



India Meteorological Department
FDP STORM Bulletin No.62(06-05-2017)

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

SYNOPTIC FEATURES:

The upper air cyclonic circulation over central parts of Madhya Pradesh now lies over northwest Madhya Pradesh & neighbourhood and extends upto 0.9 km above mean sea level. The trough from central parts of Madhya Pradesh to comorin area now runs from the above system to North Interior Karnataka across Vidharbha & Marathwada and extends upto 0.9 km above mean sea level.

An upper air cyclonic circulation lies over Comorin area & adjoining south Tamilnadu at 1.5 km above mean sea level.

An upper air cyclonic circulation lies over Bihar & neighbourhood and extends upto 1.5 km above mean sea level.

The trough from east Bihar to Gangetic West Bengal now runs from that system to Gangetic West Bengal and extends upto 1.5 km above mean sea level.

A fresh western disturbance is likely to affect Western Himalayan region from tomorrow night onwards.

The western disturbance as a trough in mid tropospheric westerlies roughly along longitude 78.0°E and north of latitude 30.0°N has moved away northeast wards.

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

The trough in midtropospheric westerlies roughly along longitude 90.0°E and north of latitude 25.0°N has moved away east-north-east wards.

SATELLITE OBSERVATIONS during past 24hrs and current observation:

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

Convective Activity and cloud description:

Cell No	Date/Time (UTC)	Area/Location	CTBT (-°C)	Movement	Remarks If any
1	06/0000	W ASSAM SHWB	61	EXPANDING	DEVELOPING
	0100	W ASSAM ADJ SHWB BHUTAN	63		
	0200	W ASSAM W ARUPR BHUTAN	65		
	0300	DO	60		

Scattered low/medium clouds with embedded isolated weak to moderate convection seen over South Jammu & Kashmir, North Punjab, Himachal Pradesh and Bay Islands.

Scattered low/medium clouds seen over rest Jammu & Kashmir, Uttarakhand, Chhattisgarh, Odisha, Jharkhand, Sub Himalayan West Bengal, Sikkim, rest Northeast states, Madhya Pradesh, Maharashtra, Karnataka, South Kerala and Tamilnadu.

Scattered low/medium clouds with embedded isolated moderate to intense convection seen over West Assam, West Arunachal Pradesh,

Arabian Sea:

No significant clouds seen over this region.

Bay of Bengal & Andaman Sea:

Scattered low/medium clouds with embedded isolated moderate to intense convection seen over south Bay of Lat 10.0 N and Andaman Sea.

Past Weather:

Convection: Moderate to Intense convection was observed over North Uttarakhand East Rajasthan South Madhya Maharashtra Karnataka Kerala North Coastal Andhra Pradesh Odisha West Bengal & North-east States.

OLR: - Upto 200 wm^{-2} was observed over Arunachal Pradesh Assam.

upto 230 wm^{-2} was observed over J&K Himachal Pradesh Uttarakhand East Rajasthan Karnataka Kerala Coastal Odisha Sikkim Meghalaya Nagaland

Westerly Trough & Jet-Stream: No Westerly Trough & Jet Stream is observed

Dynamic Features: Negative shear tendency is observed over North-west parts of India and Positive shear tendency is observed over rest India.

Low to wind Medium wind shear is observed over India.

A positive Vorticity field is observed over Uttar Pradesh Jharkhand West Bengal Odisha and Vidarbha North Interior Karnataka.

Negative low level convergence observed over North-west India and Positive Low Level Convergence observed over rest India.

Precipitation:**IMR:**

Rainfall upto 50 mm was observed over West Assam.

Rainfall upto 30 mm was observed over Coastal Odisha Meghalaya.

Rainfall upto 20 mm was observed over North Uttarakhand South Madhya Maharashtra West Karnataka South Kerala Arunachal Pradesh East Assam.

Rainfall upto 10 mm was observed over J&K, East Rajasthan Marathwada Gangetic West Bengal Sikkim Nagaland Manipur.

HEM:.

Rainfall upto 70 mm was observed over North Uttarakhand South Madhya Maharashtra, West Karnataka West Assam East Arunachal Pradesh.

Rainfall upto 14 mm was observed over South-West J&K East Rajasthan Meghalaya Coastal Odisha.

Rainfall upto 07 mm was observed over West Arunachal Pradesh East Assam Nagaland West Bengal.

RADAR and RAPID observation:

No significant convection was observed in Radar Composite of 1230IST and in RAPID RGB Satellite imagery of 1200hrs IST.

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 00UTC of the day):

1. Weather Systems: 12UTC Charts of Day-0, 2 feeble trough in MSLP is seen over J & K.

12UTC charts on days from Day0-2: show two zones of wind discontinuity at 925 hPa due to persistent anticyclonic flow over Arabian Sea :(i) SW-NE extending from northern Karnataka-Telangana region to Odisha region. (ii) S-N extending from southern parts of TN to northern parts of Telangana-AP region.

12UTC charts on days from Day3-4: show two zones of wind discontinuity at 925 hPa over northern parts of India from Himacahl-Uttarakhand to over plains of UP

CYCIR at 850 hPa: over GWB and SHWB in Day0-1 moving westwards in Day-2 and Day-3.

At 500 hPa trough: over west of J & K in Day-0. Strong east-west ridge over peninsula is prominent in Day-1 to Day-4

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

3. Convergence at 850 hPa: Day0: Arunachal Pradesh, NE NMMT, Gangetic WB, Jharkhand, East RJ, Odisha, West MP, East MP, Madhya Maharashtra, Marathwada, Chhattisgarh, SI Karnataka,

Day1: Gangetic WB, Odisha, West MP, East MP, Madhya Maharashtra, Vidarbha, Rayalaseema, NI Karnataka, SI Karnataka,

Day2: Jharkhand, East RJ, Odisha, East MP, Madhya Maharashtra, Chhattisgarh, NI Karnataka,

Day3: Gangetic WB, West UP, Uttarakhand, Punjab, Odisha, West MP,

Day4: Odisha, East MP, Madhya Maharashtra, Vidarbha, Chhattisgarh, NI Karnataka,

4. Low level Vorticity:-Positive Vorticity (>15 x 10⁻⁵/s): Day0: Arunachal Pradesh, Assam Meghalaya, Gangetic WB, Jharkhand, Bihar, Uttarakhand, Himachal Pradesh, Jammu Kashmir,

Day1: Assam Meghalaya, Gangetic WB, Bihar, East UP, West UP, Uttarakhand, Himachal Pradesh, TN Puducherry,

Day2: Assam Meghalaya, Bihar, Uttarakhand, Himachal Pradesh, Konkan Goa,

Day3: Gangetic WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Himachal Pradesh, TN Puducherry,

