

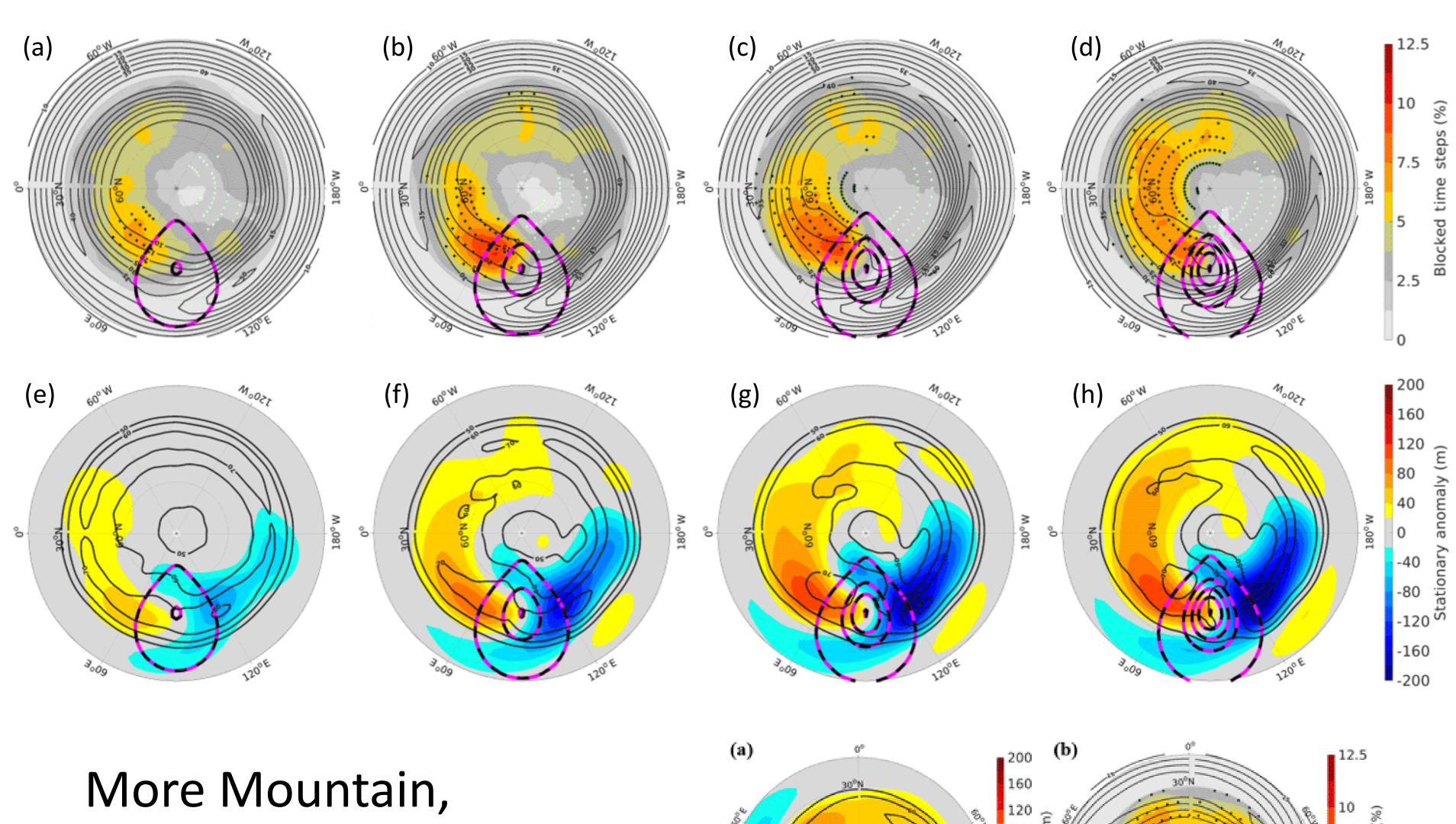
## The Dynamics of Atmospheric Blocking and Connections to Weather Extremes in Various Climates

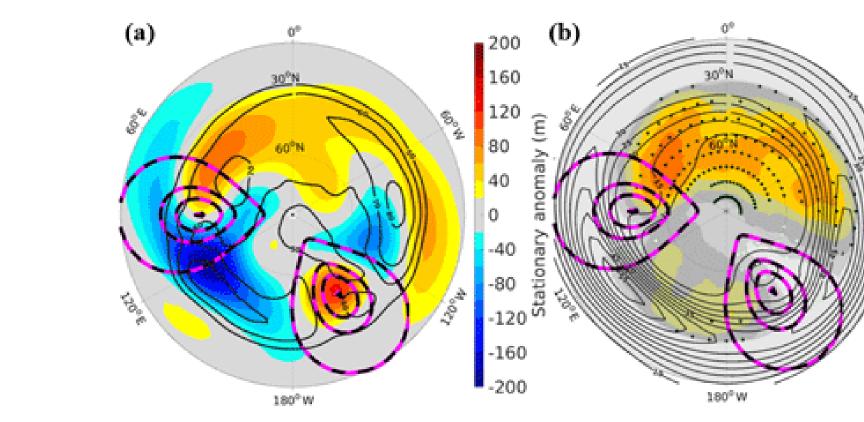
Veeshan Narinesingh [Veeshan.Narinesingh@NOAA.gov]





