

## India Meteorological Department FDP STORM Bulletin No.63(07-05-2017)

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

## **SYNOPTIC FEATURES:**

The upper air cyclonic circulation over northwest Madhya Pradesh & neighbourhood, now lies over central Uttar Pradesh & neighbourhood and extends upto 0.9 km above mean sea level.

The trough from northwest Madhya Pradesh to North Interior Karnataka now runs from this system to North Interior Karnataka across interior Madhya Pradesh, Vidarbha & Marathwada and extends upto 0.9 km above mean sea level.

The upper air cyclonic circulation over Bihar & neighbourhood now lies over Sub Himalayan West Bengal and adjoining Bihar and extends upto 1.5 km above mean sea level.

The trough from Bihar & neighbourhood to Gangetic West Bengal now runs from this system to northeast Bay of Bengal and extends upto 0.9 km above mean sea level. An upper air cyclonic circulation lies over Assam & neighbourhood at 1.5 km above mean sea level. Another upper air cyclonic circulation lies over northwest Rajasthan & neighbourhood and extends upto 0.9 km above mean sea level. A feeble western disturbance as a trough in mid- tropospheric westerlies runs roughly along longitude 69.0°E and north of latitude 32°N.

The upper air cyclonic circulation over Comorin area & adjoining south Tamilnadu at 1.5 km above mean sea level 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 (UTC)	Area/Location	CTBT (- <sup>0</sup> C)	Movement	Remarks If any
1	07/0800	S COT AP	69	-	Developing
	0900	DO	78		
2	07/0800	S KER ADJ S TN	70	-	Developing
	0900	DO	77		
3	07/0900	NE RAJ	55	-	Developing
4	07/0900	N HP	63	-	Developing

Broken low/medium clouds with embedded isolated moderate to intense convection seen over North Himachal Pradesh, Northeast & Southeast Rajasthan, South coastal Andhra Pradesh adjoining Rayalaseema, South Kerala adjoining south Tamilnadu.

Scattered low/medium clouds with embedded isolated weak to moderate convection seen over North Uttarakhand, North Chhattisgarh, Sikkim, Northeast Arunachal Pradesh, Madhya Pradesh, Madhya Maharashtra, rest Tamilnadu, Andhra Pradesh, South Interior Karnataka and Bay Islands.

Scattered low/medium clouds seen over rest Himachal Pradesh, rest Uttarakhand, rest Chhattisgarh, rest Jharkhand, Odisha, Gangetic West Bengal, rest Northeast states, rest Rajasthan and Maharashtra.

#### Arabian Sea:

Scattered low/medium clouds with embedded isolated moderate to intense convection seen over Southeast Arabian Sea off Kerala coast.

#### Bay of Bengal & Andaman Sea:

Scattered low/medium clouds with embedded isolated moderate to intense convection seen over South Bay south Andaman Sea Tenasserim coast.

#### Past Weather:

**Convection:** Moderate to Intense convection was observed over Odisha, North central Andhra Pradesh, Chhattisgarh, Jharkhand, Kerala, Tamilnadu, Gangetic West Bengal, Karnataka and South Madhya Maharashtra.

OLR: - Upto 230 wm<sup>-2</sup> was observed over J&K, NC AP ADJ ORS.

Upto 340 wm<sup>-2</sup> was observed over S HARY, DEL, N UP, S UTRKND, S HP, S KKN & GOA, S M MAHA, CHTGH, S ORS NE& SE

JHRKND EXT S SIK. Upto 371 wm<sup>-2</sup> was observed over RAJ, GUJ, MRTWD, W MP, and S UP.

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

### Dynamic Features:-

Negative shear tendency is observed over North-west parts of India and Positive shear tendency is observed over rest India. Low to Medium wind shear is observed over India.

A positive Vorticity field is observed over Vidarbha, Telangana, East Uttar Pradesh Bihar.

Positive Low Level Convergence observed over Central and South India. and Negative low level convergence observed over rest parts of India.

#### Precipitation:

IMR: Rainfall upto 10 mm was observed over J&K, N HP, N UTRKND, N ORS, SE CHTGH, NE ARUPR, NAGA.

Rainfall upto 30 mm was observed over NIK ADJ S M MAHA, NC AP ADJ ADJ ORS W MEGHA ADJ BD W ASSAM

**HEM**: Rainfall upto 70 mm was observed over North Uttarakhand South Madhya Maharastra West Karnataka West Assam East Arunachal Pradesh.

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

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

## **RADAR and RAPID observation:**

Multiples significant convection was seen over East Rajasthan, Madhya Pradesh, North Odisha, Maharashtra, Telangana, North Central Andhra Pradesh and Tamilnadu in Radar Composite of 1630 IST and in RAPID RGB Satellite imagery of 1600hrs IST including North Chhattisgarh, South Interior Karnataka, Interior Kerala and adjoining Tamilnadu.