Day4: Sub Himalayan WB, Gangetic WB, Bihar, Odisha, Madhya Maharashtra, TN Puducherry

5. Showalter Index: Day-wise Sub-divisions with Showalter index <-4: Day0: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Odisha, Konkan Goa, Madhya Maharashtra, 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, Uttarakhand, 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, 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, Vidarbha, Chhattisgarh, Coastal AP, Rayalaseema, TN Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

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

Day4: 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, East MP, Konkan Goa, Madhya Maharashtra, Vidarbha, Chhattisgarh, Coastal AP, Telangana, Rayalaseema, TN Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

6. K-Index: Daywise Sub-divisions with K-index >40: Day0: Arunachal Pradesh, NE NMMT, Sub Himalayan WB, Gangetic WB, Bihar, Uttarakhand, Jammu Kashmir, Odisha, Konkan Goa, Madhya Maharashtra, Vidarbha, Chhattisgarh, Coastal AP, Telangana, Rayalseema, TN Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

Day1: Arunachal Pradesh, NE NMMT, Sub Himalayan WB, Gangetic WB, East UP, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Odisha, Madhya Maharashtra, Vidarbha, Chhattisgarh, Coastal AP, Telangana, Rayalaseema, TN Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

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

Day3: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Himachal Pradesh, Jammu Kashmir, West RJ, Odisha, Vidarbha, Chhattisgarh, Coastal AP, Telangana, Rayalaseema, TN Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka,

Day4: Arunachal Pradesh, NE NMMT, Sub Himalayan WB, Gangetic WB, Bihar, East UP, West UP, Uttarakhand, Hry Chd Delhi, Himachal Pradesh, Jammu Kashmir, Odisha, Vidarbha, Chhattisgarh, Coastal AP, Telangana, Rayalaseema, TN Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala.

7. Spatial distribution of TTI: Daywise Sub-divisions with TTI >52: Bihar, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Odisha, East MP, Konkan Goa, Madhya Maharashtra, Vidarbha, Chhattisgarh, Telangana, Rayalaseema, NI Karnataka, SI Karnataka,

Day1: Arunachal Pradesh, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Odisha, East MP, Guj Reg, Konkan Goa, Madhya Maharashtra, Vidarbha, Chhattisgarh, Coastal AP, Telangana, Rayalaseema, NI Karnataka, SI Karnataka,

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

Day4: Arunachal Pradesh, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Hry Chd Delhi, Punjab, Himachal Pradesh, Jammu Kashmir, Odisha, East MP, Madhya Maharashtra, Marathwada, Vidarbha, Chhattisgarh, Telangana, Raya

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

Day1: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Odisha, Chhattisgarh, SI Karnataka, Kerala,

Day2: Assam Meghalaya, NE NMMT, TN Puducherry, SI Karnataka, Kerala,

Day3: Assam Meghalaya, Bihar, East UP, SI Karnataka, Kerala,

Day4: Assam Meghalaya, Sub Himalayan WB, Gangetic WB, Bihar, East UP, Uttarakhand, Jammu Kashmir, Odisha, SI Karnataka,

Day5: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Bihar, Uttarakhand, Odisha, TN Puducherry,

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

1. Weather Systems: The model analysis shows north-south trough from SHWB to BOB is seen in the analysis. Another northeast-southwest trough extending from SHWB up to Vidarbha and adjoining areas. In the model forecasts, a CYCIR forms over East UP and adjoining Bihar and an associated north-south from east UP to interior Karnataka which persists over the region till day 5. The east-west trough along foothills extending from Uttar Pradesh up to Assam is seen from day 2 onwards. The wind analysis at 500 hPa does not show any prominent trough in westerlies over India except over northern parts of NE states on day 1 and during day 3-4

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

3. Low level Vorticity:-Positive Vorticity 850hPa (>12 x 10⁻¹/s): Mostly along the foot hill of Himalaya. Prominent vorticity zones are found in the morning hours along troughs over east, central and south peninsular 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): Less than threshold value all over the country. The values between 3-3.5 mostly along east coast, eastern part of the country covering Bihar, SHWB,GWB and reaching over east UP and adjoining areas along foothills on day 3 and 4. Also similar values are seen along west coast, over Gujarat and sometimes extending over Andhra Pradesh and Interior Karnataka during next 5 days The prominent values are noticed during morning hours.

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

Total Total Index (> 50) : Above threshold value over the most parts of NW India covering Rajasthan, Madhya Pradesh and parts of Punjab, Haryana, UP, central India covering Vidarbha, Madhya Maharashtra and west parts of east India over Chhattisgarh and parts of Jharkhand during afternoon hours.

Sweat Index (> 300): Similar to Lifted index during morning hours.

CAPE (> 1000): Similar spatial coverage like sweat index during next 5 days.

CINE (>150): During morning hours for next 5 days, covers Indian region crossing threshold value except a few parts of coastal region of extreme south peninsula, northwest part NW India and central India over Madhya Pradesh.

5. Rainfall and Rainfall activity: 10-40 mm rainfall over extreme south peninsular region including Kerala, interior Karnataka, Tamilnadu and adjoining areas during next 5 days with an increasing trend after day 2.

10-40 mm over NE states and Orissa on day 1, along foothills, NE states and coastal AP on day 2 and along foothills, NE States, GWB and Orissa on day 4 and 5.

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

Model Reflectivity: 15-35 dBZ over NE states during and parts of SHWB next 24 hours which continues till day 2 with a decreasing trend. 15-35 dBZ over parts of Interior and coastal Karnataka and adjoining areas during 24 hours and day 2.

15-30 dBZ over parts of coastal Orissa and adjoining areas during day 1, over GWB on day2 and over parts of GWB, coastal Orissa and Andhra Pradesh during day 3.

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

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

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

CINE (50-150): Higher values over coastal regions of India except southern parts of peninsula. Some parts of eastern India, East UP and Bihar, Gujarat during morning hours of next three days.

Rainfall Activity:

10-130 mm: over North-eastern states and especially over Tripura during next 24 hours and then 10-40 mm over NE states during next 2 days with decreasing trend.

10-20 mm: rainfall over Kerala and adjoining Konkan-Goa and interior Karnataka during next 3 days with decreasing trend.

3. IOP ADVISORY FOR 24 and 48Hrs:**Summary and Conclusions:**

As the trough in mid tropospheric westerlies roughly along longitude 78.0°E and north of latitude 30.0°N is moving away northeast wards, the rainfall activity over north-eastern parts of the country will continue only on day1. The presence of upper air cyclonic circulation over northwest Madhya Pradesh & neighbourhood and the trough from the above system to North Interior Karnataka across Vidarbha & Marathawada in the lower tropospheric levels together with the high temperature present in the region will favour formation of convective cells for next 48 hours. The high temperatures over Rajasthan will also cause convection to develop. However, the lack of moisture over the region will give rise to dry thunderstorm and associated dust storm in the coming two days.

