

## An Introduction to the Science of Climate Intervention (Geoengineering)

Climate Intervention (also known as Geoengineering) refers to the intentional change in the Climate System to counter some of the effects of increasing greenhouse gases. A variety of strategies have been proposed for this purpose. I will provide a very brief overview of some strategies that have been proposed, and focus on two techniques that I have explored to increase the reflectivity of the planet, reducing the amount of sunlight absorbed by the Earth system, and thus cooling the planet. I will computer simulation results that explore the possibility of whitening clouds by introducing sea salt particles near the surface over certain regions of the ocean and the introduction of sulfate aerosols into the stratosphere to mimic the whitening of the planet seen after strong volcanic eruptions. The figures that accompany this abstract show an artists rendering of an idea for a ship designed to introduce the sea salt particles over the ocean, and the "ship-tracks" that are sometimes seen in satellite images over the ocean from pollutants emitted by ships.