Geophysical Research Abstracts
Vol. 20, EGU2018-19664, 2018
EGU General Assembly 2018

The GeoCarb Mission

Sean Crowell, Berrien Moore, Chris O'Dell, Eric Burgh, Denis O'Brien , Peter Rayner, David Crisp, Annmarie Eldering, Susan Kulawik , David Schimel, and Robert Chatfield

NASA selected the Geostationary Carbon Observatory (GeoCarb) in December 2016 as the second Earth Venture Mission. GeoCarb will measure CO_2, CH4, CO, O_2, and solar induced fluorescence over the Americas between 50 degrees South latitude and 50 degrees North latitude every day with a spatial resolution of 3 kilometers x 6 kilometers. Daily revisits will allow unprecedented insight into the carbon cycle in the midlatitudes and the tropics. In this presentation, we will review the mission details as well as simulations that demonstrate the constraint on surface emissions from urban to national scales, and how such measurements will help guide policymakers to meet their greenhouse gas emission reduction goals under the Paris Agreement and other emission reduction policy measures.