

# India Meteorological Department FDP STORM Bulletin No.64(08-05-2017)

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

The feeble Western Disturbance as a trough in mid-tropospheric westerlies now seen as an upper air cyclonic circulation over Jammu & Kashmir and adjoining north Pakistan at 3.1 above mean sea level.

A fresh Western Disturbance seen as a trough in mid-tropospheric westerlies roughly along longitude 65.0°E and north of latitude 32°N.

The upper air cyclonic circulation over central Uttar Pradesh & neighbourhood persists and now extends upto 1.5 km above mean sea level. A trough runs from this system to east Assam across Jharkhand and Gangetic West Bengal and extends upto 0.9 km above mean sea level.

The upper air cyclonic circulation over northwest Rajasthan & neighbourhood extending upto 0.9 km above mean sea level persists.

The upper air cyclonic circulation over Assam & neighbourhood persists and now extends upto 0.9 km above mean sea level.

A trough runs from Telangana to south Tamilnadu across Rayalaseema at 0.9 above mean sea level.

An upper air cyclonic circulation lies over south Coastal Andhra Pradesh & neighbourhood between 1.5 km & 2.1 km above mean sea level.

The trough from the upper air cyclonic circulation over central Uttar Pradesh to North Interior Karnataka has become less marked. The upper air cyclonic circulation over Sub Himalayan West Bengal and adjoining Bihar extending upto 1.5 km above mean sea level has become less marked. The trough from this system to northeast Bay of Bengal extending upto 0.9 km above mean sea level also has become less marked.

## SATELLITE OBSERVATIONS during past 24hrs and current observation: Current Observation (based on 0900UTC imagery of INSAT 3D):

Convective Activity and cloud description:

Cell No	Date/ Time	Area/ Location	CTT(-Deg C)	Movement	Remarks
1		Maghalava adjaining Assam	70	Expanding	Doveloping
I	08/0000	megnalaya aujoining Assam	70	Expanding	Developing
	0100	do	69		
	0200	do	66		
	0300	do	61		
	0400	do	55		
	0500	Meghalaya adjoining W Assam	50		
	0600	do			Dissipated
2	08/0800	NE Rajasthan	47		Developing
	0900	do	50		
3	08/0900	N Coastal Andhra Pradesh	67		Developing

4	08/0900	E Jharkhand adjoining Gangetic West Bengal	65	Developing
5	08/0900	SC Odisha	48	Developing

Scattered multi/layered clouds were seen over NW J & K in association with Western Disturbance over the area.

Broken low/medium clouds with embedded moderate to intense convection over Lakshadweep. Scattered low/medium clouds with embedded moderate to intense convection seen over Central Odisha, East Jharkhand and East Arunachal Pradesh. Scattered low/medium clouds with embedded isolated weak to moderate convection seen over East Rajasthan, Chhattisgarh, Sikkim, East Meghalaya, South Assam, South Rayalaseema, South Interior Karnataka and Kerala. Scattered low medium clouds over rest J & K, Himachal Pradesh, Southwest Haryana, Uttarakhand, Madhya Pradesh, Maharashtra, rest parts of east and south India.

#### Arabian Sea:

Scattered low/medium clouds with embedded intense to very intense convection over S Arabian Sea.

#### Bay of Bengal & Andaman Sea:

Scattered low/medium clouds with embedded moderate to intense convection seen over Andaman Sea.

#### Past Weather:

#### Convection:

Moderate to Intense convection was observed over J&K Himachal Pradesh Rajasthan Madhya Pradesh Maharashtra Chhattisgarh Odisha Meghalaya Assam Karnataka Kerala Tamilnadu

**OLR:-** Upto 200 wm<sup>-2</sup> was observed over Kerala.

Upto 230 wm<sup>-2</sup> was observed over J&K Himachal Pradesh North Uttarakhand Sikkim Arunachal Pradesh Andhra Pradesh Karnataka Tamilnadu

Upto 250 wm<sup>-2</sup> was observed over East Rajasthan South Madhya Pradesh Chhattisgarh Odisha.

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

No Westerly Trough & Jet Stream are observed.

## **Dynamic Features:-**

Low to Medium wind shear is observed over India.

Negative shear tendency is observed over North-East parts of India and Positive shear tendency over rest India.

