

Climate Models

Climate Model Output

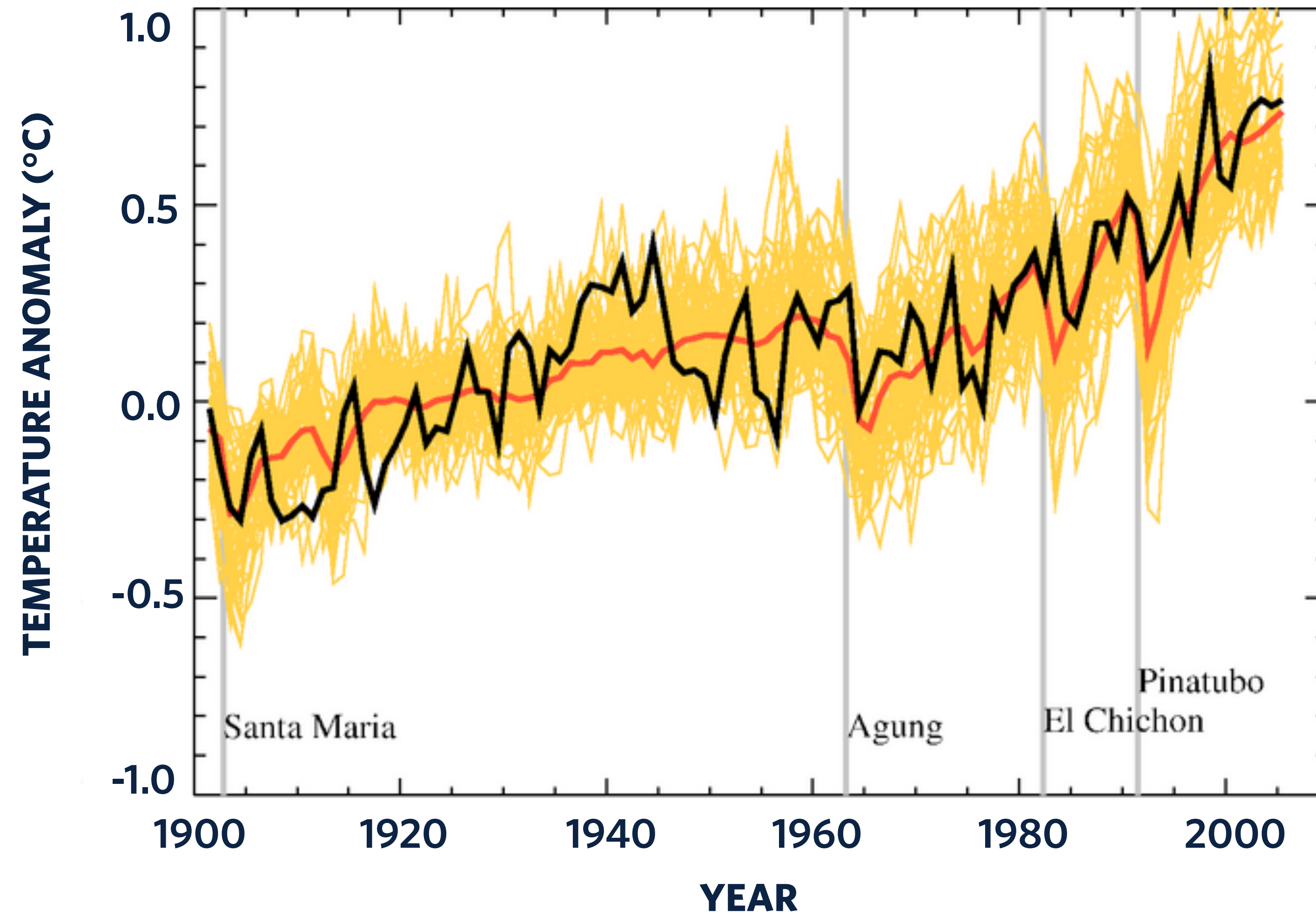
MODULE 5.3

5.3 Climate Model Output