## 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 00UTC of the day):

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

**12UTC charts on days from Day0-4**: show two 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.

**12UTC charts on days from Day2-4**: show two zones of wind discontinuity at 925 hPa over northern parts of India from Himacahl-Uttarakhand to over plains of UP

CYCIR at 850 hPa: over GWB and SHWB in Day0-2 moving westwards 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: Day0: Jharkhand, Odisha, Madhya Maharashtra, Vidarbha, SI Karnataka,

Day1: Jharkhand, Bihar, East UP, Uttarakhand, Jammu Kashmir, Odisha, Chhattisgarh,

Day2: West UP, Uttarakhand, Punjab, Odisha, Marathwada, Telangana,

Day3: Gangetic WB, Odisha, Madhya Maharashtra, Chhattisgarh, NI Karnataka,

Day4: Uttarakhand, Odisha, East MP, Madhya Maharashtra, Chhattisgarh,

**4. Low level Vorticity:-Positive Vorticity (>15 x 10<sup>-5</sup>/s):** Day0: Assam Meghalaya, Bihar, East UP, West UP, Uttarakhand, Himachal Pradesh, Jammu Kashmir,

Day1: Assam Meghalaya, Jharkhand, Uttarakhand, Himachal Pradesh, Jammu Kashmir,

Day2: Assam Meghalaya, Gangetic WB, Jharkhand, East UP, West UP, Uttarakhand, Madhya Maharashtra, TN Puducherry,

Day3: Gangetic WB, Jharkhand, Bihar,

Day4: Jharkhand, Bihar, East UP, Madhya Maharashtra,

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

Day1: 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, Coastal AP, Telangana, Rayalseema, 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, TN Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka, Kerala,

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

**6.** K-Index: Daywise Sub-divisions with K-index >40: Day0: Arunachal Pradesh, NE NMMT, Sub Himalayan WB, Gangetic WB, East 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,

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

Day2: Arunachal Pradesh, Assam Meghalaya, NE NMMT, Sub Himalayan WB, Gangetic WB, East UP, West UP, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Odisha, Vidarbha, Chhattisgarh, Coastal AP, Telangana, Rayalaseema, TN Puducherry, NI Karnataka, SI Karnataka,

Day3: Arunachal Pradesh, Sub Himalayan WB, Gangetic WB, Jharkhand, East UP, West UP, Uttarakhand, Hry Chd Delhi, Punjab, Himachal Pradesh, Jammu Kashmir, Odisha, Vidarbha, Chhattisgarh, Coastal AP, Telangana, Rayalaseema, TN Puducherry, NI Karnataka, SI Karnataka,

Day4: Arunachal Pradesh, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Hry Chd Delhi, Himachal Pradesh, Jammu Kashmir, Odisha, Konkan Goa, Madhya Maharashtra, Marathwada, Chhattisgarh, Coastal AP, Telangana, Rayalaseema, TN Puducherry, Coastal Karnataka, NI Karnataka, SI Karnataka,

**7. Spatial distribution of TTI: Daywise Sub-divisions with TTI >52:** Day0: Arunachal Pradesh, Gangetic WB, Uttarakhand, Himachal Pradesh, Jammu Kashmir, Odisha, East MP, Guj Reg, Konkan Goa, Madhya Maharashtra, Vidarbha, Chhattisgarh, Coastal AP, Telangana, Rayalaseema, Coastal Karnataka, NI Karnataka, SI Karnataka,

Day1: Arunachal Pradesh, 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,

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

Day3: Arunachal Pradesh, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Hry Chd Delhi, Punjab, Himachal Pradesh, Jammu Kashmir, Odisha, East MP, Madhya Maharashtra, Vidarbha, Chhattisgarh, Telangana, NI Karnataka,

Day4: Arunachal Pradesh, Sub Himalayan WB, Gangetic WB, Jharkhand, Bihar, East UP, West UP, Uttarakhand, Hry Chd Delhi, Punjab, Himachal Pradesh, Jammu Kashmir, Odisha, Konkan Goa, Madhya Maharashtra, Marathwada, Vidarbha, Chhattisgarh, Coastal AP, Telangana, NI Karnataka

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

Day1: Assam Meghalaya, Rayalseema, TN Puducherry, SI Karnataka, Kerala,

Day2: Assam Meghalaya, Sub Himalayan WB, Coastal Karnataka, Kerala,

Day3: Assam Meghalaya, Sub Himalayan WB, Gangetic WB, Bihar, East UP, Uttarakhand, Odisha, Andaman Nicobar,

Day4: Arunachal Pradesh, Assam Meghalaya, Sub Himalayan WB, Gangetic WB, Bihar, East UP, Uttarakhand, Jammu Kashmir, Odisha, Andaman Nicobar,

Day5: Assam Meghalaya, NE NMMT, Sub Himalayan WB, Gangetic WB, Bihar, East UP, Uttarakhand, Odisha, Andaman Nicobar

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

1. Weather Systems: The model analysis in the lower tropospheric levels shows a CYCIR over north parts of UP and adjoining Uttarakhand north-south and an associated trough extending from East UP to north interior Karnataka. In the forecasts, the CYCIR remains over region with a little shift north-westward direction and the north-south trough persists for next 2 days. The east-west trough along foothills extending from Uttar Pradesh up to Assam is seen for day 1 and 2. During day 3 a CYCIR forms over Jharkhand and adjoining areas and it remains over the region till day 5. Another CYCIR forms over Tamilnadu on day 3 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.

