



**India Meteorological Department**  
**FDP STORM Bulletin No. 05 (10-03-2017)**

S. No.	STORM area of interest(All India)	
1.	<b>CURRENT SYNOPTIC SITUATION at 03UTC of 10-03- 2017</b>	<p><b>SYNOPTIC FEATURES:</b> The Western Disturbance as an upper air cyclonic circulation over north Pakistan &amp; neighbourhood extending upto 3.1 km above mean sea level with the trough aloft in mid-tropospheric westerlies roughly along longitude 72.0° E and north of latitude 30.0° N persists. The induced upper air cyclonic circulation over Haryana and neighbourhood extending upto 1.5 km above mean sea level persists. The upper air cyclonic circulation over north Chhattisgarh &amp; neighbourhood extending upto 0.9 km above mean sea level persists. The upper air cyclonic circulation over Telangana and neighbourhood, now lies over Telangana &amp; adjoining North Interior Karnataka and extends upto 0.9 km above mean sea level. A trough extends from the cyclonic circulation over Telangana &amp; adjoining North Interior Karnataka to south Tamilnadu at 0.9 km above mean sea level. An upper air cyclonic circulation lies over southwest Rajasthan &amp; neighbourhood and extends upto 0.9 km above sea level.</p> <p><b>SATELLITE OBSERVATIONS during past 24hrs and current observation</b> (Based on 0300 UTC Imagery of INSAT-3D):</p> <p><b>Clouds (based on 0300UTC imagery):</b> Scattered multi-layered clouds over J &amp; K, Himachal Pradesh, Uttarakhand, and Uttar Pradesh in association with western disturbance over the area. Scattered low/medium clouds over rest parts of north India, Rajasthan, extreme north Madhya Pradesh, south Vidarbha, Telangana and Andhra Pradesh. Scattered low/medium clouds with embedded isolated weak to moderate convection over south Chhattisgarh. Scattered low/medium clouds over rest Chhattisgarh, Odisha, Bihar, Jharkhand, Sikkim, Arunachal Pradesh and North-eastern States.</p> <p><b>Arabian Sea:-</b> Broken low/med clouds with embedded isolated moderate to intense convection over SE Arabian sea between Lat 08.5° N To 09.5° N and Log 73.5° E to 76.8° E.</p> <p><b>Bay Of Bengal &amp; Andaman Sea:-</b> Scattered low/med clouds with embedded isolated weak to moderate Convection over N &amp; SW Bay of Bengal.</p> <p><b>Low Level Circulation / Vortex:</b> Strong convection (CTT reaching up to 210° K in some places) was observed over the of J &amp; K and moderate convection was observed over HP, UTRKND, Punjab, Haryana, N Rajasthan and UP. OLR less than 200 <math>wm^{-2}</math> was observed over J &amp; K and Uttarakhand for last 24 hrs. Weak convection was observed over all the North-eastern states with CTT &gt; 250° K. OLR more than 200 <math>wm^{-2}</math> was observed over this region for last 24 hrs. Strong convection with CTT reaching less than 220° K was observed over isolated places in Chhattisgarh, AP, Tamil Nadu,</p>

		<p>Kerala and parts of Odisha and Telangana.  <b>Trough at middle level based on WV imagery and upper level winds:</b> Trough in westerly in upper levels runs along longitude 71°E to the north of 25°N. It has moved towards east by about 1° in last 24 hours.  Jet stream is not observed over India.  <b>Dynamic Features:</b> A positive Vorticity field is seen over most parts of the country and maximum over UP, coastal AP and parts in NW region. Area of positive convergence lies over the Jharkhand, Chhattisgarh and MP in the central India and Kerala and Karnataka in southern India. A strong wind shear is present over entire northern part of country (North of 25 N). Positive shear tendency is observed over Gujarat-Rajasthan region and negative shear tendency was observed over NW India. Higher water vapour content over isolated places in J&amp;K, HP, Chhattisgarh and Odisha suggests possible development of the convection associated with thunderstorm over this region  <b>TPWV Distribution :Rainfall (IMR,HEM): IMR:</b> Up to 50 mm of rainfall was obtained over the states of J&amp;K, HP and Kerala and up to 0mm of rainfall was obtained over isolated places in AP and TN and up to 10 mm of rainfall was obtained over parts of coastal AP, Odisha, GWB and Arunachal Pradesh.  <b>HEM:</b> Upto 70 mm of rainfall was obtained at isolated places in J&amp;K, Kerala Coastal AP, TN and up to 7mm of rainfall was obtained over Himachal Pradesh, Punjab, Uttarakhand, West UP, Odisha, Jharkhand.</p> <p><b>RADAR observation during past 24 hrs and current observation based on 0600UTC</b>  Convection appears to be in progress over Himachal Pradesh, Central UP, Gangetic West Bengal, Coastal Andhra Pradesh, and Arunachal Pradesh.</p> <p><b>Environmental condition(dust etc) and its forecast based on 00UTC of date:</b>  No significant dust concentration observed over Arabian Peninsula and west Rajasthan. No significant change in dust concentration expected.</p>
2.	<b>NWP MODEL GUIDANCE</b>	<p><b>NCMRWF (NCUM Forecasts based on 00UTC of the day):</b>  <b>1. Weather Systems: Weak</b> CYCIR (850hPa) over NW India in Day-0.  Feeble trough in forecasts Day-0 to Day-5 at MSLP over J&amp;K.  Wind discontinuity only in Day-0: at 925 extends from parts of AP, Maharashtra, Odisha, Chhattisgarh and parts of Bihar.  WD W of J&amp;K in Day-0 to Day-1;  <b>2. Location of jet and jet core at 500hPa:-500hPa Jet core (&gt;60kt)</b> Over Rajasthan, Gujarat and MP in Day0 to Day-1, extending to large parts of central &amp; eastern India in Day-2.  <b>3. Convergence at 850 hPa:-</b> Weak noisy low level convergence at several places over India  <b>4. Low level Vorticity:-Positive Vorticity (&gt;15 x 10<sup>-5</sup>/s)</b> over parts of eastern UP &amp; Bihar in Day-1, isolated locations over NE on all days.  Also over West U.P, Punjab Haryana region in Day0 to Day-1.  Over different parts along the <b>NS trough in the 00UTC</b>  <b>5. Showalter Index:-3to-4[Very Unstable]:</b>-Day-0: Mainly the TN and AP, Odisha, WB and parts of east UP, Jharkhand and Bihar  Day-1: Bihar, WB, Bangladesh and adjoining Indian states  Day-2: Parts of TN and in NE isolated places  Day-3 &amp; 4: Parts of TN extending to AP and Karnataka in Day-4</p>

