My NASA Data

Sea Level Change Portal - Coastline Retreat From Sea Level Rise Simulation

Check out this interactive data visualization and simulation tool. It explores the impact of collapsing polar ice sheets (Greenland and Antarctica) and their impact on global mean sea level rise, along with shrinkage in the livable area around the world. Here, we look at US coastal areas, and how shoreline would retreat if Greenland and Antarctica were to dramatically decrease in volume.

How to Run the Simulation

Remove a certain amount of ice (relative percentage of the overall mass) from Antarctica and/or Greenland using the corresponding sliders (in the "Controls" drawer pane). The ice can be removed from all basins or from a specific basin by using the select menu. The resulting shrinkage of the ice sheets will be displayed in the initial frame, along with shoreline retreat and global mean sea level rise.

NGSS Three Dimensional Learning

Crosscutting Concepts

- Cause and Effect
- · Scale, Proportion, and Quantity
- Systems and System Models