



India Meteorological Department
FDP STORM Bulletin No.112 (25-06-2017)

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

- ◆ The Northern Limit of Monsoon (NLM) continues to pass through Lat. 22.0°N / Long. 60.0°E, Lat. 22.0°N / Long. 65.0°E, Dwarka, Vallabh Vidyanagar, Khandwa, Betul, Mandla, Patna and Lat.27.0°N / Long. 85.0°E.
- ◆ Favourable conditions are developing for further advance of southwest monsoon into some more parts of north Arabian sea, Gujarat state, Madhya Pradesh, remaining parts of Bihar and some more parts of East Uttar Pradesh during next 48 hours. Also rapid advance of southwest monsoon is very likely into most parts of northwest India, including remaining parts of Gujarat, Madhya Pradesh and Uttar Pradesh, entire Haryana, Chandigarh & Delhi, Punjab, Uttarakhand, Himachal Pradesh and Jammu & Kashmir during next 4-5 days. This is expected, in view of the likely west-northwestwards movement of the low pressure system which is currently located over northwest Bay of Bengal & neighbourhood, towards northwest India and its likely interaction with an approaching Western Disturbance.
- ◆ Under the influence of the cyclonic circulation over north Bay of Bengal & neighbourhood, a low pressure area has formed over northwest Bay of Bengal and adjoining coastal areas of the Odisha and Gangetic West Bengal. Associated cyclonic circulation extends upto 9.5 km above mean sea level tilting southwestwards with height. System is likely to become more marked during next 12 hours.
- ◆ The trough at mean sea level from West Rajasthan to westcentral Bay of Bengal now runs from West Rajasthan to north Andaman Sea across northwest Madhya Pradesh, Chhattisgarh, Jharkhand, centre of the low pressure area and east-central bay of Bengal and extends upto 1.5 km above mean sea level.
- ◆ The off-shore trough at mean sea level from south Gujarat coast to Kerala coast persists.
- ◆ The upper air cyclonic circulation over south Pakistan & neighbourhood between 0.9 & 2.1 km above mean sea level persists.
- ◆ An Upper air cyclonic circulation lies over south Gujarat region & neighbourhood between 3.1 & 4.5 km above mean sea level.
- ◆ The upper air cyclonic circulation over southeast Rajasthan & neighbourhood between 5.8 & 7.6 km above mean sea level has become less marked.

SATELLITE OBSERVATIONS during past 24hrs and current observation:

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

Convective Activity: Nil

Cloud Description:

Broken low/medium clouds with embedded intense to very intense convection were seen over Coastal Odisha. Broken low/medium clouds with embedded moderate to intense convection were seen over N Uttar Pradesh adjoining Nepal. Scattered low/medium clouds with embedded moderate to intense convection were seen Chhattisgarh, rest Odisha, SE Jharkhand, W Sub Himalayan West Bengal, Arunachal Pradesh, Assam, E Vidarbha, N Konkan adjoining Arabian Sea, Goa, extreme SE Gujarat, & Gulf of Cambay, Coastal Andhra Pradesh, Rayalaseema, N

Tamilnadu, Lakshadweep and Bay Islands. Scattered low/medium clouds with embedded isolated weak to moderate convection were seen over rest Jharkhand, rest Sub Himalayan West Bengal, Sikkim, Nagaland, Manipur, Meghalaya and rest Maharashtra. Scattered low/medium clouds with embedded weak to moderate convection over rest parts of South India. Scattered low/medium clouds with embedded isolated weak convection were seen over E Uttarakhand. Scattered low/medium clouds were seen over J & K, Himachal Pradesh, rest Uttarakhand, rest parts of West India except Rajasthan and rest parts of East India.

Arabian Sea:

Scattered low/medium clouds with embedded moderate to intense convection were seen over SE Arabian Sea and Comorin.

Bay of Bengal & Andaman Sea:

Scattered low/medium clouds with embedded intense to very intense convection were seen over WC Bay of Bengal. Scattered low/medium clouds with embedded moderate to intense convection were seen over rest Bay and Andaman Sea.

Past Weather:

Convection:-

Moderate to Intense convection was observed East Uttar Pradesh Rajasthan Gujarat Madhya Pradesh Maharashtra Chhattisgarh Bihar Jharkhand Odisha West Bengal North East States Telangana Andhra Pradesh Kerala Tamilnadu.

OLR:-

Upto **200** wm^{-2} was observed over South Chhattisgarh South Jharkhand Odisha Meghalaya Assam Nagaland Tripura Andhra Pradesh Kerala Tamilnadu .

Upto **230** wm^{-2} was observed over North Madhya Maharashtra Rest Chhattisgarh Rest Jharkhand Gangetic West Bengal Sikkim Rest North East States South Interior Karnataka Telangana.

Upto **250** wm^{-2} was observed over Gujarat Rest Maharashtra South Madhya Pradesh Bihar Rest Karnataka.

Westerly Trough & Jet-Stream:-

No Trough & Jet Stream observed over India

Dynamic Features:-

Medium to High wind shear is observed over North & South India and Low wind shear is observed over Central India .

Negative shear tendency is observed over Saurashtra Rajasthan and Positive shear tendency is observed over rest parts of India.

Positive Vorticity field is observed over South Chhattisgarh Odisha..

Negative low level convergence is observed over Gujarat Madhya Pradesh South Karnataka Coast Kerala and Positive low level convergence observed over rest parts of India.

Precipitation:

IMR:

Rainfall Up to **70** mm was observed over Extreme North Konkan Coastal Odisha Coastal Andhra Pradesh East Assam Nagaland. Rainfall Up to **50** mm was observed over Chhattisgarh South Jharkhand Rest Odisha Rest Assam Manipur Tripura. Rainfall Up to **30** mm was observed over Gujarat Rest Andhra Pradesh. Rainfall Up to **20** mm was observed over Meghalaya Gangetic West Bengal. Rainfall Up to **10** mm was observed over Uttarakhand East Uttar Pradesh South Rajasthan Extreme South Madhya Pradesh Maharashtra Rest Jharkhand Bihar Sikkim Rest North East States Telangana Karnataka Tamilnadu Kerala.

HEM:

Rainfall Up to **70** mm was observed over South Chhattisgarh Odisha South Jharkhand Assam Nagaland Mizoram west Arunachal Pradesh South Kerala.

Rainfall Up to **14** mm was observed over Gujarat Coastal Karnataka south Konkan North East Andhra Pradesh .

Rainfall Up to **07** mm was observed over South Rajasthan East Uttar Pradesh Madhya Pradesh Rest Maharashtra Rest Chhattisgarh Bihar Rest Jharkhand Gangetic West Bengal Rest North East States Rest Karnataka Telangana Rest Andhra Pradesh Rest Kerala Tamilnadu..

RADAR and RAPID Observation:

DWR composite at 1250hrs IST indicated significant convection over Gangetic West Bengal adjoining SE Jharkhand, N Konkan & Goa, N Coastal Andhra Pradesh, E Uttar Pradesh and S Madhya Pradesh.