**6. K-Index:>35[Very Unstable thunderstorm likely]:**-Day-0: Mainly the TN and AP, Odisha, WB and parts of east UP, Jharkhand and Bihar

Day-1: Bihar, WB, Bangladesh and adjoining Indian states

Day-2: Parts of TN and in NE isolated places

Day-3 & 4: Parts of TN extending to AP and Karnataka in Day-4.

**7. TTI:-TTI>50[Scattered Numerous Thunderstorms]:TTI >50 [Scattered Numerous Thunderstorms] :** Large parts of North and NW India in Day-0 to Day-1. Over Arunachal in Day-2a and Day-3

**8. Rainfall and thunder storm activity:**-Day-1 to Day-3: (2-4cm/day)Parts of Punjab, HP, J & K Arunachal. Along foothills of Himalayas. Isolated locations in Kerala.

Day-2: JK, Punjab, parts of east U.P, Arunachal, Tripura-Mizoram (>2cm/day)

Day-2: Rainfall >16cm/day Tripura-Mizoram region.

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

**1. Weather systems:-**The CYCIR at 850 hPa over Punjab and adjoining areas persists and a trough extends from this system to Arunachal Pradesh in Day-1 forecast. Day-1 forecast also shows a feeble trough extends from Bihar to Andhra Pradesh. Forecasts also show anticyclonic flow over the Bay of Bengal persists during next 3 days and a cyclonic circulation over the Arabian Sea from Day-2 to Day-5. Contour at 500 hPa shows a WD over the northern parts of the India during Day-1 to Day-2 forecasts

**2. Location of jet and jet core at 500hPa:-500hPa Jetcore(>60kt):- 500hPa Jet core (>60kt):** A Jet at 500 hPa would establish over India along around 25 deg. N latitude during next 2 days.

**3.Spatial distribution of Low level Vorticity:- 850hPa Positive Vorticity (>12 x 10<sup>-1</sup>/s):** Over NW India and along the trough at 850 hPa on Day-1, over Gangetic plain on Day-2, over Karnataka and adjoining areas on Day-4 and along foot hill of Himalaya during Day-3 to Day-5.

**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 the threshold value all over the country during next 5 days.

**Lifted Index (< -2):** Less than threshold value over the Gangetic plain during 6-12 UTC of 11.03.2017, over Gangetic West Bengal on Day-1 and Day-2, over Tamilnadu coast during next 5 days.

**Total Total Index ( > 50) :** Above threshold value over Maharashtra, Gujarat and adjoining south Rajasthan and Karnataka at 12 UTC during next 5 days.

**Sweat Index ( > 300):** Mostly along east coast, Gangetic West Bengal, northwest India, over the Gangetic plain during next 2 days and over the south peninsula on Day-4 and Day-5.

**CAPE (> 1000):** Mostly along east coast during next 3 days and over Andhra Pradesh and Tamilnadu coast during Day-4 to Day-5.

**CIN (50-150):** Over the Gangetic plain during next 2 days, along east coast on Day-2 and over south peninsula on Day4 and Day-5.

**5.Rainfallactivity:-** 10-40 mm rainfall over J&K, Delhi, Haryana, east UP, Bihar and West Bengal during next 24 hours, over NE states during next 3 days and over extreme south peninsula during next 5 days, 20-130 mm rainfall over isolated places in NE states on Day-2.

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

**1. Weather Systems:** The CYCIR at 850 hPa over east UP and adjoining areas moves north-eastwards during next 24 hours. Anticyclonic flow over Bay of Bengal and Arabian Sea persists during next 3 days. Contour at 500 hPa shows a WD over the northern parts of the India during Day-1 to Day-2 forecasts.

