NCAR

Atmospheric Chemistry Observations & Modeling Laboratory

Joint ACOM and EOL Seminar

Stratospheric Geoengineering Beyond Sulfate Aerosol: The Search for Ideal Materials

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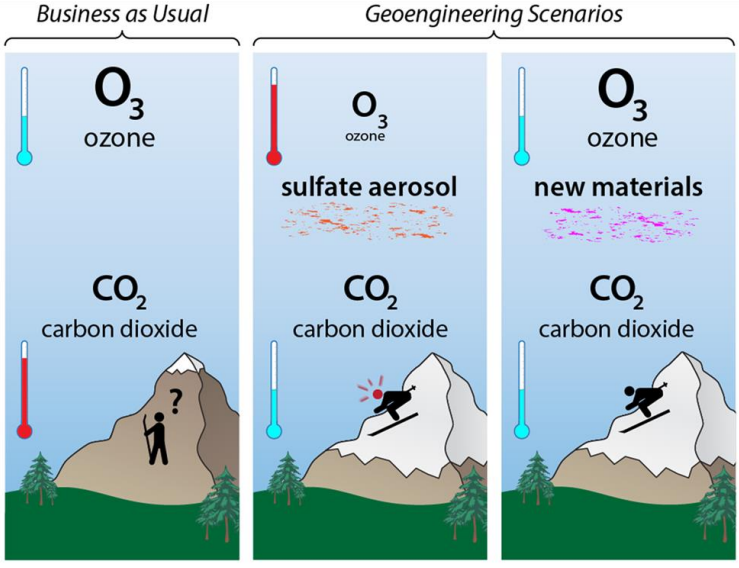
Abstract: Solar radiation management (SRM), a geoengineering approach to modify Earth's climate on a global level, has been receiving growing attention. Stratospheric SRM may reduce some climate risks, but it also entails new risks including changes in the hydrological cycle, ozone loss and heating of the lower tropical stratosphere that tends to change stratospheric dynamics, increases stratospheric water vapor concentrations causing additional ozone loss and global warming. Although most work has focused on introduction of sulfate aerosol into the stratosphere to reduce solar radiation at the surface, a number of other materials have also been considered. We will discuss laboratory experiments as well as planned field experiments aimed at better quantifying the risks of SRM using materials other than sulfate paying attention to the challenges posed by the large range of temporal and spatial scales involved.



***Tuesday*, June 13, 2017, 11:00 a.m.**
NCAR Foothills Laboratory
3450 Mitchell Lane, Boulder, CO 80301
FL2-1022, Large Auditorium
Live webcast: http://ucarconnect.ucar.edu/live

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