**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.

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.

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

#### 5. Rainfall and Rainfall activity:

10-40 mm rainfall over south peninsular region including Kerala, interior Karnataka, Tamilnadu and adjoining areas during next 5 days with an increasing trend after day 2 over Kerala and over Tamilnadu over day 3.

10-40 mm along foothills and over SHWB and NE states with an increasing trend,

10-40 mm over Orissa on day 1, over adjoining coastal AP on day 2 and GWB and Orissa on day 3 to day 5.

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

**Model Reflectivity:** 15-40 dBZ over Interior and coastal Karnataka and adjoining Konkan-Goa and Tamilnadu areas during 24 hours. Over parts of 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 2 and scattered cells over Uttarakhand on day 2.

15-40 dBZ: over GWB, Jharkhand, Bihar, and Orissa and over Tamilnadu during day 3.

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

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

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

**CINE (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.

#### **Rainfall Activity:**

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

10-130 mm: over SHWB, GWB, adjoining Orissa, Jharkhand and Bihar and NE states during day 3.

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:**

Presently, the upper air cyclonic circulation over SubHimalayan West Bengal and adjoining Bihar and extends upto 1.5 km above mean sea level. The trough from Bihar & neighborhood to Gangetic West Bengal now runs from this system to northeast Bay of Bengal and extends upto 0.9 km above mean sea level. This system will give rise to thundersqaull with hail over GWB and North Orissa on Day-1. With this system, Sub Himalayan West Bengal, Jharkhand and eastern parts of Uttar Pradesh may experience thunderstorm with gusty winds on Day-1. The activity may continue to Day-1 also.

The trough from North Interior Karnataka across interior Madhya Pradesh, Vidarbha & Marathwada and extends upto 0.9 km above mean sea level, which may result in thunderstorm with gusty winds over South Chhattisgarh and South Madhya Maharashtra Kerala, South Interior Karnataka, North Coastal Andhra Pradesh, on Day-1.Due to an upper air cyclonic circulation over Assam & neighborhood, Assam, Meghalaya, Nagaland, Meghalaya, Mizoram and Tripura may experience thunderstorm with gusty winds on Day-1.

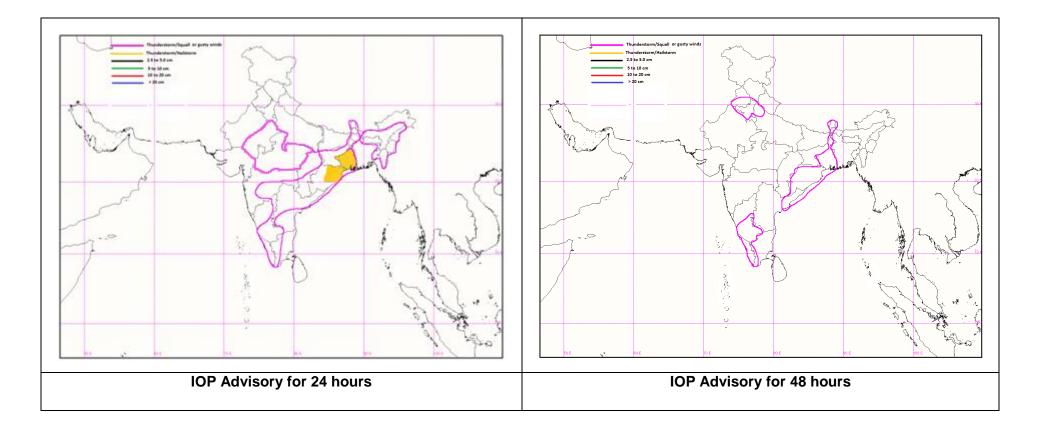
#### 24 hour Advisory for IOP:

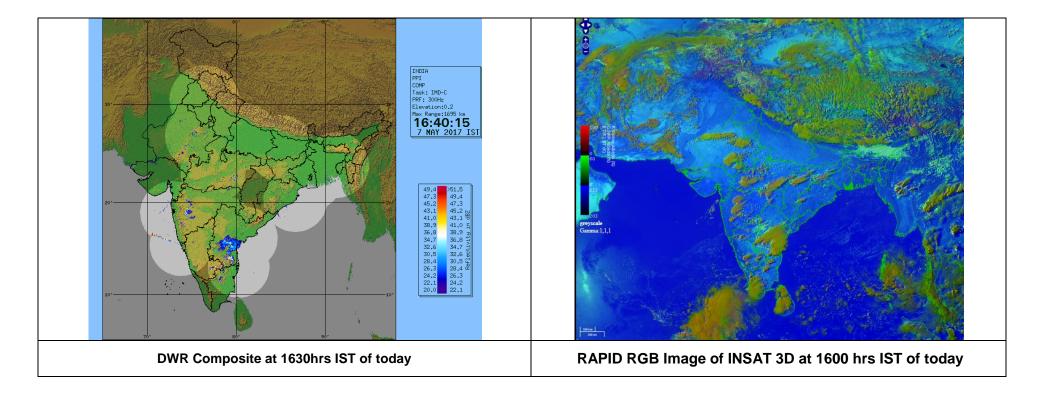
Assam, Meghalaya, Nagaland, Mizoram and Tripura Kerala, Interior Tamilnadu, South Interior Karnataka, Telangana, North Coastal Andhra Pradesh, Sub Himalayan West Bengal, Gangetic West Bengal, Orissa, Jharkhand, East Rajasthan, Madhya Pradesh South Chhattisgarh and South Madhya Maharashtra

