From the first instrumental climate observations in 1697 up to the global temperature record set last year, professional climate scientists owe a debt of gratitude to the millions of observations taken by volunteers around the world. In addition to describing how average global temperatures are determined and their implications, this talk will highlight the results of the latest science on global climate data as well as the latest political developments on sharing climate data across the world. However, even with last summer’s passage of World Meteorological Organization’s Resolution 60, which puts essentially all countries within the U.N. system on record as supporting free and unrestricted access to climate data, much work remains. So the talk ends with what you can do to improve the global climate record.

Thomas Peterson is the President of the World Meteorological Organization’s Commission for Climatology. In 2004, Essential Science Indicators ranked him as one of the top 1% of scientists in the field of Geosciences based on Journal Citation Reports. He was a lead author on the Nobel Peace Prize winning Intergovernmental Panel on Climate Change’s Fourth Assessment Report published in 2007. Foreign Policy Magazine named him one of the top 100 Leading Global Thinkers of 2013 for his work on Explaining Extreme Events from a Climate Perspective. In July Dr. Peterson retired from his position as Principal Scientist at NOAA’s National Centers for Environmental Information.

Link to colloquium videos and announcement page: [http://www.atmos.colostate.edu/dept/colloquia.php](http://www.atmos.colostate.edu/dept/colloquia.php)