



Storm Peak Laboratory

stormpeak.utah.edu

Storm Peak Laboratory: A Community Instrument and Facility, as part of the NSF FARE Program

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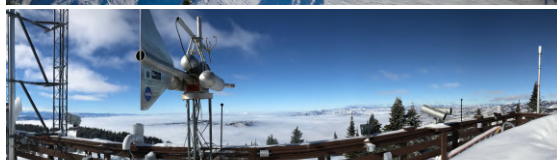
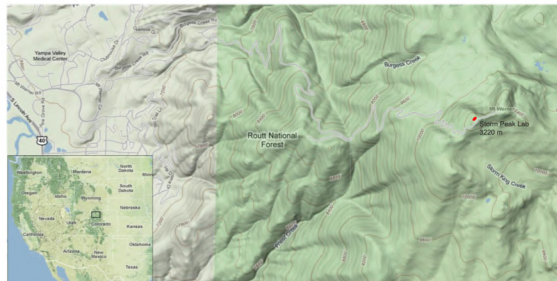
² Jet Propulsion Laboratory

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Storm Peak Laboratory - Located in Northwest Colorado on the US National Forest **A Brief History of Storm Peak Laboratory**



1979-1989: Research from Colorado State University study cloud and precipitation using space in ski lodge (1979-1980)



The researchers obtained small trailer on Storm Peak (1981-1983) and later on Mt. Werner (1984)



1995: DRI builds a permanent facility at Mt. Werner site

2012 - Major upgrade funded by National Science Foundation ARRA funds



2020 - Operations transferred from DRI to the University of Utah
2022 - Building and all Instrumentation transferred from DRI to the University of Utah



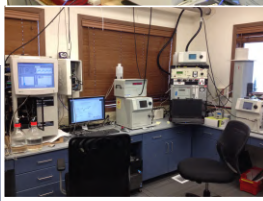
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Located on Steamboat Ski Resort
Elevation: 3220 m Pressure: ~ 690 mb
In cloud ~40% of time in winter - Mixed Phase

9 Person Bunkhouse, Full Kitchen
Facility and Guest Instruments
Wet Chemistry Lab

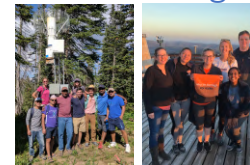
~150 Peer reviewed journal articles to date



Storm Peak Research Training

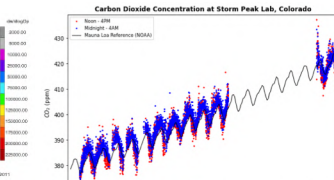
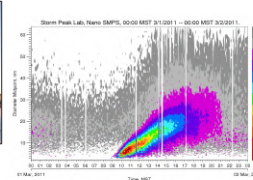


Research Experiences For Undergraduates



Host undergraduate atmospheric science field courses from:

- Colorado State University, Hendrix College, University of Wisconsin & Texas A&M University (new U. of Utah and Colorado College - 2022& 2023); University of Colorado - Integrates hydrology field course with atmospheric science courses.
- Approximately 100 students annually participate in course at SPL.
- Approximately 40 graduate students have used data from SPL as the foundation for either a M.S. or Ph.D. thesis.



Facility Instruments

- Aerosol Concentration
 - Fine
 - Ultrafine
- Aerosol Optical Properties
 - Nephelometer - 3λ
 - CLAP - 3λ
- Aerosol size distributions
 - TSI SMPS 10-350 nm
 - TSI nano-SMPS 3-60 nm
 - TSI APS 0.5 - 20 μm
- DMT CCN Counter
- Multi-Filter Shadow-band Radiometer
 - UV & Visible
- DMT Cloud Probes
 - CIP 25-1550 μm
 - PIP100-6200 μm
- CO₂
- CH₄, H₂O, CO (new 2022 - NOAA)
- O₃, SO₂, CO, NO_x, Water Vapor Isotope measurements
- Cold Room- Cloud Sieves
- Meteorological Stations - 7 on mt.
- Sonic Snow Depth

