

Trip Report submitted by Dr. Lee Vierling, SDSM&T

The members of the Remote Sensing and Ecology Lab (Professor Lee Vierling, Ph.D. student Xuexia Chen, and M.S. students Rachel Smith, Eric Rowell, and Michael Toomey) visited the EROS Data Center on December 9, 2002. We met and discussed details of our work with 7 scientists in the Science and Applications Branch on an individual basis. Two students also presented talks on their research projects, entitled:

“Comparison of Vegetation Coverage Estimates from IKONOS and Landsat 7 Enhanced Thematic Mapper Plus with Airborne Scanning LIDAR and Forest Inventory Data in a Ponderosa Pine Forest” Lead presenter: X. Chen

“Developing LiDAR Data Products for Use in Mechanistic Fire and Biogeochemical Modeling” Lead presenter: E. Rowell

As a result of this visit, there is a solid foundation for our lab to collaborate with EROS scientists in a meaningful way. In particular, the EROS efforts in land cover validation, the LANDFIRE project (in which EROS is co-leading the effort to quantify 3 aspects of fire hazards and effects using remote sensing), and their budding interest in LIDAR data are strong connections to our group. In addition, there is interest for EROS scientists to team with SDSM&T professors in a student/advisor relationship to help EROS scientists achieve Ph.D. degrees.

**The agenda for this visit is enclosed on the following page.**

**U.S. GEOLOGICAL SURVEY  
EROS DATA CENTER**

**AGENDA**

**Visit by:** Dr. Lee Vierling, Xuexia Chen, Rachel Smith, Eric Rowell, Michael Toomey, Remote Sensing and Ecology Laboratory, Institute of Atmospheric Sciences, South Dakota School of Mines and Technology.

**Purpose:** Technical Exchange and Discussion on Potential Collaborations on Vegetation and Biophysical Parameter Mapping Using Remote Sensing.

**Monday, December 9, 2002**

*(Individual Offices Unless Otherwise Specified)*

8:00 a.m.	Multi-Resolution Land Characteristics 2001 Mapping Strategy	L. Yang
8:30 a.m.	EROS Data Center (EDC) Calibration/Validation Activities	T. DeFelice
9:15 a.m.	LandFire Activities	Z. Zhu
10:00 a.m.	Biophysical Parameter Research	D. Meyer
10:45 a.m.	Light Detection and Ranging (LIDAR) Data Applications	J. Stoker
11:15 a.m.	Lunch	
12:00 p.m.	Seminar: Comparison of Vegetation Coverage Estimates from IKONOS and Landsat 7 Enhanced Thematic Mapper Plus with Airborne Scanning LIDAR and Forest Inventory Data in a Ponderosa Pine Forest	X. Chen
	Seminar: LIDAR Data Application and Processing Rowell	E.
1:15 p.m.	Discussion of LIDAR Data Processing	C. Huang
2:00 p.m.	Wrap Up	L. Yang
3:00 p.m.	Depart EDC	