## Atmospheric Blocking in an Aquaplanet and the Influence of Orography

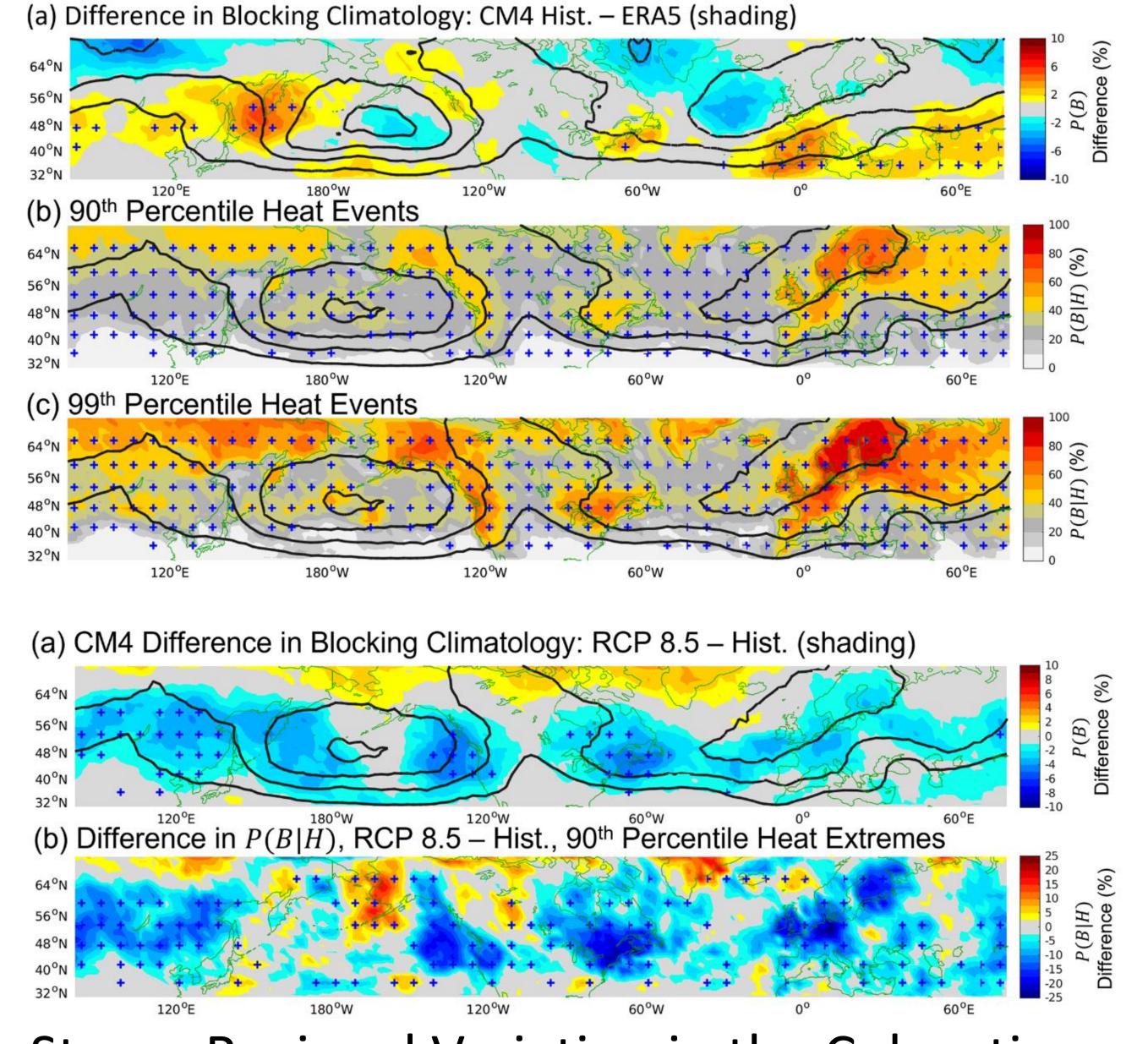






国际地位的

## **Blocking and Extreme Weather Events**



More Stationary Wave,

More Blocking;