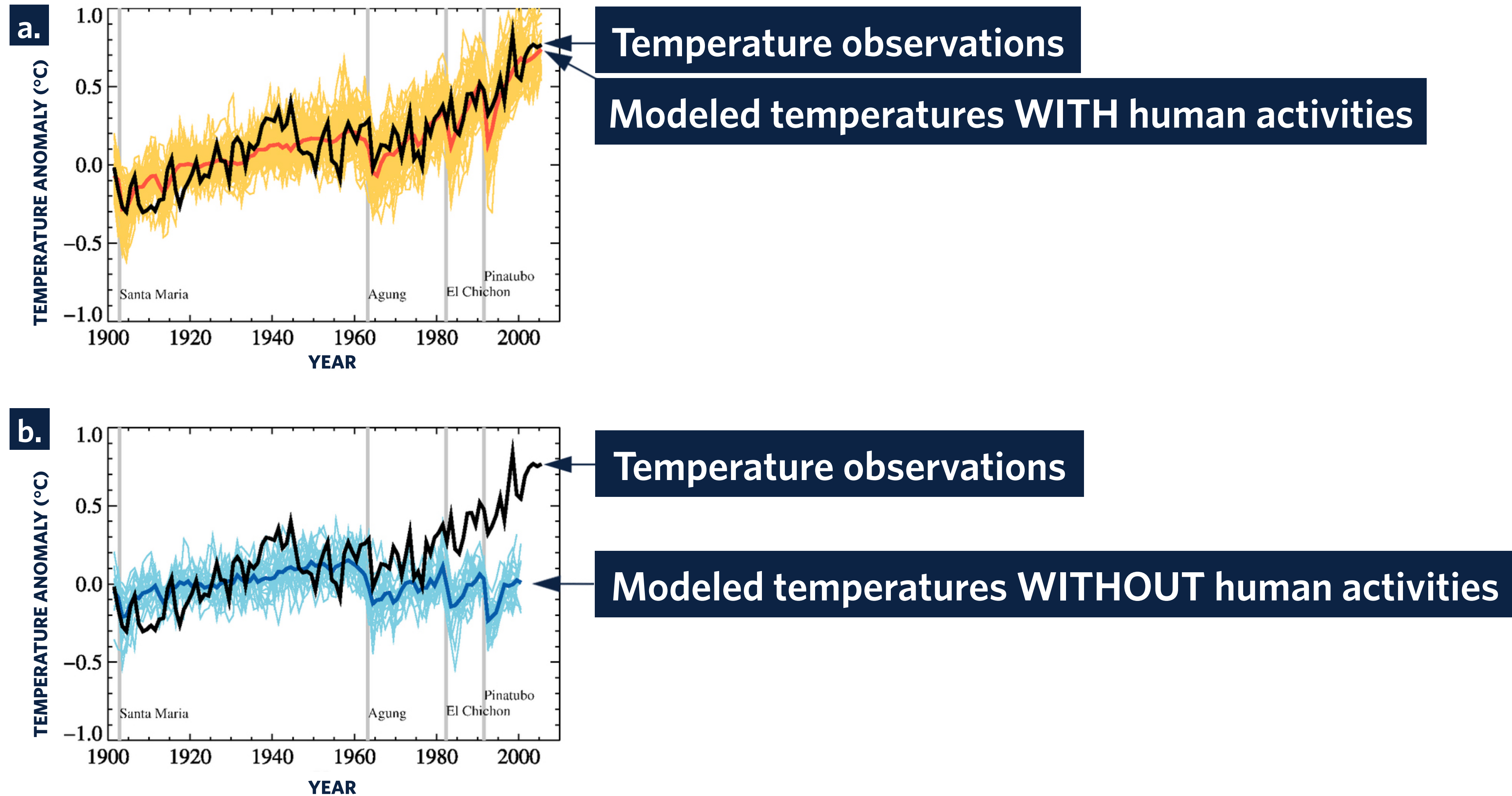
Lesson Goals:

- » Compare model output to observations
- » Describe future temperature forecasts from climate models

