



Use of satellite precipitation data in Nigeria

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The use of satellite precipitation data for forecast in Nigeria is greatly advancing, this is due to the availability of satellite imagery and measured real time rainfall data that can be used to validating the estimated amount of rainfall been derived from imagery captured by satellite of an area.

Rainfall data from rain gauge measurements have been used to validate the data of the Tropical Rainfall Measuring Mission Precipitation Radar (TRMM PR) and the data of two other satellite algorithms namely 3B43 and TMP1 for 36 months (Jan1998-Dec2000) at $1.00^{\circ} \times 1.00^{\circ}$ latitude/longitude grid boxes over Nigeria.

Between 1998 and 2000 we studied the interconnection between precipitation imageries captured over Nigeria and the amount of Rainfall measured. We noted that there is critical connection between the Thermodynamic properties over the surface, the estimated amount of rainfall from a particular captured imagery and measured rainfall data. Therefore proper understanding of the satellite precipitation imagery will enable forecasters in Nigeria to forecast the amount of precipitation from a particular type of imagery for flood and disaster monitoring. More practical issues will be presented.

Flood disaster related event has claimed million of lives, make thousand homeless and devastated more million arable land in Africa.