.

A north-south trough extends from this system upto south Chhattisgarh across Jharkhand and extends upto 0.9 km above mean sea level.

The trough from Telangana to south Tamilnadu across Rayalaseema at 0.9 above mean sea level now extends from north Coastal Andhra Pradesh to south Tamilnadu across Rayalaseema at 0.9 km above mean sea level.

The upper air cyclonic circulation over northwest Rajasthan & neighbourhood, now lies over Haryana & neighbourhood and extends upto 1.5 km above mean sea level.

An upper air cyclonic circulation lies over Sub-Himalayan West Bengal & Sikkim between 1.5 and 3.1 km above mean sea level.

The trough from cyclonic circulation over central Uttar Pradesh & neighbourhood to east Assam across Jharkhand and Gangetic West Bengal extending upto 0.9 km above mean sea level has become unimportant.

The upper air cyclonic circulation over Assam & neighbourhood extending upto 0.9 km above mean sea level has become less marked.

The upper air cyclonic circulation over south Coastal Andhra Pradesh & neighbourhood between 1.5 km & 2.1 km above mean sea level 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:

Scattered low/medium clouds with embedded moderate to intense convection were seen over southwest J & K, Himachal Pradesh, adjoining Punjab & north Uttarakhand, Chhattisgarh, Odisha, east Gangetic West Bengal, North-eastern states, Bangladesh, coastal Andhra Pradesh and South Interior Karnataka. Scattered low/medium clouds with embedded isolated weak to moderate convection were seen over rest J & K, Bihar, Jharkhand, sub-Himalayan West Bengal, Sikkim, northwest Rajasthan, Madhya Pradesh, Vidarbha and Tamilnadu. Scattered low/medium clouds were seen over rest Punjab, Haryana, Uttar Pradesh, rest Uttarakhand, east Rajasthan, rest Maharashtra and rest parts of east and south India.

Arabian Sea:

No significant clouds over the region.

Bay of Bengal & Andaman Sea:

Scattered low/medium clouds with embedded moderate to intense convection were seen over SE Bay of Bengal south of latitude 8.0°N and S Andaman Sea.

Cell No	Date/ Time (UTC)	Area/ Location	CTT(-Deg C)	Movement	Remarks
1	09/0000	BHR E NEPAL SHWB SKM ADJ ASSAM ADJ BD MEGHA	88		
2	09/0100 0200 0300	W BHR ADJ NEPAL DO W BHR ADJ NEPAL	69 66 69		DEVELOPING Merged with cell no. 3
3	09/0100 0200 0300 0400 0500 0600 0700 0800 0900	E BHR SHWB ADJ BD ADJ ASSAM ADJ MEGHA DO BHR E NEPAL SHWB SKM ADJ ASSAM ADJ BD MEGHA DO DO DO SHWB SKM W ASSAM MEGHA TRP BD DO ASSAM NMMT BD ADJ GWB	69 65 72 61 54 42 60 65 79	E-wards EXPANDING	DEVELOPING DISSIPATING INCREASING IN INTENSITY
4	09/0400 0500 0600 0700 0800 0900	SW J&K DO DO SW J&K ADJ NW HP DO SW J&K HP N UTRKND	48 42 41 55 65 67		DEVELOPING
5	09/0900	S CHTGH S ORS N COTL AP	60		DEVELOPING
6	09/0900	SIK	66		DEVELOPING

Past Weather:

Convection: Moderate to Intense convection was observed over J&K Himachal Pradesh Uttarakhand Uttar Pradesh Bihar Jharkhand Odisha West Bengal & Sikkim Assam Meghalaya Nagaland Coastal Andhra Pradesh Kerala south Karnataka and Tamilnadu.

OLR:- Upto 200 wm^{-2} was observed over west J&K Kerala Uttarakhand north Uttar Pradesh and Meghalaya.

Upto 230 wm^{-2} was observed over rest J&K Himachal Pradesh east Rajasthan west Madhya Pradesh North Sikkim Assam Arunachal Pradesh coastal Andhra Pradesh adjoining Odisha Karnataka Tamilnadu south Gangetic West Bengal Kerala south Karnataka and Telangana.

Westerly Trough & Jet-Stream: Westerly Trough roughly runs long. 70.0° E and north of lat. 32.0° N.

Dynamic Features:- Low to Medium wind shear is observed over India.

Negative shear tendency is observed over some parts of Uttar Pradesh Madhya Pradesh north Maharashtra and North-East parts of India and Positive shear tendency over rest India.

A positive Vorticity field is observed over Uttar Pradesh Bihar Jharkhand Gangetic West Bengal.

Negative low level convergence observed over Gujarat north Maharashtra east Uttar Pradesh Bihar Sub-Himalayan West Bengal & Sikkim Assam Meghalaya and Positive Low Level Convergence observed over rest India.

Precipitation:

IMR:

Rainfall upto 30 mm was observed over west J&K Uttarakhand north Bihar Sub-Himalayan West Bengal Assam and Meghalaya.

Rainfall upto 20 mm was observed over rest J&K coastal Andhra Pradesh rest NE states.

Rainfall upto 10 mm was observed over east Rajasthan west Haryana west Madhya Pradesh south Maharashtra Kerala and west Tamilnadu.

HEM:

Rainfall upto 70 mm was observed over west J&K Uttarakhand Sub-Himalayan West Bengal & Sikkim west Assam.

Rainfall upto 28 mm was observed over rest J&K rest Assam.

Rainfall upto 07 mm was observed over east Rajasthan west Madhya Pradesh north coastal Andhra Pradesh south Odisha rest NE states Karnataka & Kerala.

RADAR and RAPID observation:

Multiples significant convection was seen over Uttarakhand, Northeast Rajasthan, Madhya Pradesh, GWB, Odisha, Mizoram, Andhra Pradesh, Rayalaseema, Telangana, South Interior Karnataka and Tamilnadu in Radar Composite of 1650 IST and in RAPID RGB Satellite imagery of 1630hrs IST including Himachal Pradesh.

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

Higher Dust concentration was observed over northern Africa and some parts of eastern Asia. Dust concentration is expected to remain high over western and northern India for next five days. High PM10 concentration was observed over northern-western and northern India.

2. NWP MODEL GUIDANCE:

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

1. Weather Systems: 12UTC Charts of Day-2-3, feeble trough in MSLP is seen over J & K.

12UTC charts on days from Day0-4: show three zones of wind discontinuity at 925 hPa :(i) SW-NE extending from northern Karnataka-Telangana-Maharashtra region to Chhattisgarh-Jharkhand region. (ii) S-N extending from southern parts of TN to northern parts of Telangana-AP region.(iii) over northern parts of India from Himachal, Uttarakhand to over plains of UP.

CYCIR at 850 hPa over south peninsula covering parts of TN, AP and Karnataka from Day-0-4. (ii) GWB and SHWB in Day0-2 moving westwards in Day-2 and Day-3.

At 500hPa Day-2 to Day-4 strong anticyclone is evolving over west coast over Mumbai.

