

## Highlighted Speaker - Ozone, Aerosol and Carbon Gases at the Mt. Bachelor Observatory

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Mt. Bachelor Observatory (MBO) is a high elevation (2.8 km a.s.l.) research site located on the summit of Mt. Bachelor in Central Oregon. The site was started by the University of Washington in 2004, with a focus on ozone (O<sub>3</sub>), aerosols and related trace species. Figure below shows an aerial view of Mt Bachelor. Over the past 14 years our research has focused on O<sub>3</sub>, aerosols, mercury and carbon cycle gases. In this presentation I will focus on some of our newest results such as:

1. Trends and causes for inter-annual variations in O<sub>3</sub> and aerosols;
2. Relationship between carbon cycle gases, O<sub>3</sub>, aerosols and transport patterns;
3. Aerosol size distributions in biomass burning plumes and long-range transported pollution;
4. New observations of aerosol absorption and black carbon using multiple tools;
5. Improving our methods to characterize the boundary layer and free troposphere.

In this presentation, I will give an overview of MBO gas and aerosol observations over the past 14 years, with a focus on the new results given above.



**Figure 1.** Mt. Bachelor in Central Oregon. The observatory is located on the summit.