



**India Meteorological Department**  
**FDP STORM Bulletin No.90 (03-06-2017)**

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

The Northern Limit of Monsoon (NLM) continues to pass through Lat.10.0°N/Long.60.0°E, Lat.10.0°N/Long.70.0°E, Kochi, Tondi, Lat.14.0°N/ Long.87.0°E, Lat.17°N/ Long.90.0°E, Lat.20.0°N/Long. 91.0°E, Agartala, William Nagar, Kokrajhar and Lat. 27.0°N/Long. 90.0°E.

The upper air cyclonic circulation over east central Arabian sea off south Maharashtra coast now lies over east central Arabian sea off Maharashtra coast between 1.5 km & 3.1 km above mean sea level.

The upper air cyclonic circulation over southeast Bay of Bengal & neighbourhood now lies over southeast Bay of Bengal & adjoining east central Bay of Bengal between 1.5 & 3.1 Km above mean sea level.

A trough at mean sea level runs from northwest Uttar Pradesh to Assam across north Uttar Pradesh & north Bihar.

A western disturbance as a trough in mid-tropospheric westerlies runs roughly along Longitude 57.0°E and north of latitude 32.0°N with its axis at 3.1 km above mean sea level.

The trough in westerlies along Long. 82.0°E to the north of Lat. 26.0°N has become less marked.

The north-south trough from Bihar to north Chhattisgarh has become less marked.

The upper air cyclonic circulation over Vidarbha & neighbourhood has become less marked.

**SATELLITE OBSERVATIONS during past 24hrs and current observation:**

**Current Observation (based on 0900UTC imagery of INSAT 3D):**

**CONVECTIVE ACTIVITY: -**

Cell No.	Date/time (UTC)	Location/Area	MIN CTT (-DEG C)	Movement	Remarks
1	0800 0900	N Madhya Maharashtra adjoining SE Gujarat do	79 81	--	--
2	0800 0900	SW Odisha do	72 74	--	--
3	0800 0900	Marathawada do	69 68	--	--

**Cloud Description:**

Scattered low /medium clouds with embedded moderate to intense convection were seen over SE Assam, S Nagaland, Manipur, NE Bangladesh, Lakshadweep and Bay Islands. Scattered low /medium clouds with embedded isolated moderate to intense convection were seen over extreme S Madhya Pradesh adjoining Maharashtra. Scattered low/medium clouds with embedded isolated weak to moderate convection were seen over Sikkim, Arunachal Pradesh, E Assam, rest Nagaland, Manipur, Tripura and Kerala. Scattered low/medium clouds were seen over J & K, N Himachal Pradesh, N Uttarakhand, S Gujarat, rest Madhya Pradesh, SE Rajasthan and rest parts of South India.

**Arabian Sea:**

Scattered low/medium clouds with embedded intense to very intense convection were seen over Central & SE Arabian Sea.

**Bay of Bengal & Andaman Sea:**

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

**Past Weather:****Convection:-**

Moderate to Intense convection was observed over South Rajasthan Gujarat Maharashtra Chhattisgarh Odisha East Bihar East Jharkhand West Bengal Sikkim North-East States Karnataka Kerala Tamilnadu Telangana & Andhra Pradesh.

**OLR:-**

Upto **200**  $\text{wm}^{-2}$  was observed over South Odisha West Bengal.

Upto **230**  $\text{wm}^{-2}$  was observed over Sikkim North-East States South Gujarat Maharashtra South Chhattisgarh South Interior Karnataka Kerala West Tamilnadu.

**Westerly Trough & Jet-Stream:**

No Westerly Trough & No Jet Stream observed over India.

**Dynamic Features:**

Low to Medium wind shear is observed over India.

negative shear tendency is observed over Gujarat Rajasthan and Positive shear tendency is observed over rest parts of India.

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

Negative low level convergence is observed over Gujarat and Konkan and Positive low level convergence observed over rest parts of India.

**Precipitation:****IMR:**

Rainfall Up to **130** mm was observed over North Gangetic West Bengal.

Rainfall Up to **70** mm was observed over Meghalaya North-East Jharkhand South-East Bihar South Odisha & North Konkan

Rainfall Up to **50** mm was observed over South Gujarat.

Rainfall Up to **20** mm was observed over South-West Madhya Pradesh West Assam. Rainfall Up to **10** mm was observed over North Madhya Maharashtra Vidarbha South Interior Karnataka Kerala Rayalaseema South Chhattisgarh & Rest North-East States.

**HEM:.**

Rainfall Up to **70** mm was observed over North Konkan South Odisha North Gangetic West Bengal Meghalaya Arunachal Pradesh.

Rainfall Up to **14** mm was observed over Kerala North-West Tamilnadu Rayalaseema South Chhattisgarh Rest North-East States.

Rainfall Up to **07** mm was observed over North Madhya Maharashtra Vidarbha South Interior Karnataka & South Tamilnadu.

**RADAR and RAPID Observation:**

DWR Composite at 1610hrs IST indicated significant convective activity over Northern parts of Gangetic West Bengal, South Odisha adjoining Telangana, adjoining North Coastal Andhra Pradesh, Rayalaseema adjoining North Tamilnadu and adjoining Karnataka.

RAPID RGB satellite imagery at 1600hrs IST indicated significant convective clouds over Maharashtra, Gujarat, Telangana, Rayalaseema, Odisha, South Sub Himalayan West Bengal, S Assam, Manipur, Lakshadweep & Minicoy Islands, Kerala, N Tamilnadu and Nicobar Islands.

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

Higher Dust concentration was observed over north Africa and Arab countries . Dust concentration is expected to increase over north India for next five days. High PM10 concentration was observed over Rajasthan and is expected to increase over IGP in next five days.

## 2. NWP MODEL GUIDANCE:

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

#### 1. Weather Systems:

00 UTC analysis shows the trough along Rajasthan region extending across Madhya Pradesh, Chhattisgarh and WB. The off-shore trough from south Maharashtra coast to Kerala coast is also seen in the analysis and is seen persisting till day 5.

#### 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<sup>-1</sup>/s):

Analysis shows low level positive vorticity (>12 x 10<sup>-5</sup>/s) mainly over isolated pockets in Punjab, UP, north eastern states and along the foothills of Himalayas. The high vorticity belts are mainly confined over regions of UP, Haryana, Delhi, Bihar, MP, AP region

#### 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):** Forecast shows high threshold values over along coastal region of Odisha, WB and Bihar for the next 2 to 5 days.

**Lifted Index (< -2):** The areas with index less than -2 lies along Bihar, Chhattisgarh, GWB and major regions of AP along with Gujarat and Rajasthan for the next 2 to 3 days.

