

भारत मौसम विज्ञान विभाग
India Meteorological Department

Press Release
Dated: 5th June, 2012

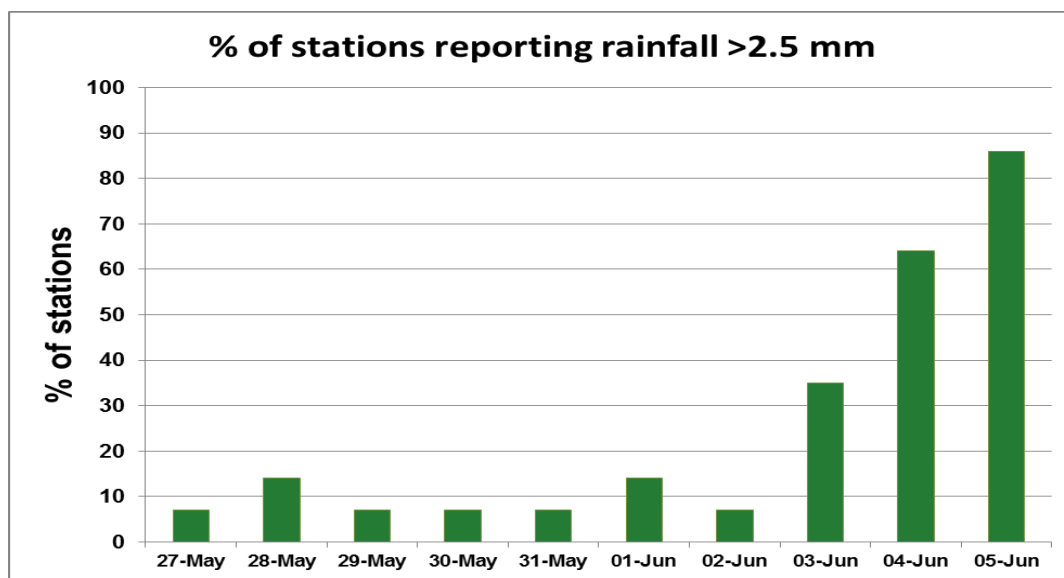
Subject: Monsoon 2012 onset over Kerala - A Meteorological analysis

India Meteorological Department has objective criteria for declaring the onset of monsoon over Kerala. The Meteorological analysis of various features related to Monsoon onset over Kerala vis-a-vis the criteria is given below:

1. RAINFALL CRITERIA

If after 10th May, 60% of the available 14 stations enlisted, viz. Minicoy, Amini, Thiruvananthapuram, Punalur, Kollam, Allapuzha, Kottayam, Kochi, Thrissur, Kozhikode, Thalassery, Kannur, Kudulu and Mangalore report rainfall of 2.5 mm or more for two consecutive days, the onset over Kerala be declared on the 2nd day. **Rainfall recorded during May & June 2012 is given below:**

Station	May					June				
	27	28	29	30	31	1	2	3	4	5
Minicoy	0.0	0.0	0.0	0.0	3.2	10.1	trace	0.3	26.0	10.7
Amini Divi	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.4	105.9	52.0
Thiruvananthapuram	0.0	0.0	4.0	2.5	trace	1.3	trace	0.1	trace	0.5
Punalur	0.0	2.0	0.0	0.0	0.0	0.0	0.0	7.2	1.0	0.0
Kollam	0.0	25.0	0.0	0.0	1.4	0.0	0.0	15.6	4.0	16.0
Allapuzha	0.3	0.0	1.4	0.2	trace	3.2	1.4	0.0	2.8	25.7
Kottayam	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0
Kochi	5.4	10.6	0.0	trace	0.8	0.3	trace	1.5	1.1	15.8
Trissur	0.0	0.3	0.0	1.0	0.0	0.0	2.0	20.0	8.0	26.0
Kozhikode	0.0	0.0	0.0	0.0	0.2	0.0	1.2	0.0	13.0	58.6
Talassery	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.2	9.2	10.0
Kannur	0.0	0.0	0.0	1.4	0.0	0.0	7.8	1.4	11.3	38.7
Kudulu	0.0	0.2	0.0	0.0	0.0	0.2	0.0	17.2	0.2	47.4
Mangalore	2.4	0.0	0.0	0.0	trace	1.0	0.0	11.6	7.9	43.2
% Stations reporting rainfall	7	14	7	7	7	14	7	35	64	86