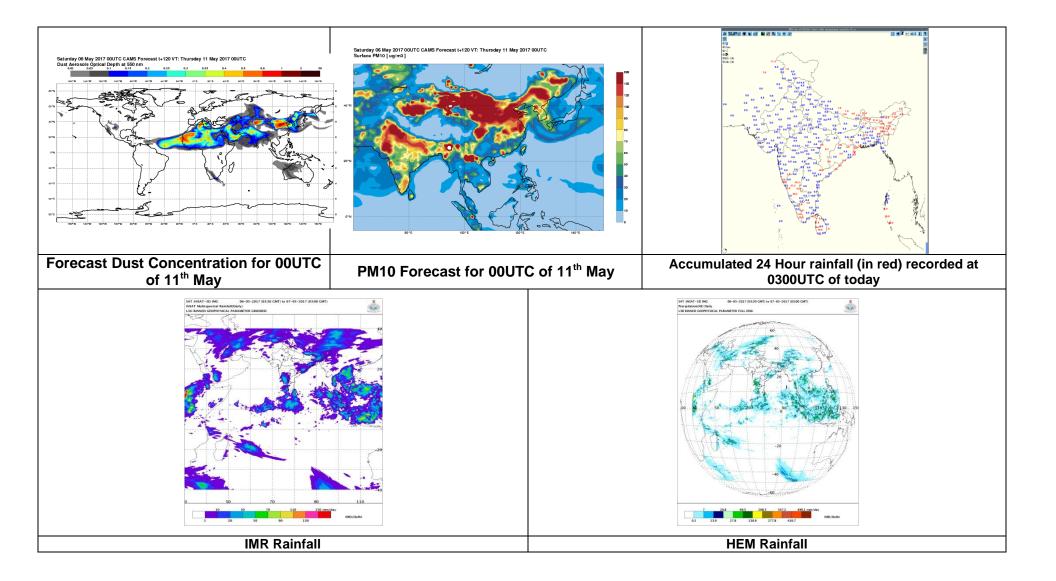
#### 48 hour Advisory for IOP:

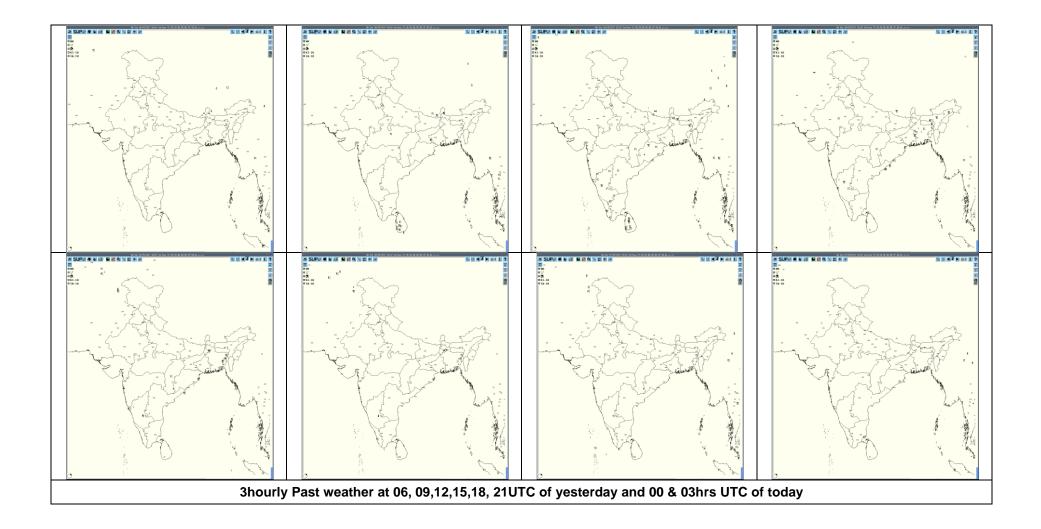
Kerala, Interior Tamilnadu, South Interior Karnataka and North Coastal Andhra Pradesh, Parts of Punjab and Haryana Sub Himalayan West Bengal, Gangetic West Bengal, Orissa,