24 hour Advisory for IOP:

Sub Himalayan West Bengal and Sikkim, Arunachal Pradesh, Assam and Meghalaya, Nagaland, Manipur, Mizoram and Tripura
North Interior Karnataka, Kerala
North Coastal Andhra Pradesh
South Madhya Maharashtra, Marathawada, Vidarbha, Chhattisgarh
Orissa, East Bihar, Gangetic West Bengal
Rajasthan

48 hour Advisory for IOP:

Nagaland, Manipur, Mizoram and Tripura
North Interior Karnataka, Kerala
North Coastal Andhra Pradesh
South Madhya Maharashtra, Marathawada, Vidarbha, Chhattisgarh
Orissa, Gangetic West Bengal
Rajasthan

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

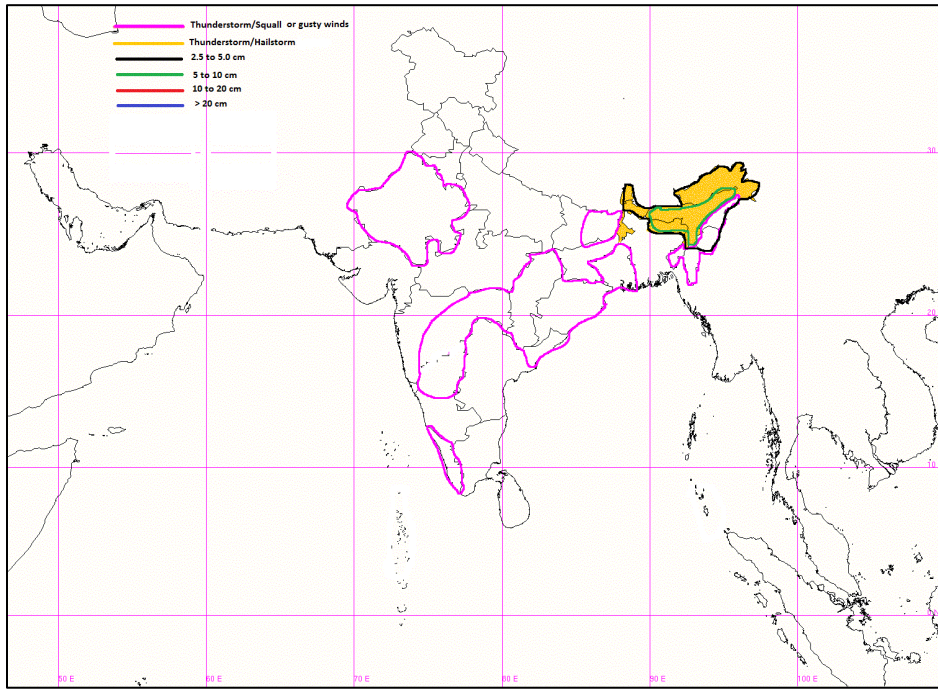
HEM: http://satellite.imd.gov.in/img/3Ddaily_he.jpg

ForRadarimagesofthepast24hoursincludingmosaicofimages:

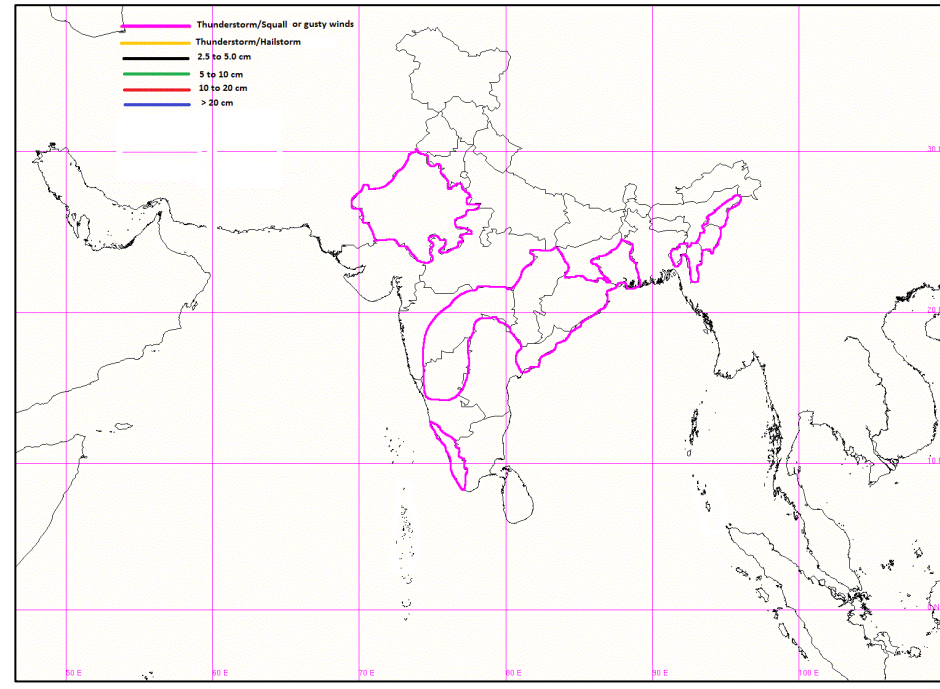
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Satellite sounder based T- Phigram