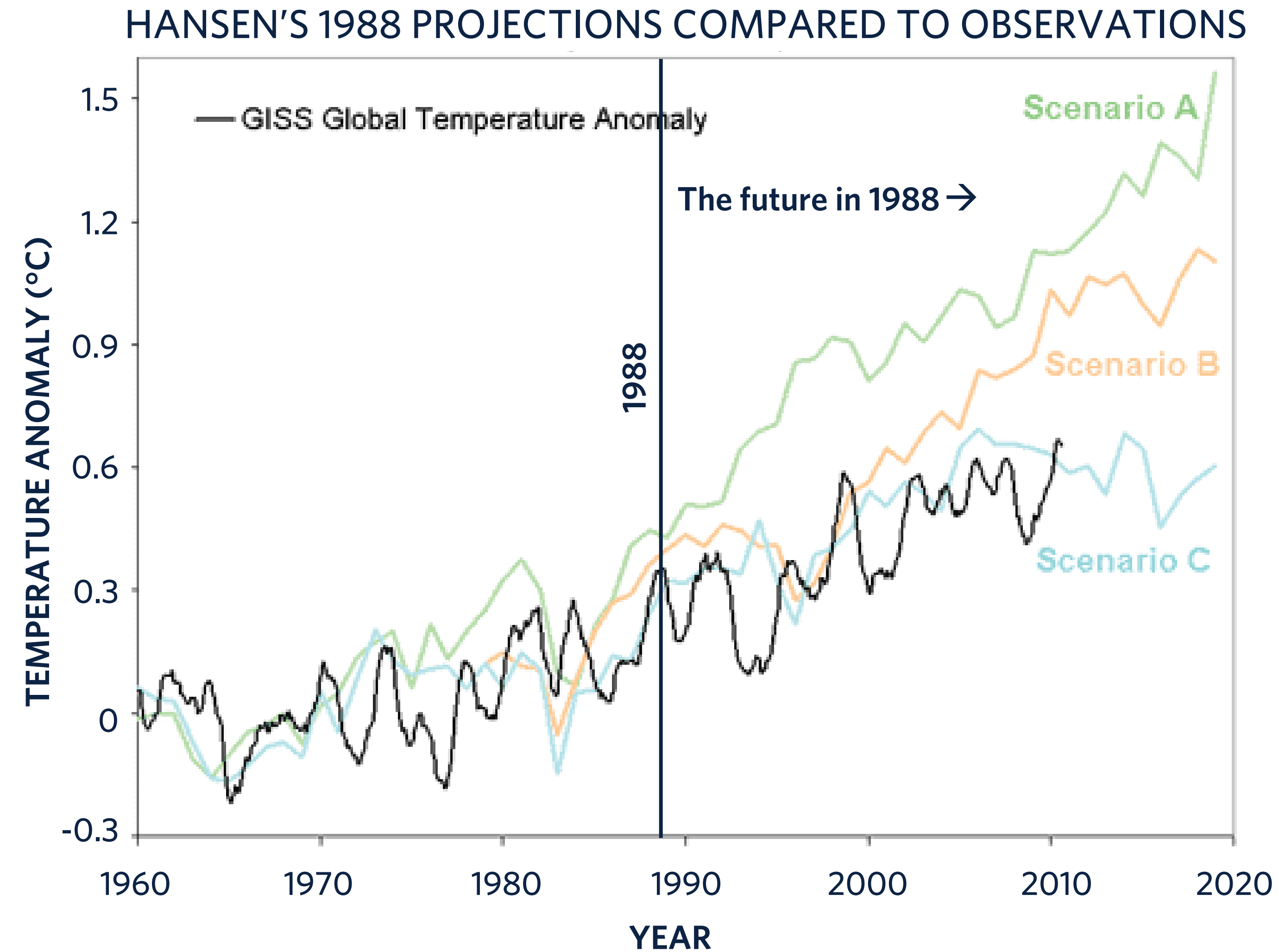
Checking against observations



Models help with attribution

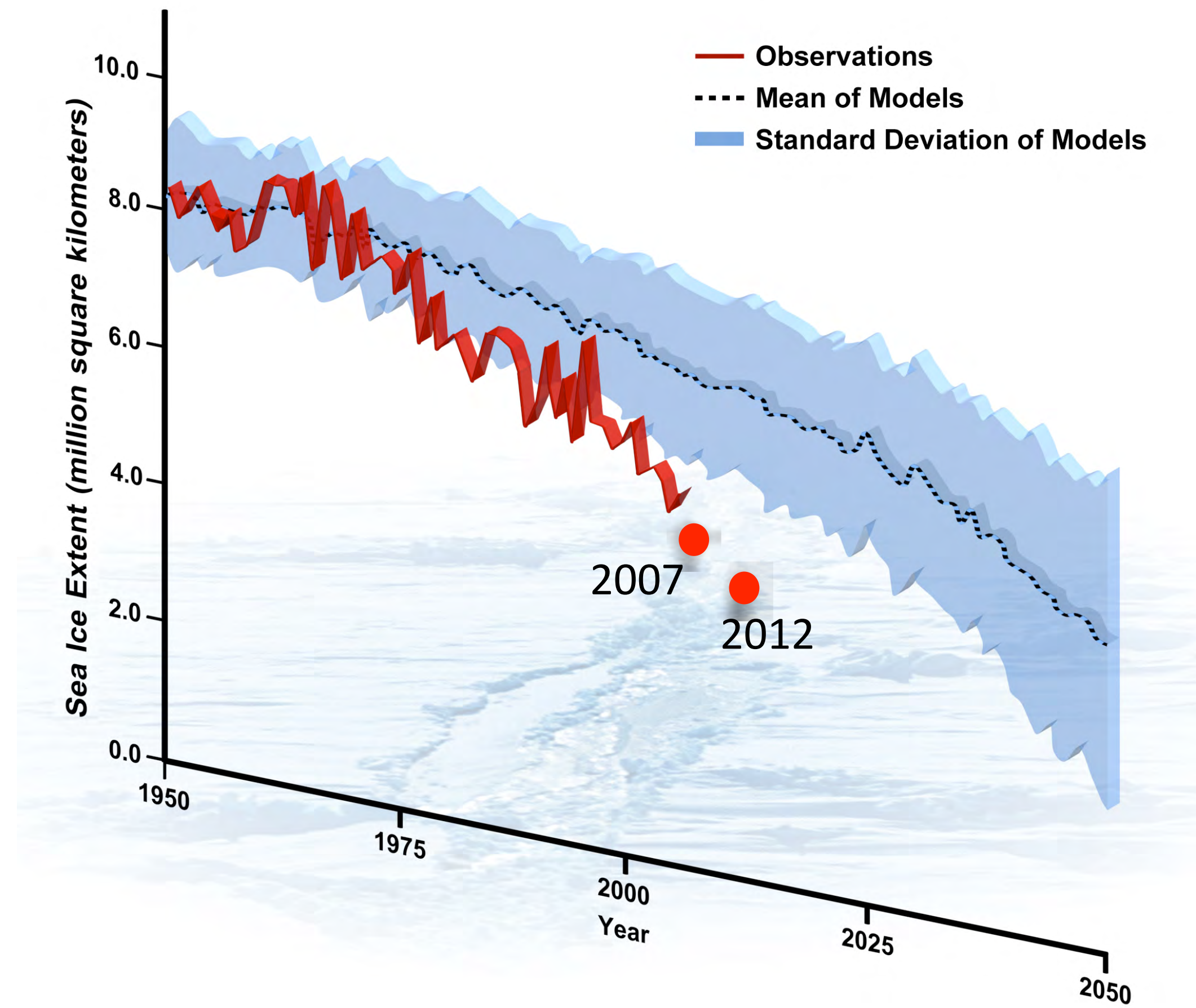


Checking models after the passage of time

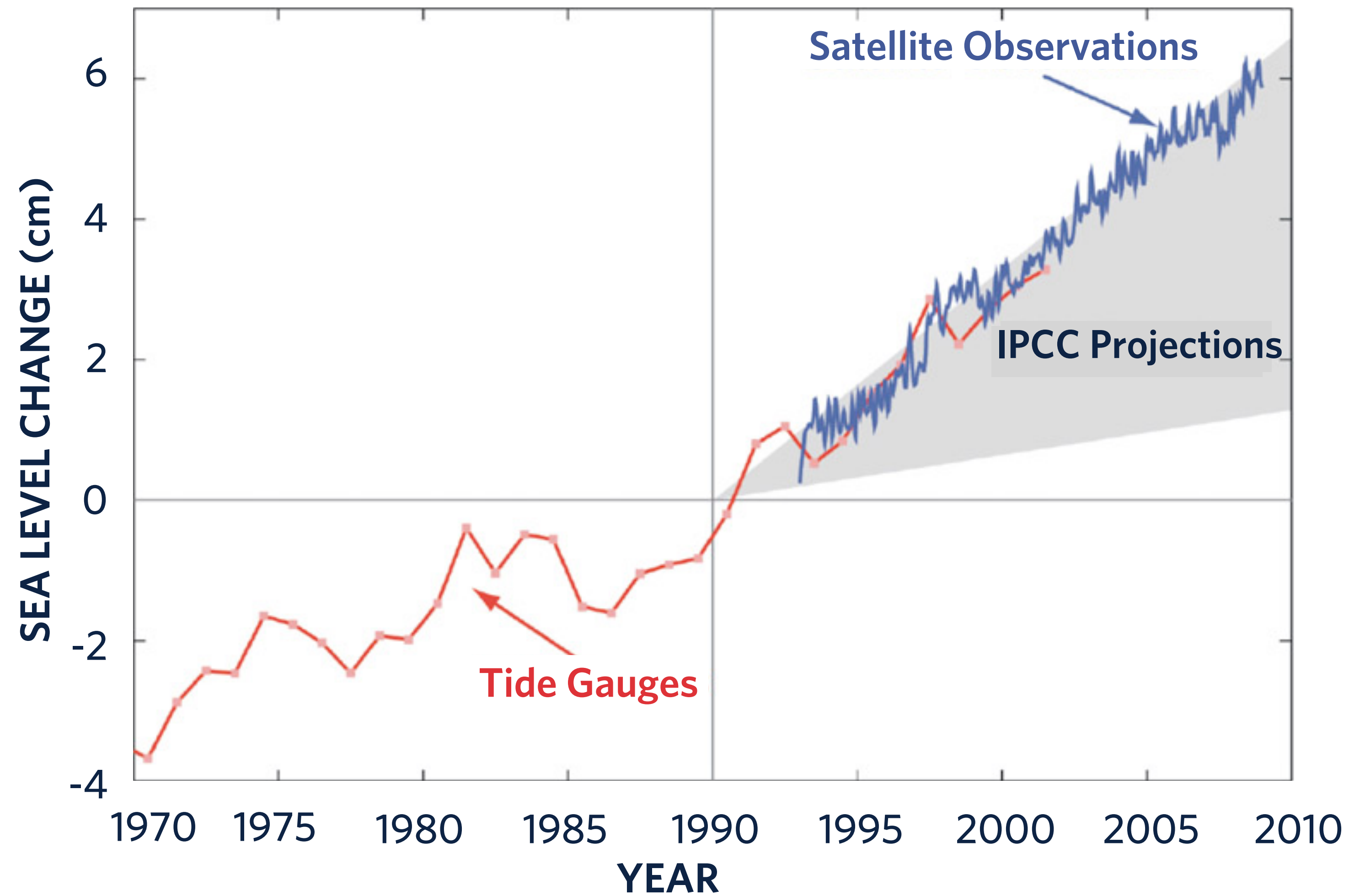