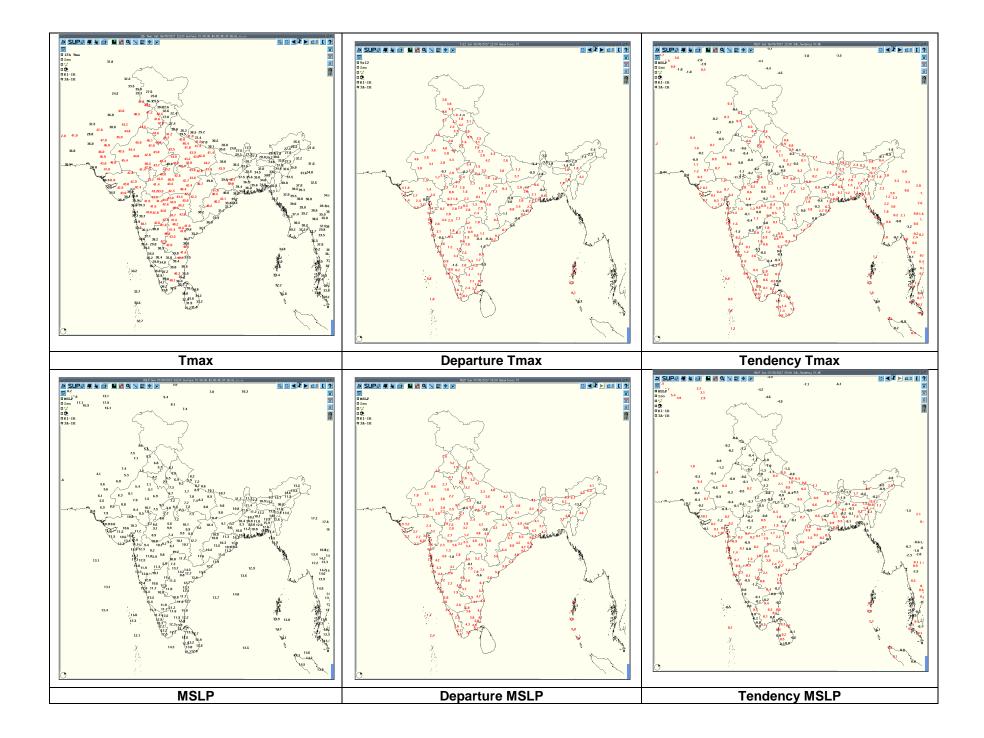
For NCMRWF NWP products:( <u>http://www.ncmrwf.gov.in/HomePage/NEPS-prod-1.php</u> ) For IMD NWP products:( <u>http://nwp.imd.gov.in/diagpro_new.php</u> )
For Synoptic plotted data and charts
http://amssdelhi.gov.in/
http://www.amsskolkata.gov.in/
For RAPID tool:
http://rapid.imd.gov.in/
Low Level Winds
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)
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HEM: http://satellite.imd.gov.in/img/3Ddaily he.jpg
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Satellite sounder based T- Phigram
http://satellite.imd.gov.in/map skm2.html