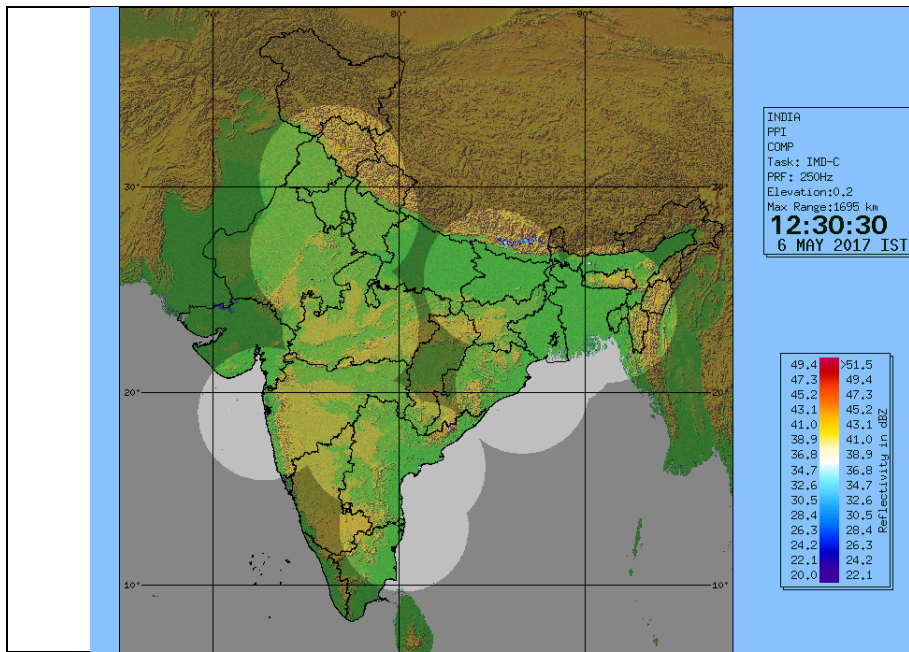
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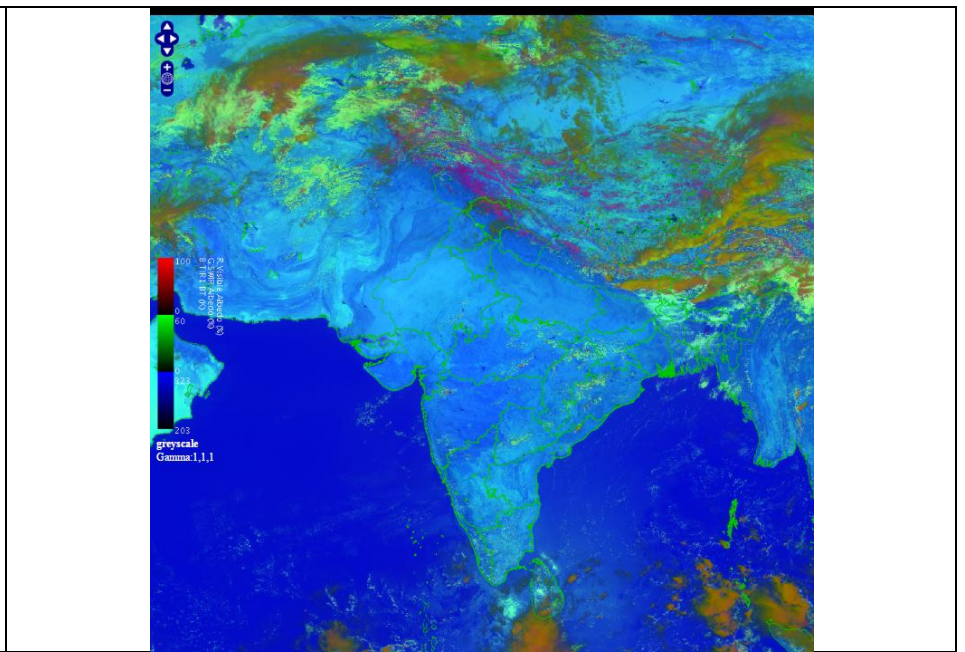
IOP Advisory for 24 hours



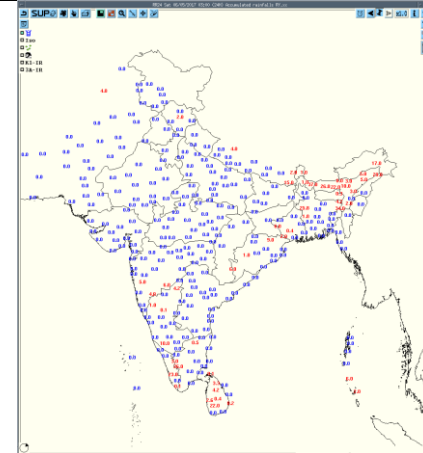
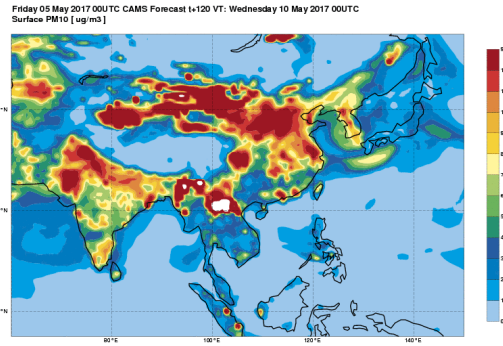
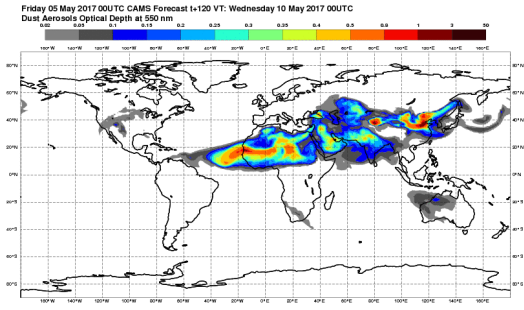
IOP Advisory for 48 hours



DWR Composite at 1230hrs IST of today



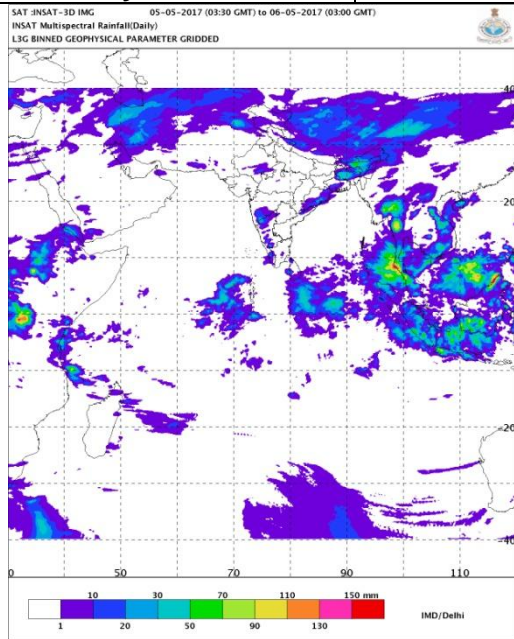
RAPID RGB Image of INSAT 3D at 1200 hrs IST of today



