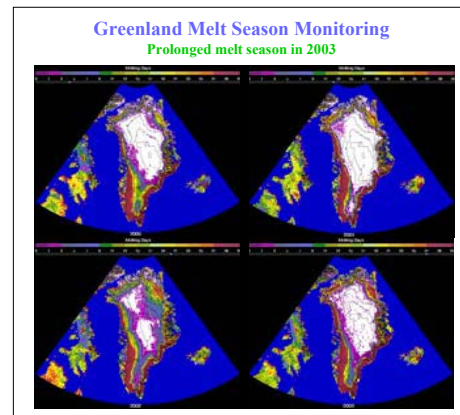
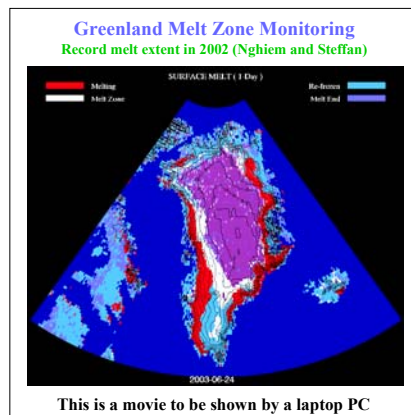
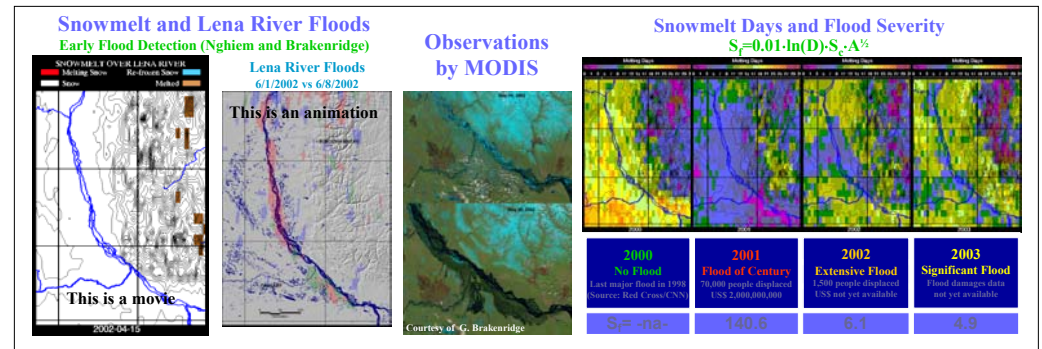
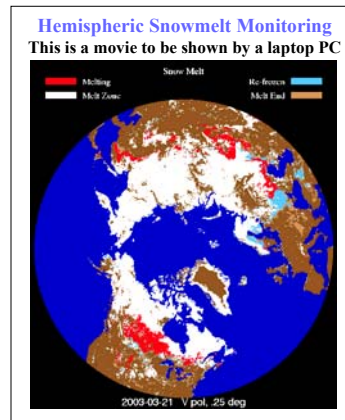
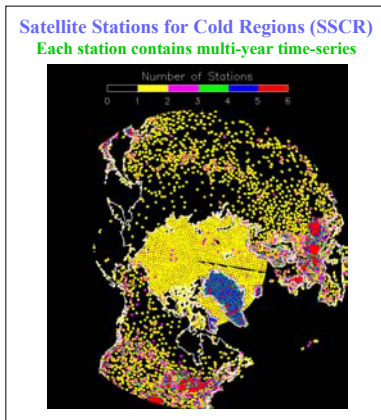
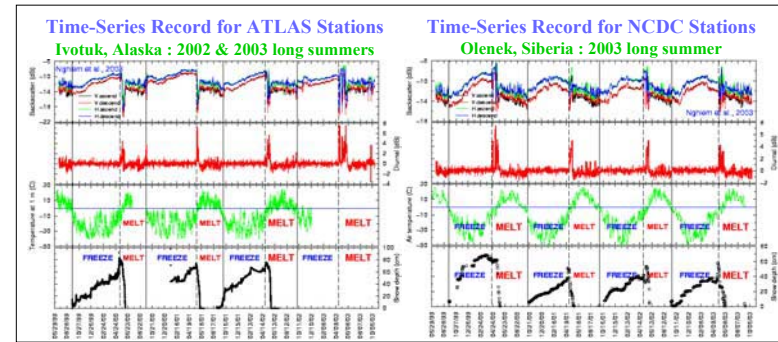
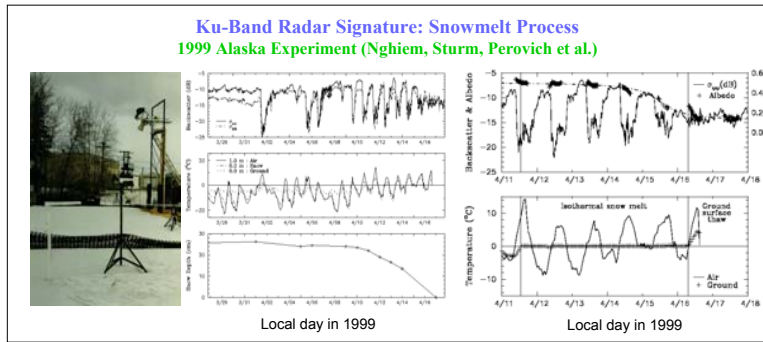


Pan-Arctic Observations of Interannual Snowmelt Change and Application to Flood Forecast

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Conclusions

Pan-Arctic observations of snow and seasonal changes

- Recent peculiar changes: long summer in Alaska in 2003, extensive melt on Greenland in 2002, severe flood in Siberia in 2001.
- Need hemispheric scale and frequent coverage (2X/day)
- Scatterometer (QuikSCAT/SeaWinds): snowmelt
- AMSR/MODIS: snow water equivalent, snow extent

Pan-Arctic station networks/systems are necessary

- Network/systems: NCDC ATLAS ArcticNet E-RIMS ...
- Understand snow processes: devel./validate algo./models

Regional to pan-Arctic modeling

- Land/snow data assimilation with hydrological model
- Forecast: flood and hydrologic response and change (Lena river: 50% snow cover reduction detected days-weeks before flood)