A positive Vorticity field is observed over Uttar Pradesh East Madhya Pradesh Jharkhand Gangetic West Bengal East Vidarbha Telangana & North-West Gujarat.

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

#### Precipitation:

## IMR:

Rainfall upto 30 mm was observed over Kerala South Coastal Andhra Pradesh South Interior Karnataka

Rainfall upto 20 mm was observed over North Himachal Pradesh Rayalaseema Tamilnadu.

Rainfall upto 10 mm was observed over J&K North Uttarakhand Arunachal Pradesh West Assam Meghalaya Rajasthan North Chhattisgarh South Madhya Pradesh Madhya Maharashtra North Interior Karnataka.

## HEM:.

Rainfall upto 70 mm was observed over Kerala & North Tamilnadu.

Rainfall upto 28 mm was observed over North Himachal Pradesh North Uttarakhand South Coastal Andhra Pradesh & Karnataka.

Rainfall upto 07 mm was observed over West J&K Rajasthan North Chhattisgarh South Madhya Pradesh Arunachal Pradesh West Assam Meghalaya Rayalaseema & South Tamilnadu.

#### **RADAR and RAPID observation:**

Isolated/multiple strong echoes were seen in DWR Machilipatnam (dBZ around 60 and height 15km) at 1131UTC and DWR Kolkata (dBZ around 55 and height 15km) at 1121UTC. Isolated/multiple moderate echoes were also seen in DWR Bhopal, Delhi, Jaipur, Srinagar, Hyderabad and Paradeep at around 1130UTC (1700hrs IST).

Convection appears to be in progress over J & K, Himachal Pradesh, Uttarakhand, Rajasthan, Madhya Pradesh, Chhattisgarh, Jharkhand, Bihar, Sikkim, Gangetic West Bengal, Meghalaya, Nagaland, Manipur, Odisha, Kerala, Karnataka, Interior Tamilnadu, Telangana, North Coastal Andhra Pradesh, Maharashtra and Lakshadweep & Minicoy Island area in RAPID RGB Satellite imagery at 1600hrs 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 north-western and northern India.

## 2. NWP MODEL GUIDANCE:

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

#### 1. Weather Systems:

12UTC Charts of Day-0, feeble trough in MSLP is seen over J & K.

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

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

#### 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: Uttarakhand, Madhya Maharashtra, Chhattisgarh,

- Day1: Gangetic WB, Jharkhand, Bihar, East UP, Hry, Chd, Delhi, Madhya Maharashtra, Chhattisgarh,
- Day2: Gangetic WB, West UP, East RJ, Odisha, Madhya Maharashtra, NI Karnataka,

Day3: Gangetic WB,

Dav/Index :

Day4: Jammu Kashmir, East MP, SI Karnataka.

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

#### Subdivisions with Lower Level Vorticity > 15 x 10^-5 /s

Day0: East UP, Uttarakhand, Himachal Pradesh,

- Day1: Assam Meghalaya, Gangetic WB, Jharkhand, Bihar, East UP, Uttarakhand, Konkan Goa, Coastal AP,
- Day2: Gangetic WB, Jharkhand, West UP, Konkan Goa,
- Day3: Gangetic WB, Jharkhand, West UP,

Day4: Gangetic WB, Jharkhand, East UP, West UP,

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

#### Day/Index : Subdivisions with Showalter Index < -4

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

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

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, Telangana, Rayalaseema, TN Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

Day3: Arunachal Pradesh, 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, Himachal Pradesh, Jammu Kashmir, Odisha, Konkan Goa, Madhya Maharashtra, TN Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

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

#### Day/Index : Subdivisions with K Index > 40

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

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

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

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

#### Day/Index : Subdivision with Total Totals Index > 52

Day0: Arunachal Pradesh, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Himachal Pradesh, Jammu Kashmir, West RJ, East RJ, Odisha, East MP, Konkan Goa, Madhya Maharashtra, Vidarbha, Coastal AP, Coastal Karnataka, NI Karnataka,

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

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

Day3: Arunachal Pradesh, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, Uttarakhand, Punjab, Himachal Pradesh, Jammu Kashmir, Odisha, East MP, Konkan Goa, Madhya Maharashtra, Marathawada, Vidarbha, Chhattisgarh, Telangana, Day4: Arunachal Pradesh, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Odisha, Konkan Goa, Vidarbha, Chhattisgarh