RAPID RGB Satellite imagery at 1200hrs IST indicated significant convective clouds over N Konkan & Goa adjoining S Gujarat, Coastal Karnataka, N Kerala, Lakshadweep, Odisha, S Jharkhand, Chhattisgarh adjoining Vidarbha & S Madhya Pradesh, N Telangana, N Coastal Andhra Pradesh and Arunachal Pradesh adjoining E Assam.

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

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

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

2. NWP MODEL GUIDANCE:

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

1. Weather Systems:

12UTC Charts of Day 0-4 show heat low confined to Pakistan and adjoining Rajasthan with MSLP values lower than 992hPa.

00 UTC Charts of Day 0-5 show a trough at mean sea level from North Rajasthan/Punjab to West Bengal/Odisha across Uttar Pradesh, MP, Jharkhand

Some isolated regions of wind discontinuity can be seen as embedded features in monsoon trough on all days.

At 500 hPa the trough (WD) over J & K region has moved eastwards by 12UTC of Day-1. At 850 and 500 hPa: Two CYCIR over (1) Bay of Bengal and (ii) Arabian Sea west of Gujarat are seen in Day-3 forecasts. The two systems are forming east-west trough at 500 hPa in Day-3-5.

The Bay of Bengal CYCIR is tracking in NW direction along the monsoon trough and is located south of Delhu region in Day-3 forecast valid for 28th Jun 2018. Another CYCIR is seen to form near Odisha coast on Day-3.

Both systems show strong southward tilt with height

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: NIL

Day1: NIL

Day2: NIL

Day3: NIL

Day4: NIL

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

(Day/Index: Subdivisions with Lower Level Vortex > 15 x 10⁻⁵ /s):

Day0: Guj Reg, TN Puducherry, Kerala,

Day1: Assam Meghalaya, TN Puducherry, Kerala,

Day2: TN Puducherry,

Day3: Odisha, TN Puducherry, Kerala,

Day4: Hry Chd Delhi, West RJ, East RJ, TN Puducherry, Kerala

5. Showalter Index: -3 to -4[Very unstable]: (Day/Index: Subdivisions with Showalter Index < -4):

Day0: Arunachal Pradesh, NE NMMT, Sub Himalayan WB, East UP, West UP, Uttarakhand, Himachal Pradesh, Jammu Kashmir, West RJ, East RJ, West MP, East MP, Guj Reg, Saurashtra Kutch, Vidarbha, Chhattisgarh,

Day1: Arunachal Pradesh, Sub Himalayan WB, West UP, Uttarakhand, Himachal Pradesh, Jammu Kashmir, West RJ, East RJ, West MP, East MP, Saurashtra Kutch, Madhya Maharashtra, Marathwada, Vidarbha, Chhattisgarh, Telangana,

Day2: Arunachal Pradesh, Sub Himalayan WB, Uttarakhand, Punjab, Himachal Pradesh, Jammu Kashmir, West RJ, East RJ, West MP, East MP, Guj Reg, Saurashtra Kutch, Chhattisgarh,

Day3: Arunachal Pradesh, NE NMMT, Sub Himalayan WB, East UP, West UP, Uttarakhand, Hry Chd Delhi, Punjab, Himachal Pradesh, Jammu Kashmir, West RJ, East RJ, West MP, East MP, Saurashtra Kutch,

Day4: Arunachal Pradesh, Sub Himalayan WB, Jharkhand, East UP, Uttarakhand, Himachal Pradesh, Jammu Kashmir, West RJ.

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, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Hry Chd Delhi, Punjab, Himachal Pradesh, Jammu Kashmir, West RJ, East RJ, Odisha, West MP, East MP, Guj Reg, Saurashtra Kutch, Madhya Maharashtra, Marathwada, Vidarbha, Chhattisgarh, Coastal AP, Telangana, Rayalseema, TN Puducherry, NI Karnataka, SI Karnataka,

Day1: Arunachal Pradesh, NE NMMT, Sub Himalayan WB, Jharkhand, East UP, West UP, Uttarakhand, Hry Chd Delhi, Punjab, Himachal Pradesh, Jammu Kashmir, West RJ, East RJ, Odisha, West MP, East MP, Saurashtra Kutch, Madhya Maharashtra, Marathwada, Vidarbha, Chhattisgarh, Coastal AP, Telangana,

Day2: Arunachal Pradesh, NE NMMT, Sub Himalayan WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Hry Chd Delhi, Punjab, Himachal Pradesh, Jammu Kashmir, West RJ, East RJ, Odisha, West MP, East MP, Guj Reg, Saurashtra Kutch, Madhya Maharashtra, Marathwada, Vidarbha, Chhattisgarh, Coastal AP, Telangana,

Day3: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Hry Chd Delhi, Punjab, Himachal Pradesh, Jammu Kashmir, West RJ, East RJ, Odisha, West MP, East MP, Guj Reg, Saurashtra Kutch, Marathwada, Vidarbha, Chhattisgarh, Telangana,

Day4: 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, West RJ, East RJ, Odisha, West MP, East MP, Guj Reg, Saurashtra Kutch, Marathwada, Vidarbha, Chhattisgarh, Coastal AP, Telangana, Rayalseema, TN Puducherry.

7. Spatial distribution of TTI (TTI >50 [Scattered Thunderstorms few severe): (Day/Index: Subdivision with Total Totals Index > 52):

Day0: Arunachal Pradesh, Sub Himalayan WB, Uttarakhand, Himachal Pradesh, Jammu Kashmir,

Day1: Arunachal Pradesh, Sub Himalayan WB, Uttarakhand, Himachal Pradesh, Jammu Kashmir,

Day2: Arunachal Pradesh, Sub Himalayan WB, Uttarakhand, Himachal Pradesh, Jammu Kashmir,

Day3: Arunachal Pradesh, Sub Himalayan WB, Uttarakhand, Himachal Pradesh, Jammu Kashmir,

Day4: Arunachal Pradesh, Sub Himalayan WB, Uttarakhand, Himachal Pradesh, Jammu Kashmir.

8. Rainfall and thunder storm activity: (Day/Index: Subdivisions with Precipitation > 2 cm):

Day1: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Gangetic WB, Jharkhand, East UP, Uttarakhand, Himachal Pradesh, Odisha, West MP, East MP, Guj Reg, Saurashtra Kutch, Konkan Goa, Madhya Maharashtra, Vidarbha, Chhattisgarh, Andaman Nicobar, Telangana, Rayalseema, TN Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

Day2: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Jharkhand, West UP, Uttarakhand, Punjab, Himachal Pradesh, Jammu Kashmir, East RJ, Odisha, West MP, East MP, Saurashtra Kutch, Konkan Goa, Madhya Maharashtra, Vidarbha, Chhattisgarh, Andaman Nicobar, Coastal AP, Telangana, TN Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

Day3: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, East UP, West UP, Uttarakhand, Hry Chd Delhi, Punjab, Himachal Pradesh, Jammu Kashmir, West RJ, East RJ, Odisha, West MP, East MP, Guj Reg, Konkan Goa, Madhya Maharashtra, Vidarbha, Chhattisgarh, Andaman Nicobar, Coastal AP, Telangana, TN Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

Day4: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Jharkhand, East UP, West UP, Uttarakhand, Hry Chd Delhi, Punjab, Himachal Pradesh, Jammu Kashmir, West RJ, East RJ, Odisha, West MP, East MP, Guj Reg, Saurashtra Kutch, Konkan Goa, Madhya Maharashtra, Vidarbha, Chhattisgarh, Andaman Nicobar, Coastal AP, Telangana, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

Day5: 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, West RJ, East RJ, Odisha, East MP, Guj Reg, Saurashtra Kutch, Konkan Goa, Madhya Maharashtra, Chhattisgarh, Andaman Nicobar, Coastal AP, Telangana, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala.

