

MESOSCALE ICE-OCEAN FEATURES IN THE MARGINAL  
ICE ZONE OFF SYOWA STATION OBSERVED IN  
NOAA AVHRR IMAGERY (ABSTRACT)

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Mesoscale ice-ocean features off Syowa Station are examined using NOAA advanced very high resolution radiometer (AVHRR) data during the summers of 1987 and 1988. Visible-band (channel 2) and infrared-band (channel 4) images are used to examine ice and sea surface temperature distributions, respectively. As the melting season progresses, mesoscale ice tongues and eddies are found in the marginal ice zone. The growth of these features is not correlated with the wind field in this area. Comparison between visible and infrared images reveals that the mesoscale ice features are accompanied by corresponding patterns of cold water off the ice edge. Namely, regions of cold water extend off the ice tongues and eddies. This suggests that advection of ice by ocean currents generates the mesoscale features.

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