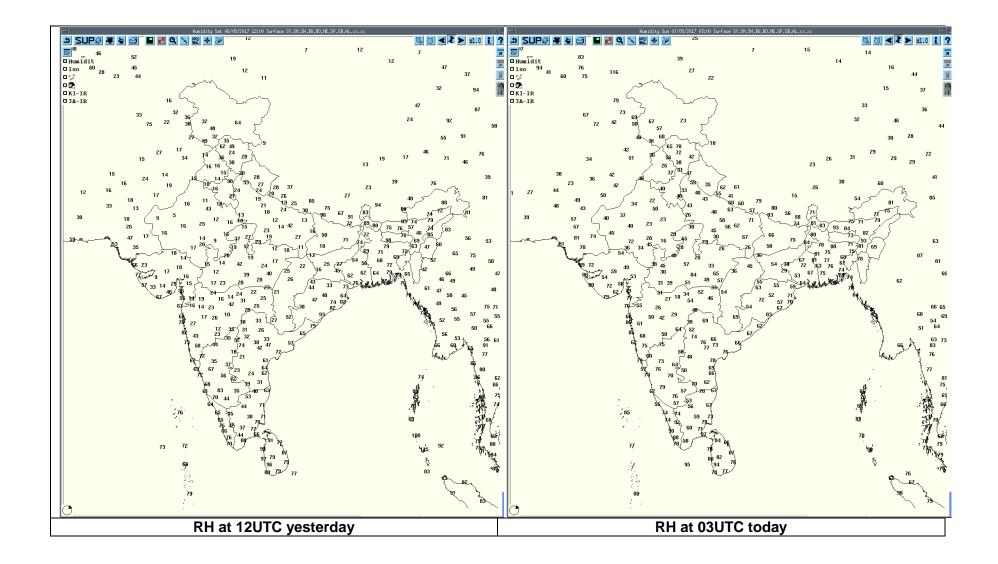












		Realized weather past 24hours (Ba	sed on SYNERGIE Pro		
Date	Time of Reporting	Name of Station Reporting	Region	STATE	Weather Event
06-05-17	0600 UTC	Nil	Nil	Nil	Nil
06-05-17	0900 UTC	Sagar	Central India	Madhya Pradesh	Thunderstorm
00-05-17		Jamshedpur	East India	Jharkhand	Thunderstorm
		Gangtok	East India	Sikkim	Thunderstorm
		Raipur	Central India	Chhattisgarh	Thunderstorm
		Keonjhargarh, Jharsuguda	East India	Odisha	Thunderstorm
		Cherrapunjee	Northeast India	Meghalaya	Thunderstorm
06-05-17		Sangali	Central India	Maharashtra	Thunderstorm
00-05-17	1200 UTC	Belgaum, Gulbarga, Haveri	South India	Karnataka	Thunderstorm
		Jagdalpur	Central India	Chhattisgarh	Thunderstorm
		Mahabaleshwar, Satara,	Central India	Maharashtra	Thunderstorm
		Belgaum, Gadag, Chamarajanagar	South India	Karnataka	Thunderstorm
		Cochin	South India	Kerala	Thunderstorm
06-05-17		Ajmer	Northwest India	Rajasthan	Thunderstorm
00-03-17	1500 UTC	Dibrugarh, Tezpur, Guwahati	Northeast India	Assam	Thunderstorm
		Shillong	Northeast India	Meghalaya	Thunderstorm
		Raipur	Central India	Chhattisgarh	Thunderstorm
		Gadag, Honavar, Chitradurga	South India	Karnataka	Thunderstorm
		Gopalpur	East India	Odisha	Thunderstorm
		Calingapatnam, Vishakhapatnam	South India	Andhra Pradesh	Thunderstorm
		Agartala	Northeast India	Tripura	Thunderstorm
~~ ~ ~ ~ ~		Raipur	Central India	Chhattisgarh	Thunderstorm
06-05-17	1800 UTC	Chandbali	East India	Odisha	Thunderstorm
		Calingapatnam	South India	Andhra Pradesh	Thunderstorm
		Chitradurga	South India	Karnataka	Thunderstorm
06-05-17	2100 UTC	Cochin	South India	Kerala	Thunderstorm
07-05-17	0000 UTC	Kanyakumari	South India	Tamilnadu	Thunderstorm
07-05-17	0300 UTC	Adiramapatinam	South India	Tamilnadu	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)			
Srinagar	Northwest India	Jammu &	Thunderstorm	07-05-17	0532	0535			
-		Kashmir			0535	0600			
Gangtok	East India	Sikkim	Thunderstorm	06-05-17	1225	1520			
Gangtok	East India	Sikkim	Hail	06-05-17	1238	1245			
			(Diameter: 0.2-0.4 cm)		1414	1418			
Tadong	East India	Sikkim	Thunderstorm	06-05-17	1250	1620			
Jalpaiguri	East India	West Bengal	Thunderstorm	06-05-17	1600	1645			
Alipore	East India	West Bengal	Thunderstorm	06-05-17	1840	1915			
Haldia	East India	West Bengal	Thunderstorm	06-05-17	1850	2010			
Digha	East India	West Bengal	Thunderstorm	06-05-17	1815	2215			
Jamshedpur	East India	West Bengal	Thunderstorm	06-05-17	1420	1510			
Balasore	East India	Odisha	Thunderstorm	06-05-17	1830	2230			
Jharsuguda	East India	Odisha	Thunderstorm	06-05-17	1645	1900			
Chandbali	East India	Odisha	Thunderstorm	06-05-17	2100	0200			
Paradeep	East India	Odisha	Thunderstorm	06-05-17	2127	2225			
Gopalpur	East India	Odisha	Thunderstorm	06-05-17	1645	2115			
Sambalpur	East India	Odisha	Thunderstorm	06-05-17	1700	1715			
Jorhat	Northeast India	Assam	Thunderstorm	06-05-17	2100	2400			
Jorhat	Northeast India	Assam	Thunderstorm	07-05-17	0000	0100			
Guwahati	Northeast India	Assam	Thunderstorm	06-05-17	1920	2210			
Tezpur	Northeast India	Assam	Thunderstorm	06-05-17	1820	1840			
·					1850	2050			
Dibrugarh	Northeast India	Assam	Thunderstorm		1930	2130			
Silchar	Northeast India	Assam	Thunderstorm	06-05-17	2250	2400			
Silchar	Northeast India	Assam	Squall (Direction: NW, Max. speed:64Kmph)	06-05-17	2304	2306			
Silchar	Northeast India	Assam	Thunderstorm	07-05-17	0000	0130			
Shillong	Northeast India	Meghalaya	Thunderstorm	06-05-17	0950	2015			
					1030	2245			
Shillong	Northeast India	Meghalaya	Hail (Diameter: 0.3 cm)	06-05-17	1012	1014			
Cherrapunjee	Northeast India	Meghalaya	Thunderstorm	06-05-17	2030	2400			
Cherrapunjee	Northeast India	Meghalaya	Thunderstorm	07-05-17	0000	0830			
1 4	Northeast India	Meghalaya	Thunderstorm	06-05-17	1010	1040			
Barapani					1219	1250			
Lengpui	Northeast India	Mizoram	Thunderstorm	07-05-17	0010	0030			
Agartala	Northeast India	Tripura	Thunderstorm	06-05-17	2200	2400			
Agartala	Northeast India	Tripura	Thunderstorm	07-05-17	0000	0120			