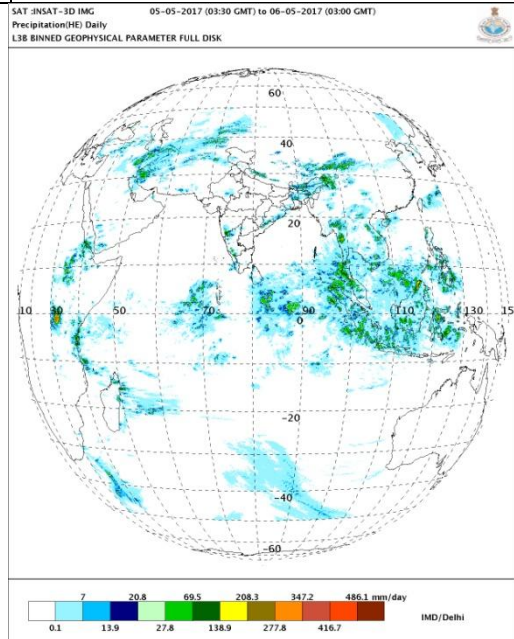
Forecast Dust Concentration for 00UTC of 10th May

PM10 Forecast for 00UTC of 10th May

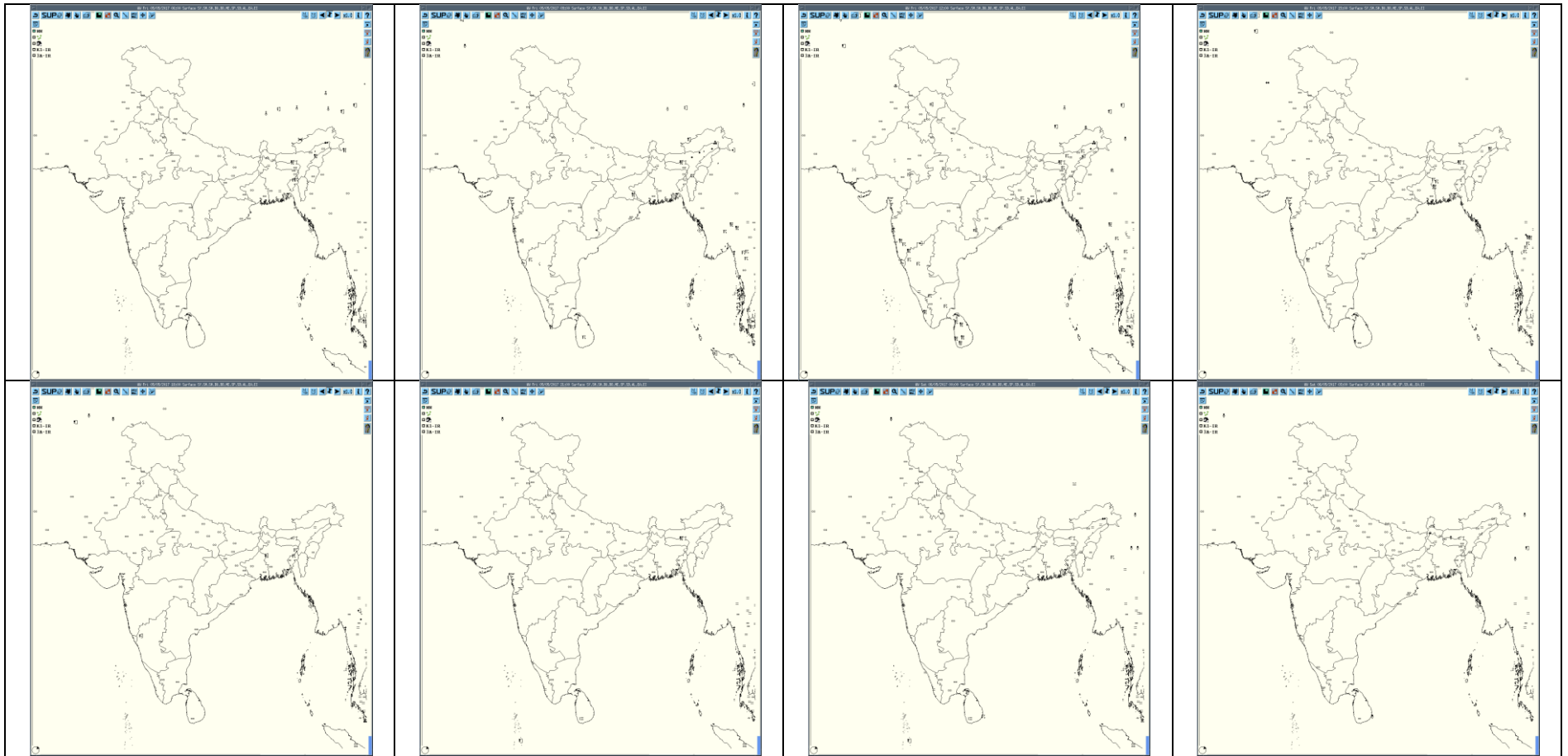
Accumulated 24 Hour rainfall (in red) recorded at 0300UTC of today



