THE INTEGRATION OF SURVEYED DEPTH DATA
WITH LANDSAT IMAGERY OF THE GREAT BARRIER REEF
QUEENSLAND, AUSTRALIA

Abstract for Poster Session

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ABSTRACT

A joint project between the CSIRO Division of Water and Land Resources, the
Australian Survey Office and the Great Barrier Reef Marine Park Authority,
resulted in the development of image processing techniques which highlight water
depth information in Landsat reefal scenes. These techniques, together with
accurate image rectification, have been routinely applied to all reefs in the
GBR to produce a baseline inventory. It is estimated that this inventory has
saved the GBRMPA AU$21 million and 10 years work compared with using
conventional surveying methods.

Water depth data, surveyed at selected points along precisely located transects,
have been integrated with Landsat imagery for selected reefs in the GBR. As
surveyed depth data becomes available for other reefs, this integration process
can be used to calibrate the Landsat depth images and increase the effectiveness
of Landsat in mapping substrate type.