**2. Location of jet and jet core at 500 hPa:- 500 hPa Jet core (>60kt):** A Jet at 500 hPa persists over India along around 25 deg. N latitude from Day-1 to Day-3.

**3. Spatial distribution of Low level Vorticity-850 hPa Positive Vorticity (>12x10<sup>-1</sup>/s):** Over the most parts of India at 850 hPa during next 2 days and along foothills of Himalaya on Day-3.

**4. Model reflectivity (Max. dBz):** 5-10 dBz over isolated parts of south peninsula, Gujarat region and eastern parts of India during next 24 hours. 20-30 dBz over parts of Uttarakhand, UP and Bihar during next 24 hours and over isolated parts of south peninsula, Gujarat region and eastern parts of India on Day-3.

**5.Spatial distribution of Total Total Index, K-Index, CAPE and CIN [High potential for thunderstorm] Total Total Index (> 50) :** Above threshold value mostly over most parts of NW India and Gangetic plain on Day-1, along foothills of Himalaya on Day-2 and over NW India on Day-3.

**K-Index (> 35):** Less than threshold value over the India during next 3 days.

**CAPE (> 1000):** Over Punjab, Delhi, Haryana, west UP and adjoining areas during next 12 hours, over south peninsula and along east coast on Day-2 & Day-3.

**CIN (50-150):** More than -200 over most parts of the India during next 3 days.

**5. Rainfall activity:** - 20-40 mm over Delhi, Haryana and Uttarakhand on Day1 and Day-2. 20-70 over NE states during next 48 hours.

**ECMWF(based on 0000 UTC of the day):**

**Mean sea level:** No significant systems over Indian region till 14<sup>th</sup> March 2017.

**Lower Level Winds (925 hpa & 850 hpa):** An induced upper air cyclonic circulation is seen over Punjab and adjoining northwest Rajasthan on 10<sup>th</sup> and seen over northeast Rajasthan and adjoining Haryana and northwest Madhya Pradesh on 11<sup>th</sup>; seen over west Uttar Pradesh and adjoining Haryana on 12<sup>th</sup> and become less marked thereafter.

An upper air cyclonic circulation is seen over East Madhya Pradesh and neighbourhood on 10<sup>th</sup> March and become less marked thereafter. Another upper air cyclonic circulation is seen over north Tamilnadu and neighbourhood on 13<sup>th</sup> February and becomes less marked thereafter. Another upper air cyclonic circulation is seen over Jharkhand & neighbourhood on 10<sup>th</sup> and seen over Gangetic West Bengal on 11<sup>th</sup> and becomes less marked thereafter.

**Western Disturbance (700 hpa & 500 hpa)**

A western disturbance as an upper cyclonic circulation seen over north Pakistan and neighbourhood on 10<sup>th</sup> February; over north Jammu & Kashmir and adjoining Pakistan on 11<sup>th</sup>; over Jammu & Kashmir & neighbourhood on 12<sup>th</sup> and becomes less marked thereafter.

3.	<b>IOP ADVISORY FOR 24Hrs</b>	<p><b>Summary and Conclusions:</b></p> <p>Synopsis based on synoptic conditions, NWP models and satellite imageries is as follows:</p> <p><b>Day1 &amp; Day2:</b> Due to persistence of the low level cyclonic circulations over Haryana and Chhattisgarh, with respect to yesterday, satellite (INSAT 3D) indicates that Total Precipitable Water Vapour has increased over the North Indian region. This is likely to increase rainfall activity over the entire North Indian region during the next 24 hours. The systems are likely to shift slightly eastwards after 24 hours, thereby increasing the rainfall activity over Assam, Meghalaya regions. The trough extending from the cyclonic circulation over Telangana &amp; adjoining North Interior Karnataka to south Tamilnadu is likely to result in rainfall activity over Interior Tamil Nadu and adjoining Kerala.</p> <p><b>24 hour Advisory for IOP:</b></p> <ul style="list-style-type: none"><li>• Haryana, West UP, Jammu, Bihar, Sub Himalayan West Bengal, Gangetic West Bengal, North Orissa, Tripura</li><li>• Rest Jammu and Kashmir, Himachal Pradesh, Uttar Pradesh, Orissa, Interior Tamil Nadu, Kerala, Mizoram, Tripura, Assam, Arunachal Pradesh</li><li>• North Coastal Andhra Pradesh, Tamil Nadu</li></ul> <p><b>48 hour Advisory for IOP:</b></p> <ul style="list-style-type: none"><li>• Assam, Meghalaya</li><li>• Bihar, Sub Himalayan West Bengal, Gangetic West Bengal, Coastal Orissa, Arunachal Pradesh, Mizoram, Tripura</li><li>• Jammu and Kashmir, Himachal Pradesh, Uttar Pradesh, North Rajasthan, Haryana, Interior Tamil Nadu, Kerala</li></ul>
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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)