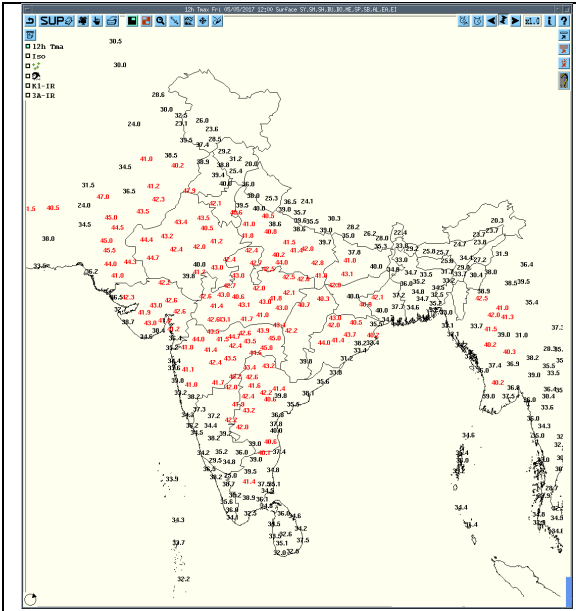
IMR Rainfall



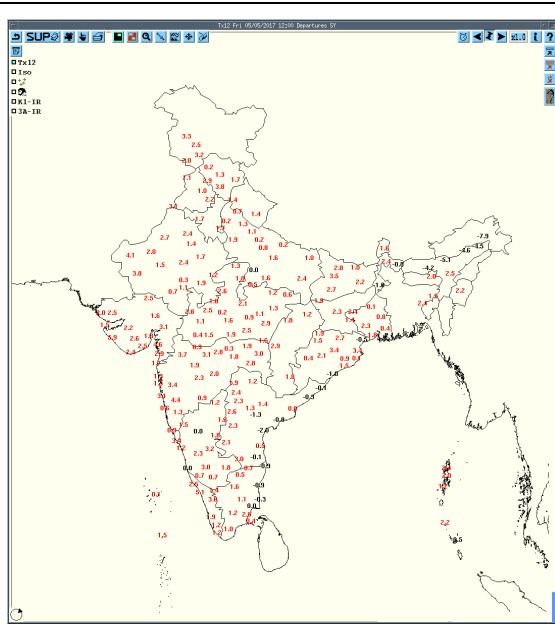
HEM Rainfall



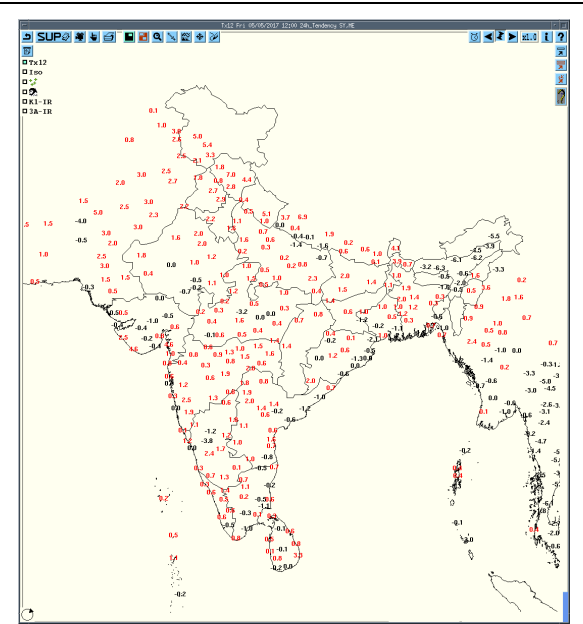
3hourly Past weather at 06, 09,12,15,18, 21UTC of yesterday and 00 & 03hrs UTC of today



