Welcome to The Laboratory for Atmospheric and Space Physics

The 29th annual National Space Symposium
April 8-12

Partnerships

Presentation by Tom Sparn
LASP Partnerships
LASP Science Partnerships

• Colorado Partners
  – Denver Museum of Nature and Science
  – National Center for Atmospheric Research (NCAR)
  – NOAA Space Environment Center
  – Space Science Institute
  – Southwest Research Institute
  – Lockheed Martin

• International Partners
  – Canadian Space Agency
  – Max Planck (Cassini)
  – European Space Agency
Local Business Connections

Mission partners
Lockheed Martin
Ball Aerospace
Northrop Grumman
GeoOptics
Moog Engineering

Science partners
HAO
NOAA
NCAR
SwRI
SSI
NIST

Production partners
Multiple machine shops
Electrical Assembly houses
PW Board manufacturer
Plating Vendors
Electronic parts suppliers

And, many other connections to and from Colorado businesses

Colorado aerospace industry partners
Colorado Space Coalition
Colorado Space Business Roundtable
WIRED program – education and aerospace panels
Offerings by the Colorado Center for Lunar Dust and Atmospheric Studies (CCLDAS) include:

- New media practitioners professional development workshops
- Student seminar series: Learning to interact with the media
- Public Symposia with Elon Musk and Alan Stern

In April 2012, Elon Musk and Alan Stern spoke to a standing-room-only crowd about the future of commercial space flight.

The NSF Research Experiences for Undergraduates (REU) Program brings about 15 promising undergraduates to LASP for an eight-week summer research experience.
Experimental capabilities:
Space environmental simulators (UV, plasma)
Hypervelocity dust impacts (particle radius: 0.01 – 10 micron; speed: 1 – 80 km/s)

Experimental goals:
Explore the effects of hypervelocity dust impacts on: a) optical devices; b) secondary dust particle, neutral gas, and plasma production; c) electrical interference on antennas; and d) the testing and calibration of dedicated dust instruments.

The facility is available for use by the lunar, space and plasma physics communities.
LASP’s Principal Role: The Knowledge Transfer Team

Goal:
To provide access to models, as well as technology exchange opportunities and fellowships.

- Allows CISM scientists to communicate their innovations to the broad government and industry community.
- Allows the community to convey their needs to the CISM scientists.

Partners include Lockheed Martin, Ball Aerospace, Boeing, Metatech and NOAA/SEC’s user community
National Solar Observatory (NSO): premier national facility for ground based solar observations.

- Advanced Technology Solar Telescope (ATST) on Haleakela in Hawaii, designed to observe the Sun with an astonishing 50km resolution.
- NSO is consolidating operations and chose CU-Boulder as the site for their new headquarters.
- The move will enhance collaborative efforts in ground-based observation and instrumentation, theory and modeling, and space-based observations.
LASP Summary

- LASP is a world class research institute with a long track record of space mission successes.
- LASP is unique in its full-cycle approach to space programs to develop innovative, low-cost solutions to problems.
- LASP can provide a broad-range of services:
  - Engineering design
  - Production
  - Test and calibration facilities
  - Mission operations

How can we help YOU?
Space Exploration Uniforms
Thank you for your attention. While at the National Space Symposium please contact Thomas Sparn (303) 591-1861 if you have further questions.

Contact LASP

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