Assessing the Impact of Solar Climate Intervention on Hazardous Convective Weather over the CONUS

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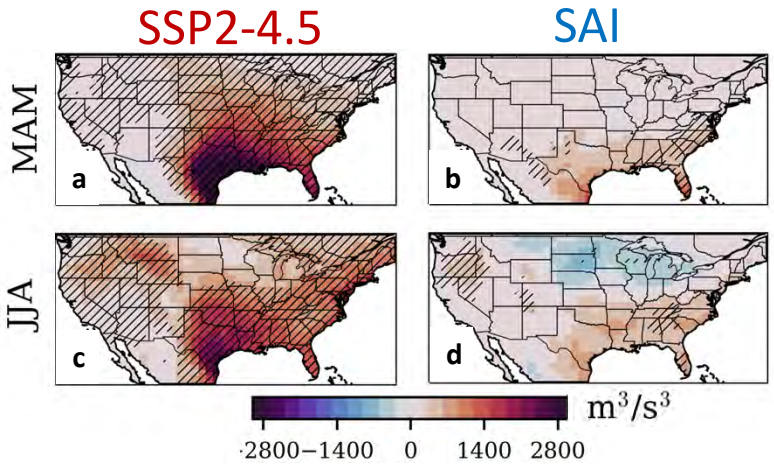
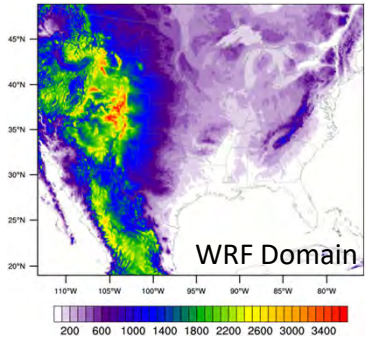
Year-1 Workplan: Analyze the available CESM simulations to evaluate how SAI impacts convective weather environments over the CONUS.

Year-1 accomplishment: Glade, Hurrell, Sun, Rasmussen, (2023): Assessing the impact of stratospheric aerosol injection on U.S. convective weather environments, *Earth's Future*, under review.

ARISE 2060-2069 CAPES06 anomalies



Year-2 Workplan: Conduct 4-km WRF model simulations on AWS to investigate the potential impact of climate change and SAI on mesoscale processes and convective storms



- Control simulation
  - North America domain
  - March-August 2011)
  - Driven by lateral & boundary conditions from ERA-5
  - Concluded last month.
- Pseudo-global-warming and Pseudo SAI
  - Driven by future change signal added to ERA5
  - To be launched soon.

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