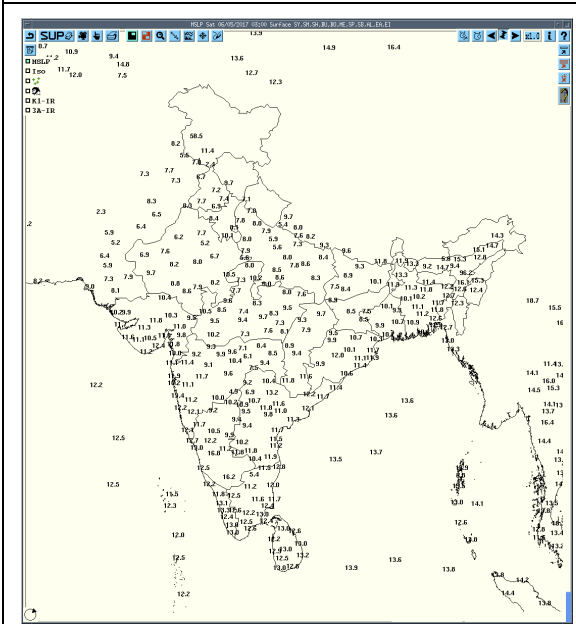
Tmax



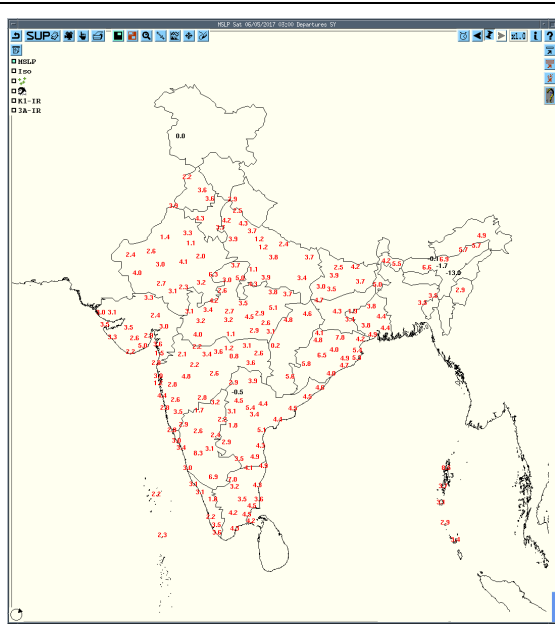
Departure Tmax



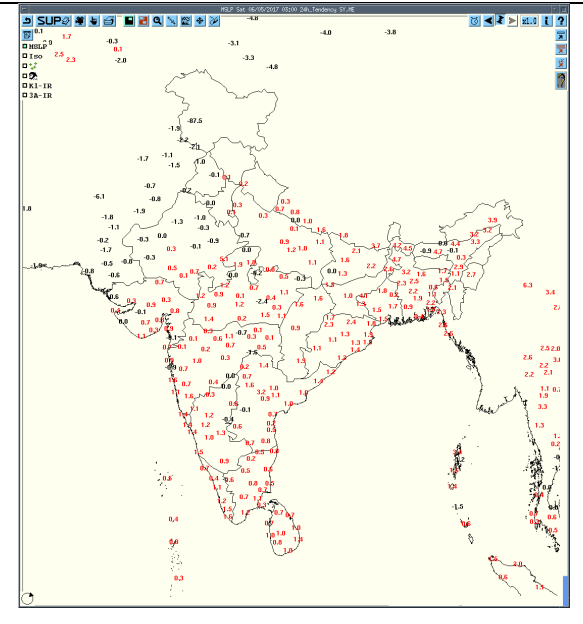
Tendency Tmax



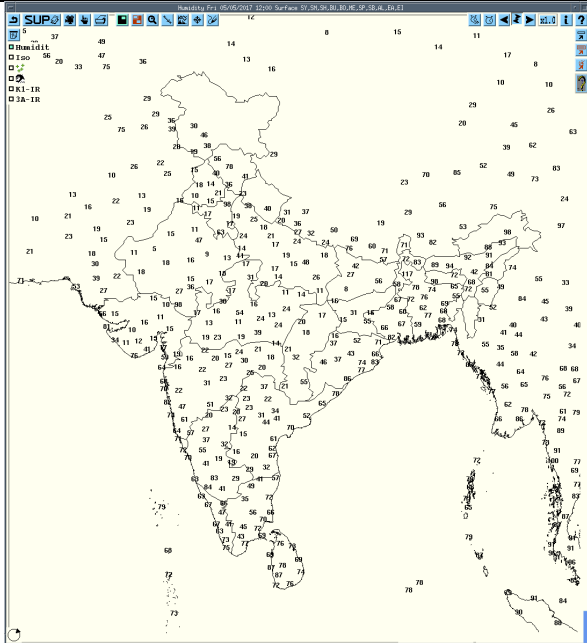
MSLP



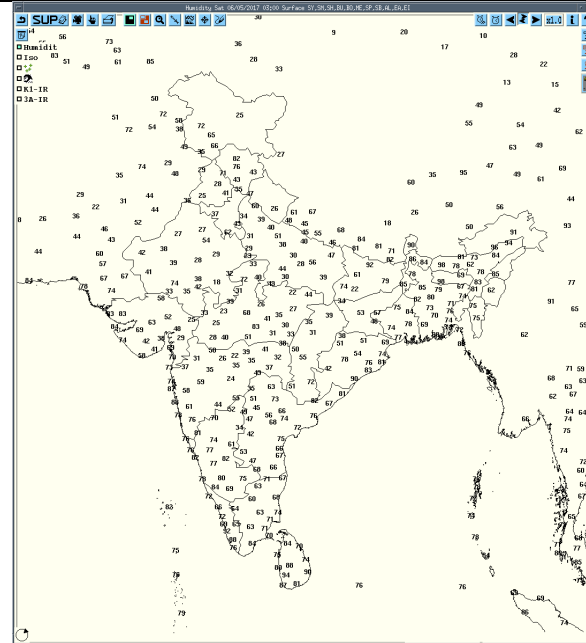
Departure MSLP



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
05-05-17	0600 UTC	Guwahati, Jorhat	Northeast India	Assam	Thunderstorm
05-05-17	0900 UTC	Guwahati	Northeast India	Assam	Thunderstorm
		Jamshedpur	East India	Jharkhand	Thunderstorm
		Mahabaleshwar	Central India	Maharashtra	Thunderstorm
		Belgaum	South India	Karnataka	Thunderstorm
		Thiruvananthapuram	South India	Kerala	Thunderstorm
05-05-17	1200 UTC	Bhunter	Northwest India	Himachal Pradesh	Thunderstorm
		Dibrugarh, North Lakhimpur, Tezpur, Guwahati	Northeast India	Assam	Thunderstorm
		Shillong	Northeast India	Meghalaya	Thunderstorm
		Midnapur	East India	West Bengal	Thunderstorm
		Keonjhar, Bhubaneswar, Gopalpur	East India	Odisha	Thunderstorm
		Jagdalpur	Central India	Chhattisgarh	Thunderstorm
		Mahabaleshwar, Satara, Sangali	Central India	Maharashtra	Thunderstorm
		Belgaum, Gadag, Chamarajanagar	South India	Karnataka	Thunderstorm
		Cochin	South India	Kerala	Thunderstorm
		Tiruchapalli	South India	Tamilnadu	Thunderstorm
05-05-17	1500 UTC	Dibrugarh, Guwahati	Northeast India	Assam	Thunderstorm
		Belgaum	South India	Karnataka	Thunderstorm
		Jagdalpur	Central India	Chhattisgarh	Thunderstorm
05-05-17	1800 UTC	Belgaum	South India	Karnataka	Thunderstorm
05-05-17	2100 UTC	Guwahati	Northeast India	Assam	Thunderstorm
06-05-17	0000 UTC	Nil	Nil	Nil	Nil
06-05-17	0300 UTC	Nil	Nil	Nil	Nil

Past 24 hours DWR Report:










	Date	Time interval of observation (UTC)	Organization of the cells (Isolated single cells/multiple cells/ convective regions/ squall lines) with height of 20dBZ echo top and maximum reflectivity	Formation w.r.t radar station and Direction of movement	Remarks	Associated severe weather if any	Districts affected
Radar Station name DWR Machilipatnam	03Z of 05/05/17 to 03Z of 06/05/17	0651 to 1231 UTC	Isolated Multiple cells with average height of 12 km with maximum reflectivity of 63 dBZ	W(247KM) and moving SE ly direction with average speed of 4.7kmph	Cells started forming at 0651 UTC at W (221km) from radar with maximum reflectivity during 0651 to 1221 and died down at 1231UTC	Possibility of Thunder storm with hail, rain and moderate winds.	Karnool,Guntur and Prakasam Districts
	03Z of 05/05/17 to 03Z of 06/05/17	1021 to 1131UTC	Isolated Multiple cells average height of 10 km with maximum reflectivity of 62.5 dBZ	W(245KM) and moving NE ly direction with average speed of 7 kmph	Cell started forming at 1021UTC at W (238km) from radar with maximum reflectivity during 1021 to 1121 and died down at 1131 UTC	Possibility of Thunder storm with Hail,rain and moderate winds.	Nalgonda District
	03Z of 05/05/17 to 03Z of 06/05/17	0921 to 1141UTC and	Isolated Multiple cells average height of 11 km with maximum reflectivity of 63 dBZ	NE(247KM) and moving SW ly direction with average speed of 13 kmph	Cells started forming at 0921UTC at NE(219km) from radar with maximum reflectivity during 0921 to 1131 and died down at 1141 UTC	Possibility of Thunder storm with Hail, Rain and moderate winds.	Visakhapatnam District
	03Z of 05/05/17 to 03Z of 06/05/17	1321 to 1431UTC and	Isolated Multiple cells average height of 11 km with maximum reflectivity of 67.5 dBZ	NW(193KM) and moving NE ly direction with average speed of 8 kmph	Cells started forming at 1321UTC at NW(186.5km) from radar with maximum reflectivity during 1321 to 1421 and died down at 1431 UTC	Possibility of Thunder storm with Hail, Rain and moderate winds.	Suryapet,Mahabudabad and Khammam Districts

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
AGART ALA	06/05 /17	050300 - 050930	Multiple cells continuously formed one after another over the same region with Maximum Height 13km and maximum reflectivity 42dBZ (at 0310 UTC over South Meghalaya)	Formed 240 km NW of DWR AGT at 2140 UTC of 04.05.17 moved ESE-wards at around 40 kmph	The cells dissipated at 0930 UTC of 05.05.17 over South Assam	N/A	N/A
		050300 - 051930	Multiple cells continuously formed one after another over the same region with Maximum Height 16km and maximum reflectivity 57dBZ (at 1720 UTC over North Tripura)	Formed 310 km NW of DWR AGT at 2030 UTC of 04.05.17 moved SE-wards at around 55 kmph	The cells dissipated at 1930 UTC of 05.05.17 over Manipur	TS with Light to Moderate rain	North & Unakoti Districts of Tripura Mamit district of Mizoram
		050700 - 051730	Multiple cells with Maximum Height 12km and maximum reflectivity 48dBZ (at 1250 UTC over West Bengal-280km WNW of DWR AGT)	Formed 380 km WNW of DWR AGT at 0700 UTC of 05.05.17 moved ESE-wards at around 40 kmph	The cells dissipated at 1730 UTC of 05.05.17 over Bangladesh-250km WSW of DWR AGT	N/A	N/A
		051620 - 060300	Multiple Cells with Maximum Height 14km and maximum reflectivity 48dBZ (at 0130 UTC of 06.05.17 over Bangladesh-320 km NE of DWR AGT)	Formed 410 km NW of DWR AGT at 1620 UTC of 05.05.17 moved ESE-wards at around 45 kmph	At 0300 UTC of 06.05.17, cells still persist over west Assam with max reflectivity 44dBZ and max height 14 km	N/A	N/A
Lucknow	06.05 .17	Nil	Nil	Nil	Nil	Nil	Nil
Patiala		Nil	Nil	Nil	Nil	Nil	Nil

