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WIND-SCATTEROMETER OBSERVATION OVER AMAZON RAINFOREST

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EXTENDED ABSTRACT

Windscatterometers (WSC) carried on the ERS 1 and 2 satellites were primarily designed to measure the backscatter coefficient as a function of incidence angle above the world's oceans, in order to determine wind speed and direction. A number of recent studies have demonstrated that scatterometers can be used to monitor surface parameters.

This article presents an analysis of ERS Wind-Scatterometer (WSC) data over Amazon Rainforest. The consider period expands from August 1991 to July 1999. The main question that was addressed was whether the tropical rainforest got drier or wetter the last eight years. Analysis performed for: i) Monthly average (91-99), ii) Area-based, iii) Monthly-bashed (for specific year) and iv) Yearly-based (for specific month). Analysis saw a negative slope (-0.05^0) of the radar cross section over rainforest, at 40^0 angle of incidence.

Key words: Remote Sensing, Radar, Windscatterometer