

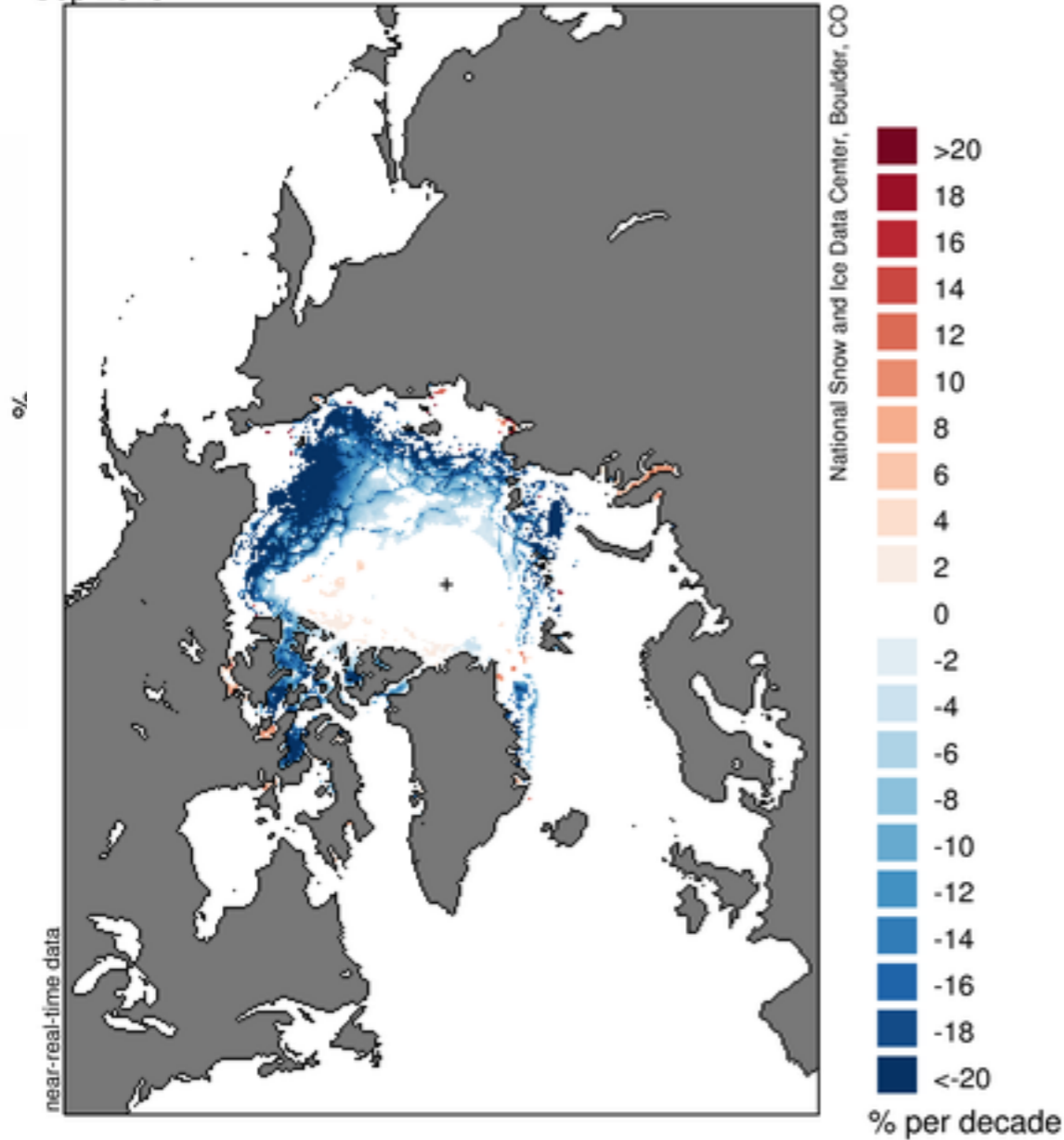
NYU-Courant Contribution to NYS RISE

Project 1.3 Long lead projection

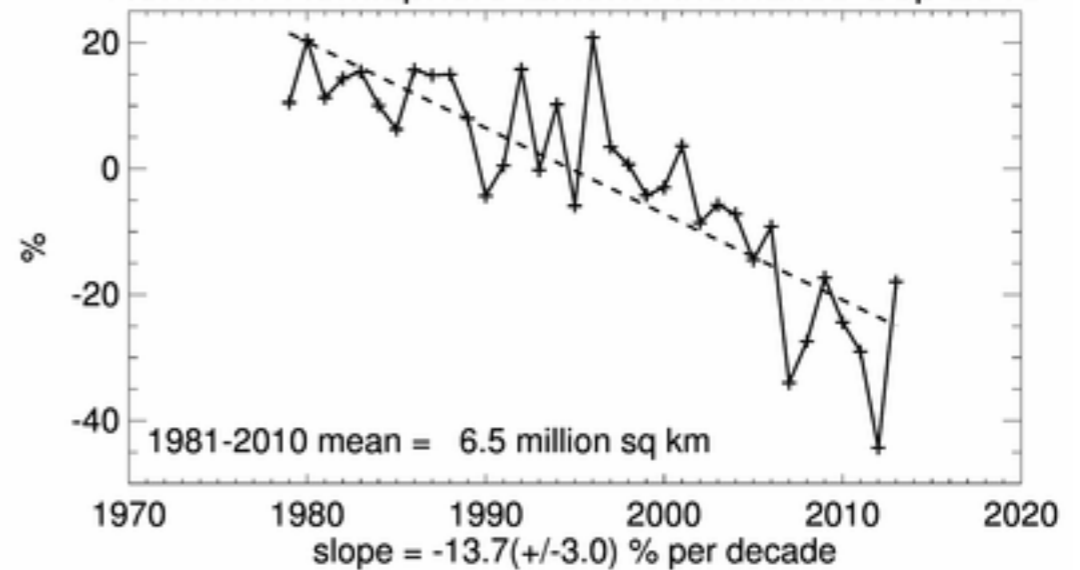
- Who we are:
 - David Holland (Oceanographer)
 - Xichen Li (Postdoctoral Fellow, Atmospheric Scientist)
 - Wenchao Chen (MSc. Student, Mathematics)
- Tools we will use:
 - Atmospheric reanalysis data
 - Global atmospheric model
- Hypothesis we will explore:
 - Arctic amplification with sea ice decline
 - North Atlantic warming