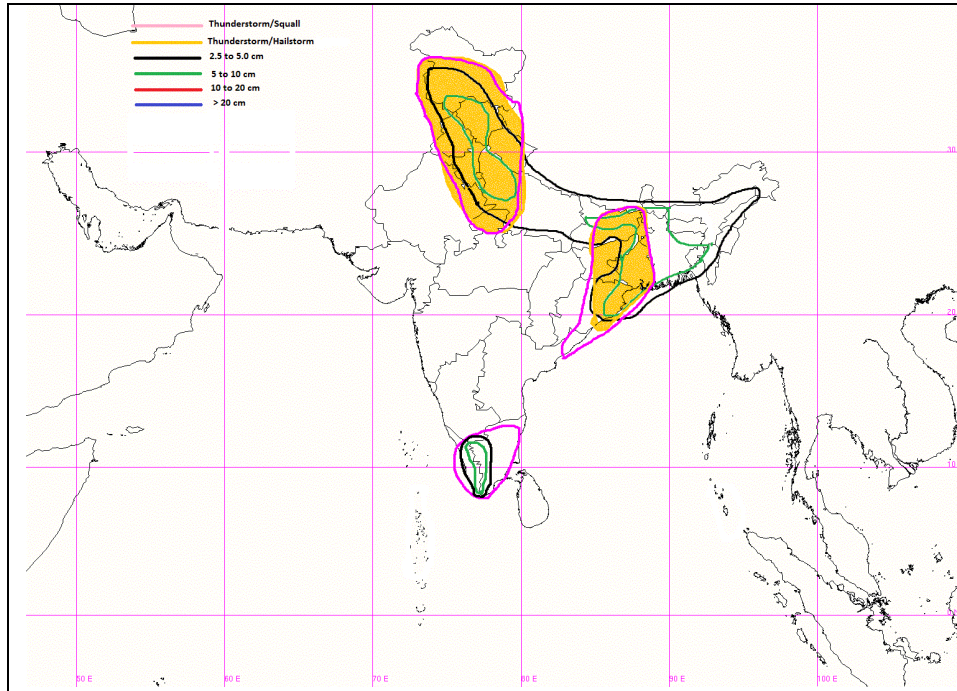
Past 24 hour HEM and IMR rainfall (upto03UTCof today)

IMR: [http://satellite.imd.gov.in/img/3Ddaily\\_imr.jpg](http://satellite.imd.gov.in/img/3Ddaily_imr.jpg)

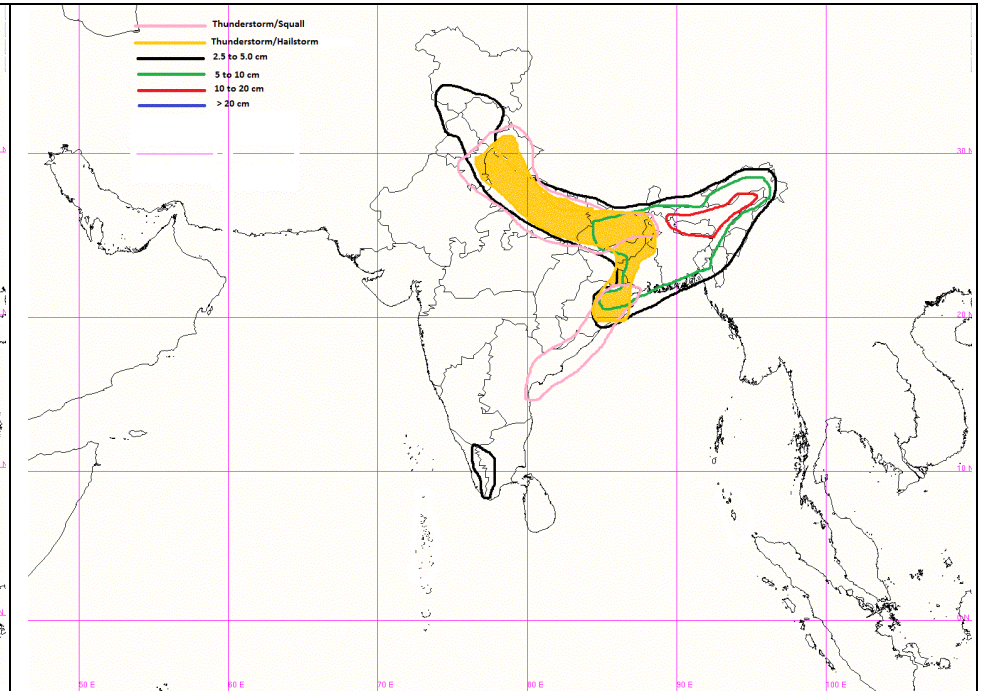
HEM: [http://satellite.imd.gov.in/img/3Ddaily\\_he.jpg](http://satellite.imd.gov.in/img/3Ddaily_he.jpg)

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

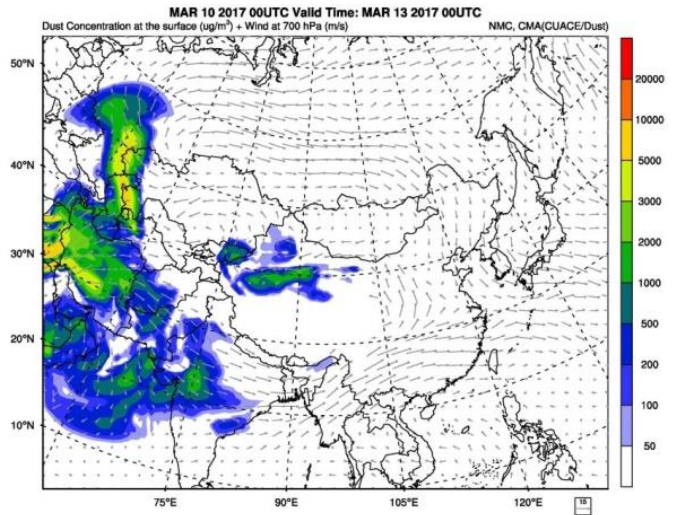
[http://ddgmui.imd.gov.in/dwr\\_img/](http://ddgmui.imd.gov.in/dwr_img/)