**Sweat Index (> 400):** 00UTC shows significant values over major parts over Bihar, GWB, Odisha and AP and is expected to persist for the next 4 to 5 days.

**CAPE (> 1000):** Mostly over Bihar, GWB, Odisha, and AP and other regions over the east coast, and over few pocket in Gujarat during the next 3 to 4 days.

**CIN (50-150):** based on 00 analysis maximum CIN values are found in areas over east UP, Bihar, GWB, Odisha, AP and TN and along with major pockets in the Maharashtra, Gujarat and Rajasthan region for the next 2-3 days

#### 5. Rainfall and thunderstorm activity:

Analysis shows 10-40 mm rainfall over west coast adjoining Kerala region and over the northeast region. Forecast shows rains over Central India and it is persisting till day 5.

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

#### 1. Model Reflectivity (Max. dBz)

15-40 dBZ over isolated pockets in SHWB and the North-East region till day1 and over north-west J&K during day2 and early hours of day3

#### 2. Spatial distribution of Total Total Index, K-Index, CAPE and CIN [High potential for thunderstorm]

**CAPE (> 1000):** Mostly along Bihar, GWB, Odisha, AP and along major regions bordering the west coast, along with few pockets in Gujarat, MP and adjoining regions of Central India during next 2 to 3 days.

**CIN (50-150):** Higher values over Gujrat, Rajasthan, Maharashtra, WB, east coast and Odisha during next three days.

#### 3. Rainfall and thunderstorm activity:

40-70 mm over North-east region, some pockets of Kerala and adjoining west coast of country based on 00 analysis it seen persisting for the next 3 days.

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

**Not Received**

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

**Summary and Conclusions:**

**Day-1 & Day-2:**

In association with the upper air cyclonic circulation over southeast Bay of Bengal & adjoining east-central Bay of Bengal, and the trough at mean sea level from northwest Uttar Pradesh to Assam, there is wind convergence in the lower levels over Assam and adjoining Meghalaya. This is likely to result in heavy rainfall over the entire North East Indian region on day 1. On day 2, the trough is becoming less marked in the NWP models, and the associated rainfall is likely to decrease over North-east Indian region on day 2. The upper air cyclonic circulation over east-central Arabian Sea persists since yesterday, although it has moved north-eastwards since yesterday. The associated wind convergence and rainfall is expected over Kerala on day 1, which is likely to decrease on day 2. Thunderstorm activity is also expected over Central India on day 1 and day 2.

**24 hour Advisory for IOP:**

Kerala, Lakshadweep, Coastal Karnataka, South Interior Karnataka, Interior Tamil Nadu  
Madhya Maharashtra, Marathawada, Telengana, Coastal Andhra Pradesh  
Arunachal Pradesh, Assam and Meghalaya  
Tripura, Mizoram, Nagaland, Manipur  
Sikkim and Sub Himalayan West Bengal  
Gangetic West Bengal,  
Odisha

**48 hour Advisory for IOP:**

Kerala, Coastal Karnataka, Interior Tamil Nadu  
Arunachal Pradesh, Assam and Meghalaya  
Tripura, Mizoram, Nagaland, Manipur  
Sikkim and Sub Himalayan West Bengal  
Madhya Maharashtra, Marathawada, Telengana, Coastal Andhra Pradesh

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](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](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](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](http://satellite.imd.gov.in/img/3Ddaily_imr.jpg)

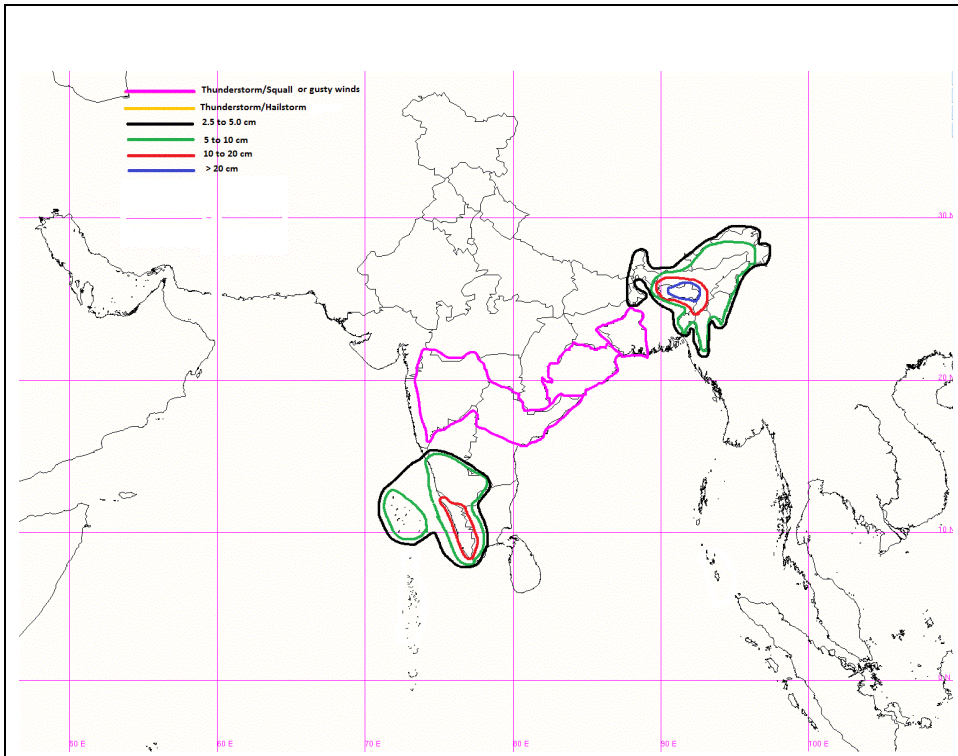
HEM: [http://satellite.imd.gov.in/img/3Ddaily\\_he.jpg](http://satellite.imd.gov.in/img/3Ddaily_he.jpg)

ForRadarimagesofthepast24hoursincludingmosaicofimages:

