

**SAREX-92: ITS CONTRIBUTION
TO THE EVALUATION
OF NATURAL RESOURCES
IN TROPICAL RAINFORESTS,
PRELIMINARY RESULTS FROM
TEST-SITE ACRE, SW-AMAZONIA, BRAZIL**

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In the framework of a Canada/Brazil Cooperation Project and with the financial support of both the European Space Agency (ESA) and the Canada International Development Agency (CIDA), an airborne SAR-580 campaign to acquire C-band HH and VV radar data was undertaken during April 1992 in Brazilian Amazon.

The overall objective of SAREX-92 is to acquire a C-band dataset, including simulated satellite data products, to be used for the evaluation of spaceborne C-band SAR data in tropical forest environments. Results of these studies are being used to promote "SAR literacy" among professionals and technical staff responsible for tropical forest management in Brazil.

This paper presents first results of SAR data evaluation from test site in Acre, a State in SW Amazon, Brazil. The use of geometrically and radiometrically corrected SAR images is described and related to the detection of forest types, deforestation practices for pasture and small settlements as well as other man-made features. Examples of different relief features (dissection by drainage, erosion, topography, etc.), depicted from SAR images, and their relationships with landuse and landuse planning are shown when applicable.

Based on the interpretation of wide swath images, treated to represent data fidelity expected from RADARSAT, covering a total area of 18.000 sq/km, it appears that the RADARSAT, data has an important monitoring potential for this region. From the data, information on tropical deforestation, drainage networks, soils, relief and vegetation may be obtained. With such information, development may be managed, to avoid many of the severe environmental problems which have previously occurred in this region.