Sea ice concentration and extent trend for September

Sea Ice Concentration Trends
Sep 2013

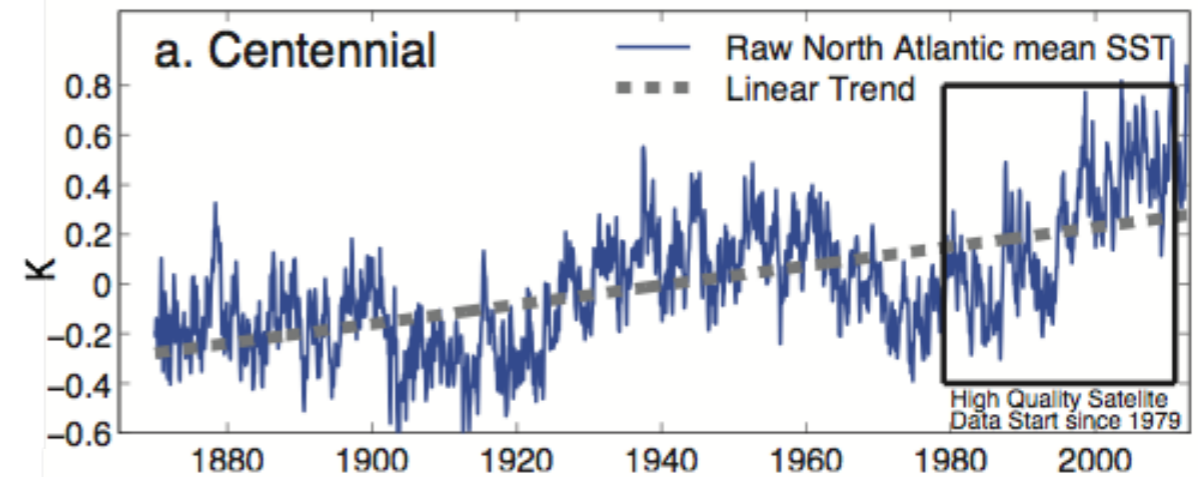
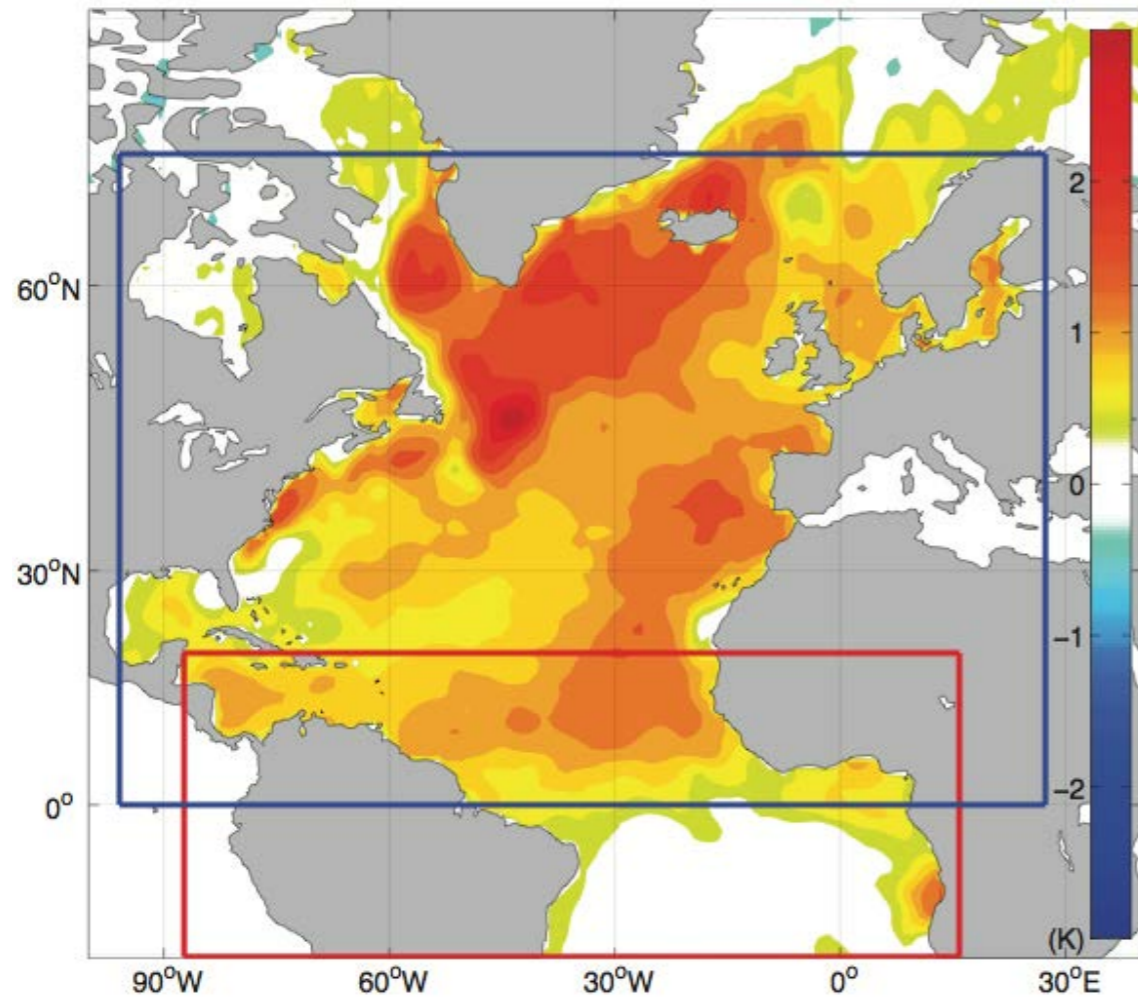