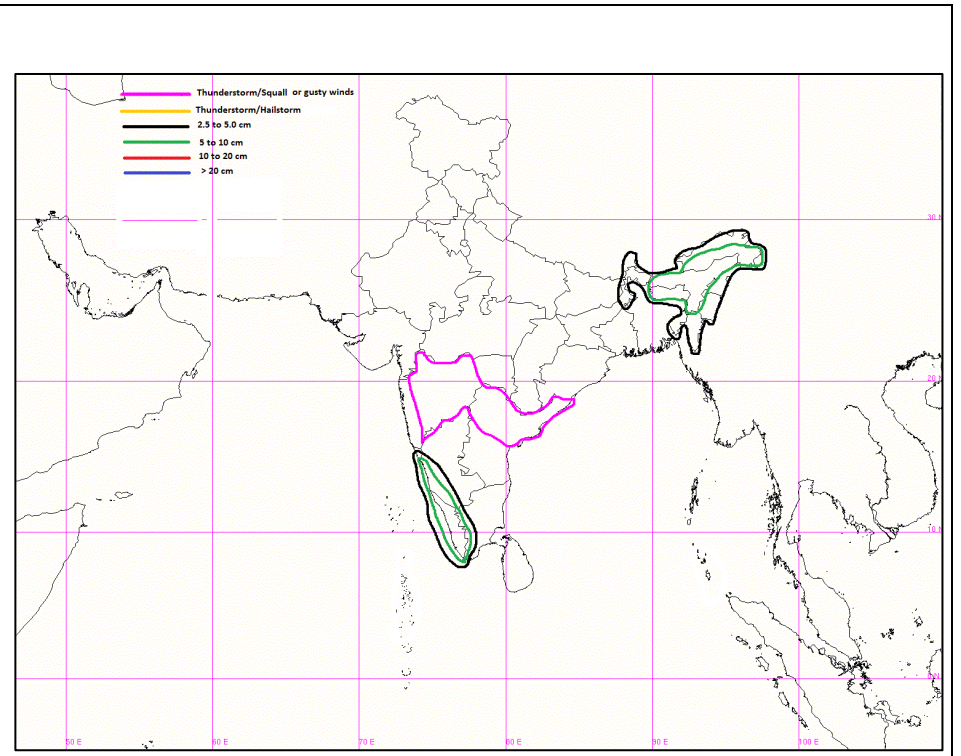
[http://ddgmui.imd.gov.in/dwr\\_img/](http://ddgmui.imd.gov.in/dwr_img/)

Satellite sounder based T- Phigram

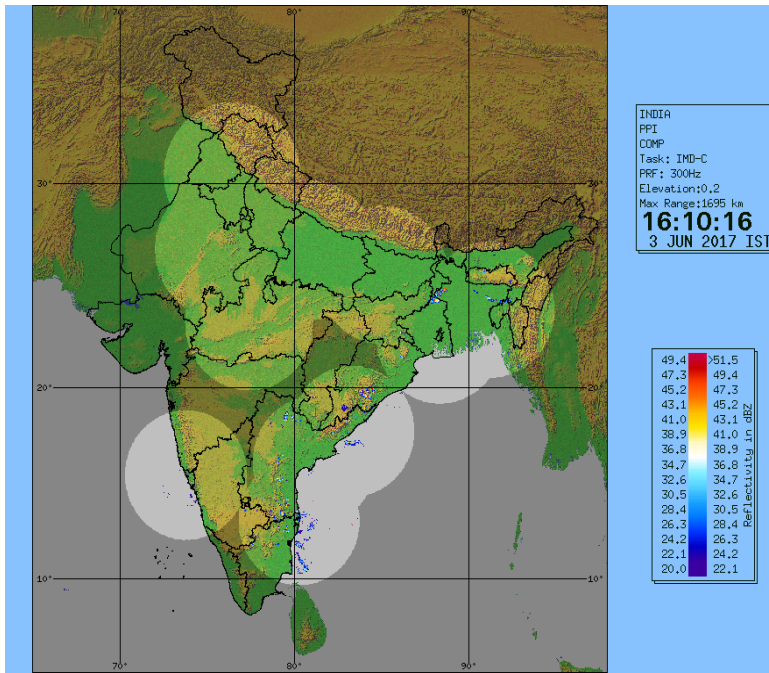
[http://satellite.imd.gov.in/map\\_skm2.html](http://satellite.imd.gov.in/map_skm2.html)



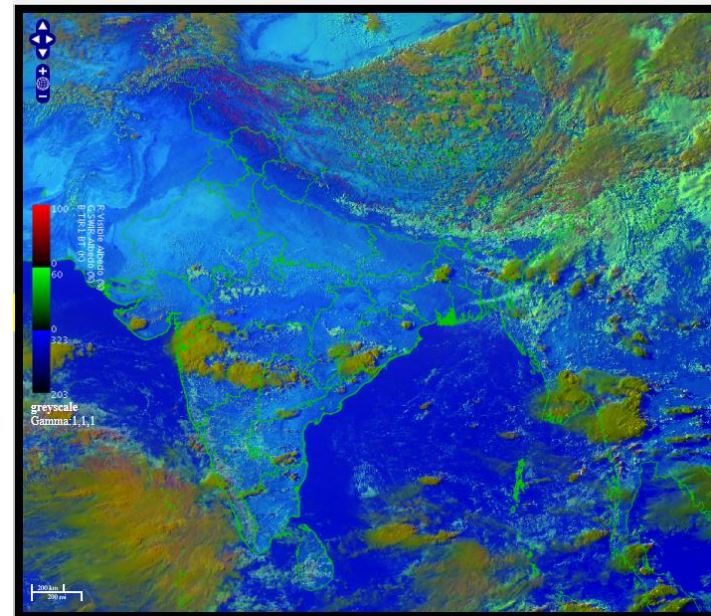
**IOP Advisory for 24 hours**



**IOP Advisory for 48 hours**

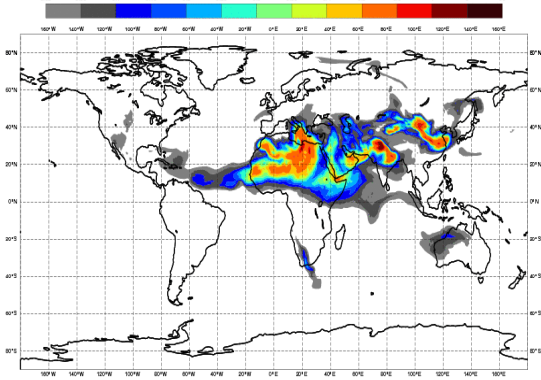


**DWR composite at 1610hrs IST**



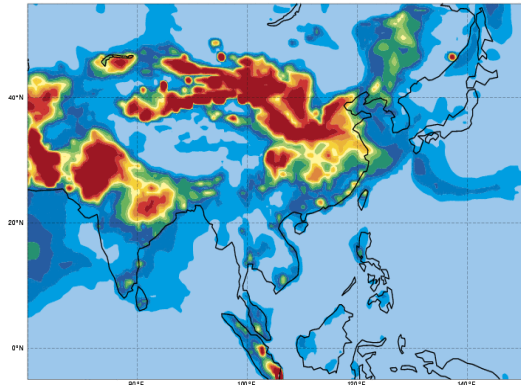
**RAPID RGB Satellite Imagery at 1600 hrs IST of today**