#### 8. Rainfall and thunder storm activity:

#### Day/Index : Subdivisions with Precipitation > 2 cm

Day1: Assam Meghalaya, Sub Himalayan WB, Bihar,

Day2: Arunachal Pradesh, Assam Meghalaya, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, Uttarakhand,

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

Day4: Assam Meghalaya, NE NMMT, Sub Himalayan WB, Gangetic WB, Bihar, East UP, Uttarakhand,

Day5: Assam Meghalaya, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, Uttarakhand

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

#### 1. Weather Systems:

Model analysis in the lower tropospheric levels shows a CYCIR over north parts of UP and adjoining Uttarakhand regions with an eastwest trough along foothills extending from GWB to this CYCIR. Analysis also shows a north-south trough extending from East UP to central India. In the forecasts, the CYCIR remains over region with a little shift towards southward direction with easterlies along the foot hills of Himalayas. Another CYCIR forms over south interior Karnataka and adjoining Tamilnadu on day 2 which persists and moves a little westward direction in next 2 days. The wind analysis at 500 hPa does not show any prominent trough in westerlies over India except over NE states on day 1 in northeast-southwest direction and during day 2-4 with north-south orientation

#### 2. Location of jet and jet core at 500 hPa:-500 hPa Jet core (>60kt):

No presence of jet core over the Indian region

#### 3. Low level Vorticity:-Positive Vorticity 850hPa (>12 x 10<sup>-1</sup>/s):

Mostly along the foot hill of Himalaya. Prominent vorticity zones are found in the morning hours around CYCIR and along troughs over northwest, 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, Jharkhand and reaching over east UP and adjoining areas along foothills. Also similar values are seen along west coast, over Gujarat and sometimes extending over Andhra Pradesh and Interior Karnataka during nest 5 days in the morning hours.

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

**Sweat Index ( > 300):** Similar to T-storm initiation index during morning hours.

**CAPE (> 1000):** Similar spatial coverage like T-storm initiation index for next 5 days.

**CIN (>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.

**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, parts of Telangana and north interior Karnataka and west parts of east India over Chhattisgarh and parts of Jharkhand during morning hours.

#### 5. Rainfall and Rainfall activity:

10-40 mm rainfall over J&K and some isolated places over HP, Punjab, Uttarakhand regions, GWB, coastal Orissa and south peninsular region including coastal AP, Kerala, interior Karnataka, Tamilnadu regions during the next 5 days with an increasing trend after day 2 over Kerala and Tamilnadu.

10-40 mm along foothills and over SHWB and NE states with an increasing trend for the next 2-3 days

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

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

15-40 dBZ over Interior and coastal Karnataka and adjoining Konkan-Goa and Tamilnadu areas during 24 hours. Over parts of SHWB, GWB, Orissa and southern part of NE states during day 1.

15-35 dBZ over parts of southeast Rajasthan and adjoining Delhi and west UP during day 1. Scattered cells over Uttarakhand on day 1 15-40 dBZ over GWB, Jharkhand, Bihar, Orissa and over Tamilnadu during the next 2 days

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

**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 and over parts of Andhra Pradesh and Rayalaseema, parts of NE states, west coast and coastal Gujarat during next 3 days.

**CIN (50-150):** Higher values near coastal regions of India except southern parts of peninsula. Around the central India, parts of eastern India, UP and Bihar, Gujarat during morning hours of next three days.

#### 3. Rainfall and thunderstorm activity:

10-40 mm over SHWB and North-eastern states for next 1-2 days with a decreasing trend.

10-130 mm over SHWB, GWB, adjoining Orissa, Jharkhand and Bihar and NE states during next 1-2 days.

10-40 mm rainfall over Kerala and adjoining Konkan-Goa, interior Karnataka and Tamilnadu during day 1, over Kerala on day 2 and over Kerala, Tamilnadu and adjoining south interior Karnataka on day 3.

# 3. IOP ADVISORY FOR 24 and 48Hrs:

#### **Summary and Conclusions:**

#### Day-1 & Day-2:

Presently, a trough runs from Telangana to south Tamilnadu across Rayalaseema at 0.9 above mean sea level. Due to this system, North Kerala, adjoining Tamilnadu and southern parts of Karnataka may experience rainfall activity on Day-1. The thunder storm with gusty wind over Kerala, interior Karnataka, coastal Andhra Pradesh and Rayalaseema is very likely on Day-1.