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)		
Gondia	Central India	Vidarbha	Thunderstorm	06-05-17	1600	1700		
Sagar	Central India	Madhya Pradesh	Thunderstorm	06-05-17	1425	1450		
Raipur	Central India	Chhattisgarh	Thunderstorm	06-05-17	1500	2215		
Bilaspur	Central India	Chhattisgarh	Thunderstorm	06-05-17	1815	1830		
Kanyakumari	South India	Tamilnadu	Thunderstorm	07-05-17	0430	0600		
AMS Coimbatore	South India	Tamilnadu	Thunderstorm	06-05-17	2000	2115		
Salem	South India	Tamilnadu	Thunderstorm	06-05-17	1540	1545		
Kodaikanal	South India	Tamilnadu	Thunderstorm	06-05-17	2030	2400		
Chitradurga	South India	Karnataka	Thunderstorm	06-05-17	1525	1740		
-					1925	2120		
					2325	2400		
Chitradurga	South India	Karnataka	Thunderstorm	07-05-17	0001	0120		
Bangalore City	South India	Karnataka	Thunderstorm	06-05-17	1750	1940		
Yelahanka IAF	South India	Karnataka	Thunderstorm	06-05-17	1730	1930		
					2245	2400		
Yelahanka IAF	South India	Karnataka	Thunderstorm	07-05-17	0000	0200		
Honavar	South India	Karnataka	Thunderstorm	06-05-17	1930	2020		
CIAL Kochi	South India	Kerala	Thunderstorm	06-05-17	1120	1300		
					1452	1630		
Karipur A P	South India	Kerala	Thunderstorm	06-05-17	2155	2320		
Thiruvananthapuram AP	South India	Kerala	Thunderstorm	06-05-17	1945	2045		

# Past 24 hours DWR Report:

Radar Station name	Date	Time interval of observa tion (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	Associat ed severe weather if any	Districts affected
Agartala	07.05.17	060300	Multi cell with Maximum Height <b>13km</b> and maximum reflectivity <b>43.5 dBZ</b> (at 0310 UTC)	Formed 410 km NW of DWR AGT at 1620 UTC dt.05.05.17 and moved SE-wards at around 66kmph	Cell dissipate at 0530UTC,over Meghalaya	N/A	N/A
		060840 - 061900	Multi Cell developed into squall line with Maximum Height <b>14 km</b> and maximum reflectivity <b>44 dBZ</b> (at 1450 UTC)	Formed 170 km NW of DWR AGT at 0840 UTC and moved SE-wards at around 65 kmph	Cells Dissipated at 1900 UTC ,over Mizoram	TS with light to moderate rain	West khowai, Gomati. North Unakoti, Dhalai district of Tripura, East Khasi Hills dist of Meghalaya, Mamit dist. Of Mizoram
		061640 - 062350	Multi cell with Maximum Height <b>12km</b> and maximum reflectivity <b>46 dBZ</b> (at 2040 UTC)	Formed 280 km NW of DWR AGT at 1640 UTC and moved ESE-wards at around 40kmph	Cell dissipate at 0530UTC,over Meghalaya	N/A	N/A
Patiala	07.05.17	060300 - 070300	Nil	Nil	Nil	Nil	Nil
JAIPUR	07/05/17	0650 - 1720 UTC	Multiple cell with average height of 6.5 km maximum reflectivity 49 dBZ	W moving towards SW wards at speed direction 12 km/hr to 16 km/hr	Cells continuous forming from 0650 UTC SW & W of Jaipur and multiple cell was observed and maximum refelectivity during 1110- 1610 UTC and died down at 1720 UTC.		Ajmer, Bhilwara, Tonk, Nagaur, Chittorgarh, Bundi