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:

Day/Index: Subdivisions with Lower Level Convergence > 15 x 10⁻⁵ /s

Day0: Jharkhand, Odisha, Madhya Maharashtra, NI Karnataka,

Day1: Gangetic WB, Jharkhand, Madhya Maharashtra,

Day2: Jharkhand, Madhya Maharashtra, Chhattisgarh, NI Karnataka,

Day3: West UP, Hry Chd Delhi, Punjab, Odisha, SI Karnataka, Kerala,

Day4: Jharkhand, Madhya Maharashtra, Chhattisgarh, SI Karnataka,

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

Day/Index: Subdivisions with Lower Level Vorticity > 15 x 10⁻⁵ /s

Day0: Gangetic WB, Jharkhand, East UP, Odisha,

Day1: Gangetic WB, Jharkhand, East UP, West UP, Uttarakhand, Madhya Maharashtra,

Day2: Gangetic WB, Bihar, West UP, Uttarakhand, Madhya Maharashtra,

Day3: Arunachal Pradesh, Assam Meghalaya, Sub Himalayan WB, Bihar, East UP, Uttarakhand, Coastal AP,

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

Day/Index: Subdivisions with Showalter Index < -4

Day0: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Odisha, Konkan Goa, Madhya Maharashtra, Chhattisgarh, Coastal AP, Telangana, Rayalaseema, 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, West UP, Uttarakhand, Hry Chd Delhi, Himachal Pradesh, 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, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Odisha, Konkan Goa, Madhya Maharashtra, Vidarbha, Chhattisgarh, Coastal AP, TN Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

Day3: Arunachal Pradesh, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Odisha, Konkan Goa, Madhya Maharashtra, TN Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

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

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

Day/Index: Subdivisions with K Index > 40

Day0: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Odisha, Madhya Maharashtra, Vidarbha, Chhattisgarh, Coastal AP, Telangana, Rayalaseema, TN Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka,

Day1: Arunachal Pradesh, Assam Meghalaya, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Hry Chd Delhi, Punjab, Himachal Pradesh, Jammu Kashmir, Odisha, Marathwada, Vidarbha, Chhattisgarh, Coastal AP, Telangana, Rayalaseema, TN Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka,

Day2: Arunachal Pradesh, Assam Meghalaya, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Odisha, Guj Reg, Konkan Goa, Madhya Maharashtra, Marathwada, Vidarbha, Chhattisgarh, Coastal AP, Telangana, Rayalaseema, Coastal Karnataka, NI Karnataka, SI Karnataka,

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

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

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

Day/Index : Subdivision with Total Totals Index > 52

Day0: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Hry Chd Delhi, Punjab, Himachal Pradesh, Jammu Kashmir, Odisha, Madhya Maharashtra, Vidarbha, Chhattisgarh, Coastal AP, Telangana, NI Karnataka,

Day1: Arunachal Pradesh, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Hry Chd Delhi, Punjab, Himachal Pradesh, Jammu Kashmir, Odisha, Konkan Goa, Madhya Maharashtra, Marathwada, Vidarbha, Chhattisgarh, Telangana, Coastal Karnataka, NI Karnataka,

Day2: Arunachal Pradesh, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Punjab, Himachal Pradesh, Jammu Kashmir, Odisha, Konkan Goa, Madhya Maharashtra, Vidarbha, Chhattisgarh,

Day3: Arunachal Pradesh, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Hry Chd Delhi, Himachal Pradesh, Jammu Kashmir, Odisha, Vidarbha, Chhattisgarh,

Day4: Arunachal Pradesh, Sub Himalayan WB, Gangetic WB, Jharkhand, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Odisha, Vidarbha, Chhattisgarh,

8. Rainfall and thunder storm activity:

Day/Index: Subdivisions with Precipitation > 2 cm

Day1: Arunachal Pradesh, Assam Meghalaya, Sub Himalayan WB, Jharkhand, Bihar, Uttarakhand, Kerala,

Day2: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Gangetic WB, Bihar, TN Puducherry,

Day3: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Gangetic WB, Bihar, East UP, Uttarakhand,

Day4: Assam Meghalaya, Sub Himalayan WB, Bihar, Uttarakhand, Odisha,

Day5: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Jammu Kashmir

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

1. Weather Systems: 00 UTC analyses shows a low level CYCIR over Punjab and adjoining regions and this circulation will persist for the next 2 days. Another low level CYCIR with north-south oriented trough starting from Jharkhand and adjoining GWB regions to central India region and this trough of low will persist for the next 2 -3 days. Analyses also shows a low level CYCIR over NE India and this CYCIR will persist for the next 2 days.

Another CYCIR forms over south interior Karnataka and adjoining Tamilnadu on day 1 which persists and moves a little westward direction in next 2 days. The wind analysis at 500 hPa does not show any prominent trough in westerlies over India except over NE states on day 1 in northeast-southwest direction and during day 2-4 with north-south orientation.

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): Analysis shows low level positive vorticity mainly over the foothills of Himalaya, along the west coast of India, east UP, Bihar, SHWB, Jharkhand, GWB and isolated pockets of NE states.

Forecast shows vorticity core zones mainly along the foothills of Himalaya, west coast of India, and isolated pockets of GWB and NE states, Marathwada, interior parts of Karnataka and few pockets along the east coast bordering Odisha and SHWB along with few regions of the north eastern states for the next 3 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): Significant threshold values are noticed over Jharkhand, GWB, along the east of India and few pockets in NE India and along the west coast of India. Forecast shows significantly high threshold values over west coast of India, GWB and eastern coast for the next 3 days.

Lifted Index (< -2): The areas with index less than -2 lies along east coast regions, GWB, Odisha, coastal AP, and along the west coast of India and Kerala coast with gradually the above threshold value mainly extended towards southern coastal regions.

Sweat Index (> 400): 00UTC shows significant values over major parts along with the east coast extending up to coastal TN and also over west coast of India and few isolated pockets in the NE states. The significant zones are confined along east coast of India over GWB, Odisha, Bangladesh and adjoining regions and high value of SI observed over GWB and south AP coastal regions and NE region for next 5 days and also over few pockets in the south west region.

Total Total Index (> 50): Analysis shows significant values over few pockets in Gujarat, MP and adjoining areas. Above threshold value in most regions of central and western India and adjoining northern parts of India along with areas bordering north west India for the next 2-3 days.

CAPE (> 1000): Mostly along east coast of India over GWB, Odisha and adjoining AP regions along with parts in south peninsular region and coastal Kerala and Karnataka during the next 5 days.

CINE (50-150): Maximum CIN values are found in some areas of GWB and along east coast over Odisha, coastal AP and Tamil Nadu and also along the west coast of India for the next 2-3 days.

5. Rainfall and Rainfall activity:

10-40 mm rainfall is forecasted tomorrow over some parts of the NE states, J&K HP, and also some parts of Orissa and adjoining north AP, Karnataka, Kerala and Tamilnadu regions. Rainfall activity over NE states will increase from day-1 onwards and light to moderate rainfall will continue over coastal Orissa, AP, Telangana, Kerala and Tamilnadu for the next 2-3 days.

3. IOP ADVISORY FOR 24 and 48Hrs:

Summary and Conclusions:

Day-1 & Day-2:

Presently, the upper air cyclonic circulation lies over Bihar and adjoining East Uttar Pradesh and extends upto 0.9 km above mean sea level. A north south trough extends from this system upto south Chhattisgarh across Jharkhand and extends upto 0.9 km above mean sea level. Apart from this, an upper air cyclonic circulation lies over Sub Himalayan West Bengal & Sikkim. Due to this system, Sub Himalayan West Bengal, Sikkim may get heavy rainfall activity on Day-1. The activity may continue to Day-2 also with thunderstorm with hail possibility. The adjoining parts of Bihar, Jharkhand, GWB and Orissa may experience thunderstorm with hail possibility on Day-1. Chhattisgarh may experience thunder storm with gusty wind on Day-1.