Friday 02 June 2017 00UTC CAMS Forecast t+120 VT: Wednesday 07 June 2017 00UTC  
Dust Aerosols Optical Depth at 550 nm

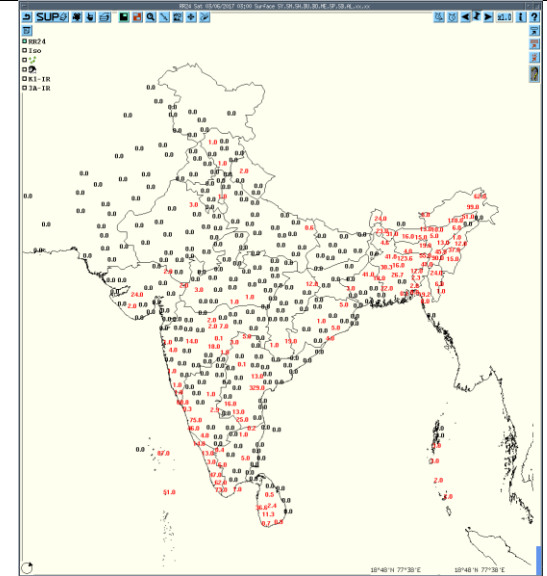


**Forecast Dust Concentration for 00UTC of 7<sup>th</sup> June**

Friday 02 June 2017 00UTC CAMS Forecast t+120 VT: Wednesday 07 June 2017 00UTC  
Surface PM10 [ $\mu\text{g}/\text{m}^3$ ]

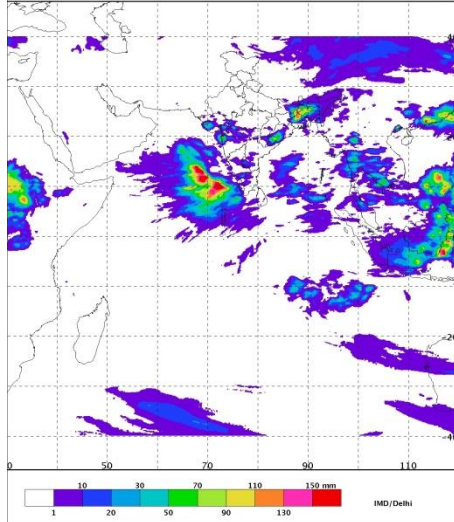


**PM10 Forecast for 00UTC of 7<sup>th</sup> June**



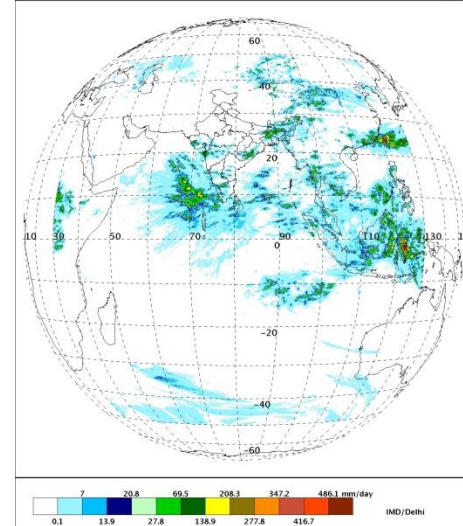
**Accumulated 24 Hour rainfall (in red) recorded at 0300UTC of today**

SAT-3MSAT-3D IMG  
INSAT Multispectral Rainfall(Daily)  
L3C BINNED GEOPHYSICAL PARAMETER GRIDDED