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

Not Received due to technical problem

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

Not Received due to technical problem

3. IOP ADVISORY FOR 24 and 48Hrs:

Summary and Conclusions:

Day-1 & Day-2:

Presently, due to the influence of the cyclonic circulation over north Bay of Bengal & neighbourhood, a low pressure area has formed over northwest Bay of Bengal and adjoining coastal areas of the Odisha and Gangetic West Bengal. This will give rise to heavy to very heavy rainfall over Orissa on Day-1. Sub Himalayan West Bengal, GWB and North eastern states will also get heavy rainfall activities on Day-1.

Due to the offshore trough at mean sea level from south Gujarat coast to Kerala coast, Gujarat, Konkan and Goa, Madhya Maharashtra, Coastal Karnataka and Kerala will experience heavy rainfall on Day-1. An upper air cyclonic circulation also lies over south Gujarat region & neighbourhood.

24 hour Advisory for IOP:

Rainfall:

Konkan and Goa, Gujarat
Assam Meghalaya, Nagaland, Manipur, Mizoram, Tripura
Sub Himalayan West Bengal, GWB, Orissa, North Coastal Andhra Pradesh
Kerala, Coastal Karnataka
Madhya Maharashtra, Chhattisgarh
Andaman and Nicobar Islands

Thunderstorm with associated phenomena:

East Rajasthan, Uttarakhand, East UP

48 hour Advisory for IOP:

Rainfall:

Konkan and Goa, Gujarat
Gangetic West Bengal, Orissa, North Coastal Andhra Pradesh
Kerala, Coastal Karnataka
Madhya Pradesh, Chhattisgarh, Vidarbha
Andaman and Nicobar Islands

Thunderstorm with associated phenomena:

Himachal Pradesh, Uttarakhand, West and East UP
East Rajasthan
Punjab, Haryana

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

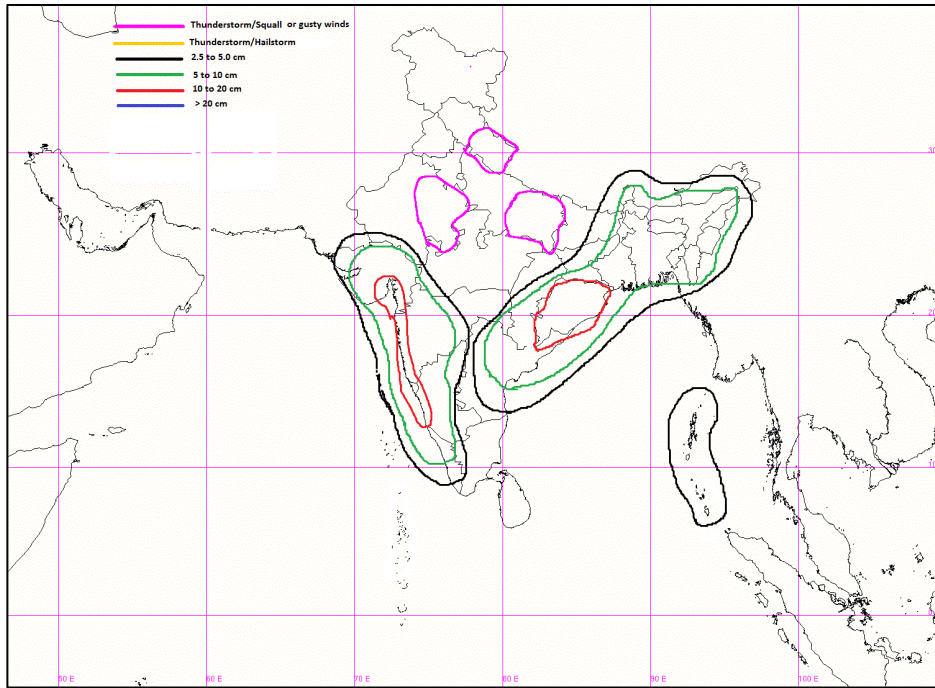
HEM: http://satellite.imd.gov.in/img/3Ddaily_he.jpg

ForRadarimagesofthepast24hoursincludingmosaicofimages:

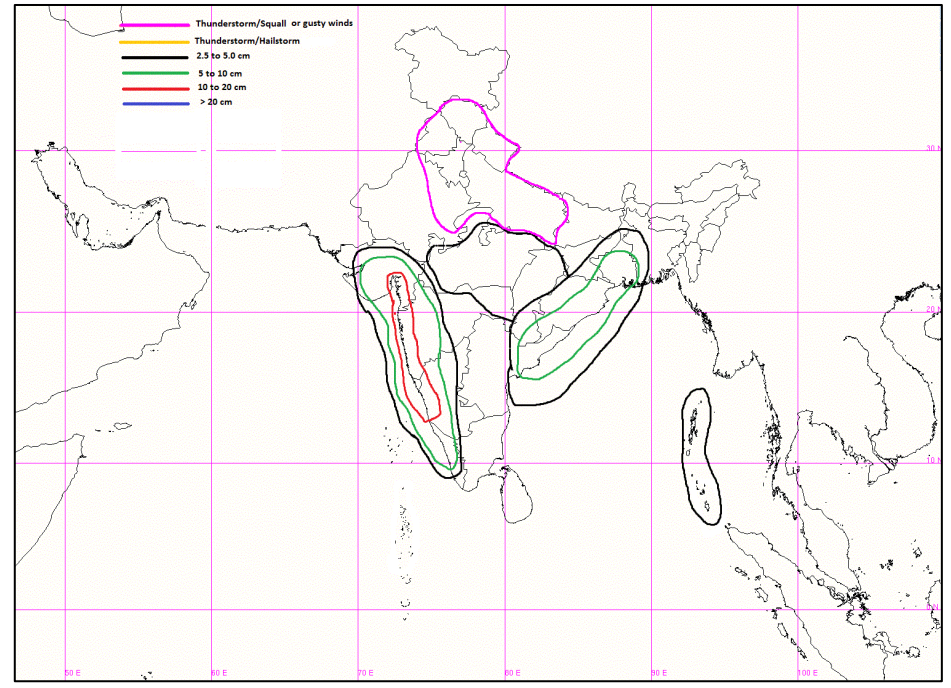
http://ddgmui.imd.gov.in/dwr_img/

Satellite sounder based T- Phigram

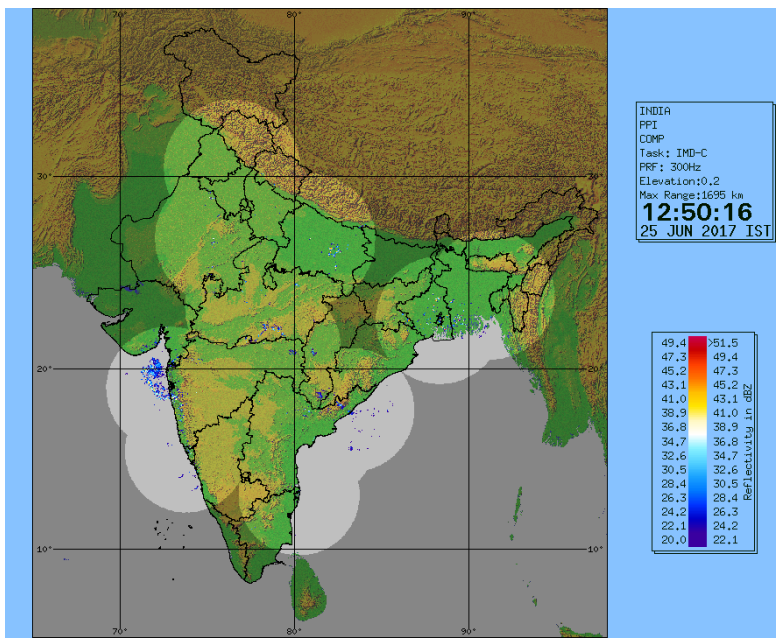
http://satellite.imd.gov.in/map_skm2.html



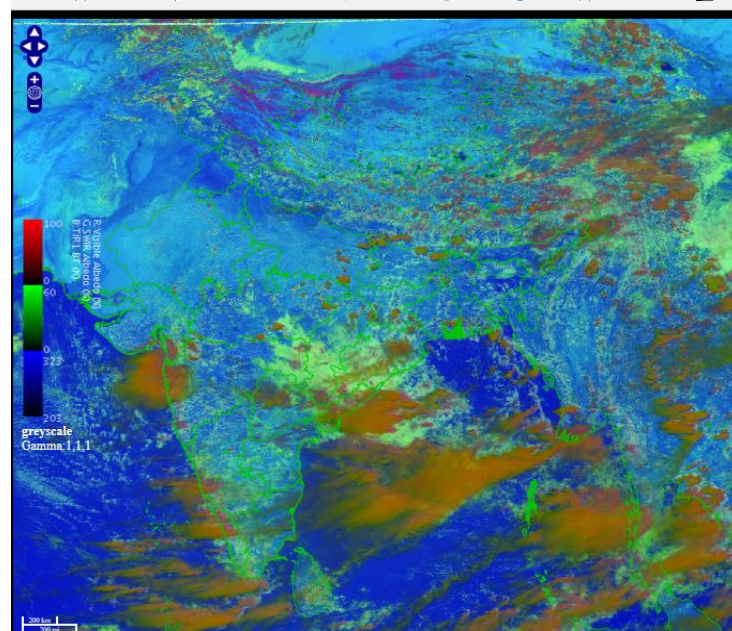
IOP Advisory for 24 hours



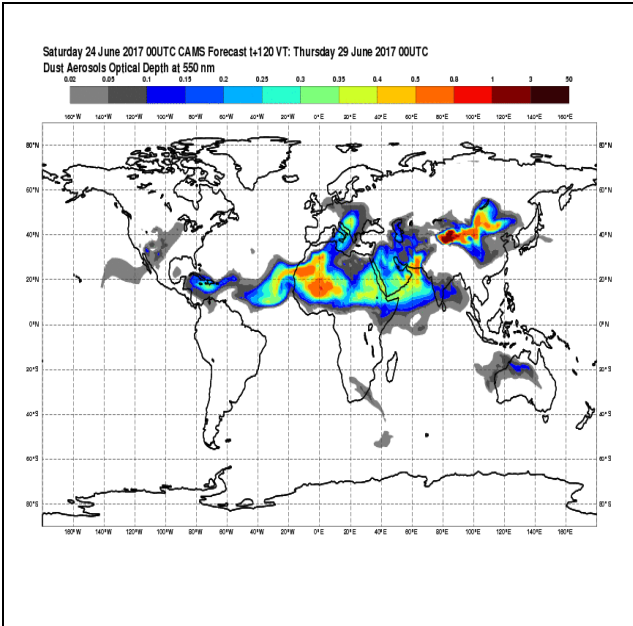
IOP Advisory for 48 hours



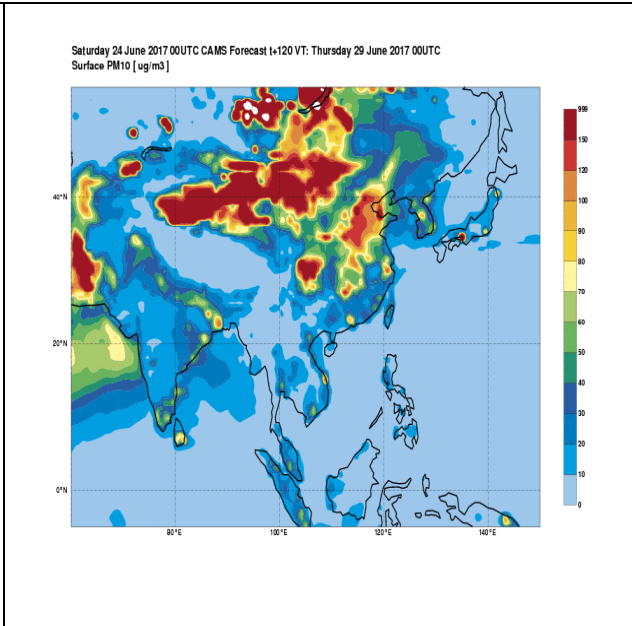
DWR composite at 1250hrs IST



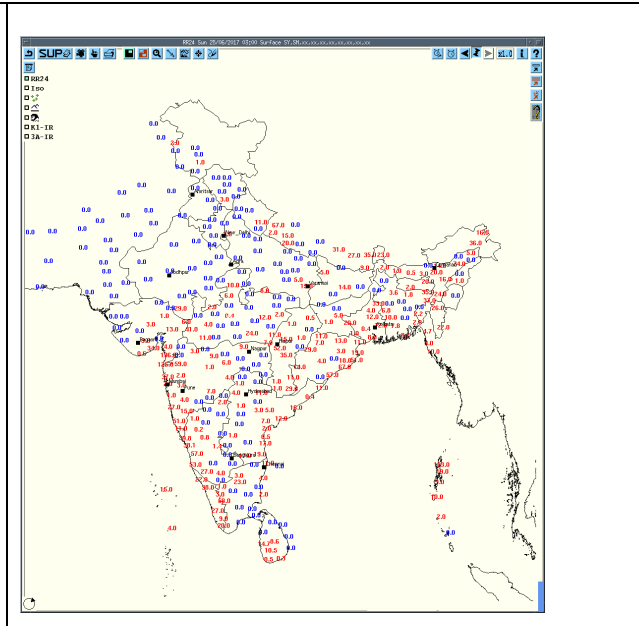
RAPID RGB Satellite Imagery at 1200 hrs IST of today



