

Satellite-based climate products for alpine studies within GCOS Switzerland

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The Global Climate Observing System (GCOS) was established in 1992 to ensure that the observations necessary to address climate-related issues are defined, obtained and made available to all potential users. Primarily, the GCOS observations should assist Parties in meeting their responsibilities under the UN Framework Convention on Climate Change (UNFCCC), as well as provide the systematic observations needed by the World Climate Research Programme (WCRP) and the Intergovernmental Panel on Climate Change (IPCC). The Swiss GCOS Office at the Federal Office of Meteorology and Climatology MeteoSwiss has the task of coordinating all climate relevant measurements in Switzerland. This includes both atmospheric and terrestrial measurements. Switzerland has a long tradition in climate observation, ranging from temperature and precipitation series of more than 150 years to glacier measurements since the end of the 19th century. In 2007, the Swiss GCOS Office published the first complete inventory of Swiss climate measurement series. The report also includes an assessment of the future prospects of these long-term climatological data series, as well as international data centres hosted by Switzerland. For each specific climate variable, the role of satellite observations is mentioned, emphasizing the importance of Earth observation data for climate monitoring. The poster will give an overview of satellite products for climate monitoring in Switzerland, covering both research projects and operational services. Results from several Essential Climate Variables - clouds, radiation, snow cover, glaciers and vegetation properties - will be shown.