

**PACRIM 2000 AIRSAR DEPLOYMENT TO THE ASIA-PACIFIC REGION
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AND EARLY SCIENTIFIC RESULTS**

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Abstract.

PACRIM 2 is a NASA sponsored science mission to advance the development of polarimetric and interferometric radar in Pacific rim countries including South Pacific island nations, New Zealand, Australia, Papua New Guinea, Indonesia, Malaysia, Cambodia, Vietnam, Philippines, Taiwan, South Korea, Japan and the United States.

AIRSAR is an airborne synthetic aperture radar which can be operated in three modes; polarimetric SAR (POLoSAR) provides high quality polarimetric data in three frequencies; cross-track interferometric SAR (XTI or TOPSAR) allows precision digital elevation information of the earth's surface to be obtained; and along-track interferometric SAR (ATI) can be used to detect ocean current movements.

In addition data was collected by a second instrument, the MASTER or MODIS/ASTER airborne simulator. This is a multispectral imaging scanner with 50 channels, 25 in the visible shortwave infrared (0.4-2.5 μm), 15 channels in the mid-infrared (3-5 μm) and 10 channels in the thermal infrared (7-13 μm).

The AIRSAR system was previously flown in Australia in 1993, and in ten countries in the Asia-Pacific region in 1996. In this latter deployment called PACRIM, POLoSAR and TOPSAR data were collected over some 120 sites in the region.

Data acquired during PACRIM 2000 is being analysed by Principal Investigators in each of the countries involved, supported by American and Australian scientists, in seven scientific research areas. These are forestry and vegetation, geology and tectonic processes, interferometry, disaster management, coastal analysis, agriculture, and urban and regional development.

This paper presents an overview of the recent mission with examples of data collected during the deployment.