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Monitoring the development of deep convective cloud within the Inter Tropical Convergence Zone (ITCZ) over Kiribati using various satellite Data

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Kiribati is one among of small island developing state (SIDS) located in the equator in middle of Pacific Ocean. Scattered around the vast ocean and elevated not more than 2 meters above the mean sea level, this 33 inhabited islands were most vulnerable to weather, ocean and climate.

The convective cloud within Inter Tropical Convergence Zone influence impact to the islands causing major damage to our properties and inconvenience to people on the islands. ITCZ movement along the equator enhancing developing of convective cloud later becoming so mature and brought devastating impact to islands such as lightning from thunderstorm, flooding from heavy rain and damaging wind from outflow from Thunderstorm.

The Kiribati Meteorological Service responsible for observing and monitoring weather, ocean condition and climate and to inform the people of Kiribati and issue warnings from meteorological hazard related to Thunderstorms. Due with limited tools such as lightning detector and Radar. The Kiribati Meteorological Service meteorologist used various satellite data to analysis the cloud convective development to Nowcast/Forecast Convection of Cloud.

This paper provides how Kiribati Forecaster effectively uses satellite data in the absence of Radar and Lightning in detection of development of Thunderstorm.