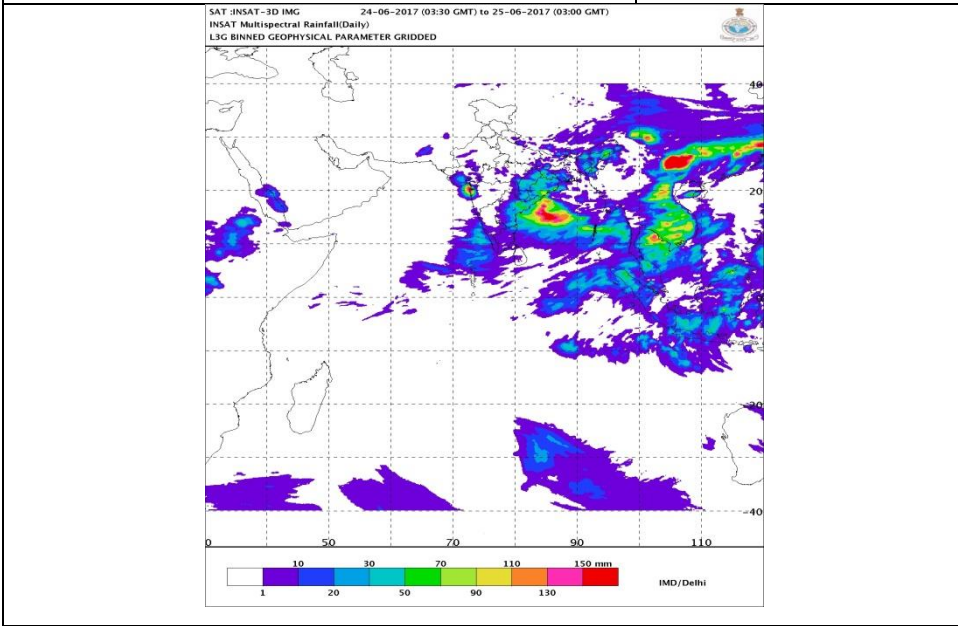
Forecast Dust Concentration for 29th June



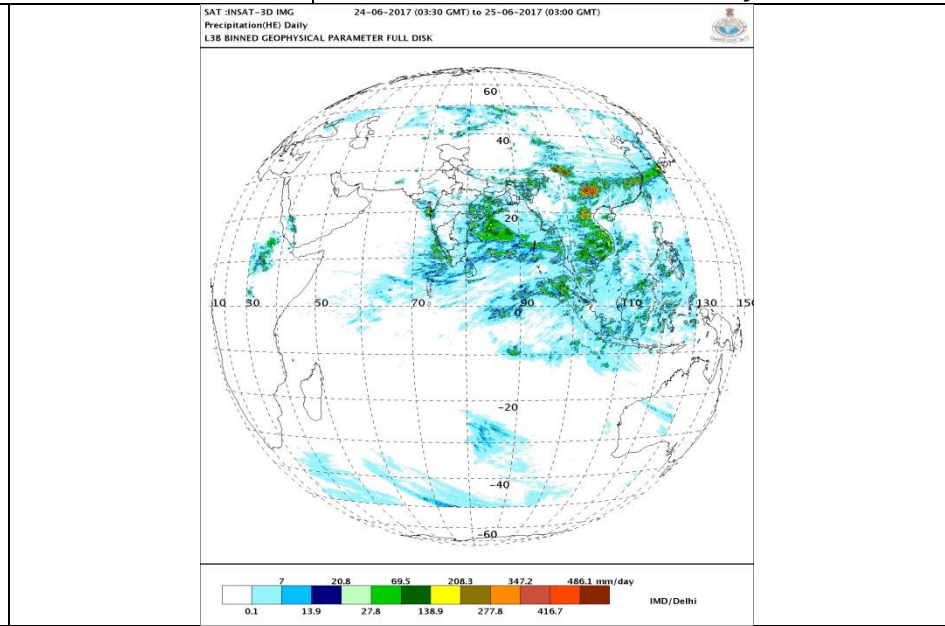
PM10 Forecast for 29th June



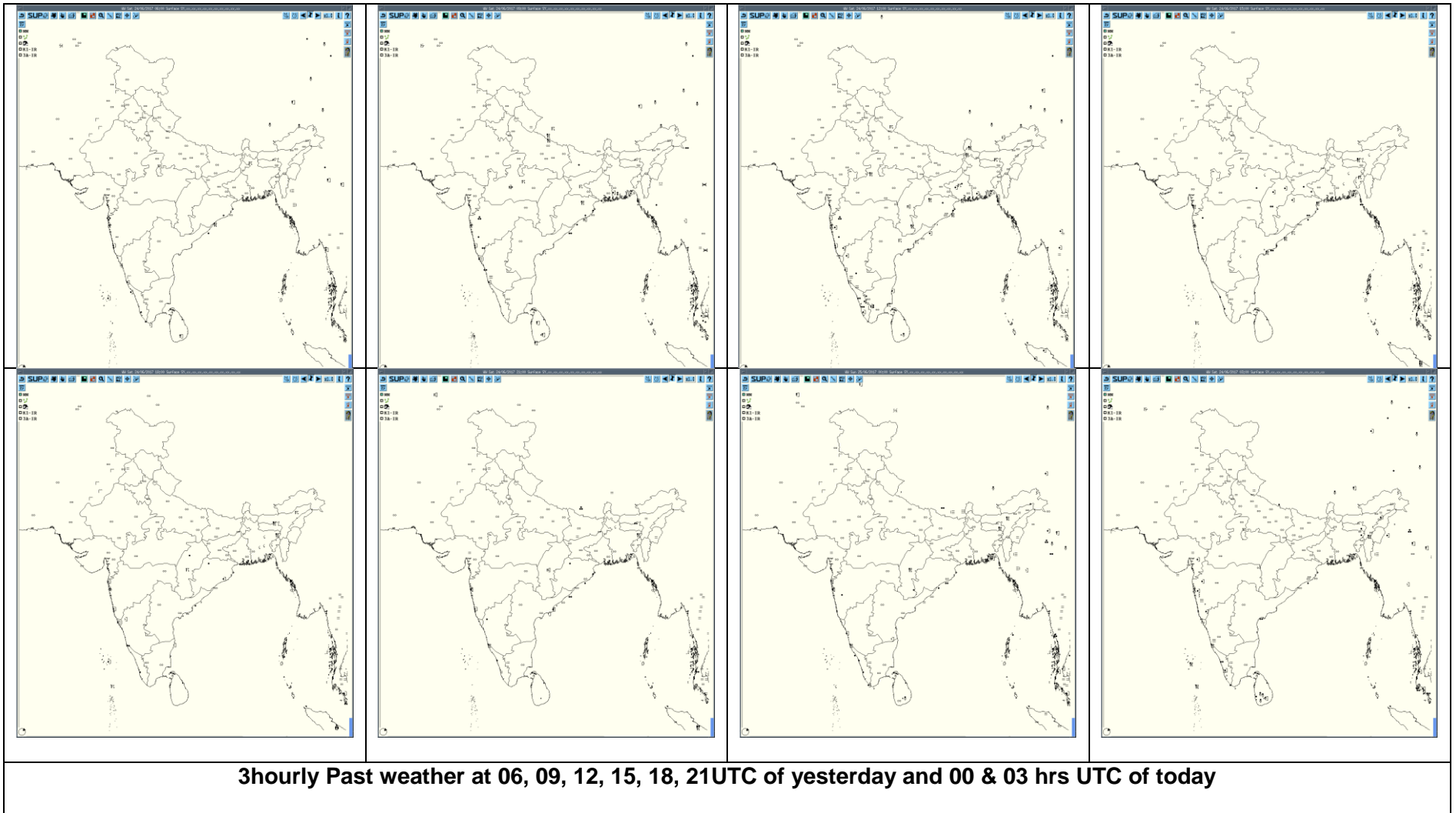
Accumulated 24 Hour rainfall (in red) recorded at 0300UTC of today