Radar Station Name	Date	Time Interval of Observation (UTC)	Organisation of cells (Isolated single cells /multiple cells/ convective regions /squall lines) with height of 20 dBZ echo top and maximum reflectivity	Formation w.r.t. radar station and Direction of movement	Remarks	Associated Severe Weather if any	Districts affected
DWR KOLKATA	05-05-2017	0301-0451 UTC	Isolated Single cell with maximum reflectivity of 66.0 dBz at 0002 UTC and maximum height of 15.05 Km at 2341 UTC	NNE (63.5 km) moving in ENE direction at a speed of 45 kmph	Isolated single cells formed at 2321 UTC in NNE at a distance of 63.5 km from Radar. Merged to form multicelled system at 2351 UTC and merged to single cell at 0002 UTC. Matured and dissipated at 0451 UTC in E at a distance of 233 km from Radar.	Thunders torm / Rain /Hail/Squ all	N/A
		0501 – 0731	NIL	NIL	NOSIGNIFICANT ECHO	NIL	NIL
		0742-1241 UTC	Isolated Single cell with maximum reflectivity of 67.0 dBz at 1001 UTC and maximum height of 17.11 Km at 0902 UTC	NNE (251.3 km) moving in ESE direction at a speed 35.5 kmph	Isolated single cells formed at 0742 UTC in NNE at a distance of 251.3 km from Radar. Merged to form two celled system at 0932 UTC, matured, dissipated at 1241 UTC in NE at a distance of 160.6 km from Radar.	Thunders torm / Rain /Hail	N/A
		0912-1311	Multiple Isolated Single cell with maximum reflectivity of 71.0 dBz at 1101 UTC and maximum height of 17.91 Km at 1111 UTC	WSW (151.1 km) moving in ESE-ly direction at a speed of 19 kmph.	Multiple Isolated single cells formed at 0912 UTC in WSW at a distance of 151.1 km from Radar. Merged to form two celled system at 0932 UTC, matured, dissipated at 1301 in WSW at a distance of 88.5 km from Radar.	Thunders torm / Rain /Hail	N/A
Radar Station Name	Date	Time Interval of Observation	Organisation of cells (Isolated single cells /multiple cells/ convective regions /squall lines) with height of 20 dBZ echo top and maximum reflectivity	Formation w.r.t. radar station and Direction of movement	Remarks	Associated Severe Weather if any	Districts affected
DWR KOLKATA	05-05-2017	1021-1531	Isolated Single cell with maximum reflectivity of 73.0 dBz at 1241 UTC and maximum height of more than 20 Km at 1421 UTC.	N (246.6 km) moving in SSE-ly direction at a speed of 36 kmph.	Isolated single cells formed at 1021 UTC in N at a distance of 246.6 km transformed into a multi cell system at 1122 UTC. Matured, dissipated at 1531 UTC in NNE at a distance of 134.6 from radar.	Thunders torm / Rain /Hail	N/A
		1341–1601	Isolated single cell with maximum reflectivity of 67.5 dBz at 1541 UTC and maximum height of more than 20 km at 1511 UTC.	NNW (160.7 km) moving in SE –ly direction at a speed of 20 kmph.	Isolated single cells formed at 1341 UTC in NNW at a distance of 160.7 km. Matured, dissipated at 1601 UTC in N at a distance of 125.9 from radar.	Thunders torm / Rain /Hail	N/A
		1611-1721	Isolated single cell with maximum reflectivity of 64.0 dBz at 1631 UTC and maximum height of more than 12.72 km at 1641 UTC	N (228.1 km) moving in ESE –ly direction at a speed of 42 kmph.	Isolated single cells formed at 1611 UTC in N at a distance of 228.1 km. Matured, dissipated at 1721 UTC in NNE at a distance of 219.1 from radar.	Thunders torm / Rain /Hail	N/A
		1731-2352	NIL	NIL	NOSIGNIFICANT ECHO	NIL	NIL
	06-05-2017	0001-0301	NIL	NIL	NOSIGNIFICANT ECHO	NIL	NIL

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
DWR HYDERABAD	05/06 May17. (0300 UTC to 0300 UTC)	05/0702-0822 UTC	Isolated cells with an average height of 08 Km with a max reflectivity of 48.0 dBZ	NE(93 Kms) moving in S- ly Direction at a speed of 5 Kmph.	Cells started forming at 0702 UTC at W direction from radar, , matured bet. 0742-0752UTC and dissipated by 0822	Light Thunderstorm with or without rain	Areas near Vikarabad District
		05/ 0812-0922 UTC	Isolated cells with an average height of 10 Km with a max reflectivity of 48.5 dBZ	NNE (123 Kms) moving in SE- ly Direction at a speed of 5 Kmph.	Cells started forming at 0812 utc matured bet.. 0832 and 0852 UTC and dissipated by 0922 UTC	Mod Thunderstorm with or without rain	Not Known.
		05/0952-1102 UTC	Isolated cells with an average height of 10 Km with a max reflectivity of 55 dBZ	WSW (72 Kms) moving in SW- ly Direction at a speed of 6 Kmph.	Cells started forming at 0952 utc matured bet. 1012 and 1052 UTC and dissipated by 1102 UTC	Mod Thunderstorm with or without rain	Vikarabad Dist near Tandur.
		05/ 1202 -1412 UTC	Isolated cells with an average height of 10 Km with a max reflectivity of 55 dBZ	W (128 Kms) moving in S- ly Direction at a speed of 6 Kmph.	Cells started forming at 1202 utc matured bet.. 1232-1312 UtC and dissipated by 1412 UTC	Mod Thunderstorm with or without rain	Not Known.
Nagpur	05/05/17	0702-0802 UTC	isolated cell with maximum reflectivity 31.5DBZ and height 9.3 kms SSE direction and range 178 Kms at 0742 UTC moving ESE`ly 0812 -2335 utc DWR was shutdown for Annual Preventive Maintenance	Cloud formation starts at 0702UTC ranging from 110 to 170 Kms from radar in N & S direction moving ESE`ly direction		Nil	
	06/05/17	0002-0302 UTC	DWR was shutdown for Annual Preventive Maintenance	-	-	Nil	-

∞	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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