The trough from Telangana to south Tamilnadu across Rayalaseema at 0.9 above mean sea level, now extends from north Coastal Andhra Pradesh to south Tamilnadu across Rayalaseema at 0.9 km above mean sea level. This will give rise to thunder storm with gusty wind over Interior Tamilnadu, Kerala and South Interior Karnataka on Day-1.

Due to the upper air cyclonic circulation over Haryana & neighbourhood and extends upto 1.5 km above mean sea level, Haryana, Uttrakhand and West UP may experience thunder storm with gusty wind on Day-1.

24 hour Advisory for IOP:

Kerala, Interior Tamilnadu, South Interior Karnataka, Rayalaseema, Telangana and Coastal Andhra Pradesh,
Assam, Meghalaya, Nagaland, Meghalaya, Mizoram and Tripura
Sub Himalayan West Bengal, Sikkim, Gangetic West Bengal, Orissa, Jharkhand, Bihar, East and West UP.
Chhattisgarh, Vidarbha and West MP
Uttrakhand, Haryana, East Rajasthan,
South J & K, Himachal Pradesh, Arunachal Pradesh

48 hour Advisory for IOP:

Kerala, Interior Tamilnadu and South Interior Karnataka
Assam, Meghalaya, Nagaland, Meghalaya, Mizoram and Tripura
Sub Himalayan West Bengal, Sikkim, Gangetic West Bengal, Orissa, Jharkhand and Bihar
Punjab, Haryana, Uttarakhand and West UP
Chhattisgarh

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

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

For Synoptic plotted data and charts

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

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

For RAPID tool:

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

Low Level Winds

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

Upper level winds

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

Past24hourHEMandIMRrainfall(upto03UTCoftoday)

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

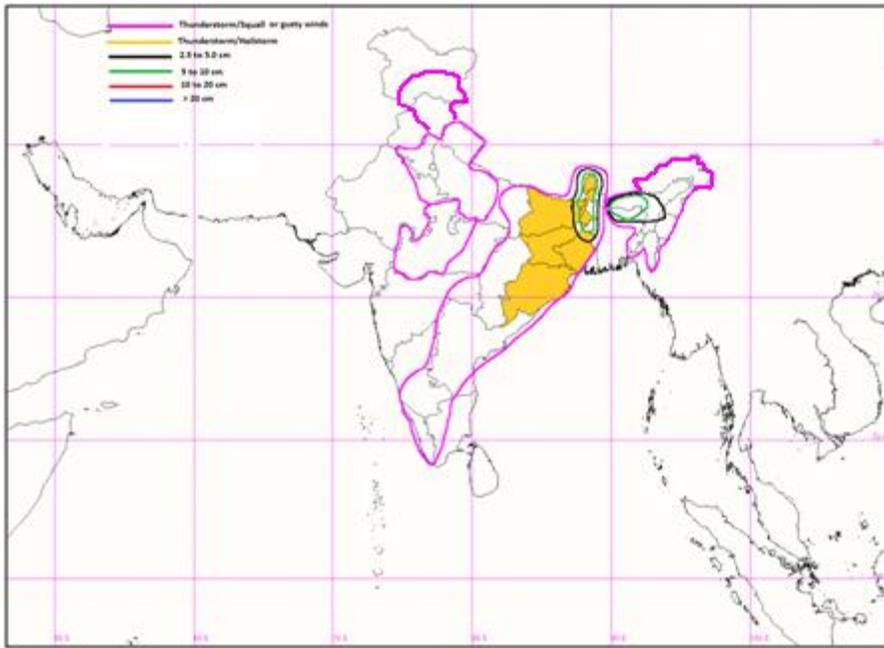
HEM: http://satellite.imd.gov.in/img/3Ddaily_he.jpg

ForRadarimagesofthepast24hoursincludingmosaicofimages:

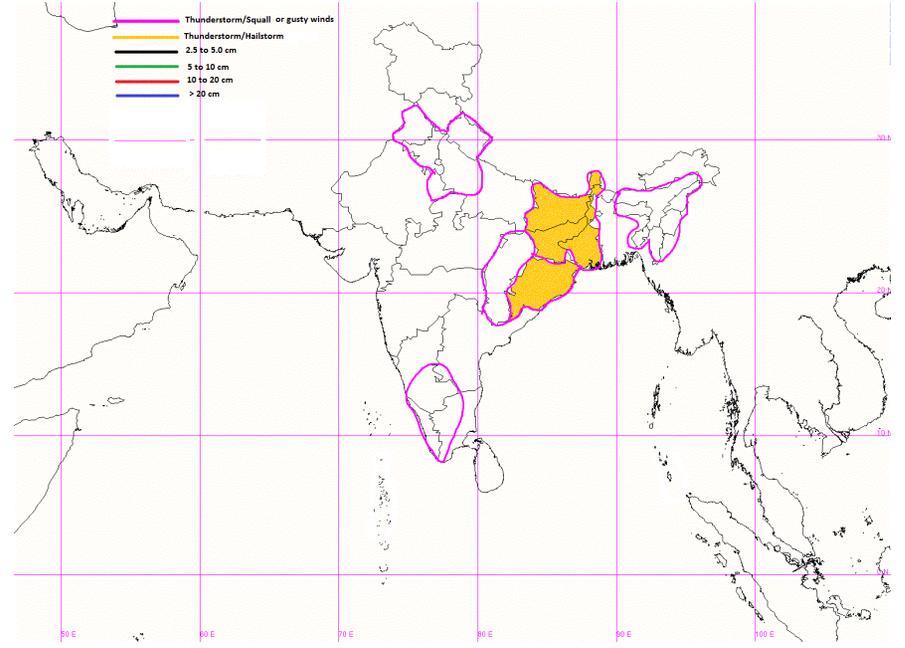
http://ddgmui.imd.gov.in/dwr_img/

Satellite sounder based T- Phigram

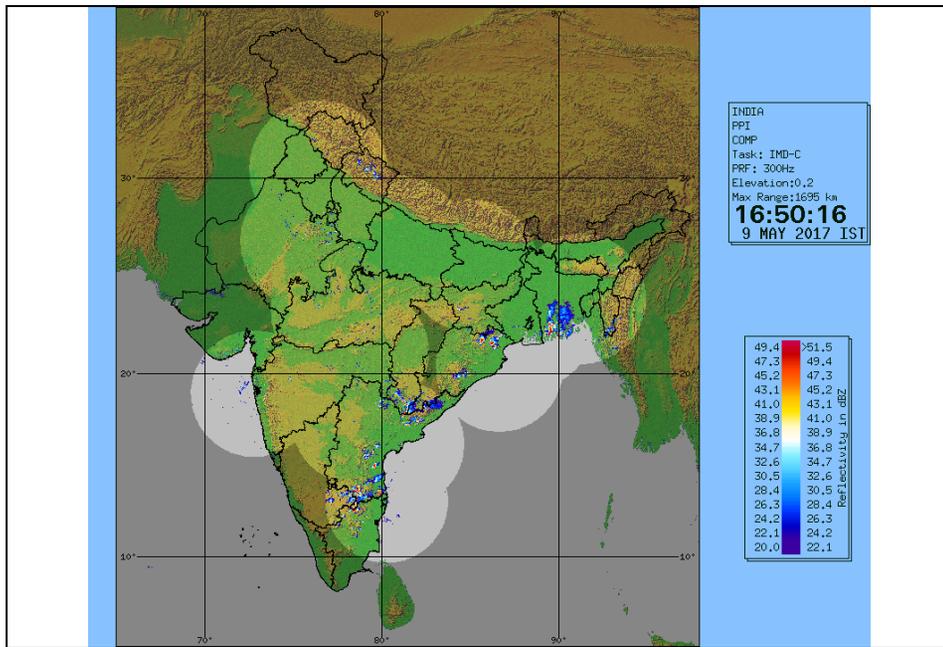
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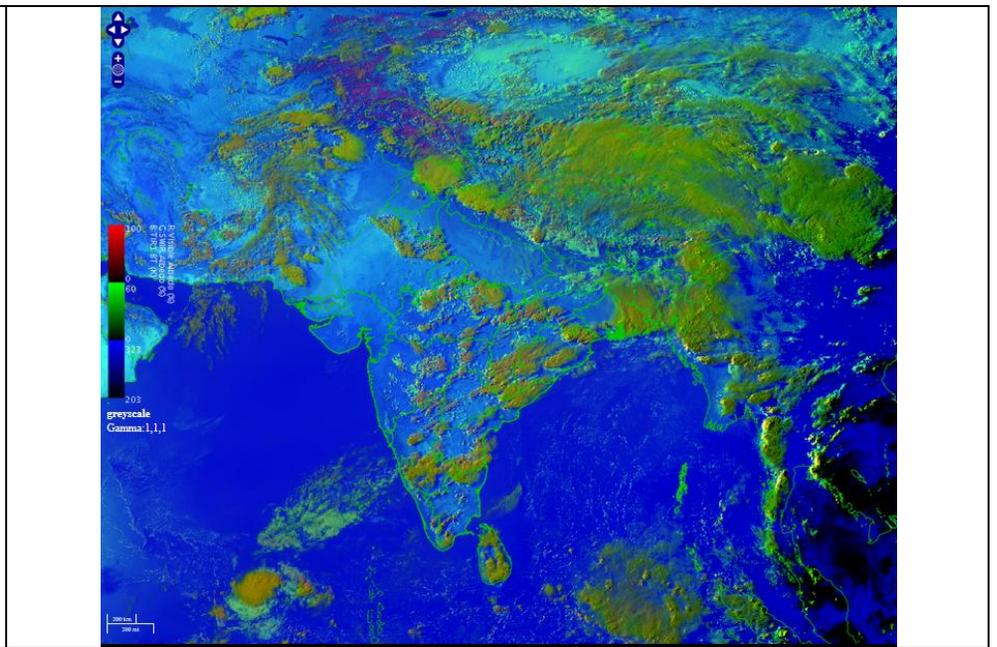
IOP Advisory for 24 hours



IOP Advisory for 48 hours

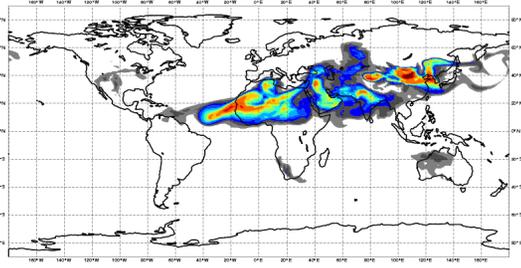


DWR Composite at 1650hrs IST of today

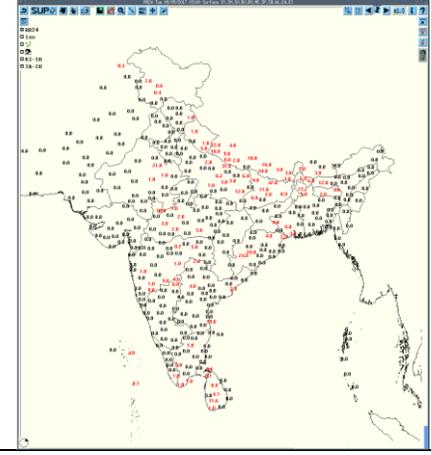
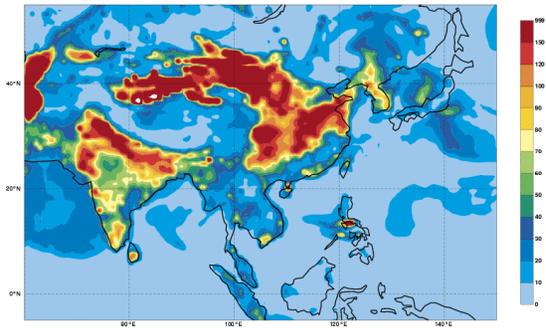


RAPID RGB Image of INSAT 3D at 1630 hrs IST of today

Monday 08 May 2017 00UTC CAMS Forecast +060 VT: Wednesday 10 May 2017 12UTC
 Dust Aerosol Optical Depth at 550 nm



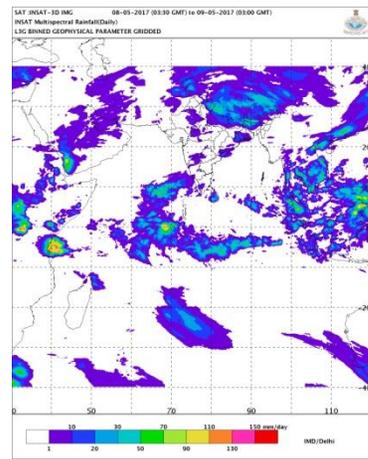
Monday 08 May 2017 00UTC CAMS Forecast +120 VT: Saturday 13 May 2017 00UTC
 Surface PM10 [$\mu\text{g}/\text{m}^3$]



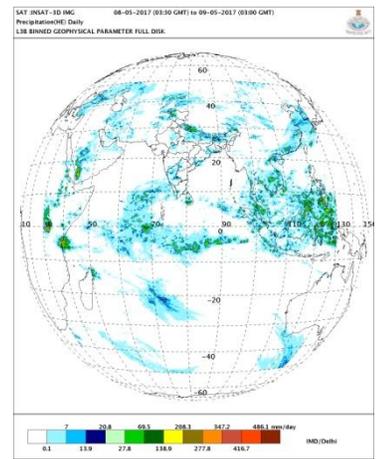
Forecast Dust Concentration for 00UTC of 13th May