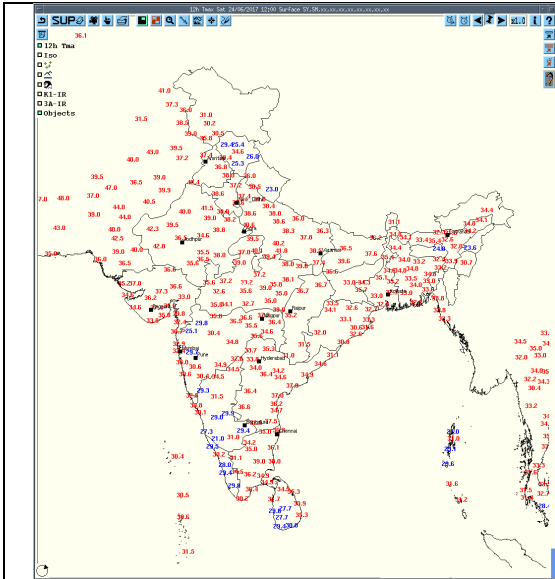
IMR Rainfall



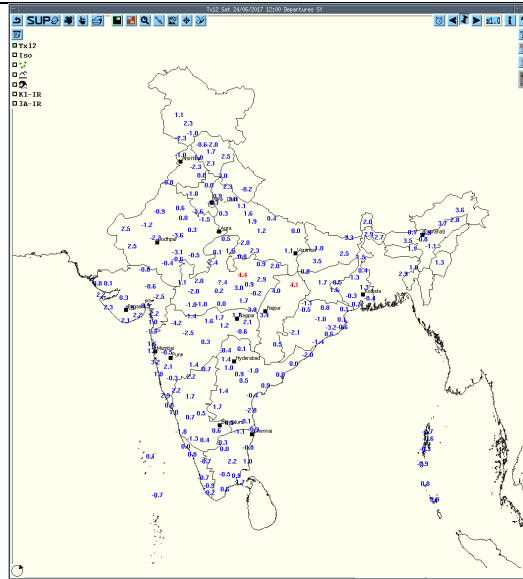
HEM Rainfall



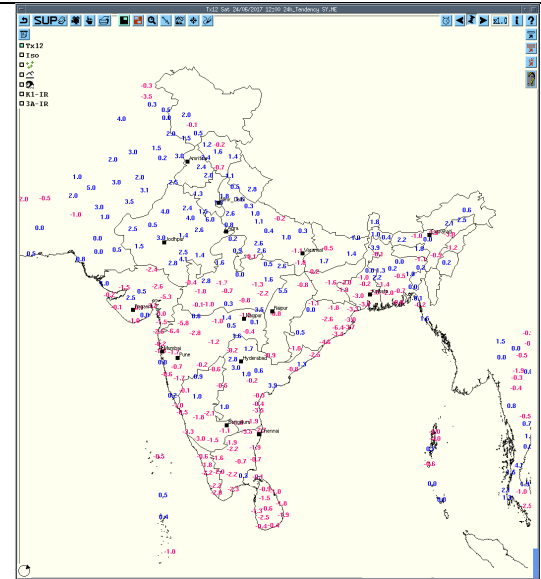
3hourly Past weather at 06, 09, 12, 15, 18, 21UTC of yesterday and 00 & 03 hrs UTC of today



