

## **Cloud detection algorithms used in the processing of ATSR data into sea surface temperature**

, by A. M. Zavody, C. T. Mutlow and D. T. Llewellyn-Jones

The cloud detection scheme used at the start of the ERS-1 mission has been found to have been deficient in a number of cases. Constant monitoring of the performance of the tests has led to significant improvements. The test based on the increase of near-infrared radiation over cloudy pixels now uses the IR brightness temperatures as well as the sun- and viewing-angles, leading to better identification of cloudy pixels in and near areas of sun glint. A new test which derives dynamically a threshold for the 11um channel brightness temperature has increased the detection rate for uniform low level cloud. The infrared histogram test, using the differences between the brightness temperatures in the 11um and 12um channels, has ben further improved by the simultaneous use of the value of the 12um IR brightness temperatures, and by several refinements for trapping cloudy pixels missed by all the other tests.