

# **PACRIM SCIENCE APPLICATIONS: A DECADE WITH AIRSAR**

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## **Abstract**

The scientific objectives of PACRIM (Pacific Rim) are to advance the understanding of polarimetric and interferometric radar and to promote its application in environmental research designed to detect and quantify changes found in both the physical and humanly dominated ecosystems on the earth's surface. The information derived is used to more readily identify environments at risk; improve environmental decision making and the management of resources and thereby lead to the implementation of more effective and sustainable land use practices.

PACRIM is a collaborative research project was organized by NASA's Mission to Planet Earth, Airborne Sciences Program; the Jet Propulsion Laboratory; CSIRO-COSSA and the Centre for Remote Sensing and GIS at the University of New South Wales.

A decade of working with AIRSAR data (1993-2003) in the Australia -Asian-Pacific region has provided the opportunity for more than 400 investigators from 20 countries to collect, analyse, interpret and apply state-of-the-art radar data to earth-science studies. This has been achieved by scientists working within seven broad research themes;

- Forestry and vegetation
- Geology and tectonic processes
- Interferometry
- Disaster management
- Coastal analysis
- Agriculture
- Urban and regional development.

This paper presents an overview of the three data acquisition missions (1993,1996 and 2000) and the science research outcomes achieved from analyzing high quality radar data.