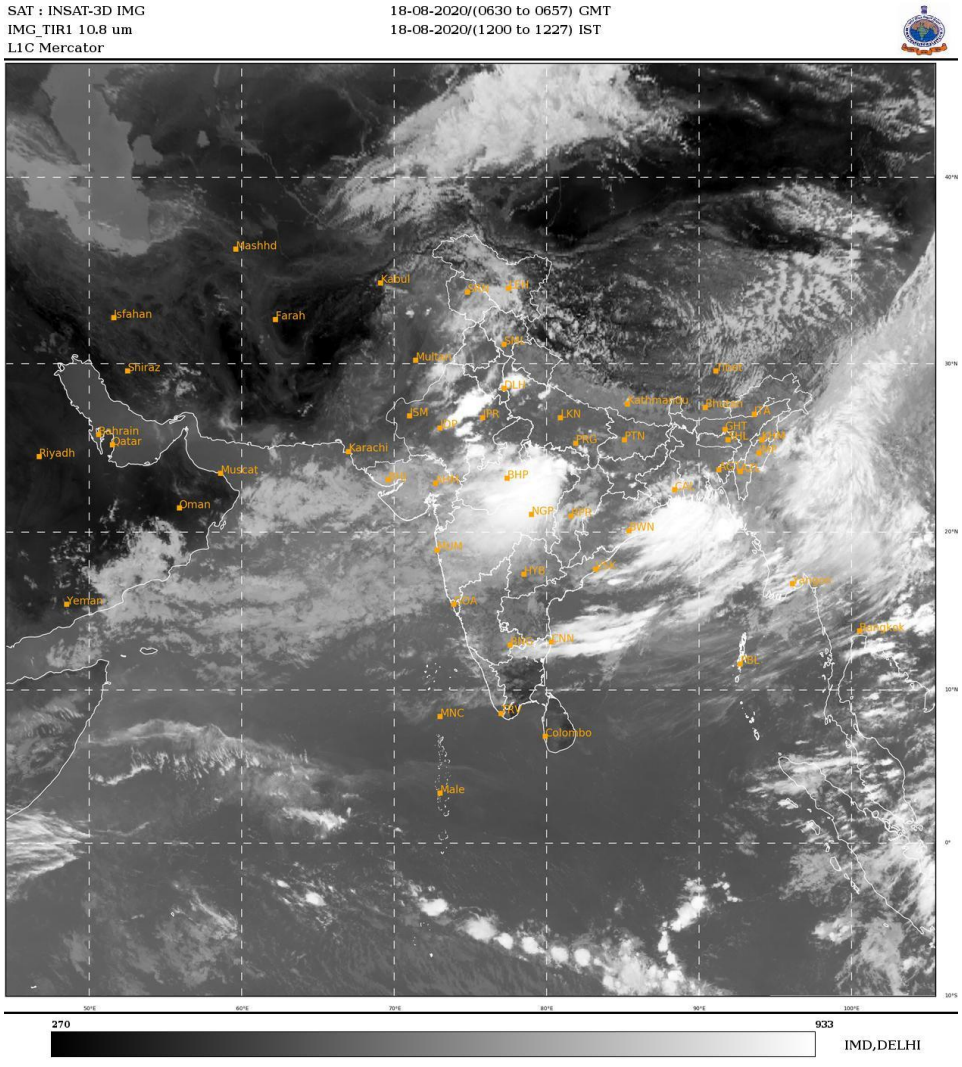
Vigyan Samachar: MoES News 18/08/2020

Countrywide Weather Alert from IMD

New Delhi, August 18 (Vigyan Samachar): India Meteorological Department (IMD) is issuing an alert for East Rajasthan predicting extremely heavy rainfall during next 48 hours. There is a possibility of very heavy rainfall with isolated extremely heavy rain falls in Uttarakhand on 18th August, Meghalaya on 20th August and over Nagaland, Manipur, Mizoram and Tripura during 19th and 20th August 2020.

As per IMD, monsoon trough is active and lies south of its normal position and likely to shift near south wards and strengthen during next 3-4 day is creating conditions that are favorable for heavy to very heavy rainfall over Gujarat state, Maharashtra State & Goa, Madhya Pradesh, Chhattisgarh, Jharkhand, Odisha and West Bengal during next 3-4 day. There are also possibilities of heavy to very heavy falls over Northeastern states during 3-5 days.

As per the National Weather Forecasting Centre, IMD forecast, there is a heavy probability of thunderstorms with lightning in Assam, Meghalaya, Nagaland, Manipur, Mizoram, Tripura, Uttar Pradesh, Uttarkhand and East Rajasthan during next 3 days.



A visible frequency region (0.4µm - 0.7µm) satellite imagery from IMD

Satellite imagery like above is taken during daytime which provide information on scattered and reflected energy available during daytime; clouds and earth surface sensitive to soil, water, and cloud types. Also fog in daytime can be observed. These imageries are useful for tracking of cloud features in time to estimate atmospheric motion.

The channel (0.65µm) lies in the visible region (0.4µm - 0.7µm) of the electromagnetic spectrum which can be seen with naked eye. Hence this channel is known as the Visible channel. The incoming solar radiation in this channel is reflected by Clouds and Ground. The amount of reflection depends on the type of reflective surface. Visible imagery is very useful for distinguishing clouds, land, and sea/ocean. Different types of clouds reflect in different amounts based on their physical properties like amount and size of raindrops / ice crystals and its density. Cumulonimbus clouds appear brightest. Thick (low / medium) clouds like cumulus, stratus, stratocumulus appear comparatively brighter than the thin (Higher) clouds like cirrus. Sea surface appear darker in this imagery.

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