Northern Hemisphere Extent Anomalies Sep 2013



Data is from National Snow Ice Data Center

Trend in Atlantic Multidecadal Oscillation



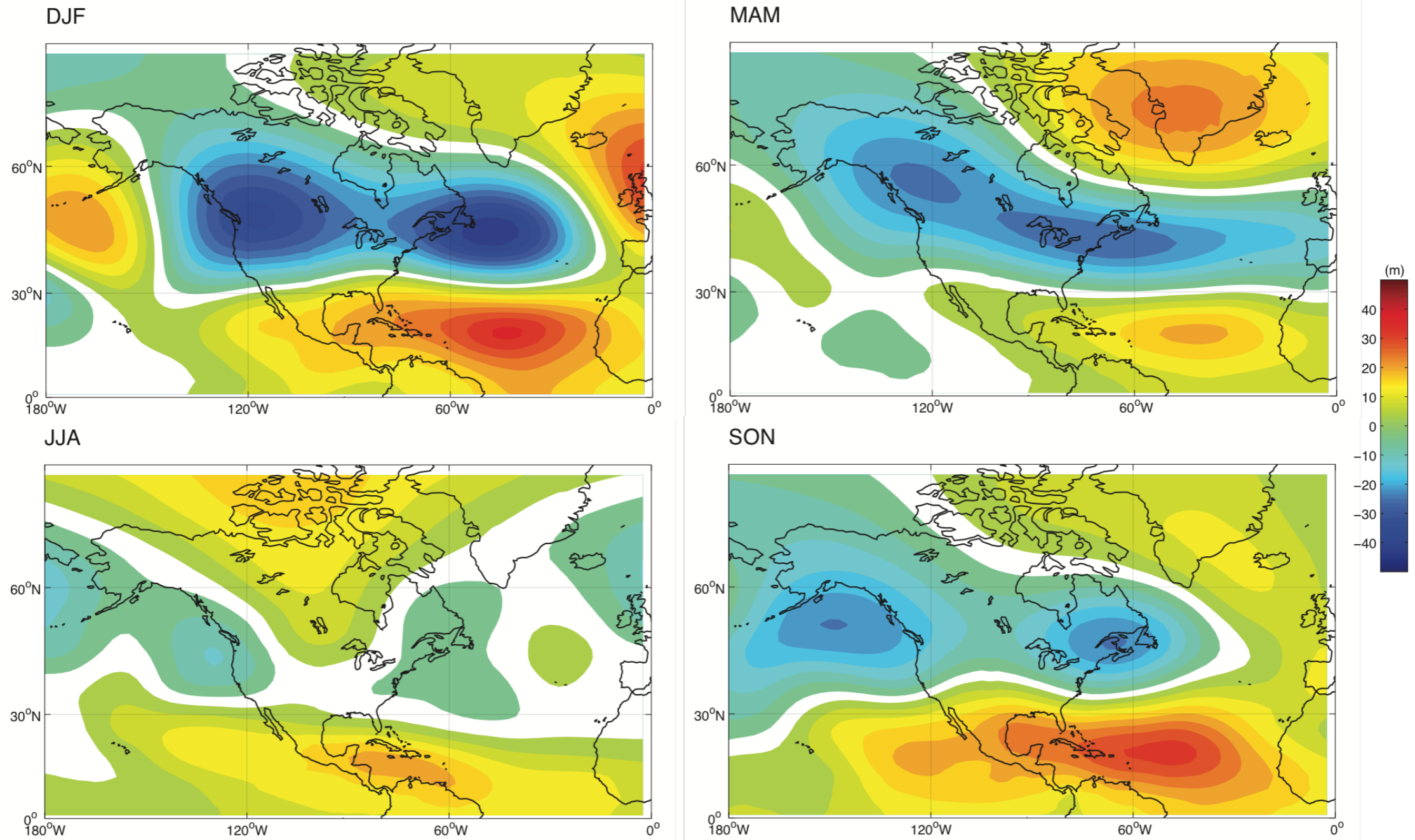
Data is from Hadley Center, UK

Progress to Date

- Finding and hiring researchers (one postdoc, one grad)
- Preliminary simulation results (see next slide)
- Main body of work starts in late spring 2014

