

Observations for climate: Facilitating a collaborative, integrative approach to Arctic sea ice studies

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There has been a decline in the Arctic sea ice cover as evidenced by a decrease in summer ice extent, a thinning ice cover, and a shift to younger ice. This ice loss has spurred efforts to enhance capabilities for observing, understanding, and responding to the changing sea ice cover. Under the auspices of the WCRP Climate and Cryosphere Project, an Arctic Sea Ice Working Group has been formed. The overarching goal of this group is to foster international collaboration on Arctic sea ice, with a special emphasis on surface-based observations. A key objective is to develop, standardize, and implement observation and measurement protocols. Activities of the working group include formulating data templates for standard in situ sea ice measurements such as ice thickness, snow depth, and albedo, developing a centralized annual update on the scheduled Arctic field activities of national programs, and summarizing in situ observations of current ice conditions. Efforts are also being made to facilitate incorporation of observations into sea ice model validation. A recent activity was a workshop held in March 2011 to assess the characteristics of passive microwave observations of sea ice and facilitate greater coordination and standardization between various products to better serve modelers as well as other user communities.