

A New Suite of Northern Hemisphere Snow and Ice Earth System Data Records

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A multi-institutional team has been assembling satellite-derived Northern Hemisphere (NH) snow cover Earth System Data Records (ESDR), through support from the NASA Making Earth Science Data Records for Use in Research Environments (MEaSUREs) program. Datasets of both individual and integrated ESDRs are being generated and are soon to be available to download from the National Snow and Ice Data Center. Project data and information are also available at <http://snowcover.org>. Products are being generated at 25 km (1999-present) or 100 km (1967-present) resolution using the Equal-Area Scalable Earth Grid 2.0 and are available in netCDF format. Extensive metadata will accompany the datasets. Products include snow extent and melt state over NH continents, snow melt state over Greenland, snow melt onset and age of sea ice. Fused snow extent and melt state products over land and ice are also being generated. Visible and microwave satellite data are employed in these efforts. Here, we will present examples of the development and utility of these individual and fused datasets.