

#### Division of Atmospheric Sciences

Science Environment Solutions

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Laboratory
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STORM PEAK LABORTORY (SPL) MISSION STATEMENT: To ensure that the Storm Peak laboratory will continue to integrate climate research and education by advancing discovery and understanding within the field of pollution aerosol and doud interactions.

Unique, high elevation, mountain-top atmospheric research facility readily accessible under all weather conditions!!!

## Gannet Hallar - Short CV

1999 Undergraduate - Physics Truman State University 2003 M.S./ Ph.D. - Atmospheric Sciences

Justice of Coloredo et Doulder

University of Colorado at Boulder

Title of dissertation: "Use of Tunable Diode Laser Closed Path Hygrometer for the Measurement of Total Water in Tropopaus

Čirrus"

2004 – 2006 NRC Postdoctoral Associate

NASA Ames Research Center, Moffett Field, CA;

Advisor: Dr. Anthony Strawa

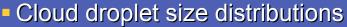
Research with Atmospheric Aerosol Optical Instrument using Cavity-Ring-Down Optical Sensing Technique



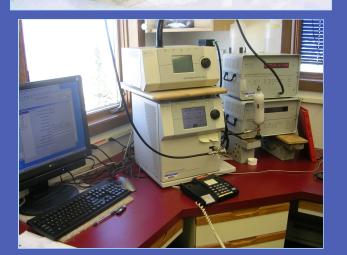
### Current Equipment







- O<sub>3</sub> Measurement
- Radiometer
- Pyranometer
- Snow Video Spectrometer
- Cold Room with Microscopes
- Aerosol size distributions
- Cloud Condensation Nuclei (CCN)
- Meteorological Station







#### Links to Conference

- Currently leading plans for a joint DOE and NSF summer/winter field campaign at Storm Peak Laboratory which has been designed to help answer the following questions.....
  - What is the contribution of WSOC to hygroscopic growth under sub- and super-saturated conditions?
  - What are the chemical and physical properties of bulk OC and WSOC?
  - What is the contribution of SOA to particulate organics and WSOC?
  - How important is in-cloud processing to formation of hygroscopic organics?
  - What are the chemical and physical signatures of different aerosol sources including distant urban areas as well as local and distant biomass burning?
  - How well do different formulations and parameterizations of Köhler thermodynamic equilibrium theory account for the hygroscopic growth and CCN activity of mixed inorganic and organic aerosols?

# Field Courses - Always looking for more!

- Atmospheric Science Winter Field Courses
  - Currently used by 5 Universities for atmospheric science field courses (Graduate and Undergraduate):
    - Univ of Nevada, U of Wisc., Colo State, CCNY, U of Calgary
- Summer Field Courses
  - NSF Award for Undergraduate Courses promoting diversity in geosciences



