



Comparison of DMSP SSM/I and Landsat 7 ETM+ Sea Ice Concentrations During Summer Melt

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Bibliogov. Paperback. Book Condition: New. This item is printed on demand. Paperback. 26 pages. Dimensions: 9.7in. x 7.4in. x 0.1in. As part of NASAs EOS Aqua sea ice validation program for the Advanced Microwave Scanning Radiometer (AMSR-E), Landsat 7 Enhanced Thematic Mapper (ETM) images were acquired to develop a sea ice concentration data set with which to validate AMSR-E sea ice concentration retrievals. The standard AMSR-E Arctic sea ice concentration product will be obtained with the enhanced NASA Team (NT2) algorithm. The goal of this study is to assess the accuracy to which the NT2 algorithm, using DMSP Special Sensor Microwave Imager radiances, retrieves sea ice concentrations under summer melt conditions. Melt ponds are currently the largest source of error in the determination of Arctic sea ice concentrations with satellite passive microwave sensors. To accomplish this goal, Landsat 7 ETM images of Baffin Bay were acquired under clear sky conditions on the 26th and 27th of June 2000 and used to generate high-resolution sea ice concentration maps with which to compare the NT2 retrievals. Based on a linear regression analysis of 116 25-km samples, we find that overall the NT2 retrievals agree well with the Landsat concentrations. The regression analysis yields...



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