	Date	Time interval of observati on (UTC)	Organization of the cells (Isolated single cells/multiple cells/ convective regions/ squall lines) with height of 20dBZ echo top and maximum reflectivity	Formation w.r.t radar station and Direction of movement	Remarks	Associated severe weather if any	Districts affected
Radar Station name DWR Machilipatnam	03Z of 06/05/17 to 03Z of 07/05/17	0811 to 1141 UTC	Isolated Multiple cells with average height of 13 km with maximum reflectivity of 62 dBZ	NE(234KM) stationary	Cells started forming at 0811 UTC, maximum reflectivity during 0911 to 1131 and died down at 1141UTC	Possibility of Thunder storm with hail, rain and moderate winds.	Visakhapatnam District
	03Z of 06/05/17 to 03Z of 07/05/17	2321 to 0251 UTC	Isolated Multiple cells average height of 8.5 km with maximum reflectivity of 62.5 dBZ	N(230KM) and moving SE ly direction with average speed of 22.3 kmph	Cell started forming at 2321UTC, at SE (148km) from radar the maximum reflectivity period is 0001 to 0251 UTC	Possibility of Thunder storm with Hail, rain and moderate winds.	Dantewara, Badradri kothagudem and khammam Districts
	03Z of 06/05/17 to 03Z of 07/05/17	0021 to 0251UTC	Isolated Multiple cells average height of 8.5 km with maximum reflectivity of 55.5 dBZ	NW(248KM) and moving SE ly direction with average speed of 10 kmph	Cells started forming at 0021UTC at NW(222km) from radar with maximum reflectivity during 0031 to 0251	Possibility of Thunder storm with Rain and moderate winds.	Nalgonda and Suryapet Districts
	06/0300 to 07/0300	06/0722- 1102	scattered cells with an average height of 10.6 Km with a max reflectivity of 60.0 dBZ	W(73 Kms) moving in S- ly Direction at a speed of 6 Kmph.	Cells started forming at 0722 UTC at W direction from radar, , matured bet. 0912-0952UTC and dissipated by 1042	Severe Thunderstorm with or without rain	Not Known
Hyderabad		06/ 1042- 1302	scattered cells with an average height of 10.6 Km with a max reflectivity of 55.5 dBZ	SW (101 Kms) moving in SW- ly Direction at a speed of 12 Kmph.	Cells started forming at 1042 utc matured a bit and dissipated by 1302 UTC	Severe Thunderstorm with or without rain	Areas near Mahabubnagar district.
		06/1102- 1242	Isolated cells with an average height of 10.6 Km with a max reflectivity of 53 dBZ	NE (90 Kms) moving in S- ly Direction at a speed of 12 Kmph.	Cells started forming at 1102 utc matured a bit and dissipated	Mod Thunderstorm with or without rain	Not Known
		07/ 0002 -0132	Isolated cells with an average height of 10.6 Km with a max reflectivity of 54.5 dBZ	NE (152 Kms) moving in ESE- ly Direction	Cells started forming at 0802 utc matured a bit with max ref of 54.5 dBz and dissipated by 0132 UTC	Mod Thunderstorm with or without rain	Areas near Warangal District.

Radar Station Name	Date	Time Interval of Observation (UTC)	Organisation of cells (Isolated single cells /multiple cells/ convective regions /squall lines) with height of 20 dBZ echo top and maximum reflectivity	Formation w.r.t. radar station and Direction of movement	Remarks	Associated Severe Weather if any	Districts affected
Kolkata	07/05/17	0312- 0841	NIL	NIL	NO ECHO	NIL	NIL
			1.Isolated Single cells with maximum reflectivity of 73.0 dBz at 1101 UTC and maximum height of 17.6 Km at 1051 UTC	W (238.2 km) Moving in ESE-ly then SE-ly direction with speed of 48.3 kmph.	Isolated single cell coming from 0841 UTC from W at a distance of 238.2 km from radar. Matured and merged with 3 at 1211 UTC in WSW at a distance of 117.7 km from Radar.	Thunderstorm /Squall/ Hail/ Rain	N/A
		0841- 1601	2. Isolated Single cell with maximum reflectivity of 51.0 dBz at 0941 UTC and maximum height of 10.2 Km at 0931 UTC	NNW (248.4 km) Moving in ESE-ly direction with speed of 32 kmph.	Isolated single cell coming from 0921 UTC from NNW at a distance of 248.4 km from radar. Matured and dissipated at 1011 UTC in NNW at a distance of 234.1 km from Radar.	Thunderstorm /Rain	N/A
			3. Multi celled system with maximum reflectivity of 68.5 dBz at 1201 UTC and maximum height of 16.7 Km at 1201 UTC	W (228.5 km) Moving in ESE-ly direction with speed of 38.7 kmph.	Multicelled system coming from 1041 UTC from W at a distance of 228.5 km from radar. Matured and merged with 1 at 1211 UTC in WSW at a distance of 117.7 km from Radar.	Thunderstorm /Squall/ Hail/ Rain	N/A
			4. Isolated Single cell with maximum reflectivity of 69.0 dBz at 1241 UTC and maximum height more than 18 km between 1231 and 1301 UTC	NNW (248.4 km) Moving in SE-ly direction with speed of 49.3 kmph.	Isolated single cell coming at 1041 UTC from NNW at a distance of 248.4 km from radar. Matured . Dissipated around 1601 UTC in NE at a distance of 152.6 km from Radar.	Thunderstorm /Squall/ Hail/ Rain	N/A
Lucknow	07/05/17	06/0300- 07/0300	Nil	Nil	Nil	Nil	Nil
Srinagar	07/05/2017	06 MAY 03Z to 07 May 03Z(24hrs)	A single cell developed in the NE of DWR Srinagar at around 0020 UTC with max. reflectivity 50 DBZ and average height 7km.	Developed at NE of Radar moves SW direction and finally dissipated at around0130UTC.	Thunder with light rain occurred at Srinagar and Gulmarg	Light rain/Thunder	Very light Rain has occurred in Srinagar and Gulmarg