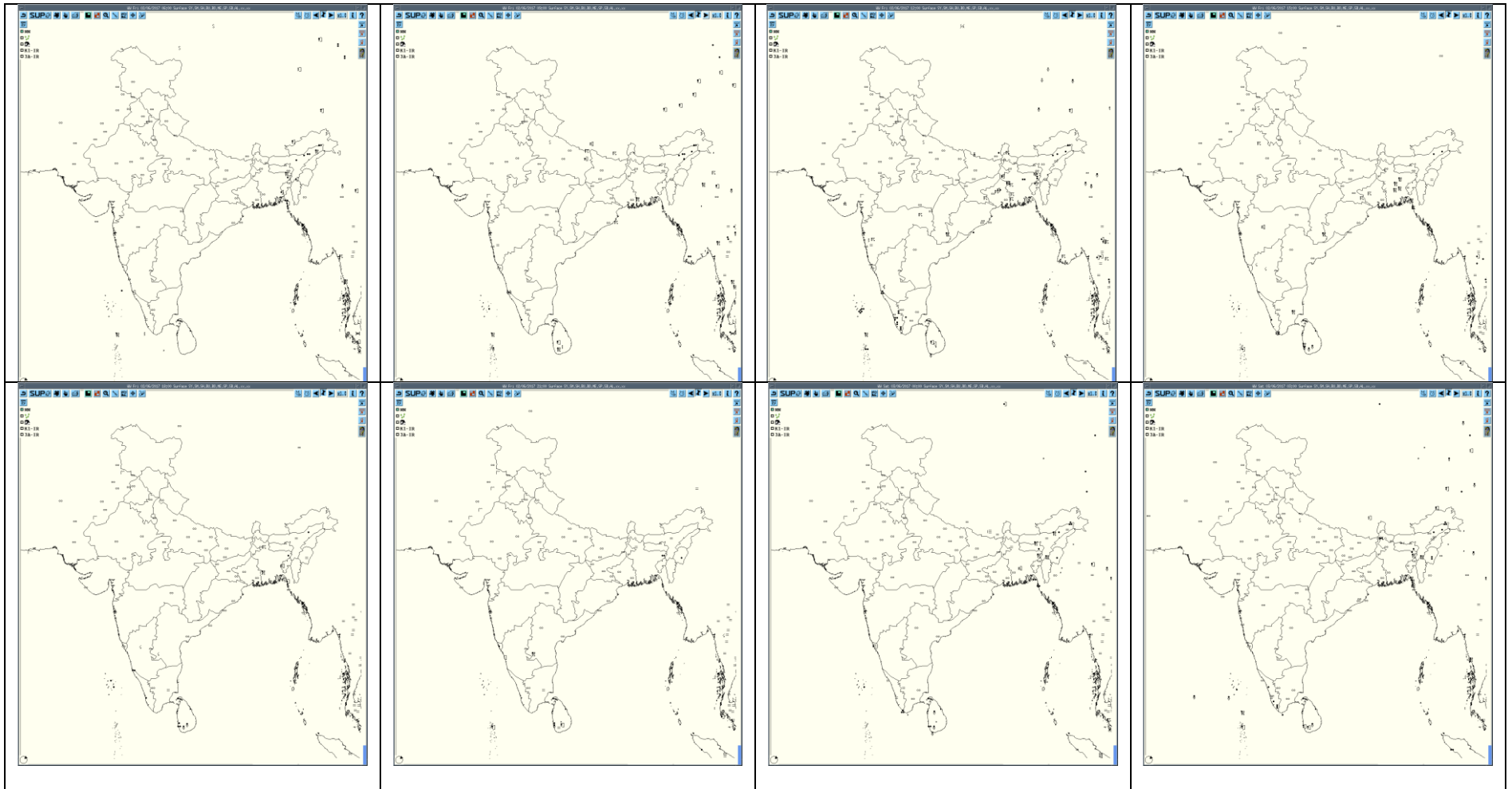
**IMR Rainfall**

SAT-3MSAT-3D IMG  
Precipitation(HE) Daily  
L3C BINNED GEOPHYSICAL PARAMETER FULL DISK

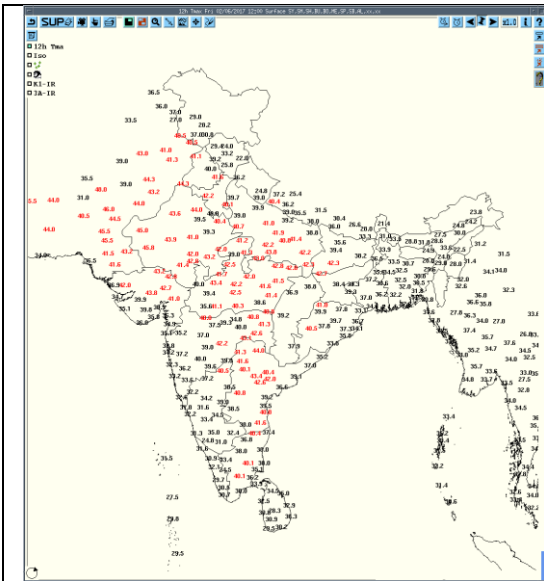


**HEM Rainfall**

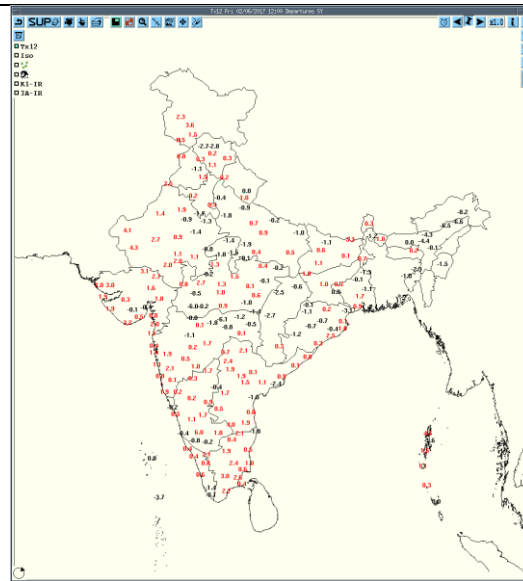




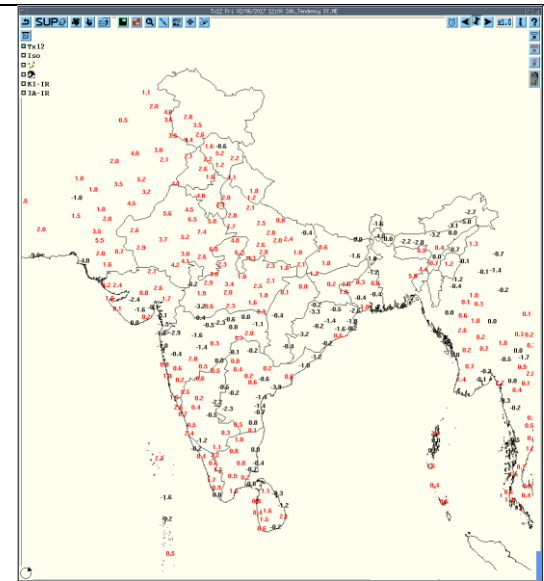
3hourly Past weather at 06,09,12,15,18,21UTC of yesterday and 00 & 03 hrs UTC of today