PM10 Forecast for 00UTC of 13th May

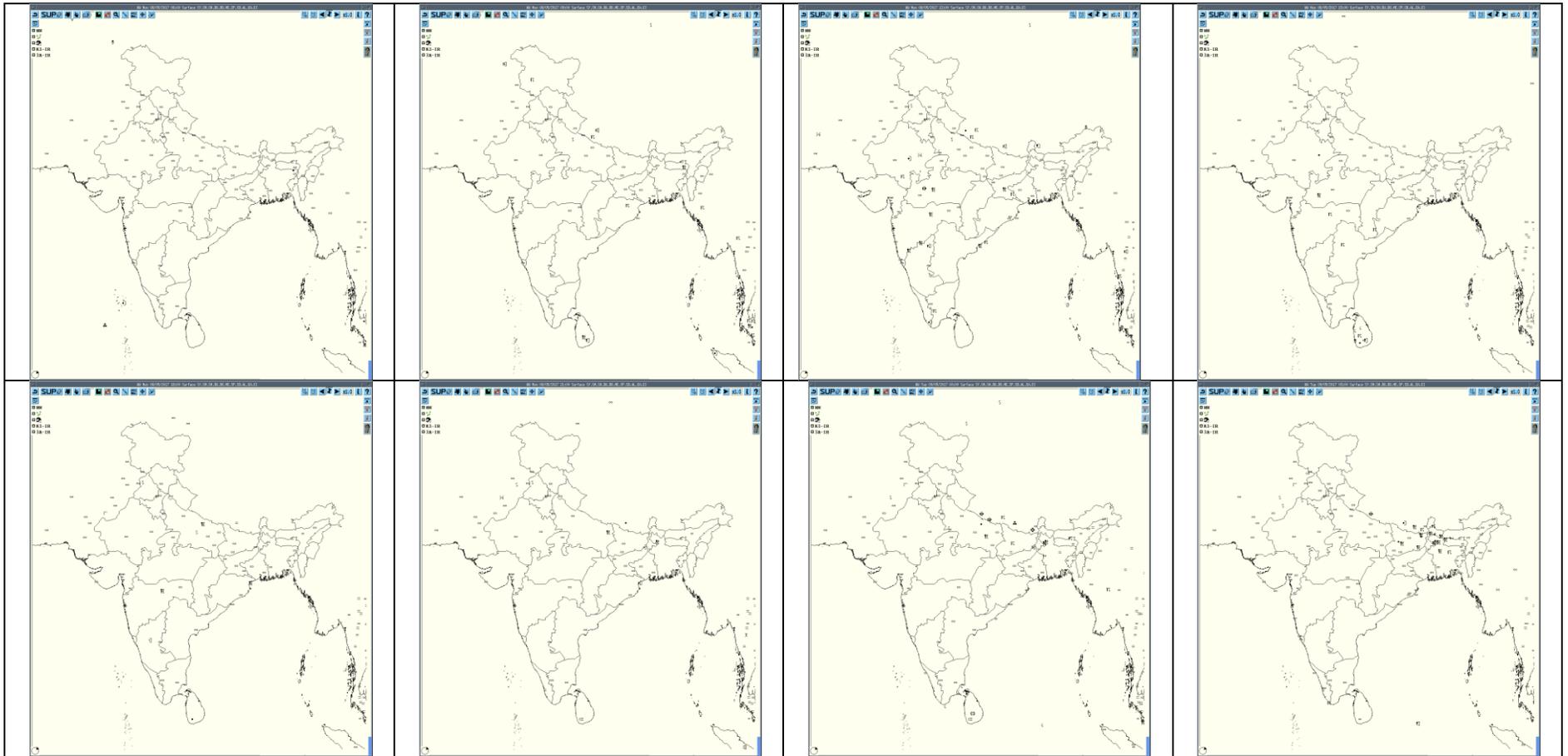
Accumulated 24 Hour rainfall (in red) recorded at 0300UTC of today



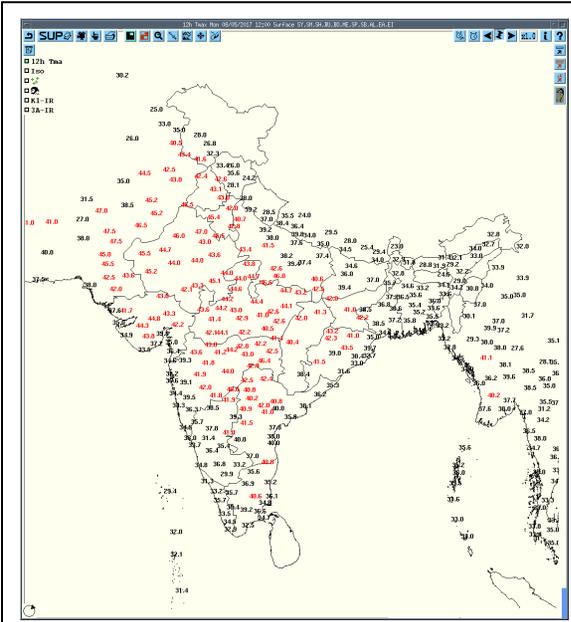
IMR Rainfall



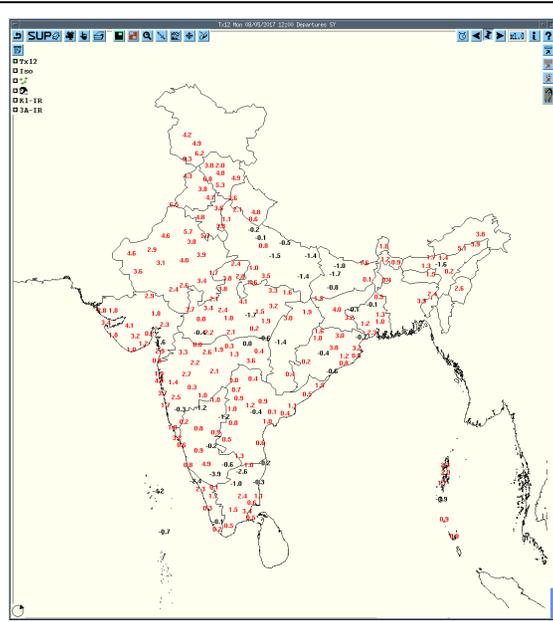
HEM Rainfall



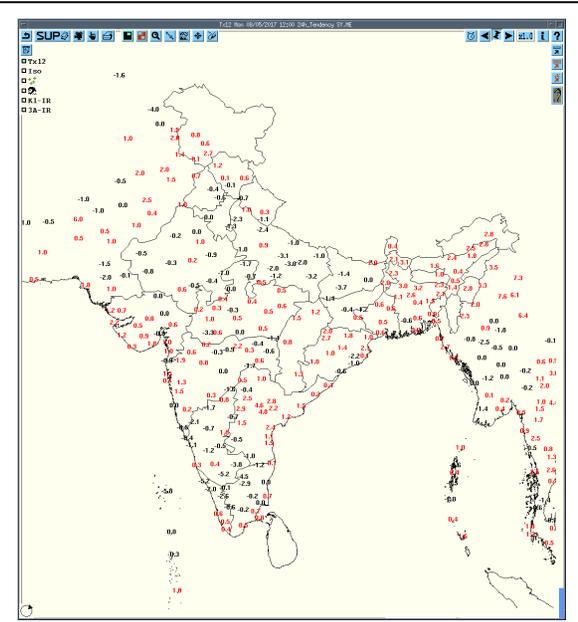
3hourly Past weather at 06, 09,12,15,18, 21UTC of yesterday and 00 & 03hrs UTC of today