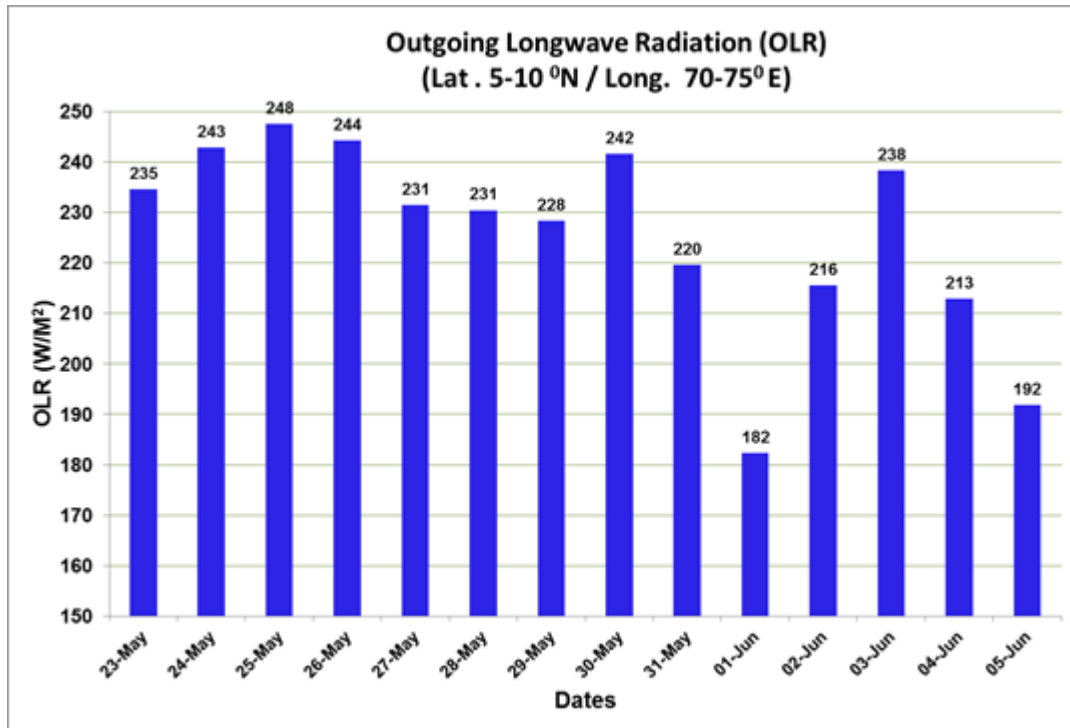
2. WIND CRITERIA

Depth of westerlies should be maintained upto 600 hPa, in the box equator to Lat. 10°N and Long. 55 °E to 80°E. The zonal wind speed over the area bounded by Lat. 5-10°N, Long. 70-80°E should be of the order of 15 – 20 Knots (28-37 kmph) at 925 hPa.

3. OUTGOING LONG WAVE RADIATION (OLR) CRITERIA

INSAT derived OLR value should be below 200 wm^{-2} in the box confined by Lat. 5 -10°N and Long. 70- 75°E. **Observed wind and OLR values during May & June, 2012 in given below:**

2012	Winds		Satellite information
	Wind at 925 hPa (Knots)	Depth (hPa)	OLR (200wm^{-2})
23 May	10-15	850	234.69
24 May	10-15	850	242.87
25 May	15-20	850	247.63
26 May	10-15	850	244.27
27 May	10-20	850	231.47
28 May	15-20	850	230.51
29 May	10-25	850	228.30
30 May	15-25	700	241.67
31 May	20-30	850	219.65
1 June	15-25	700	182.33
2 June	15-20	700	215.62
3 June	15-25	600	238.34
4 June	20-25	600	213.00
5 June	20-25	600	191.89

