

The Mutsu Bay Experiment - An Investigation into the Physical Processes of the Ocean-Atmosphere Boundary using ATSR data and in situ measurements

Isabelle Parkes	Earth Observation Science, Department of Physics and Astronomy, University of Leicester, Leicester, UK
David Llewellyn Jones	imp2@le.ac.uk http://www.le.ac.uk/CWIS/AD/PH/PHE/phe.html
Chris Mutlow	
Tim Nightingale	Rutherford Appleton Laboratory, Didcot, Oxfordshire, UK
Albin Zavody	
Ryuzo Yokoyama	Department of Computer and Information Science, Faculty of Engineering, Iwate University, 4-3-5 Ueda, Morioka, Iwate 020 Japan
Sumio Tamba	Department of Oceanography, Southampton Oceanography Centre, European Way, Southampton, UK
Craig Donlon	(Now at CCAR /Aero Engineering, University of Colorado, Campus Box 431 Boulder, CO 80309 USA)

Abstract

The Mutsu Bay Experiment (MUBEX) is a series of detailed in situ field experiments devised to investigate the physical behaviour of the sea and its relationship to satellite observations, particularly sea surface temperature. This paper describes the first results of field measurements obtained in Mustu Bay, Japan (latitude 41N, longitude 141E) during a four week period in July/August 1996. Ship-borne measurements of temperature (radiometric and bulk) are compared with ATSR sea surface temperatures derived from single and dual look algorithms. Implications of resulting discrepancies are discussed. Combined with companion experiments carried out in open ocean MUBEX will provide an extensive data set for both local and (when combined with satellite data) global investigations of fluxes of heat, momentum, moisture and gases across the ocean-atmosphere interface.

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