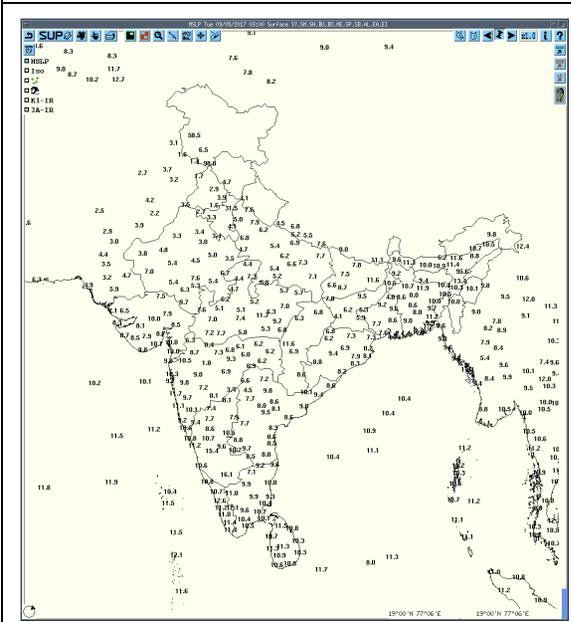
Tmax



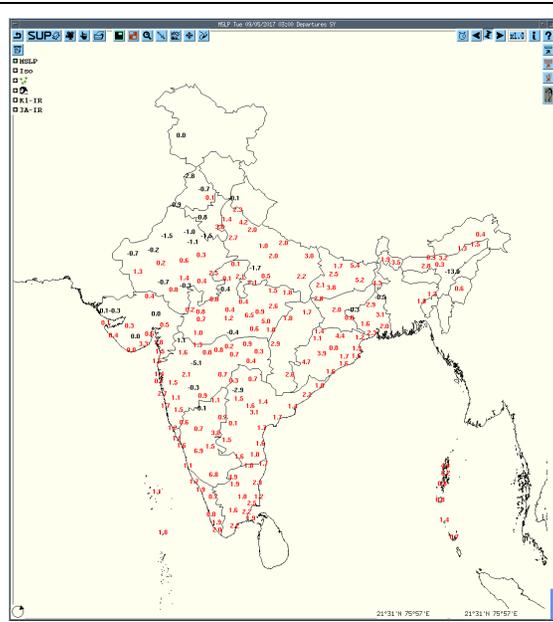
Departure Tmax



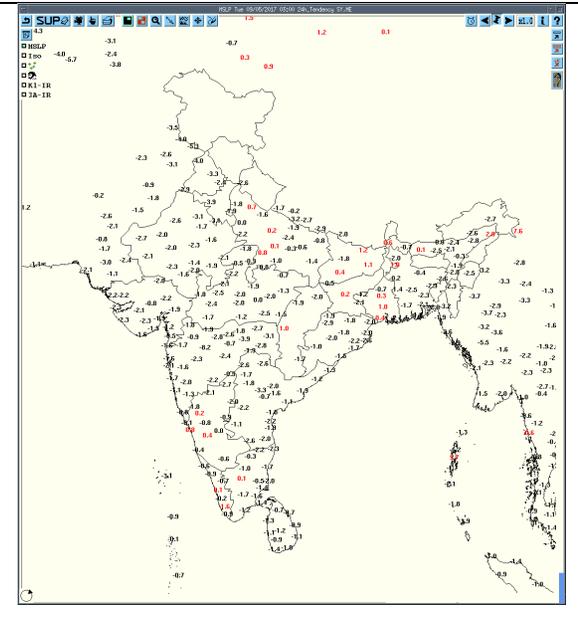
Tendency Tmax



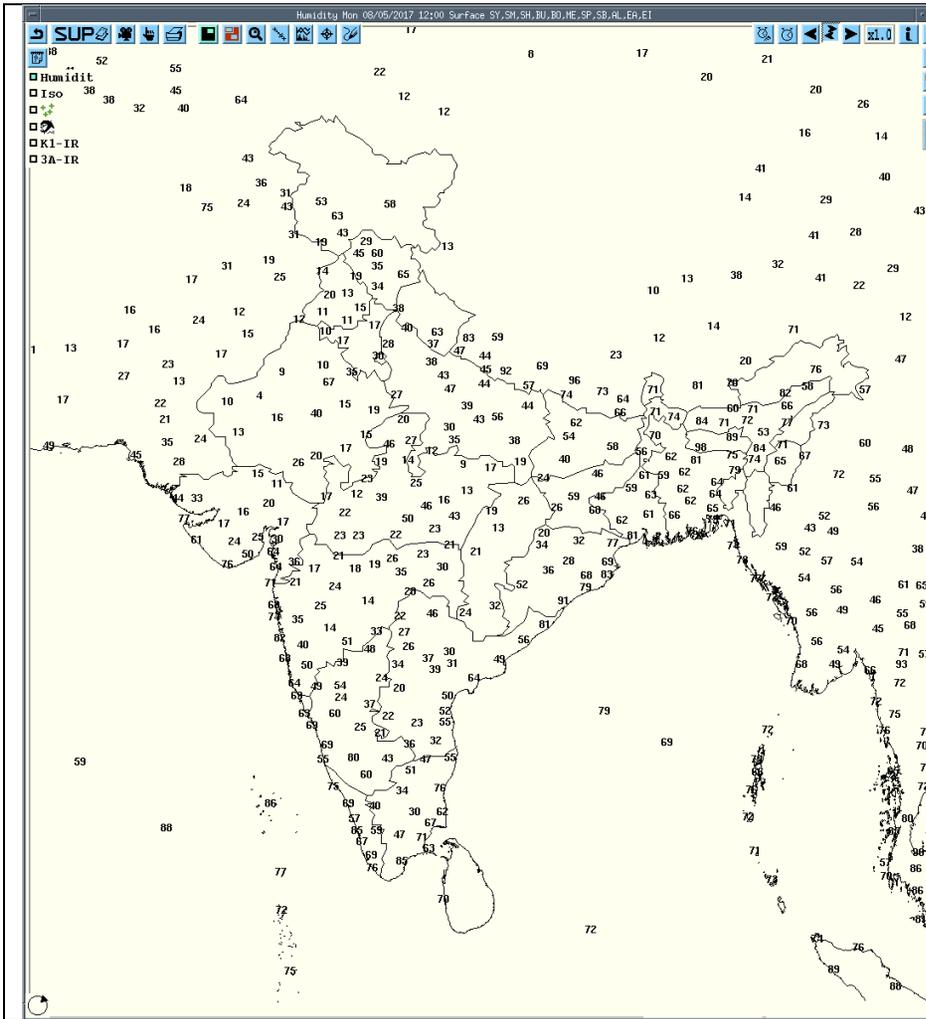
MSLP



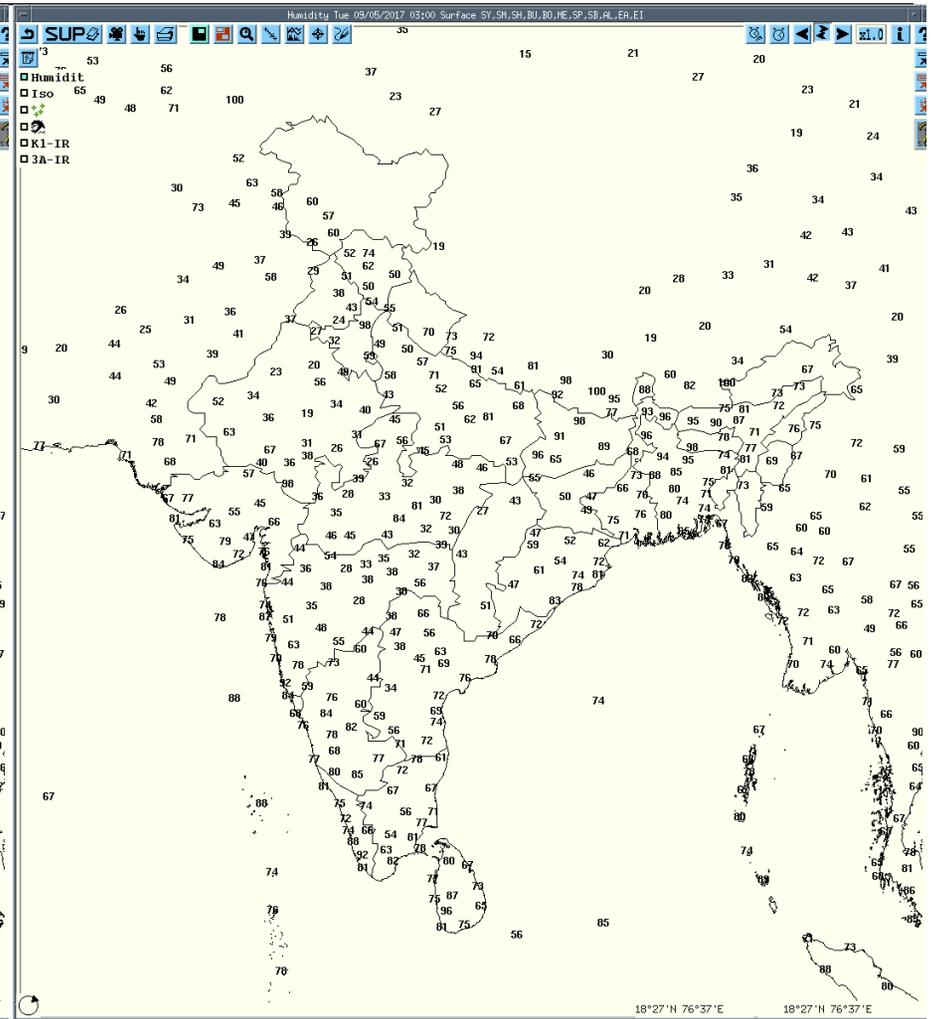
Departure MSLP



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	
08-05-17	0600 UTC	Nil	Nil	Nil	Nil	
	0900 UTC	Srinagar	Northwest India	Jammu & Kashmir	Thunderstorm	
		Shillong	Northeast India	Meghalaya	Thunderstorm	
		Keonjhar	East India	Odisha	Thunderstorm	
		Udaipur	Northwest India	Rajasthan	Thunderstorm	
		Shajapur, Hoshangabad	Central India	Madhya Pradesh	Thunderstorm	
		Ranchi, Jamshedpur	East India	Jharkhand	Thunderstorm	
08-05-17	1200 UTC	Akola	Central India	Vidarbha	Thunderstorm	
08-05-17		Sangali, Sholapur	Central India	Maharashtra	Thunderstorm	
		Gulbarga	South India	Karnataka	Thunderstorm	
		Vishakhapatnam, Tuni	South India	Andhra Pradesh	Thunderstorm	
		Kodaikanal	South India	Tamilnadu	Thunderstorm	
		Indore	Central India	Madhya Pradesh	Thunderstorm	
08-05-17		1500 UTC	Akola	Central India	Vidarbha	Thunderstorm
		Jagdalpur	Central India	Chhattisgarh	Thunderstorm	
		Hyderabad	South India	Andhra Pradesh	Thunderstorm	
		Bhraich	Northwest India	Uttar Pradesh	Thunderstorm	
		Akola	Central India	Vidarbha	Thunderstorm	
08-05-17	2100 UTC	Gorakhpur	Northwest India	Uttar Pradesh	Thunderstorm	
		Bhraich	Northwest India	Uttar Pradesh	Thunderstorm	
09-05-17	0000 UTC	Patna	East India	Bihar	Thunderstorm	
		Guwahati	Northeast India	Assam	Thunderstorm	
		Patna, Bhagalpur, Forbesganj	East India	Bihar	Thunderstorm	
09-05-17	0300 UTC	Gangtok	East India	Sikkim	Thunderstorm	
		Bagdogra, Coochbehar	East India	West Bengal	Thunderstorm	
		Dhubri	Northeast India	Assam	Thunderstorm	
		Thiruvananthapuram	South India	Kerala	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)
Srinagar	Northwest India	Jammu & Kashmir	Thunderstorm	08-05-17	1425 1910	1500 1915
Qazigund	Northwest India	Jammu & Kashmir	Thunderstorm	08-05-17	1630	2100
Kupwara	Northwest India	Jammu & Kashmir	Thunderstorm	08-05-17	1550	1610
Lucknow	Northwest India	Uttar Pradesh	Thunderstorm	08-05-17	08/2315	09/0040
Sultanpur	Northwest India	Uttar Pradesh	Thunderstorm	09-05-17	09/0105	09/0545
Gorakhpur	Northwest India	Uttar Pradesh	Thunderstorm	09-05-17	09/0135	09/0210
Varanasi	Northwest India	Uttar Pradesh	Thunderstorm	08-05-17	08/2100	08/2300
Varanasi	Northwest India	Uttar Pradesh	Thunderstorm	09-05-17	09/0105	09/0115
Ghazipur	Northwest India	Uttar Pradesh	Thunderstorm	09-05-17	09/0337	09/0518
Kanpur City	Northwest India	Uttar Pradesh	Thunderstorm	09-05-17	09/0000	09/0300
Ajmer	Northwest India	Rajasthan	Thunderstorm	08-05-17	1620	1700