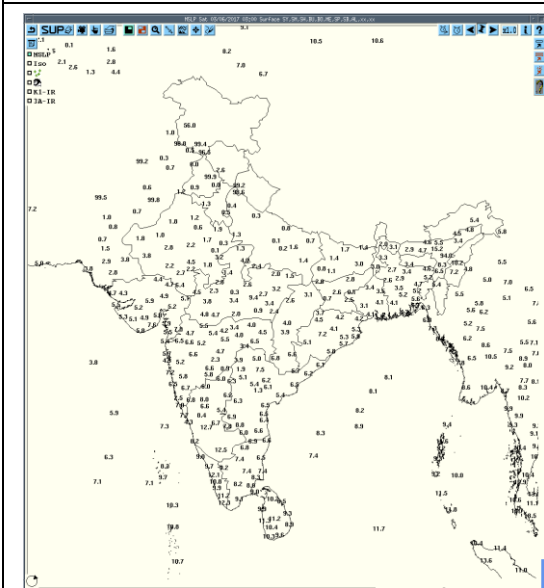
Tmax



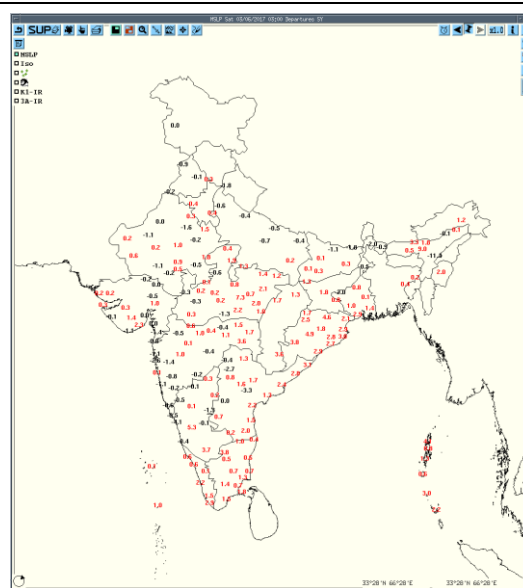
Departure Tmax



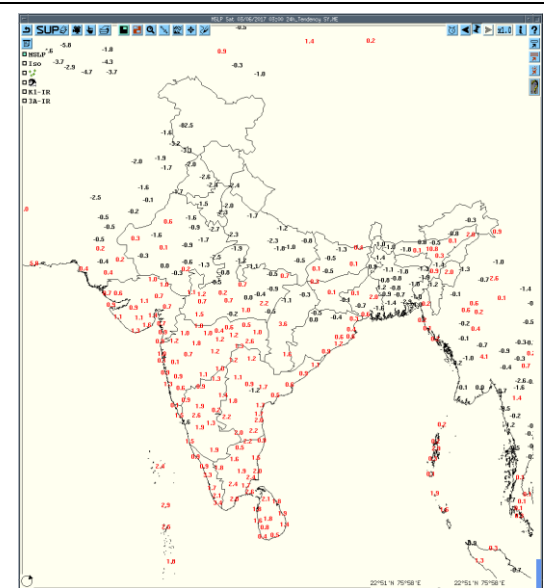
Tendency Tmax



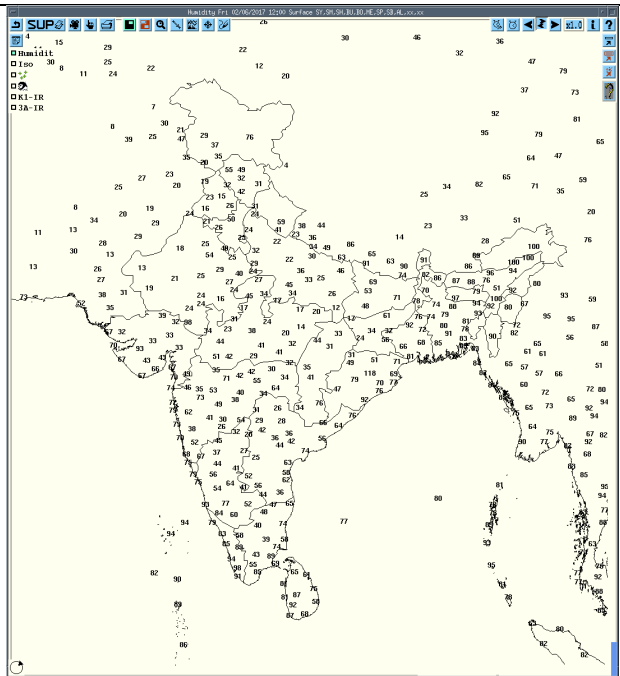
MSLP



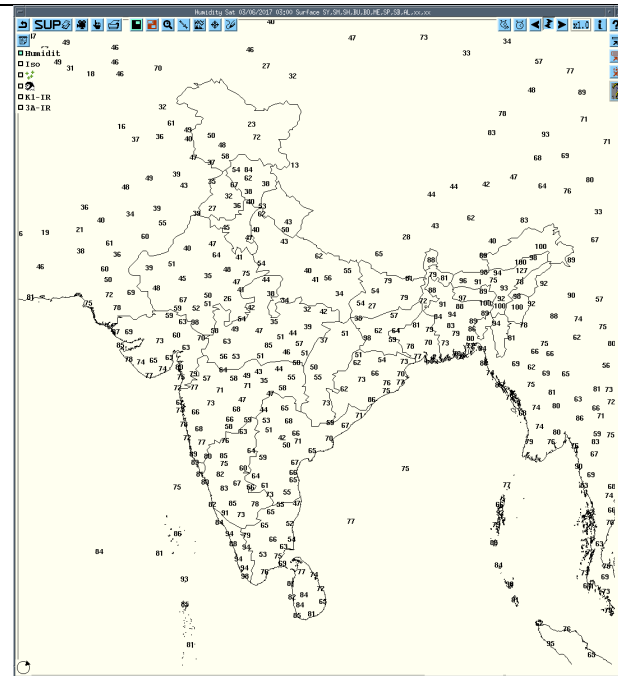
Departure MSLP



Tendency MSLP



**RH at 12UTC yesterday**



**RH at 03UTC today**

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

<b>Realized weather past 24hours (Based on SYNERGIE Products)</b>					
<b>Date</b>	<b>Time of Reporting</b>	<b>Name of Station Reporting</b>	<b>Region</b>	<b>STATE</b>	<b>Weather Event</b>
02-06-17	0600UTC	Cherrapunjee	NE India	Meghalaya	Thunderstorm
		Dibrugarh	NE India	Assam	Thunderstorm
		Minicoy	S India	Lakshadweep & Minicoy Islands	Thunderstorm
02-06-17	0900UTC	Gorakhpur	NW India	Uttar Pradesh	Thunderstorm
		Paradeep	E India	Odisha	Thunderstorm
		Minicoy	S India	Lakshadweep & Minicoy Islands	Thunderstorm
02-06-17	1200UTC	Jamshedpur	E India	Jharkhand	Thunderstorm
		Shantiniketan, Panagarh, Malda	E India	West Bengal	Thunderstorm
		Gangtok	E India	Sikkim	Thunderstorm
		Cherrapunjee	NE India	Meghalaya	Thunderstorm
		Rajkot	W India	Gujarat	Thunderstorm with Hail
		Pune	W India	Maharashtra	Thunderstorm
		Nagpur	C India	Maharashtra(Vidarbha)	Thunderstorm
		Jagdarpur	C India	Chhattisgarh	Thunderstorm
		Minicoy	S India	Lakshadweep & Minicoy Islands	Thunderstorm
02-06-17	1500UTC	Churu	NW India	Rajasthan	Thunderstorm
		Rajkot	W India	Gujarat	Lightening
		Jamshedpur	E India	Jharkhand	Thunderstorm
		Bankura	W India	West Bengal	Thunderstorm
		Jagdarpur	C India	Chhattisgarh	Thunderstorm
		Aurangabad	W India	Maharashtra	Thunderstorm
		Belgaum, Gadag	S India	Karnataka	Lightening
		Tiruchirappalli	S India	Tamilnadu	Thunderstorm
		Thiruvananthapuram	S India	Kerala	Thunderstorm
02-06-17	1800UTC	Gadag	S India	Karnataka	Lightening
		Anantapur	S India	Tamilnadu	Lightening
02-06-17	2100UTC	Anantapur	S India	Tamilnadu	Thunderstorm
03-06-17	0000UTC	Itanagar	NE India	Arunachal Pradesh	Thunderstorm
		Guwahati, Silchar	NE India	Assam	Thunderstorm
03-06-17	0300UTC	Minicoy	S India	Lakshadweep & Minicoy Islands	Thunderstorm
		Silchar	NE India	Assam	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)
Jagdapur	C India	Chhattisgarh	Thunderstorm and lightening	02-06-17	1630	2045
			<b>Squall from NW max speed: n/a</b>	<b>02-06-17</b>	<b>1713</b>	<b>1717</b>
Pilani(Jhunjhunu)	NW India	Rajasthan (East)	Thunderstorm	02-06-17	2030	2300
Churu	NW India	Rajasthan (West)	Thunderstorm	02-06-17	1930	2150
Sahjahanpur	NW India	Uttar Pradesh (East)	Thunderstorm	03-06-17	0630	0700
Nagpur	C India	Maharashtra (Vidarbha)	Thunderstorm	02-06-17	1715	1810
Anantapur	S India	Andhra Pradesh (RYLS)	Thunderstorm	02/03-06-17	022340	030345
Passighat	NE India	Arunachal Pradesh	Thunderstorm	02-06-17	1050	1130
					1130	1200
				03-06-17	1645	1715
				03-06-17	1845	0830
Itanagar	NE India	Arunachal Pradesh	Thunderstorm	03-06-17	0500	0510
					0515	0600
Silchar	NE India	Assam	Thunderstorm	02-06-17	2215	2400
				03-06-17	0100	0220
					0600	0700
					0745	0810
Dibrugarh	NE India	Assam	Thunderstorm	02-06-17	1115	1340
Dhubri	NE India	Assam	Thunderstorm	02/03-06-17	022110	030200
Guwahati	NE India	Assam	Thunderstorm	03-06-17	0525	0645
