Recent developments of the H-SAF MSG/SEVIRI and Metop/AVHRR based snow extent products

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Abstract

The areal extent of snow is essential information for weather forecasting and nowcasting as weather and meteorological processes are affected by the varying snow cover and snow properties. Satellites can provide high-resolution estimates of the snow extent which is especially important in areas where surface observations are not available. Assimilation of satellite snow cover products, such as H-SAF snow extent product, for NWP models has been shown to improve the snow analysis and then the weather forecasts.

In this work, we describe the current status of the H-SAF MSG/SEVIRI and the global H-SAF Metop/AVHRR snow extent products with new results of the winter 2014-2015. H-SAF MSG/SEVIRI based snow extent product has been operational since 2008. AVHRR provides better resolution in polar regions where snow is an essential element of the nature. Previously, a PDU (Product Dissemination Unit, 3 minute slice of data) version of the Metop/AVHRR snow cover product has been generated for internal use. Now, a global daily version of the Metop/AVHRR snow cover product has been developed.