Pilani	Northwest India	Rajasthan	Thunderstorm	08-05-17	1615	1630
Jaipur	Northwest India	Rajasthan	Thunderstorm	08-05-17	1807 1917	1820 2020
Churu	Northwest India	Rajasthan	Thunderstorm	08-05-17	1750	1830
MO Pantnagar	Northwest India	Uttarakhand	Thunderstorm	08-05-17	2015	2130
MO Mukteshwar	Northwest India	Uttarakhand	Thunderstorm	08-05-17	1250 1750	1300 2205
MO Tehri	Northwest India	Uttarakhand	Thunderstorm	08-05-17	1650	1810
Amravati	Central India	Vidarbha	Thunderstorm	08-05-17	2300	2400
Wardha	Central India	Vidarbha	Thunderstorm	08-05-17	2115	2235
Bhopal	Central India	Vidarbha	Thunderstorm	08-05-17	1530	1930
Indore	Central India	Madhya Pradesh	Thunderstorm	08-05-17	1752	2215
Sagar	Central India	Madhya Pradesh	Thunderstorm	08-05-17	1515	1610
Chhindwada	Central India	Madhya Pradesh	Thunderstorm	08-05-17	1515	1830
Ambikapur	Central India	Chhattisgarh	Thunderstorm	08-05-17	1800	1815
Jagdapur	Central India	Chhattisgarh	Thunderstorm	08-05-17	1800	2040
Kanyakumari	South India	Tamilnadu	Thunderstorm	09-05-17	0545	0615
Kodaikanal	South India	Tamilnadu	Thunderstorm	08-05-17	1510 1745 1940	1740 1910 2030
Thiruvananthapuram AP	South India	Kerala	Thunderstorm	08-05-17	1855	2003
Hyderabad	South India	Andhra Pradesh	Thunderstorm	08-05-17	1800	2100
Tuni	South India	Andhra Pradesh	Thunderstorm	08-05-17	1650-	1800
Visakhapatnam	South India	Andhra Pradesh	Thunderstorm	08-05-17	1725	1900

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)
Gangtok	East India	Sikkim	Thunderstorm	09-05-17	0330 0800	0410 0830
Tadong	East India	Sikkim	Thunderstorm	09-05-17	0805	0830
Diamond Harbour	East India	West Bengal	Thunderstorm	08-05-17	1925	2120
Haldia	East India	West Bengal	Thunderstorm	08-05-17	1925	2105
Digha	East India	West Bengal	Thunderstorm	08-05-17	1930	2010
Patna	East India	Bihar	Thunderstorm	09-05-17	0520	0830
Patna	East India	Bihar	Squall(Direction: NW Max. speed 80 Kmph)	09-05-17	0543	0545
Gaya	East India	Bihar	Squall(Direction: NW Max. speed 52 Kmph)	09-05-17	0555	0557
Bhagalpur	East India	Bihar	Thunderstorm	09-05-17	0810	0830
Purnia	East India	Bihar	Thunderstorm	09-05-17	0110 0318	0130 0345
Jamshedpur	East India	Jharkhand	Thunderstorm	08-05-17	1550	1800
Jamshedpur	East India	Jharkhand	Hail (Diameter:1.0 cm)	08-05-17	1640	1700
Ranchi	East India	Jharkhand	Thunderstorm	08-05-17	1525	1750
Balasore	East India	Odisha	Thunderstorm	08-05-17	2150-	2400
Balasore	East India	Odisha	Thunderstorm	09-05-17	0000	0110
Keonjhar	East India	Odisha	Thunderstorm	08-05-17	1400 1950	1500 2200
Guwahati	Northeast India	Assam	Thunderstorm		0330	0755
Dhubri	Northeast India	Assam	Thunderstorm		0500 0730	0560 0828
Shillong	Northeast India	Meghalaya	Thunderstorm		1335	1440

