

## Karakteristik Hidrometeor Di Wilayah Bandara Ahmad Yani Semarang Dan Adi Sucipto Yogyakarta

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### Abstrak

Hydrometeor is a phenomenon in the atmosphere which consist of particles of liquid and solid water in the atmosphere, or deposition of water drops on the surface of objects near the earth's surface, or in the air caused by the condensation of water vapor around it. Characteristics of hydrometeor in the region of Semarang Ahmad Yani and Yogyakarta Adi Sucipto Airports discussed in this paper. The purpose of this research is to know and understand the characteristics of hydrometeor such as density vertical profiles and temporal variation of water content of liquid and solid water (ice) in the clouds and rain in the region Semarang Ahmad Yani and Yogyakarta Adi Sucipto Airports based on observations of Tropical Rainfall Measuring Mission (TRMM) satellite. The data used in this study were 3A12 TRMM data and the cumulative observations in the range 1998 to 2008. The results show that there are significant differences in terms of value and the level of maximum density altitude where the maximum density value of liquid water content in clouds, ice levels in the cloud, liquid water content in rain and ice levels in rain over area of Semarang Ahmad Yani and the Yogyakarta Adi Sucipto Airports observations during 1998-2008. In the area of Semarang Ahmad Yani Airport and the surrounding areas has maximum hydrometeor density in the period 1998. The maximum density of liquid water content of rain and that of clouds are 0.0048 g/m<sup>3</sup> at an altitude of 3 km (LWC cloud) and 0.0028 g / m<sup>3</sup> at an altitude of 1.5 km (LWC rain) , respectively; meanwhile in the Adi Sucipto Airport Yogyakarta and its surroundings, the period of the rainy season is also the period 1998 to the density of liquid water content of rain clouds and the maximum, but with slightly different values. Key words: Liquid water content, Solid water (ice) content, Hydrometeor