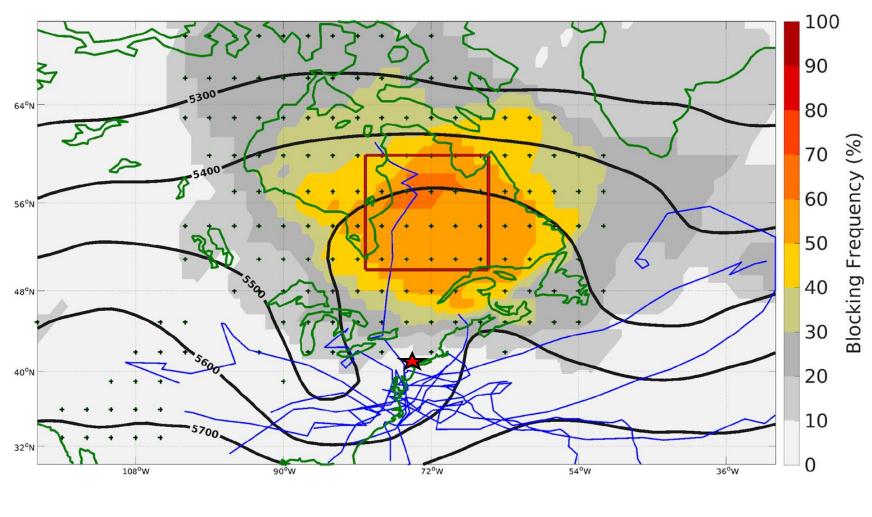
But very non-linear

Strong Regional Variation in the Colocation of Blocking and Heat waves

drive

persiste storms

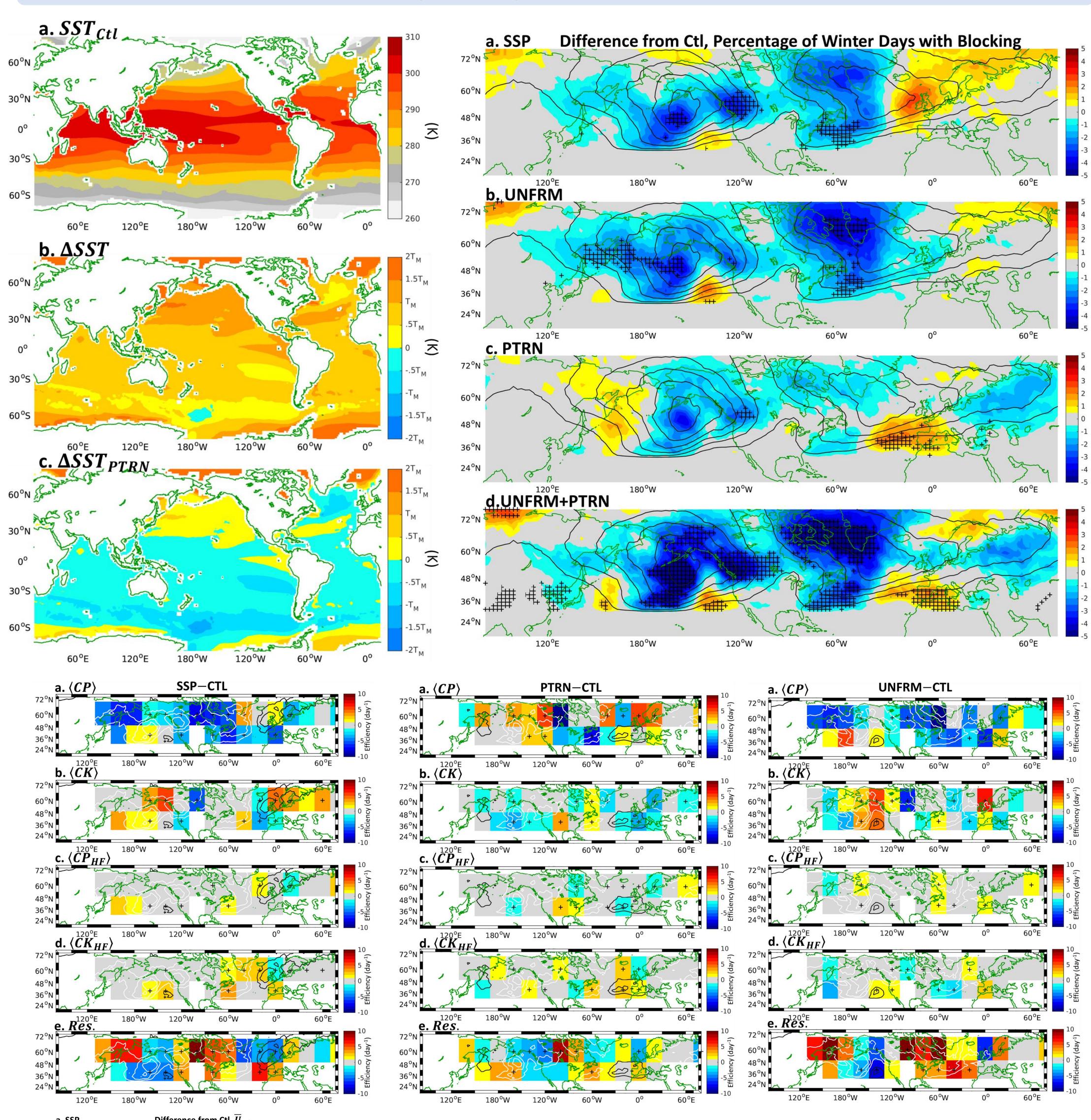
Heatwaves
less driven by
blocks in a
warmer world



Blocking can drive persistent storm surge



## How does blocking change in future climates and why?



Uniform warming of SST drives most of the general circulation and blocking response

Reductions in blocking seem to be driven by decreased baroclinic conversion