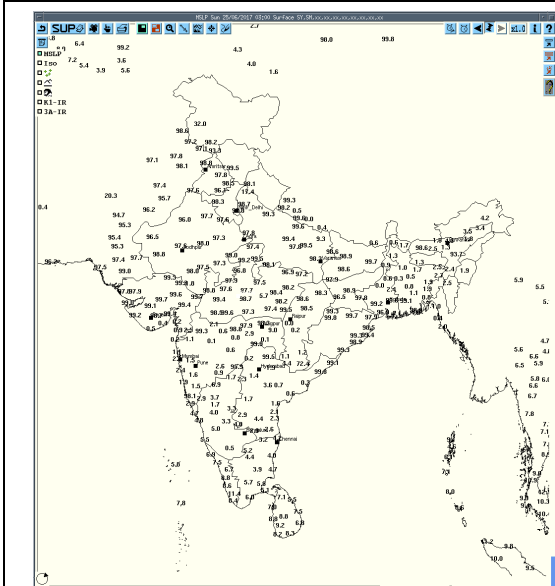
T_{max}



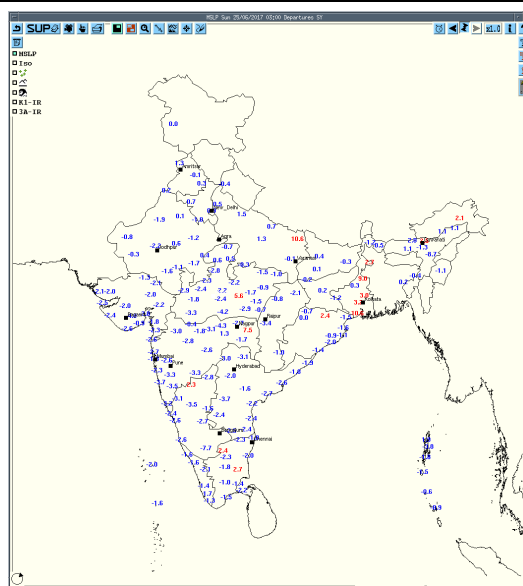
Departure T_{max}



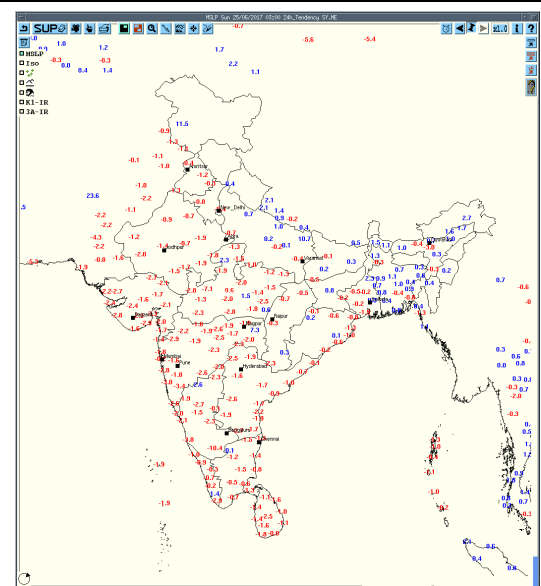
Tendency T_{max}



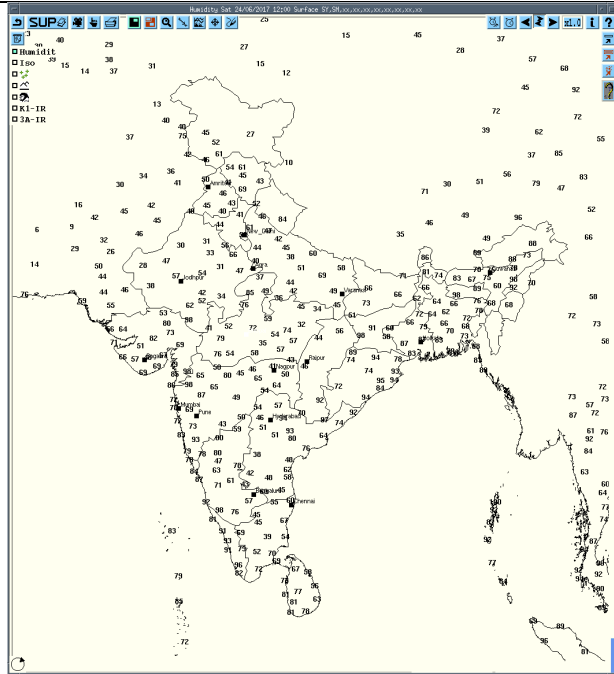
MSLP



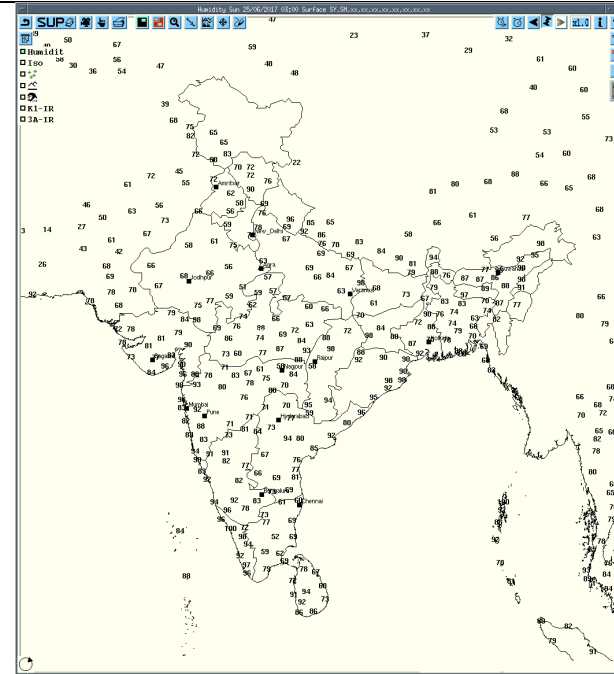
Departure MSLP



Tendency MSLP



RH at 12UTC yesterday



RH at 03UTC today

Realised past 24hrs TS/SQ/HS Data (reported at 0300UTC of the day):

Realized weather past 24hours (Based on SYNERGIE Products)

Date	Time of Reporting	Name of Station Reporting	Region	STATE	Weather Event
24-06-17	0600UTC	Gopalpur	E India	Odisha	Thunderstorm
24-06-17	0900UTC	Bhopal, Sagar	C India	Madhya Pradesh	Thunderstorm
		Ranchi	E India	Jharkhand	Thunderstorm
		Haldia	E India	West Bengal (GWB)	Thunderstorm
		Keonjhar, Puri	E India	Odisha	Thunderstorm
		Machilipatnam	S India	Andhra Pradesh (CAP)	Thunderstorm
24-06-17	1200UTC	Mukteshwar	NW India	Uttarakhand	Thunderstorm
		Guna	C India	Madhya Pradesh	Thunderstorm
		Raipur, Jagdalpur	C India	Chhattisgarh	Thunderstorm
		Jharsuguda, Paradeep	E India	Odisha	Thunderstorm
		Panagarh, Digha	E India	West Bengal (GWB)	Thunderstorm
		Bagdogra	E India	West Bengal (SHWB)	Thunderstorm
		Gangtok	E India	Sikkim	Thunderstorm
		Guwahati	NE India	Assam	Thunderstorm
		Tuni, Narsapur	S India	Andhra Pradesh (CAP)	Thunderstorm
		Kothagudem	S India	Telangana	Thunderstorm
		Kodaikanal, Atirampattinam	S India	Tamilnadu	Thunderstorm
Bajpe	S India	Karnataka	Thunderstorm		
24-06-17	1500UTC	Satna	C India	Madhya Pradesh	Lightening
		Balasore	E India	Odisha	Thunderstorm
		Digha	E India	West Bengal(GWB)	Thunderstorm
		Guwahati	NE India	Assam	Thunderstorm
		Tezpur, North Lakhimpur	NE India	Assam	Lightening
		Agartala	NE India	Tripura	Lightening
		Surat	W India	Gujarat	Thunderstorm
		Kalingapatnam. Vishakhapatnam, Machilipatnam	S India	Andhra Pradesh	Thunderstorm
		Kurnool, Nellore	S India	Andhra Pradesh	Lightening
		Minicoy	S India	Lakshadweep & Minicoy Islands	Thunderstorm
24-06-17	1800UTC	Raipur	C India	Chhattisgarh	Thunderstorm
		North Lakhimpur, Guwahati	NE India	Assam	Thunderstorm
		Agartala	NE India	Tripura	Lightening
		Minicoy	S India	Lakshadweep & Minicoy Island	Thunderstorm
		Dahanu	W India	Mumbai	Thunderstorm

24-06-17	2100UTC	Raipur	C India	Chhattisgarh	Thunderstorm
		Bajpe	S India	Karnataka	Thunderstorm
25-06-17	0000UTC	Raipur	C India	Chhattisgarh	Thunderstorm
		Tezpur	NE India	Assam	Thunderstorm
		Shillong	NE India	Meghalaya	Thunderstorm
		Dahanu	W India	Maharashtra	Thunderstorm
		Bajpe	S India	Karnataka	Thunderstorm
25-06-17	0300UTC	Mukteshwar, Pantnagar	NW India	Uttarakhand	Thunderstorm
		Dibrugarh, Bagdogra	NE India	Assam	Thunderstorm
		Dahanu, Matheran, Mumbai	W India	Maharashtra	Thunderstorm

