

SNOW COVER IN THE NORTHERN HEMISPHERE, 1967-1983

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This paper will be presented as a 16-mm color motion picture. Produced by the Land Sciences Branch of NOAA/NESDIS, based on satellite imagery and digitized onto a polar stereographic base map of the Northern Hemisphere, it shows snow and ice variability on a weekly basis for 17 years. In other words, the motion picture was made into an animated view of 884 separate snow and ice charts. It represents a unique, capsulated way of monitoring snow and ice cover as the snow waxes and wanes seasonally.

The film, which is available from NOAA/NESDIS, was developed as an adjunct to a new snow cover atlas by Matson, Ropelewski and Varnadore (in press) entitled "An Atlas of Satellite-Derived Northern Hemispheric Snow Cover Frequency." The Atlas presents 15 years (1967-81) of satellite-derived snow cover data in the form of monthly and midmonth-to-midmonth snow cover frequency maps. The maps are in two general formats: (1) frequency of snow cover in 10-percent intervals, and, isopleth maps in 25-percent increments. In addition to the maps, tables of Eurasian and North American seasonal snow cover are presented for the 1967-81 time period.

The film and the atlas are somewhat of a milestone in snow cover climatology, and represent a quantum jump forward in establishing a basic data set that will provide a new standard for research in hemispheric and global climatology of snow and ice cover.

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