

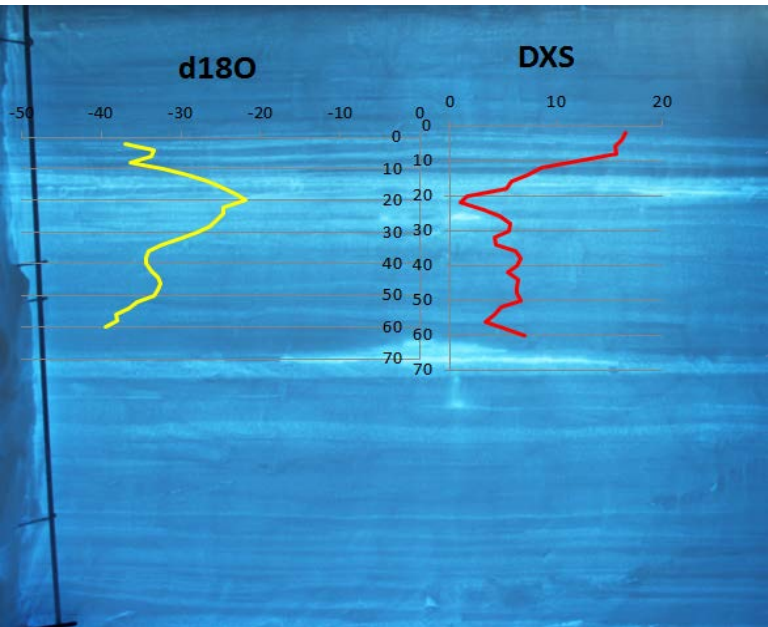
## Measurements of Source Regions, Precipitation and Post-deposition Processes

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**Goal: Modern analysis of processes controlling the GISP2 isotope record.**

**“Not just temperature”**



### Advanced measurements:

Cloud/fog particles

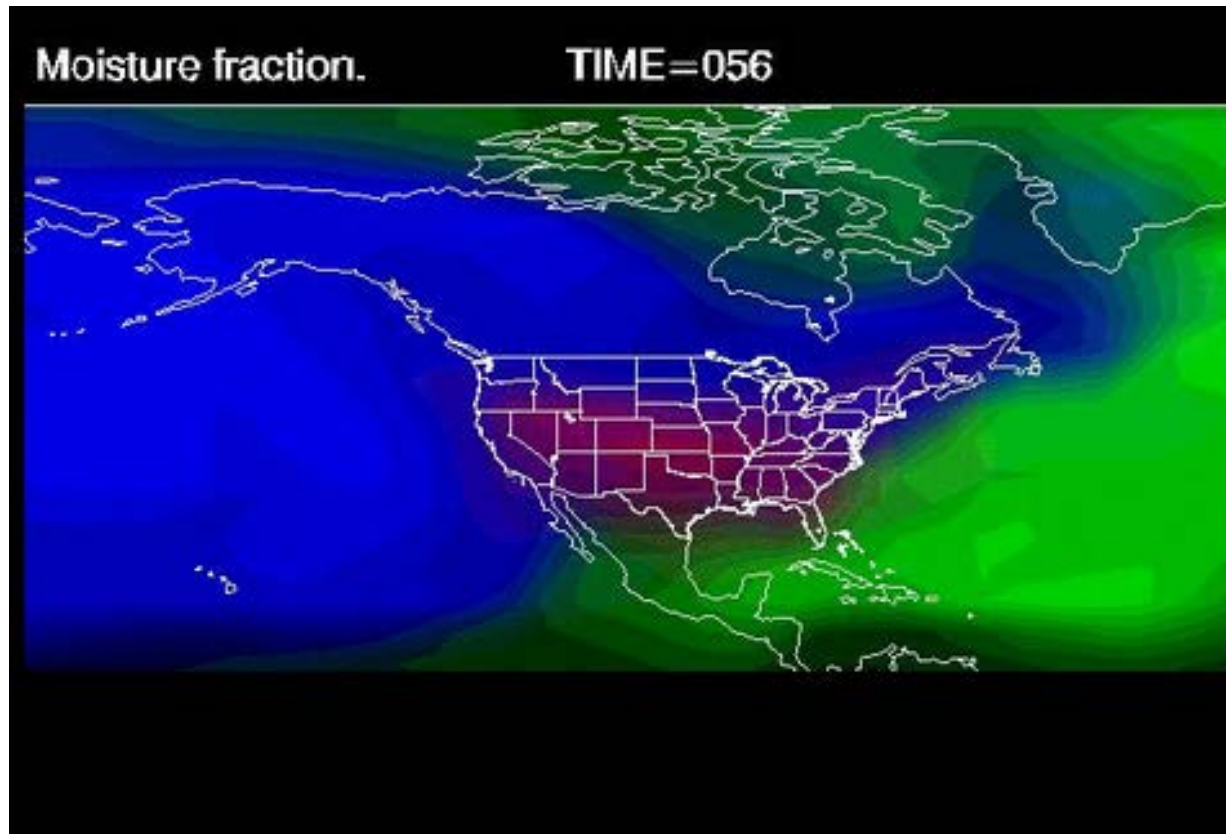
Precipitation size distribution/types

- Snow habit
- Surface energy balance
- High frequency water vapor isotope ratios
- New shallow pits/firn cores

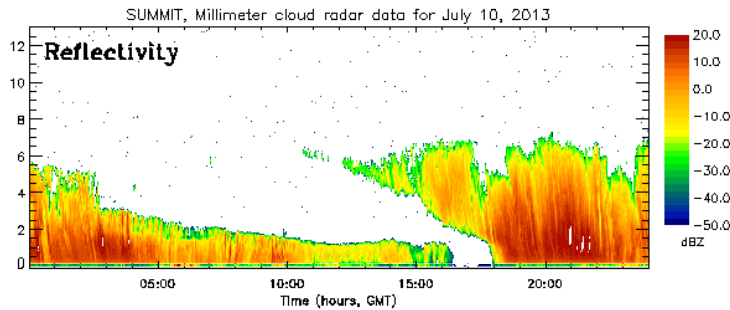
Cloud microphysics

Regional atmosphere

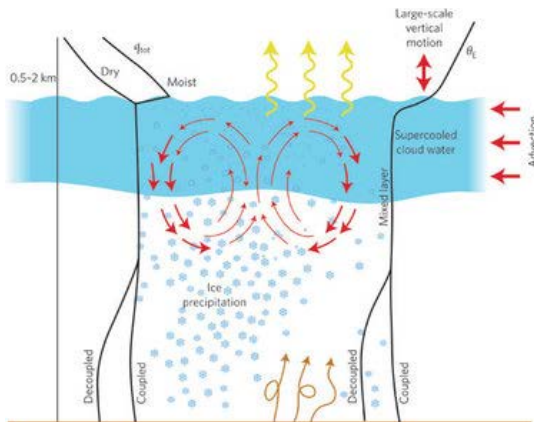
Snow processes



# New Science: Clouds, aerosols, water



- GIS clouds critical for surface energy mass balance
- Cloud properties (microphysics, mixing, water sources)
- Dependence of clouds on aerosol (IN, CCN)



***Require: pristine environment***

Measurements made in baseline conditions

***Summit unique because of very low aerosol abundance AND infrastructure to do the science.***