Precipitating Cloud Observation during Weather Modification Project in Indonesia

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Water stresses often occur in Indonesia. In order to assess the feasibility of any future precipitation enhancement potential in clouds in the Sorowako region, it is extremely important to obtain observations in a well-designed measurement program. It is also important to conduct hydrological studies relating rainfall with river flows and reservoir levels, and to determine hydrological regions where reservoir catchments are most efficient.

Since 2005, the Agency for the Assessment and Application of Technology (BPPT) has doing weather modification project at Sorowako, Sulawesi. During the project, studies on precipitating clouds which occur over this area have been done by using radar as well as other meteorological instrument. This study is important to decide the appropriate cloud to be seeded. Towering Cumulus cloud with a large amount of hydrometeor is the target of this operation.

In this study, C-band Doppler radar with TITAN software has been used for analyzing precipitating cloud. More than 4 years radar observation obtained the characteristic of clouds which developed over the area. Radar reflectivity with certain threshold of echo power and area were analyzed to see the characteristics of cloud occurrence.

Keywords: precipitating cloud; radar; weather modification.

References

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