Barapani	NE India	Meghalaya	Thunderstorm	02-06-17	1240	1330
Cherrapunjee	NE India	Meghalaya	Thunderstorm	02/03-06-17	1050	1130
					1130	1200
					1645	1715
				02/03-06-17	02/1845	03/0830
Shillong	NE India	Meghalaya	Thunderstorm	02-06-17	2035	2100
Kailasahar	NE India	Tripura	Thunderstorm	02-06-17	0845	1045
Agartala	NE India	Tripura	Thunderstorm	02-06-17	2045	2245
Gangtok	E India	Sikkim	Thunderstorm	2/6/2017	1630	1730
Malda	E India	West Bengal(SHWB)	Thunderstorm	2/7/2017	1545	1700
Dum Dum	E India	West Bengal(GWB)	Thunderstorm	2/8/2017	2045	2215
Bankura	E India	West Bengal(GWB)	Thunderstorm	2/9/2017	1820	2100
Bankura	E India	West Bengal(GWB)	Thunderstorm	2/10/2017	1900	2100
Port Blair	E India	Andaman & Nicobar Islands	Thunderstorm	2/11/2017	2240	2350

**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
Lucknow	03-06-17	020300-030300	Nil	--	--	--	--
Patna	03-06-17	020300 - 020500	Multi Cell. Maximum Reflectivity : 42 dBZ Echo Top : 11.0 KM	Range: 157 KM from DWR Patna in ENE direction. Movement- Easterly	Warning E-mail and Fax sent to State Disaster management Authority and Concern DMs	N/A	MADHUBANI, SUPAUL, MADHEPURA, SHARASA & SITAMARHI
		020500 - 020530	NIL	NIL	N/A	N/A	N/A
		020530 - 021030	Multi Cell. Maximum Reflectivity : 52.50 dBZ Echo Top : 10.0 KM	Range: 064 KM from DWR Patna in SE direction. Movement- Easterly	Warning E-mail and Fax sent to State Disaster management Authority and Concern DMs	N/A	NALANDA, NAWADA, BEGUSARAI, SEIKHPURA, MUNGER, LAKHISARAI, KHAGARIA, BHAGALPUR, BANKA, JAHANABAD, SARAN , PATNA, JAMUI, MUZAFFARPUR, GOPALGANJ, SIWAN
		021030 -	NIL	NIL	N/A	N/A	N/A

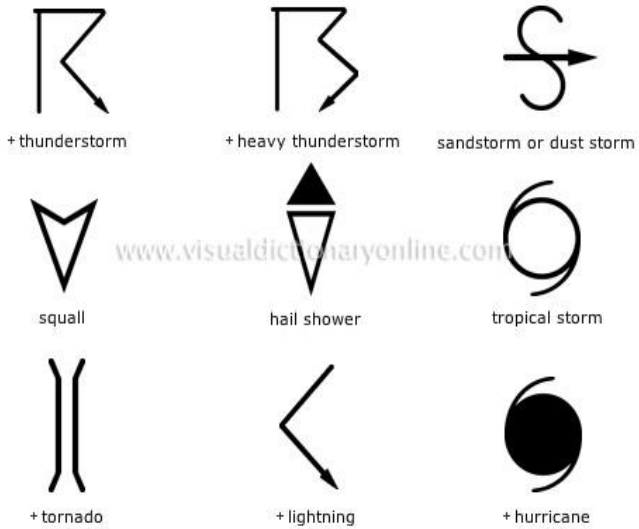
		021110					
		021110 - 021310	Multi Cell. Maximum Reflectivity : 47.50 dBZ Echo Top : 12 KM	Range: 135 KM from DWR Patna in NNE direction. Movement- SE	Warning E-mail and Fax sent to State Disaster management Authority and Concern DMs	N/A	SITAMARHI , MUZAFFAR PUR, MOTIHARI & SHEOHAR
		021310 - 021520	NIL	NIL	N/A	N/A	N/A
		021520 - 021640	Single Cell. Maximum Reflectivity : 45 dBZ Echo Top : 13 KM	Range: 202.5 KM from DWR Patna in NE direction. Movement- Easterly	Warning E-mail and Fax sent to State Disaster management Authority and Concern DMs	N/A	SUPAUL, ARARIYA,M ADHEPURA , KISHANGA NJ, KATIHAR, SHARASA & PURNIYA
		021640 - 022130	NIL	NIL	N/A	N/A	N/A
		022130 - 030030	Single Cell. Maximum Reflectivity : 39.5 dBZ Echo Top : 8.1 KM	Range: 202 KM from DWR Patna in NE direction. Movement- ESE	Warning E-mail and Fax sent to State Disaster management Authority and Concern DMs	N/A	SUPAUL, ARARIYA, MADHEPU RA, KISHANGA NJ, KATIHAR, SHARASA & PURNIYA
		030030 - 030300	NIL	NIL	N/A	N/A	N/A
Patiala	03-06-17	020300- 030300	NO SIGNIFICANT ECHO	-----	-----	-----	-----
Jaipur	03/06/17	020832- 021212	Multiple cells with average height of 3.5 km & maximum reflectivity 46.5 dBZ	Cell develop 0832 to 1212 UTC of 02/06/2017 towards W, SW of jaipur and moved to SW Wards at speed 18-20 km/hr	Cells starts forming from 0832 UTC of 02/06/2017 AT W,SW of Jaipur and reaches maximum reflectivity during 0832- 1142 UTC and died down 1212 UTC.	Thunderstorm/rai n at isolated	Nagaur, Ajmer, Bhilwara
		021212-	Multiple cells with	Cell develop 1212 to	Cells starts forming from	Thunderstorm/rai	Nagaur,