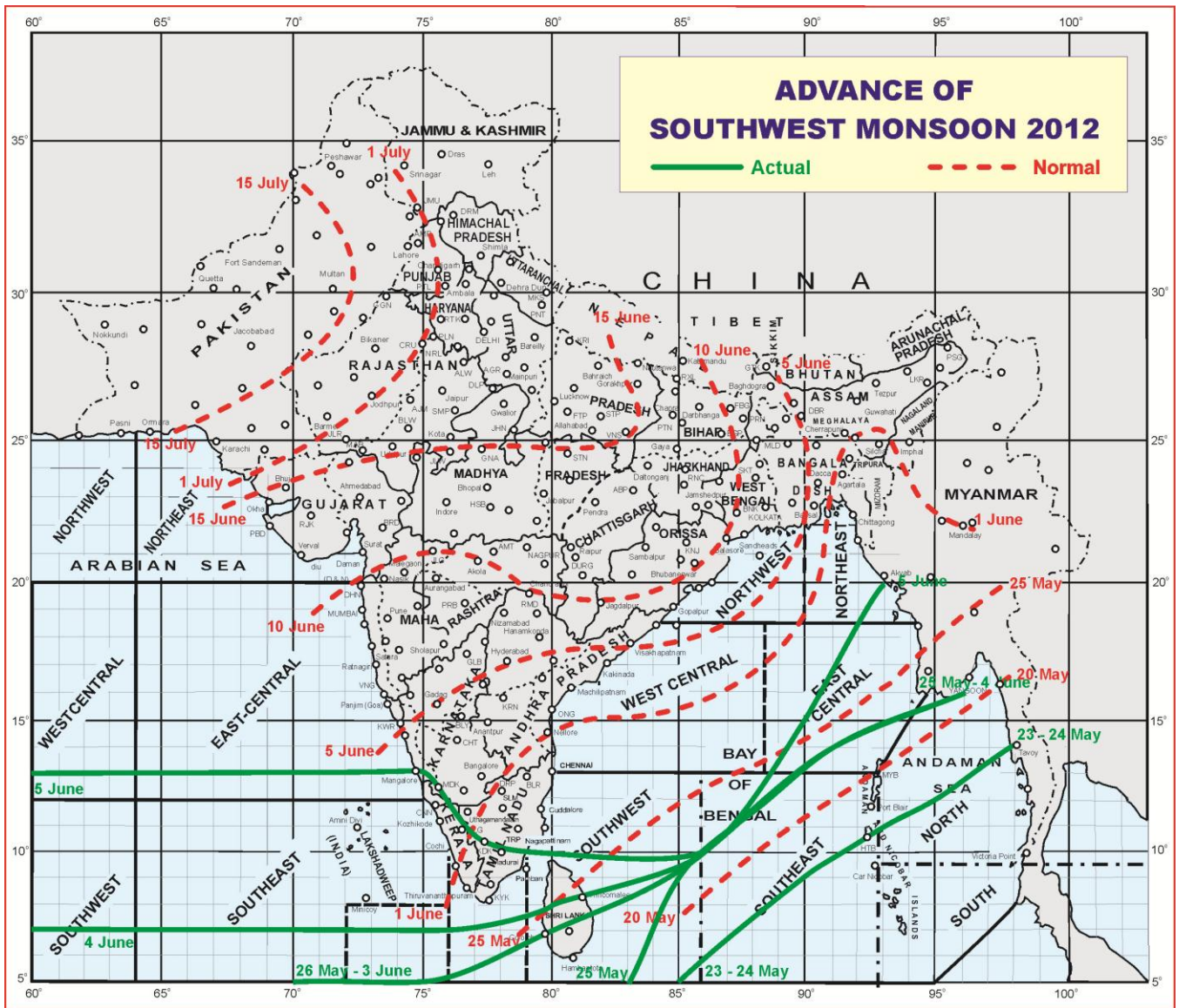


Summary

- The rainfall monitoring stations (14) reported fairly widespread to widespread rainfall with isolated heavy falls. 64% & 84 % of these stations reported rainfall of 2.5 mm or more on 4th & 5th June, respectively.
- Westerly/ West-southwesterly winds of the order of 20-25 knots were seen upto 600 hPa in the box equator to Lat. 10⁰N and Long. 55⁰E to 80⁰E.
- The KALPANA derived OLR value in the box confined by Lat. 5-10⁰N, Long. 70-80⁰E was 192 w/m⁻² on 5th June. .

Declaration of Onset of monsoon over Kerala

- With above favourable conditions, onset of southwest monsoon over Kerala has been declared by IMD today, the 5th June, 2012.
- It has also advanced into remaining parts of south Arabian Sea, southern parts of central Arabian Sea, remaining parts of Maldives–Comorin areas, entire Kerala, some parts of coastal Karnataka and south Tamil Nadu and some more parts of south & east central Bay of Bengal.
- The Northern Limit of Monsoon (NLM) as on today passes through Lat. 13° N/Long. 60° E, Lat. 13° N/Long. 65° E, Lat. 13° N/Long. 70° E , Mangalore, Medikeri, Kodaikanal, Lat. 10° N/Long. 80° E, Lat. 10° N/Long. 86° E, Lat. 15° N/Long. 90° E and Lat. 20° N/Long. 93° E. The map showing NLM is given below.



Forecast

Conditions are favourable for further advance of the southwest Monsoon into some more parts of central Arabian Sea, remaining parts of coastal Karnataka, Goa, some parts of south Konkan, south Madhya Maharashtra and interior Karnataka, some more parts of Tamil Nadu and Bay of Bengal and some parts of northeastern states during next 48 hrs.