Due to the upper air cyclonic circulation over Assam & neighbourhood, the northern eastern states may experience the thunder storm with gusty wind on Day-1.

The upper air cyclonic circulation over central Uttar Pradesh & neighbourhood extends upto 1.5 km above mean sea level and another trough runs from this system to east Assam across Jharkhand and Gangetic West Bengal and extends upto 0.9 km above mean sea level. This will give rise to thunder storm with gusty wind over Bihar, Jharkhand, East UP and entire MP on Day-1.

An upper air cyclonic circulation over Jammu & Kashmir and adjoining north Pakistan at 3.1 above mean sea level will give rise to thunder storm with gusty wind over Punjab and Uttarakhand on Day-1. This will persist on Day-2 also including Haryana.

#### 24 hour Advisory for IOP:

Kerala, Interior Tamilnadu, South Interior Karnataka, Rayalaseema, North Coastal Andhra Pradesh Assam, Meghalaya, Nagaland, Manipur, Mizoram and Tripura Sub Himalayan West Bengal, Sikkim, Gangetic West Bengal, Orissa, Jharkhand, Bihar, East UP Chhattisgarh and South Madhya Maharashtra, Vidarbha, West and East MP Uttarakhand, Punjab, J & K, East Rajasthan

#### 48 hour Advisory for IOP:

Assam, Meghalaya, Nagaland, Manipur, Mizoram, Tripura and Arunachal Pradesh Kerala, Interior Tamilnadu, South Interior Karnataka, Rayalaseema, Telangana and Coastal Andhra Pradesh Haryana, Uttarakhand, East UP. Bihar, Jharkhand and South Chhattisgarh Sub Himalayan West Bengal, Sikkim, Gangetic West Bengal and North Orissa

For NCMRWF NWP products:( <u>http://www.ncmrwf.gov.in/HomePage/NEPS-prod-1.php</u> ) For IMD NWP products:( <u>http://nwp.imd.gov.in/diagpro new.php</u> )
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