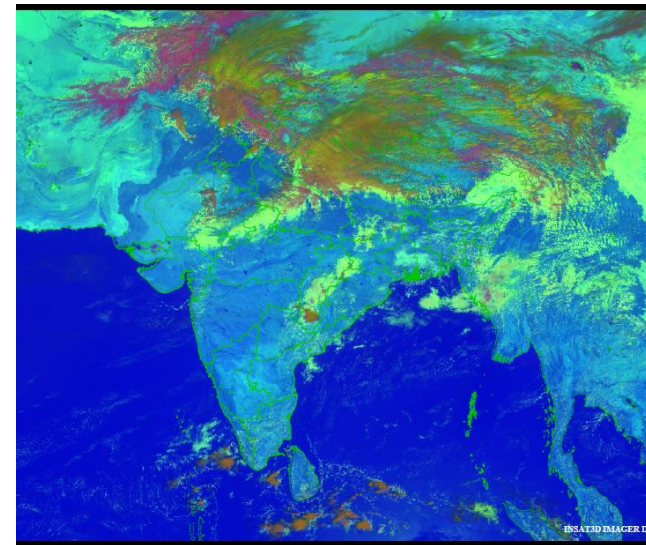
**IOP Advisory for 24 hours**



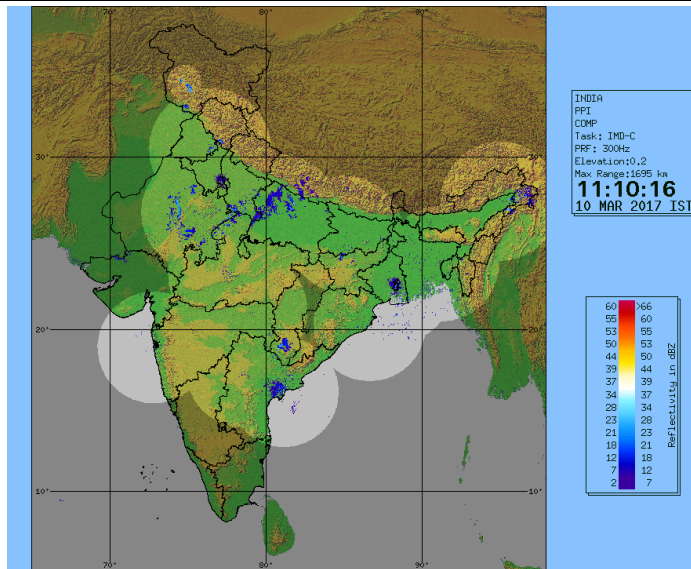
**IOP Advisory for 48 hours**



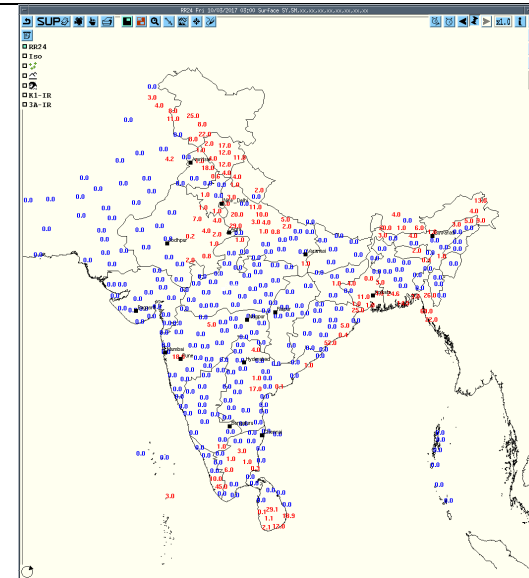
Forecast Dust Concentration for 00UTC of 13<sup>th</sup> March