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
Hyderabad	09.05.17	08/ 0752 - 0922	Isolated cells with an average height of 12 Km with a max reflectivity of 52.5 dBZ	NE (202 Kms) moving in SE-ly Direction at a speed of 9 kmph	Cells started forming at 0752 utc. Matured between 0842 and 0912 with max ref of 52.5 dBz and dissipated by 0922 UTC	Moderate Thunderstorm with or without rain	Not Known
		08/0902-1432	scattered cells with an average height of 10 Km with a max reflectivity of 59.0 dBZ	SW-ly (77 Kms) moving in SE- ly Direction at speed of 12 kmph	Cells started forming at 0632 utc. Matured between 1152 and 1232 with max ref of 59.0 dBz and dissipated by 0902 UTC	severe Thunderstorm with or without rain	Areas near Tandur district.
Agartala	09/05/17	081700 - 090300	Multiple Cells later organized into a chain of cells with Maximum Height 14 km and maximum reflectivity 42 dBZ (at 0230 UTC of 09.05.17 over West Meghalaya)	Started forming 300 km in the North to NW sector of DWR AGT at 1700 UTC of 08.05.17 and initially moved ESE-wards and later Eastwards at avg speed around 30 kmph	At 0300 UTC of 09.05.17 cells organized into a chain are remaining over Meghalaya and Bangladesh with reflectivity ~ 35dBZ and height 11km	N/A	N/A
Paradeep	09/05/17	08/0300-2300	Isolated single cells seen developing in the NW sector of Radar with heights exceeding 14 kms, average reflectivity value of 30 dBZ and highest reflectivity value of 53 dBZ.	Formed in the NW sector of RADAR in the range of 270-355 degrees and at distance of 200 kms. Direction of movement is NWly.	NIL	TS with Rain. Hail also expected.	Mayurbhanj Keonjhar, Cuttack, Bhadrak, Baleshwar, Angul, Nayagarh, Jajpur, Dhenkanal and Kendrapada.

DWR Station	Date	Time interval of observation	Organization of the cells (isolated single cell/multiple cells convective regions/ squall lines) with height of 20 dBZ echo top and maximum reflectivity	Formation w.r.t. radar station & direction of movement	Remarks	Associated severe weather, if any	Districts affected
Lucknow	08/05/2017	08/1142 to 08/1802 UTC	Multiple cell system formed at 200 Km., North to 200 Km. NNE, grew stronger and stronger with its movement and became more widespread extending from 200 Km NNW to 100 Km. NE. Later it got fragmented into two subsystems around 1612 UTC, one subsystem as multiples cells at 60 Km. N while the other as single large cell at 60 Km. ENE. The first system reached overhead at 1802 UTC growing stronger while the second weakened at 150 Km E. Maximum reflectivity of the first system observed to be 54 dBZ reaching height of 12 Km (20 dBZ echo top). Maximum reflectivity of the second system was also 54 dBZ but height reached up to 15 Km.	Original system formed at 200 Km N, NNE and moved Sly with an avg. speed 70Km/h. After fragmentation the first system moved with speed around 60 Km/h Sly, approaching the station and reached overhead at 1802 UTC. The second system moved easterly with avg. speed 72 Km/h away from the station.	Radar was shut down at 1810 UTC due to power failure so further information not available.	TS TSRA Hailstone	Lucknow Gorakhpur Bahraich Ballia Kanpur Gonda Basti
	08/05/2017	08/1948 To 08/2252	Multiple cells started forming at 100 Km W, 120 Km SW & 100 Km SE. The first system got strengthened with onward movement and converged to the second cell forming single multiple cell system, strength still maintained. The third system weakened with movement around 2142 UTC. Maximum reflectivity of the combined system (after convergence) was 52 dBZ and height reached up to 12 Km.	First system moved towards the station SEly with avg. speed 70 Km/h, second system also moved SEly but with speed 40Km/h away from the station. The two systems converged to form a single multiple cell system at 60 Km SSW, continued moving with speed 54 Km/h SEly. It weakened and died out at 2252 UTC over 90 Km Southwards. The third system moved easterly with speed 72 Km/h and dissipated at 2202 UTC over 100 Km SE.	Radar was switched on at 1948 UTC.	TS TSRA	Sultanpur Varanasi Ghazipur Kanpur
		2032 To 2352	Single cell formed 50 Km NNW at around 2032 UTC which developed into multiple cell system at 2142 UTC, it weakened later. Max. Reflectivity was 52 dBZ and height 10 Km on 20 dBZ echo top.	System moved SEly with avg. speed 70 Km/h and dissipated at around 2352 UTC over 150 Km SE.			
	09/05/2017	09/0000 To 0300	NIL	NIL	NIL	NIL	NIL

	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
Radar Station name DWR Machilipatnam	03Z of 08/05/17 to 03Z of 09/05/17	0741 to 1311 UTC	Convective region with average height of 7.3 km with maximum reflectivity of 67 dBZ	NE(240KM) and moving SW ly direction with average speed of 32 kmph	Cells started forming at 0741 UTC at NE (231km) from Radar the maximum reflectivity during 0851 to 1241 and died down at 1311UTC	Possibility of Thunder storm with Hail and rain with strong winds.	Visakhapatnam and East Godavari Districts
	03Z of 08/05/17 to 03Z of 09/05/17	0751 to 1141 UTC	Isolated Multiple cells average height of 7.6 km with maximum reflectivity of 62 dBZ	NE(145KM) and moving SW ly direction with average speed of 22 kmph	Cell started forming at 0751UTC, at NE (195km) from Radar the maximum reflectivity during 0851 to 1121 UTC and died down at 1141UTC	Possibility of Thunder storm with rain and moderate winds.	East Godavari District
	03Z of 08/05/17 to 03Z of 09/05/17	1321 to 1641UTC	Isolated Multiple cells average height of 5.7 km with maximum reflectivity of 62 dBZ	N (240KM) stationary	Cells started forming at 1311UTC at NE(247km) from radar with maximum reflectivity during 1411 to 1451 and died Down at 1641UTC	Possibility of Thunder storm with Rain and light winds.	Malkangiri District
Patiala	09.05.17	08/0300 - 09/0300	Nil	Nil	Nil	Nil	Nil
Jaipur	09/05/17	0712 - 1632	Multiple cell with average height of 5.6 km maximum reflectivity 57 dBZ	SW moving towards ENE wards at speed direction 10 km/hr to 23 km/hr	Cells continuous forming from 0712 UTC SW&NW of Jaipur and multiple cell was observed and maximum reflectivity during 0902-1152 UTC and died down at 1312 UTC.		Bhilwara,Bundi, Pilani,Churu,Jh unjhunu,Kota,A jmer,Nagaur,Si kar,Jaipur,Saw aimadhopur,Al war,Bharatpur.

∞	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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