Realized weather past 24hours (Based on SYNERGIE Products)										
Date	Time of Reporting	Name of Station Reporting	Region	STATE	Weather Event					
07.05.17		Imphal	Northeast India	Manipur	Thunderstorm					
07-05-17	0600 010	Machilipatnam	South India	Andhra Pradesh	Thunderstorm					
07-05-17	0900 UTC	Kurnool, Tirupati	South India	Andhra Pradesh	Thunderstorm					
		Thiruvananthapuram	South India	Kerala	Thunderstorm					
		Bhopal, Indore	Central India	Madhya Pradesh	Thunderstorm					
		Ambikapur	Central India	Chhattisgarh	Thunderstorm					
		Aurangabad, Satna	West India	Maharashtra	Thunderstorm					
07-05-17	1200 UTC	Belgaum, Gadag, Shimoga, Bangalore, Madikeri, Bajpe	South India	Karnataka	Thunderstorm					
		Nellore, Tirupati	South India	Andhra Pradesh	Thunderstorm					
		Coimbatore, Kodaikanal	South India	Tamilnadu	Thunderstorm					
		Palakkad, Cochin, Punalur	South India	Kerala	Thunderstorm					
07.05.17	1500 UTC	Ajmer	Northwest India	Rajasthan	Thunderstorm					
07-05-17		Indore	Central India	Madhya Pradesh	Thunderstorm					
		Bajpe	South India	Karnataka	Thunderstorm					
		Kozhikode, Cochin	South India	Kerala	Thunderstorm					
		Coimbatore	South India	Tamilnadu	Thunderstorm					
07.05.47		Raipur	Central India	Chhattisgarh	Thunderstorm					
07-05-17	1800 UTC	Belgaum	South India	Karnataka	Thunderstorm					
		Cochin	South India	Kerala	Thunderstorm					
07.05.17	2100 LITC	Goa	West India	Goa	Thunderstorm					
07-03-17	2100 010	Вајре	South India	Karnataka	Thunderstorm					
		Honaver	South India	Karnataka	Thunderstorm					
08-05-17	0000 UTC	Tondi, Pamban	South India	Tamilnadu	Thunderstorm					
		Aminidevi	South India	Lakshadweep & Minicoy Island	Thunderstorm					
08-05-17	0300 UTC	Cherrapunjee	Northeast India	Meghalaya	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)			
Bhaderwah	Northwest India	Jammu & Kashmir	Thunderstorm	07-05-17	1805	1840			
Ajmer	Northwest India	Rajasthan	Thunderstorm	07-05-17	2000	2110			
Sikar	Northwest India	Rajasthan	Thunderstorm	07-05-17	2000	2100			
Amravati	Central India	Vidarbha	Thunderstorm	07-05-17	1600	1630			
Bramhapuri	Central India	Vidarbha	Thunderstorm	07-05-17	1930	2130			
Chandrapur	Central India	Vidarbha	Thunderstorm	08-05-17	0300	0400			
Wardha	Central India	Vidarbha	Thunderstorm	07-05-17	1715	XXXX			
Yeotmal	Central India	Vidarbha	Thunderstorm	07-05-17	2000	XXXX			
Indore	Central India	Madhya Pradesh	Thunderstorm	07-05-17	1510	2110			
Chindwada	Central India	Madhya Pradesh	Thunderstorm	07-05-17	1520	1545			
Ambikapur	Central India	Chhattisgarh	Thunderstorm	07-05-17	1630	1645			
Ranchi	East India	Jharkhand	Thunderstorm	07-05-17	1450	1510			
Port Blair	East India	Odisha	Thunderstorm	07-05-17	1828	1900			
Dhubri	Northeast India	Assam	Thunderstorm	08-05-17	0500	0800			
Imphal	Northeast India	Manipur	Thunderstorm	07-05-17	0950	1050			
AMS Coimbatore	South India	Tamilnadu	Thunderstorm	07-05-17	1720	1930			
					1930	2130			
Hyderabad	South India	Andhra Pradesh	Thunderstorm	07-05-17	1820	1930			
Machilipatnam	South India	Andhra Pradesh	Thunderstorm	07-05-17	0855	1000			
Machinpatham					1130	1145			
Kurnool	South India	Andhra Pradesh	Thunderstorm	07-05-17	1355	1530			
Bapatla	South India	Andhra Pradesh	Thunderstorm	07-05-17	1200	1300			
Ongole	South India	Andhra Pradesh	Thunderstorm	07-05-17	1545	1630			
Nellore	South India	Andhra Pradesh	Thunderstorm	07-05-17	1610	1745			
Tirupati AP	South India	Andhra Pradesh	Thunderstorm	07-05-17	1430	2400			
CIAL Kochi	South India	Kerala	Thunderstorm	07-05-17	1700	2000			
Kozhikode	South India	Kerala	Thunderstorm	07-05-17	1940	2040			
Thiruvananthapuram AP	South India	Kerala	Thunderstorm	07-05-17	1207	1750			
Thiruvananthapuram C	South India	Kerala	Thunderstorm	07-05-17	1202	1620			
Thiruvananthapuram C	South India	Kerala	Thunderstorm	08-05-17	0450	0545			

# 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	Associa ted severe weather if any	Districts affected
Lucknow	08-05-17	070300-080300	Nil	Nil	Nil	Nil	Nil
Patna	08-05-17	070300-080300	Nil	Nil	Nil	Nil	Nil
Karaikal	08-05-17	070300-080300			DWR U/S		
Jaipur	08/05/17	0710 - 1712 UTC	Multiple Cell With Average Height Of 6.8 Km Maximum Reflectivity 59 Dbz	W Moving Towards NNE Wards At Speed Direction 12 Km/Hr To 32 Km/Hr	Cells Continuous Forming From 0710 UTC W & SW Of Jaipur And Multiple Cell Was Observed And Maximum Refelectivity During 0842-1242 UTC And Died Down At 1500 UTC.		Ajmer, Bhilwara, Nagaur, Chittorgarh, Sikar, Kota, Alwar, Sawaimadhop ur, Jhalawar, Jaipur
Hyderabad	07/08 May17. (0300 UTC to 0300 UTC)	07/0302 -0452	Isolated cells with an average height of 12 Km with a max reflectivity of 58.5 dBZ	E (102 Kms) moving in ESE- ly Direction	Cells started forming at 0302 utc. Matured between 0312 and 0342 with max ref of 58.5 dBz and dissipated by 0432 UTC	Severe Thunder storm with or without rain	Not Known
		07/06122-0942	scattered cells with an average height of 13.6 Km with a max reflectivity of 61.5 dBZ	S-IY (190 Kms) moving in S- Iy Direction at a speed of 12 Kmph.	forming at 0632 utc. Matured between 0632 and 0752 with max ref of 61.5 dBz and	Severe Thunder storm with or without rain	Areas near Kurnool district.