		021932	average height of 4 km & maximum reflectivity 43.5 dBZ	1932 UTC of 02/06/2017 towards N, NW, SW of Jaipur and moved to E Wards at speed 30-35 km/hr	1212 UTC of 02/06/2017 AT N, NW, SW of Jaipur and reaches maximum relectivity during 1212-1532 UTC and died down 1932 UTC.	n at isolated	Churu, Sikar, Jaipur, Jhunjhunu
Machilipatnam	03-06-17	020801-020901	Isolated Multiple cells average height of 7.5. km with maximum reflectivity of 57.5dBZ	W (92KM) and moving Nly direction with average speed of 15.0kmph	Cell started forming at 0831UTC, at W (92km) from Radar the maximum reflectivity during 0801 to 0901 UTC and died down at 0911UTC	Possibility of Thunder storm with rain and winds.	Guntur District.
		020831 - 021051	Isolated Multiple cells average height of 8.5km with maximum reflectivity of 56.5 dBZ	NE (220KM) and moving NEly direction with average speed of 8.5kmph	Cells started forming at 0831UTC at NE (220KM ) from Radar the maximum reflectivity during 0831 to 1051 and died at 1101UTC	Possibility of Thunder storm with rain and winds.	East Godavari, Visakhapatnam and Dantewara Districts.
		020841-021011	Isolated Multiple cells average height of 7.5km with maximum reflectivity of 53.5 dBZ	SW (170KM) and moving NWly direction with average speed of 30.0kmph	Cells started forming at 0841UTC at SW (170KM ) from Radar the maximum reflectivity during 0841 to 1011 and died at 1021UTC	Possibility of Thunder storm with rain and winds.	Prakasam District
		020901-021001	Isolated Multiple cells average height of 7.5km with maximum reflectivity of 54.5 dBZ	WSW (240KM) and moving NWly direction with average speed of 10.0kmph	Cells started forming at 0901UTC at WSW(240KM ) from Radar the maximum reflectivity during 0901 to 1001 and died at 1011UTC	Possibility of Thunder storm with rain and winds.	Prakasam and Kurnool, Districts.
		021121-021311	Isolated Multiple cells average height of 9.5km with maximum reflectivity of 60.50 dBZ	W (200KM ) and moving Nly direction with average speed of 25.0kmph	Cells started forming at 1121UTC at W(200KM ) from Radar the maximum reflectivity during 1121 to 1311 and died at 1321UTC	Possibility of Thunder storm with hail and rain with moderate winds.	Prakasam and Guntur Districts.
		021241-021331	Isolated Multiple cells average height of 9.5km with maximum reflectivity of 63.50 dBZ	SW (236KM ) and moving NWly direction with average speed of 15.0kmph	Cells started forming at 1241UTC at SW(236KM ) from Radar the maximum reflectivity during 1241 to 1331 and died at 1341UTC	Possibility of Thunder storm with hail and rain with moderate winds.	Nellore and Prakasam Districts.
Agartala	020300-	020302	Multiple cells formed	Formed 150 km SW of	Cells dissipated at 0840	N/A	N/A



	030300	- 020840	NE,NW OF DWR Agartala with Maximum Height 09 km at04112UTC and maximum reflectivity41 dBZ at0312 UTC	DWR and moves East wards with around 50 kmph.	UTC over Nort Mizzoram and Assam.		
		020302 - 020622	Multiple Cells SW of DWR Agartala with Maximum Height 08 km at 0332 UTC and maximum reflectivity 40 dBZ at0312 UTC.	Formed 150 km SW of DWR and moved East wards at around 50 kmph	Cells dissipated at 0622 UTC over South Tripura and B/D..	N/A	N/A
		020900 - 022112	Multiple cell formed with Maximum Height 16 km at1312 UTC and maximum reflectivity48 dBZ at 1342UTC	Formed 390 km NWW of DWR and Move East wards at around 60Kmph.Formed. Squall line at 1312 UTC.	Cells dissipated at 2112 UTC over Mizzoram.	N/A	N/A
		021952 030300	Multiple Cells formed NNW of DWR Agartala with Maximum height 16 Km at 1952 UTC and Maximum Reflectivity43 dbz at 2352 UTC.	Formed 150kmNNW of DWR Agartala and moves East wards with 50kmph.	persist	N/A	N/A
Karaikal	020300- 030300	1.020852- 021640	1)Cluster of individual cells at NNW direction at 220-250 km range with max reflectivity of 40dBz and average height of 10 kms	1.In NE direction almost stationary	Cells started forming at 1420 and dissipated at 2210IST	N/A	N/A
		2.020942- 021612	2.cluster of cells in WNW direction (120-150KM) with max reflectivity of 53dBz and Average height of 12KM	2.Moved to NE Direction	Cells started forming at 1510 and dissipated at 2140IST		
		3.020942- 021522	3.Embedded cells in wsw direction (150-180KM) with max reflectivity of 40dBz and Average height of 10KM	3.Moved to NE Direction	Cells started forming at 1510IST and dissipated at 2050IST.		

Paradeep	020300-030300	020650-021250	Convective isolated cells developed after 1210hrs. IST in WSW sector and later to NW sector around 20 kms to 240 kms of range between AZ 235 Deg. to 325 Deg. from radar station at height starting from 8 kms to 12 kms with reflectivity of 30 dbz to 48 dbz. The convective cells weakened gradually after 1820 HRS IST.	Position:- Lat. 19.4Deg.N Long. 84.5deg.E Direction-SSW. Range : 20 kms to 240 kms. AZ : 235 to 325 Movement :SSW ly.	NIL	TS with slight rain .	Phulbani, Ganjam Baudha, Keonjhar & Angul
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∞	haze
⌋	smoke
⌋→	dust or sand storm
≡	fog
⚡	drizzle
•	rain
✱	snow
▽	showers
△	hail
⌋	thunderstorm
<b>Weather Symbols</b>	