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Convective Initiation Analysis using Day Cloud Phases Distinction RGB on Tropical Region

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Limitation to observe the atmosphere over the eastern part of Indonesia become a challenging for a meteorological forecaster. In case extreme weather event, it is very essential that they need a product to help them to make nowcasting or early warning. Japan Meteorological Agency (JMA) develops receipt of RGB product that can describes more detail about convective initiation and storm growth and one of the RGB product is day cloud phase distinction. This RGB takes advantage of cloud reflectance between the visible and near infrared to provide increased contrast between background surface and phases of cloud such as water and ice. Based on JMA receipt, we use Himawari 8 imagery with Advance Himawari Imagery (AHI) and we need three composite band to produce the product. Red color (band: IR-10.4, 219.619 – 280.6707), green color (band: VS-064), and blue color (band: N2-1.6), for reflectivity range red is (219.619 – 280.6707), green (-0.0346 – 0779) and red (0.0119 – 05932) with gamma is 1.0 for all color. Using the SATellite Animation and Interactive Diagnosis (SATAID) application we start to analysis. The result of this receipt for the tropical region performing better to describes detail about the condition when bad weather occurs. This RGB is beneficial for observing rapidly developing cumulus detection and based on five cases are including some extreme event in Maluku province, it provides more information for weather forecasters to make decision.