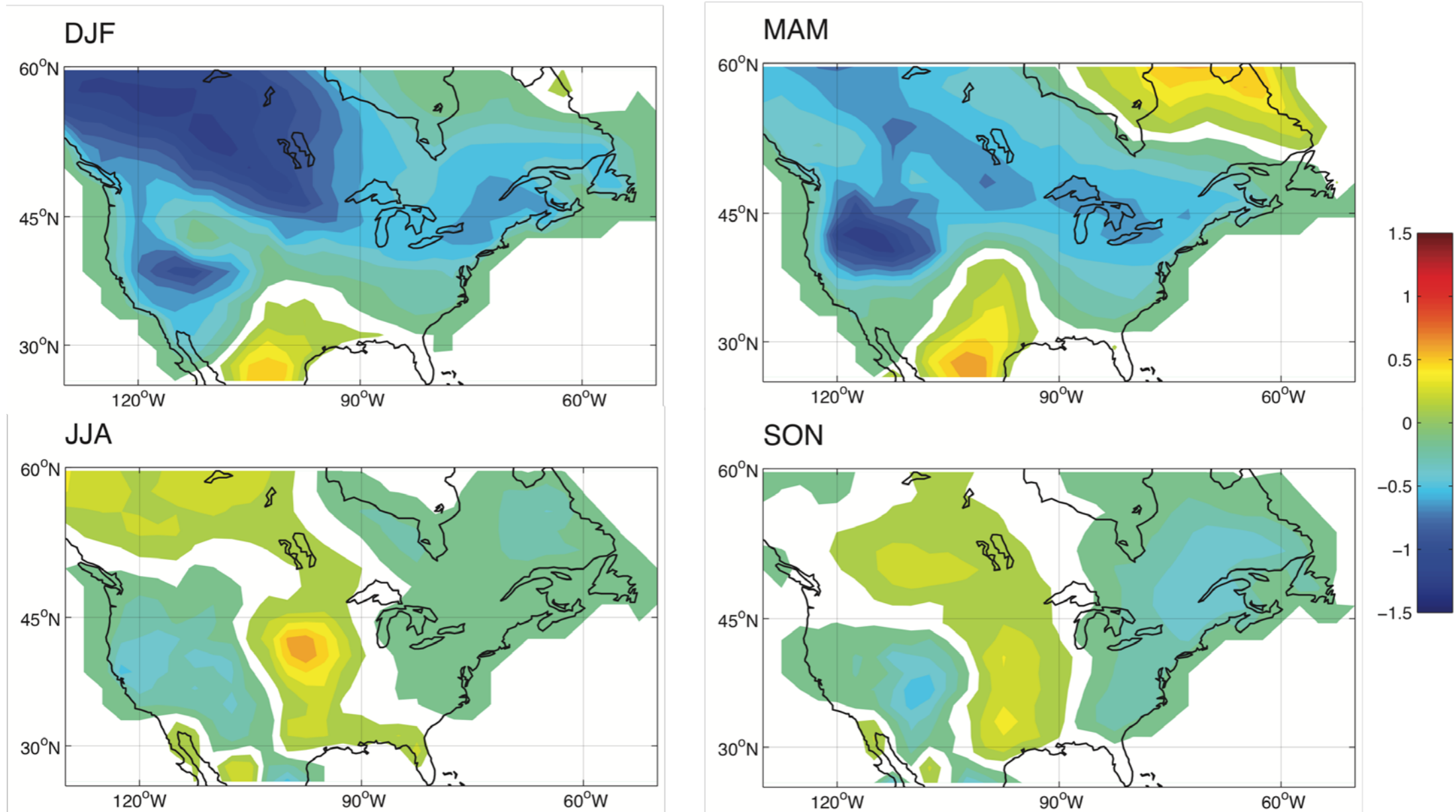
CAM4 Simulations

200 hPa Geopotential Height Response to Tropical Atlantic Warming



CAM4 Simulations

Surface Temperature Response to Tropical Atlantic Warming



CAM4 Simulations

Precipitation Response to Tropical Atlantic Warming