RGB Image of INSAT3D at 0530 UTC

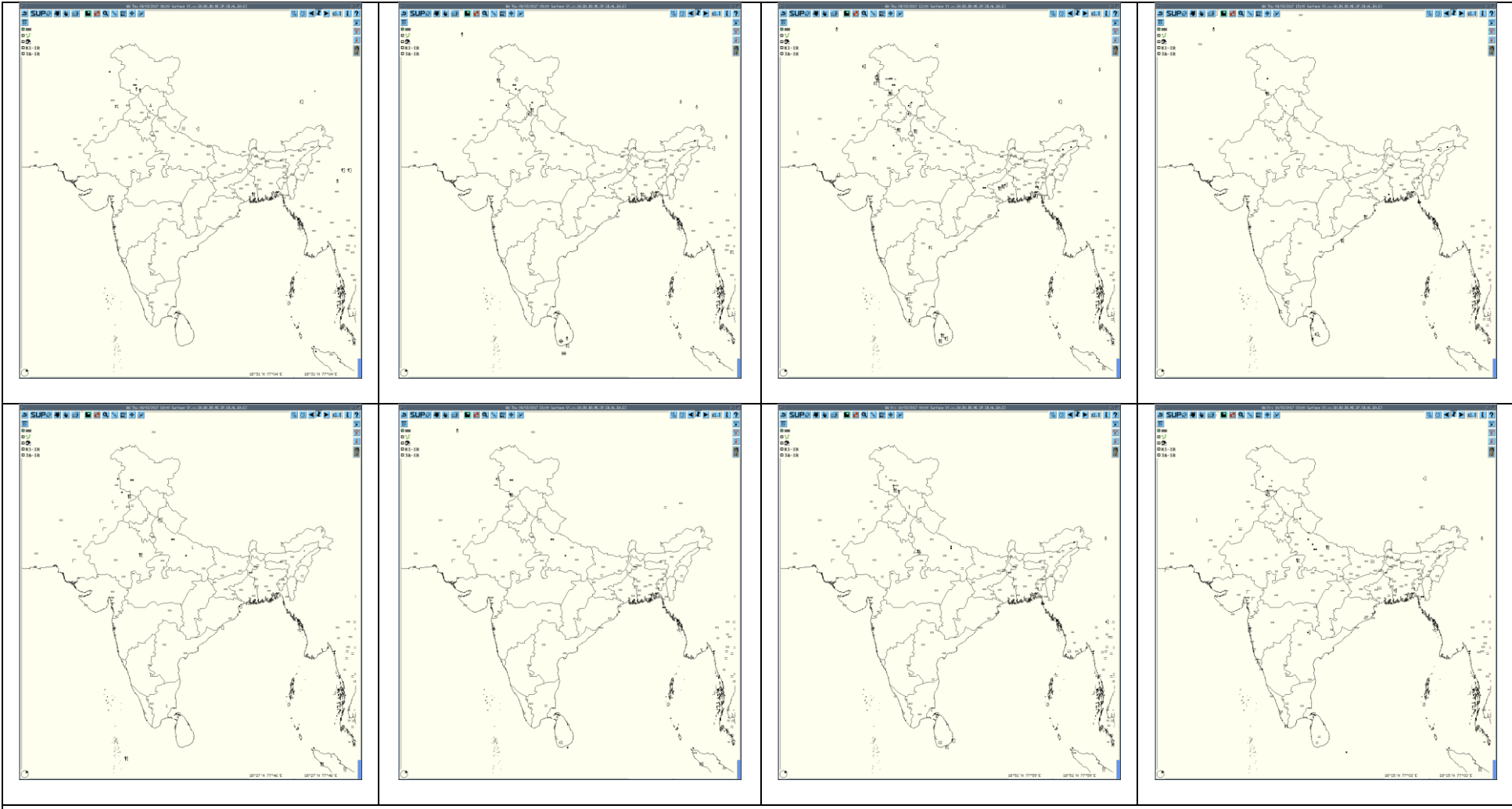


DWR Composite at 1110 hrs IST of today high lighting regions of convection



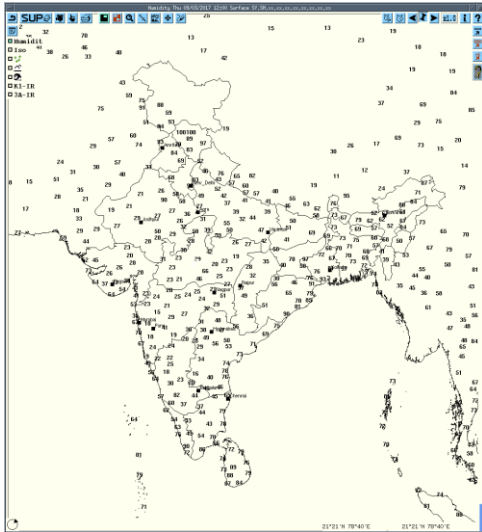
Accumulated 24 Hour rainfall (in red) recorded at 0300 UTC of today