Checking against observations

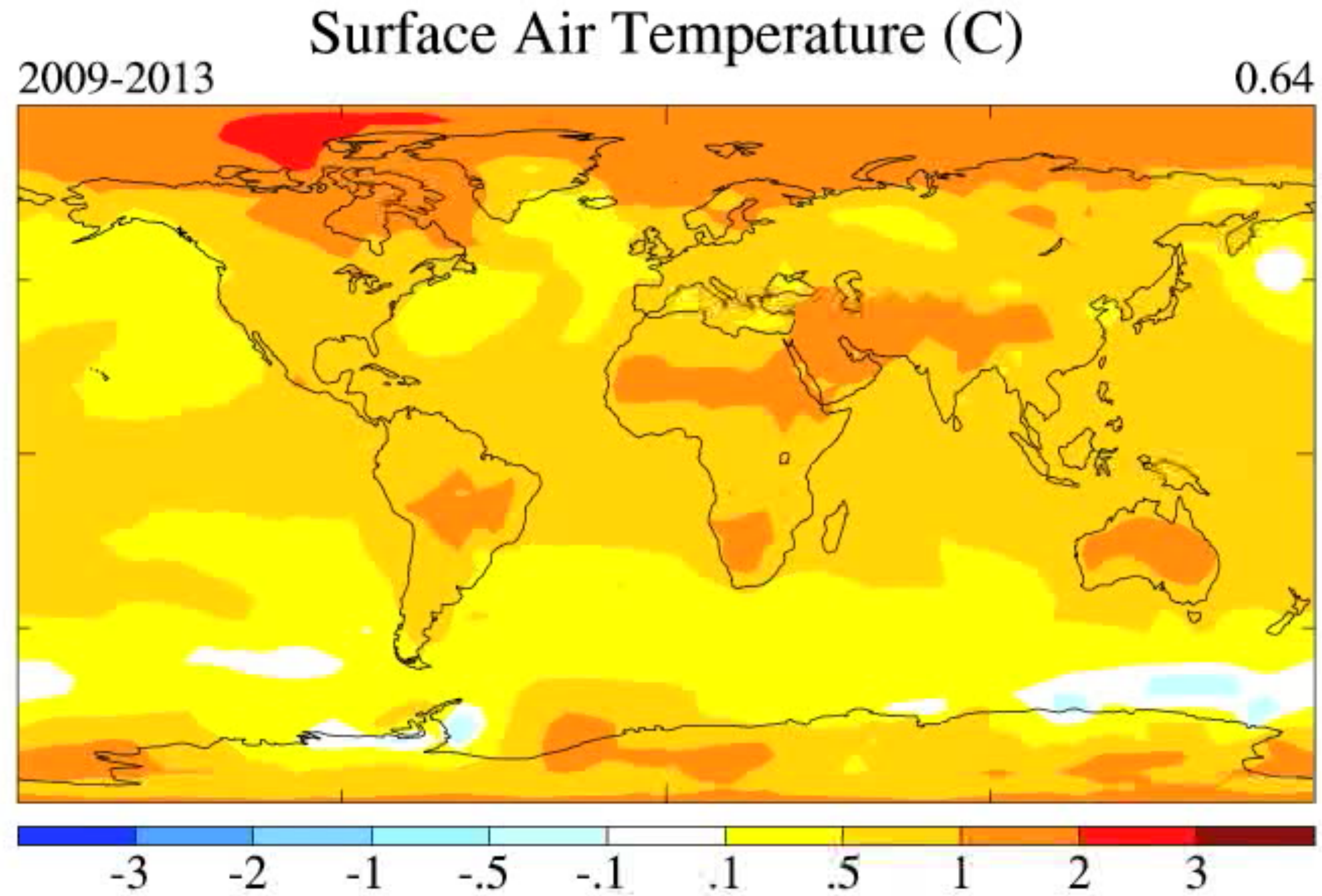
Arctic September Sea Ice Extent:
Observations and Model Runs



Sea level rise: Projections & Observations



Past and Future Temperature distribution



Key Points

- » Comparing model output to observations helps check how well the models represent Earth's climate system.
- » Climate models have done pretty well modeling global temperatures.
- » In some cases, models have underestimated actual rates of change in the climate system, notably with sea ice and sea level rise.
- » Model projections of future temperatures show high latitudes and land continuing to warm faster than low latitudes and ocean.