Past 24 hours DWR Report:

Radar Station Name	Date of Report	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
Lucknow	25-06-17	240532-240652	Isolated cells with average height of 11km and maximum reflectivity of 46 dBZ.	(1) NE(150KM) from Radar moving in NNW'ly direction at speed of 10kmph. (2) SE(200KM) from Radar moving in E'ly direction at speed of 10kmph	-	TS	BRC
						TS	PTG
		240542-240632	Isolated Cell with average height of 11km and maximum reflectivity of 45dBZ.	E(170KM) from Radar moving in NNE'ly direction at speed of 10 kmph.	-	TS	BST

		240722-240822	Isolated cell with average height of 11km and maximum reflectivity of 47dBZ.	N(90KM) from Radar moving in n'ly direction at speed of 10kmph.	-	TS	Sitapur
		240802-240942	Isolated cell with average height of 12km and maximum reflectivity of 48dBZ.	NNE(40KM) from Radar moving in NNW'ly direction at speed of 10kmph	Formed multiple cells at 0832UTC	TS	Sitapur
		240842-240952	Isolated cell with average height of 11km and maximum reflectivity of 50dBZ.	NNE(150KM) from Radar moving in NNW'ly direction at speed of 10kmph	-	TS	Lakhimpur Kheri
		241022-241142	Isolated cell with average height of 11km and maximum reflectivity of 48dBZ	NE(200KM) from Radar moving in NNW'ly direction at speed of 10kmph	-	TS	Gonda/ BST
		241212-241302	Isolated cell with average height of 11km and maximum reflectivity of 48dBZ	NE(200KM) from Radar moving in NNW'ly direction at speed of 10kmph	-	TS	BRC
Nagpur	25-06-17	240602-241722	Multiple	150 km in W,moving SE	36 dbZ cloud ht.= 2.3-5.8km	Thunderstorm warning started at 0842 and continues mostly in NE region, sometimes in N And S	Rainfall in many places in,Amraoti, Nagpur , Akola Chandrapur Hinganghat, Pusad, Ramtek, Kotal and isolated places in Gondia , Washim and Buldhana ,seoni
		240602-241502	Multiple	150 km in NW, moving in NW	47 dbZ, cloud ht.=3.8-6km		
		240602-241122	Multiple	200 km in S, moving in S	36 dbZ, cloud ht= 3-6 km		
		241332-242352	multiple	Coming from NE, moving S & SE	47.50 dbZ, cloud ht.= 4.7-6 km		
		240002-250302	From previous	230 km South dir.	27dbz & cloud ht.,5.0-6.0 km.		

Patiala	25-06-17	240300-240900	NO Significant Echo	--	--	--	--
		240900-241200	Multiple cells cell Max dBZ=51.0 Ht.= 11-13 KMS	ENE- SECTOR, MOVEMENT EAST WARDS	--	TS/RA	MUSSOORIE, AUGSTMUNI AND IT'S ADJOINIG AREAS.
		241200-250252	No Significant Echo	--	--	--	--
Jaipur	25-06-17	240642-241512	Multiple cell with average height of 6.0 km & maximum reflectivity 58.5 dBZ	Multiple cell develop from 0642 UTC of 24/06/2017 towards N, SW,SE W, NW, & E of Jaipur and moved to South East Wards at speed 20-25 km/hr	Cell starts forming from 0642 UTC of 24/06/2017 towards N, SW, W, NW, & E of Jaipur and reaches maximum refelectivity during 0722-1202 UTC OF 24/06/2017 and died 1512 UTC	Thunderstorm/rain at a few places	SAWAIMADH OPUR,JHUNJ HUNU,AJMER ,NAGPUR,SIK AR,JAIPUR,B HARATPUR,J HALAWAR,AL WAR DISTRICTS.
Agartala	25-06-17	240300 - 241322	Multiple cells formed DWR Agartala of South East at a distance around 200km with Maximum cell Height 14 km at 0922 UTC and maximum reflectivity 46 dBZ at 0922 UTC	Formed DWR Agartala of South East at a distance around 200km and moves SE-wards direction with around 25 kmph.	Dissipated at 100km in ENE direction 1322 UTC.	N/A	N/A
		240932 - 242352	Multiple cells formed DWR Agartala of South East at a distance around 200km with Maximum cell Height 15 km at 1452 UTC and maximum reflectivity 48.50 dBZ at 1452 UTC	Formed DWR Agartala of South East at a distance around 200km and moves SE-wards direction with around 30 kmph	Dissipated at 200km in ENE direction 2352 UTC.	N/A	N/A
Kolkata	25-06-17	240301-240501	NIL	NIL	NO ECHO	NIL	NIL
		240511-241621	Large number of small Single cells merged to form an extended multi cell system with maximum reflectivity of 56.5 dBz at 0841 UTC	Cells formed in SE /106.6 km from Radar moving in W/WSW direction.	Large number of small single cells developed at 0511 UTC in SE /106.6 km from Radar and mature and dissipated at 1621 UTC in W/WSW at a distance of	Thunderstorm/Rain	N/A

			and maximum height of 6.10 km at 0841 UTC.		236.5 km from Radar.		
		240821 - 241141	Two isolated cells developed and merged to form an extended multi cell system with maximum reflectivity of 54.5 dBz at 1001 UTC and maximum height more than 6.1 km at 1001 UTC.	Between E/28.6 km and SE/17 km moving towards W/SW	Two isolated cells developed at 0821 UTC in E/28.6KM and SE/17km from Radar merged to form an extended multi cell. Matured. Dissipated at 1141.	Thunderstorm / Squall /Hail / Rain	N/A
		241341- 241541	Isolated cell developed with maximum reflectivity of 56.5 dBz at 1401 UTC and maximum height more than 14.91 km at 1411 UTC.	N/98.7 km moving towards NW	Isolated cell developed at 1341 UTC in N/98.7 KM, Matured. Dissipated at 1541 UTC in NNW at a distance of 146.4 km from radar.	Thunderstorm / Rain	N/A
		241631- 242351	NIL	NIL	NO ECHO	NIL	NIL
		250001- 250301	NIL	NIL	NO ECHO	NIL	NIL
Srinagar	25-06-17	240300- 250300	Nil	--	--	--	--
Karaikal	25-06-17	240300- 250300	--	--	DWR U/S	--	--



+ thunderstorm



+ heavy thunderstorm



sandstorm or dust storm



squall



hail shower



tropical storm

www.visualdictionaryonline.com



+ tornado



+ lightning



+ hurricane



haze



smoke



dust or sand storm



fog



drizzle



rain



snow



showers



hail



thunderstorm

Weather Symbols