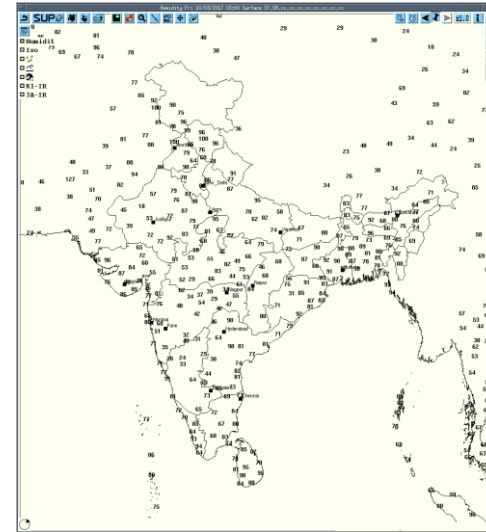


**3 hourly Past weather at 06, 09, 12, 15, 18 , 21 UTC of yesterday and 00 & 03hrs UTC of today**

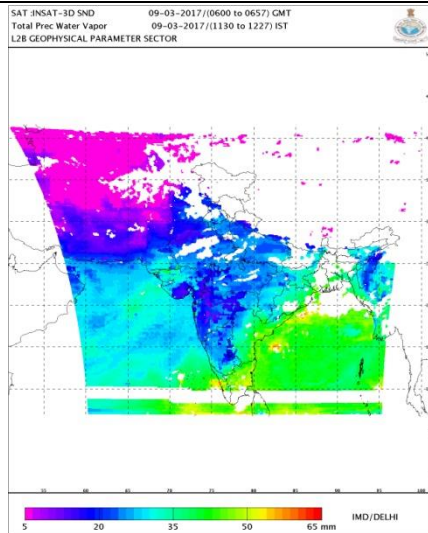




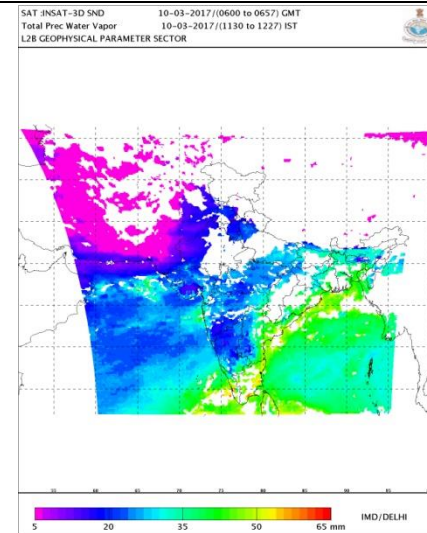
**RH 12UTC yesterday**



**RH 03UTC today**



**TPWV at 06 UTC of yesterday**



**TPWV at 06 UTC of today**

**Realizedweatherpast24hours**

<b>Date</b>	<b>Time of Reporting</b>	<b>Name of Station Reporting</b>	<b>Region</b>	<b>STATE</b>	<b>Weather Event</b>
09-03-17	0600 UTC	Kolkata	East India	West Bengal	Thunderstorm
09-03-17	0900 UTC	Shimla	NW India	Himachal Pradesh	Thunderstorm
		Chandigarh	NW India	Haryana	Thunderstorm
09-03-17	1200 UTC	Jammu	NW India	Jammu & Kashmir	Thunderstorm
		Hissar	NW India	Haryana	Thunderstorm
		Meerut	NW India	Uttar Pradesh	Thunderstorm
		Jodhpur	NW India	Rajasthan	Thunderstorm
		Panagarh	East India	West Bengal	Thunderstorm
		Bankura	East India	West Bengal	Thunderstorm
		Nalgonda	South India	Andhra Pradesh	Thunderstorm
		Coonoor	South India	Tamil Nadu	Thunderstorm
09-03-17	1500UTC	Jammu	NW India	Jammu & Kashmir	Thunderstorm
		Bhubaneswar	East India	Odisha	Thunderstorm
		Vishakhapatnam	South India	Andhra Pradesh	Thunderstorm
		Coimbatore	South India	Tamil Nadu	Thunderstorm
		Cochin	South India	Kerala	Thunderstorm
09-03-17	1800 UTC	Jaipur	NW India	Rajasthan	Thunderstorm
09-03-17	2100 UTC	Dehradun	NW India	Uttarakhand	Thunderstorm
		Jammu	NW India	Jammu & Kashmir	Thunderstorm
10-03-17	0000 UTC	Batote	NW India	Jammu & Kashmir	Thunderstorm
		Agra	NW India	Uttar Pradesh	Thunderstorm
10-03-17	0300 UTC	Dibrugarh	NE India	Assam	Thunderstorm