					dissipated by 0902 UTC		
		07/1042- 1342	Isolated cells with an average height of 10 Km with a max reflectivity of 56.5 dBZ	NW (75 Kms) moving in SE- ly Direction at a speed of 18 Kmph.	Cells started forming at 1042 utc. Matured between 1042 and 1142 with max ref of 56.5 dBz and dissipated by 1342 UTC	Mod Thunder storm with or without rain	Not Known
Nagpur	08/05/17	070302-080302	No observation		DWR was shut down for Annual Preventive Maintenance	Nil	
Paradeep	08/05/17	070300-072300	NIL	NIL	Low reflectivity signatures observed in the SW sector of RADAR.	NIL	NIL
Agartala	08/05/17	071740-080300	Multiple Cells formed one after another over the same region with Maximum Height <b>14 km</b> and maximum reflectivity <b>39 dBZ</b> (at 2340 UTC of 07.05.17 over Bangladesh-140km North of DWR AGT)	Started forming 200 km NNW of DWR AGT at 1740 UTC of 07.05.17 and moved ESE-wards at avg speed around 20 kmph	At 0300 UTC of 08.05.17 some cells remaining over west Meghalaya with reflectivity <25dBZ and in dissipation stage	Thunder (without rain)	East Khasi Hills District of Meghalaya
Machilipatnam	00Z of 07/05/17 to 03Z of 08/05/17	070111 to 070341	Isolated Multiple cells with average height of 6.3 km with maximum reflectivity of 62.5 dBZ	N (148KM) and moving SE ly direction with average speed of 34kmph	Cells started forming at 0111 UTC at N (185km) from radar the maximum reflectivity during 0131 to 0311 and died down at 0341UTC	Possibilit y of Thunder storm with rain and moderat e winds.	Jayasankar bhupalpalli and Badradri kothadugem Districts
		070131 to 070411	Isolated Multiple cells average height of 5 km with maximum reflectivity of 57.5 dBZ	NW(224KM) and moving SW ly direction with average speed of 19 kmph	Cell started forming at 0131UTC, at NW (233km) from radar the	Possibilit y of Thunder storm with rain	Mahabubabad and Suryapet Districts

					maximum reflectivity during 0251 to 0331 UTC and died down at 0411UTC	and light winds.	
		070311 to 070741	Isolated Multiple cells average height of 5 km with maximum reflectivity of 59 dBZ	SW(52KM) and moving SW ly direction with average speed of 28 kmph	Cells started forming at 0311UTC at NE(10.3km) from radar with maximum reflectivity during 0331 to 0621 and died Down at 0741 UTC	Possibilit y of Thunder storm with Rain and light winds.	Krishna District
		070741 to 071021	Isolated Multiple cells average height of 9 km with maximum reflectivity of 60 dBZ	SW(235KM) stationary	Cells started forming at 0741UTC at SW(233 km) from radar with maximum reflectivity during 0751 to 1011 and died Down at 1021UTC	Possibilit y of Thunder storm with Rain and light winds.	Ongole and Nellore Districts
Patiala	08-05-17	070302-080252	Nil	Nil	Nil	Nil	Nil
Kolkata	08-05-17	070301-071221	NIL	NIL	NO SIGNIFICANT ECHO	NIL	NIL
		071231-071311	1.Isolated Single cells with maximum reflectivity of 65.0 dBz at 1241 UTC and maximum height of 9.86 Km at 1241 UTC	W (235.4 km) Moving in ESE-ly then E-ly direction with speed of 24 .0 kmph.	Isolated single cell coming from 1231 UTC from W at a distance of 235.4 km from radar. Matured, dissolved at 1311 UTC in W at a distance of 223.2 km from Radar.	Thunder storm / Rain	N/A
		071321 -072351	NIL	NIL	NO SIGNIFICANT ECHO	NIL	NIL
		080001 -08 0301	NIL	NIL	NO SIGNIFICANT ECHO	NIL	NIL