Name of Station Reporting	Region	STATE	Weather Event	Date	Time of Commencement (IST)	Time of end (IST)
Jammu	Northwest India	Jammu & Kashmir	TSRA	09-03-17	1700	2040
Jammu	Northwest India	Jammu & Kashmir	TSRA	10-03-17	0000	0400
Batote	Northwest India	Jammu & Kashmir	TSRA	09-03-17	1835	1910
Katra	Northwest India	Jammu & Kashmir	TSRA	10-03-17	0645	0830
MO Shimla	Northwest India	Himachal Pradesh	TSRA	09-03-17	1415	1510
MO Shimla	Northwest India	Himachal Pradesh	Hail (Diameter-xx)	09-03-17	1445	1510
PBO Sunder Nagar	Northwest India	Himachal Pradesh	TSRA	09-03-17	1750	1752
PBO Sunder Nagar	Northwest India	Himachal Pradesh	TSRA	10-03-17	0235	0330
Hissar	Northwest India	Haryana	TS	09-03-17	1600	1800
Chandigarh	Northwest India	Haryana	TS	09-03-17	1350	1355
Ambala	Northwest India	Haryana	TS	10-03-17	0105	0310
Chandigarh	Northwest India	Haryana	TS	10-03-17	0130	0145
Chandigarh IAF	Northwest India	Haryana	TS	10-03-17	0100	0400
Ludhiana	Northwest India	Punjab	TS	09-03-17	1145	1600
Ajmer	Northwest India	Rajasthan	TSRA	09-03-17	1950 2115	2010 2200
Jaipur	Northwest India	Rajasthan	TSRA	09-03-17	2147	2400
Jaipur	Northwest India	Rajasthan	TSRA	10-03-17	0000	0215
Pilani	Northwest India	Rajasthan	TSRA	09-03-17	1430	1435
Sikar	Northwest India	Rajasthan	TSRA	09-03-17	1900	2100
Vanasthali	Northwest India	Rajasthan	TSRA	09-03-17	2215	2245
S. Madhopur	Northwest India	Rajasthan	TSRA	09-03-17	1830	1930
Churu	Northwest India	Rajasthan	TSRA	10-03-17	0235	0300
Gwalior	Central India	Madhya Pradesh	TSRA	10-03-17	0800	0830
Agra	Northwest India	Uttar Pradesh	TS	09-03-17	1215	2400
Agra	Northwest India	Uttar Pradesh	TS	10-03-17	0000	0730
Aligarh	Northwest India	Uttar Pradesh	TS	09-03-17	2100	2205
Meerut	Northwest India	Uttar Pradesh	TS	09-03-17	1637	1733
Bahraich	Northwest India	Uttar Pradesh	TS	10-03-17	0735	0830
Kanpur IAF	Northwest India	Uttar Pradesh	TS	10-03-17	0245 0730	0400 0800
Hardoi	Northwest India	Uttar Pradesh	TS	10-03-17	0500	0505
Kanpur City	Northwest India	Uttar Pradesh	TS	10-03-17	0630	0730
MC Dehradun	Northwest India	Uttrakhand	TSRA	09-03-17	2050	2245
MO Mukteshwar	Northwest India	Uttrakhand	TSRA	09-03-17	1845	2130
Diamond Harbour	East India	West Bengal	TSRA	09-03-17	1210	1330

TS: Thunderstorm,  
TSRA: Thunderstorm with Rain

Name of Station Reporting	Region	STATE	Weather Event	Date	Time of Commencement (IST)	Time of end (IST)
Haldia	East India	West Bengal	TSRA	09-03-17	1200	1345
Digha	East India	West Bengal	TSRA	09-03-17	2115	2300
Digha	East India	West Bengal	Lightning	09-03-17	2300	2345
Asansol	East India	West Bengal	TSRA	09-03-17	1458	1530
Bhubaneswar	East India	Odisha	TSRA	09-03-17	1520	1540
Balasore	East India	Odisha	TSRA	09-03-17	1500	1610
Gopalpur	East India	Odisha	TSRA	09-03-17	1600	1700
Kodaikanal	South India	Tamil Nadu	TSRA	09-03-17	1415 2050	1530 2210
Yercaud	South India	Tamil Nadu	TSRA	09-03-17	2230	2330
Visakhapatnam	South India	Andhra Pradesh	TSRA	09-03-17	1725	1835
Tirupathi AP	South India	Andhra Pradesh	TS	09-03-17	1830	1940
Thiruvananthapuram AP	South India	Kerala	TS	09-03-17	1600	1810
Thiruvananthapuram C	South India	Kerala	TS	09-03-17	1515	1600
Thiruvananthapuram C	South India	Kerala	TS	10-03-17	0805	0830

#### Severe Weather warning based on DWR observation

<b>Name of issuing radar station</b>	<b>DWR HYDERABAD</b>
Geo-coordinates of issuing Station (Lat,Long,Alt)	17.2562oN/78.7656oE
Date and time of issue in UTC(yyyyMMddhhmm)	0645 UTC of 10/03/2017
Nature of severe weather expected	Nil
<b>Name of issuing Radar station</b>	<b>DWR Kolkata</b>
Geo-coordinates of issuing Station (Lat,Long,Alt)	22.5705°N/88.353°E,7m
Date and time of issue in UTC(yyyyMMddhhmm)	201703100911 UTC
Nature of severe weather expected	Thunderstorm with Moderate Rain
Districts/Taluks/Mandals/Blocks likely to be impacted	Kolkata, Hoogly, Howrah, North 24 Parganas, South 24 Parganas, Murshidabad, Burdhaman, Nodia, Birbhum, Purba, Medinipur, Paschim Medinipur
<b>Name of issuing Radar station</b>	<b>DWR KARAICAL</b>
Geo-coordinates of issuing Station (Lat,Long,Alt)	Lat:10.91381N,Long:79.84141E/Alt:25mamsl
Date and time of issue in UTC(yyyyMMddhhmm)	DWRU/S
Nature of severe weather expected	--
<b>Name of issuing Radar station</b>	<b>DWR MUMBAI</b>
Geo-coordinates of issuing Station (Lat,Long,Alt)	Lat-18°54'04",Long-72°48'32"HeightAMSL-3.22meters
Date and time of issue in UTC(yyyyMMddhhmm)	201703100700 UTC
Nature of severe weather expected	Nil

	haze
	smoke
	dust or sand storm
	fog
	drizzle
	rain
	snow
	showers
	hail
	thunderstorm
<b>Weather Symbols</b>	



+ thunderstorm



+ heavy thunderstorm



sandstorm or dust storm



squall



hail shower



tropical storm



+ tornado



+ lightning



+ hurricane

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