



Sandia National Laboratories

Albuquerque

Optical Systems Group

Range Report

Timothy J. Miller

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Range Report

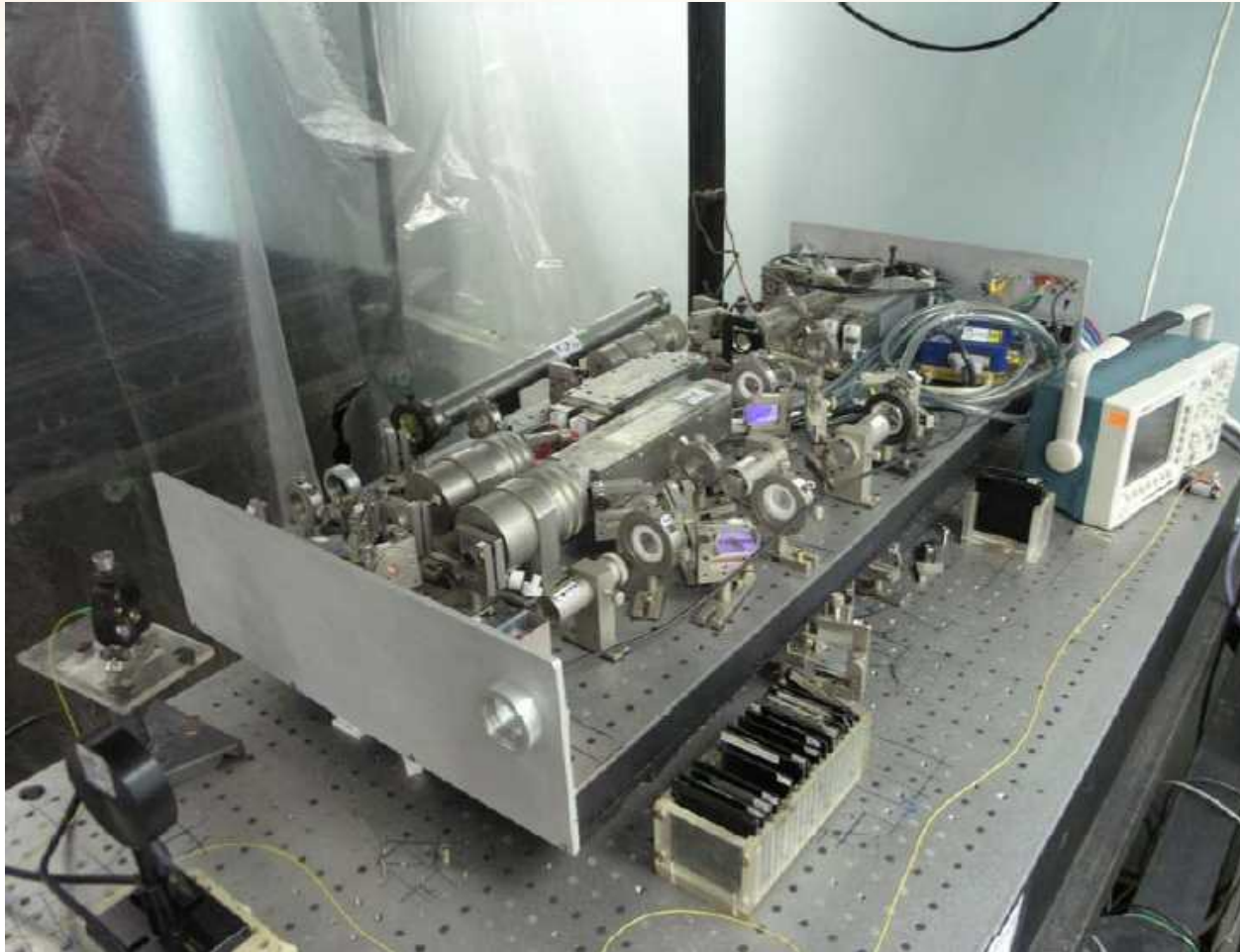
- Management
 - Organization: No Changes
 - Personnel: Added two data acquisition technologists and we need to fill two Staff (MS or PhD) positions:
 - Data Acquisition Engineer
 - Photometrics Engineer.Interested individuals may contact Dr. Michael T. Valley at mtvalle@sandia.gov
 - Training: Trackeye training in January
- Facilities/Equipment
 - none



Range Report

- Noteworthy Products
 - Raman Picosecond Laser system and detection system evaluation experiments
- Inter-range Support
 - none
- Cost Avoidance
 - none

Long Range Laser and Detection System



Laser System

Laser Wavelength approx.	1530 nm
Laser Power approx.	50 mJ
Laser Pulse Width approx.	30-50 ps
Laser Pulse Repetition Rate	100 Hz
Laser Beam Divergence	0.5-10 mrad
Laser Beam Diameter	6 mm



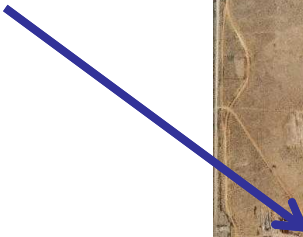
Detector System

Evaluation Testing at Rocket Sled Track

North End of Sled Track



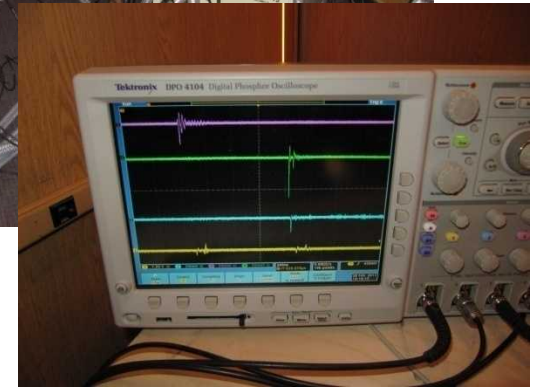
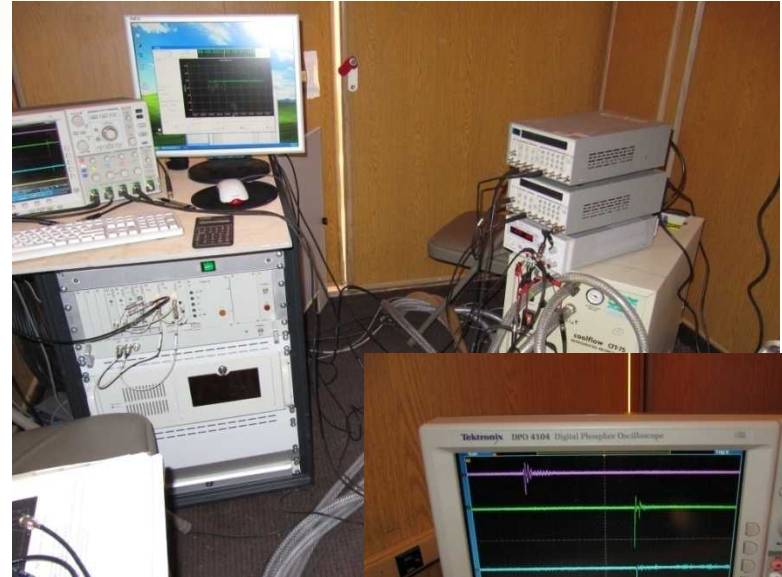
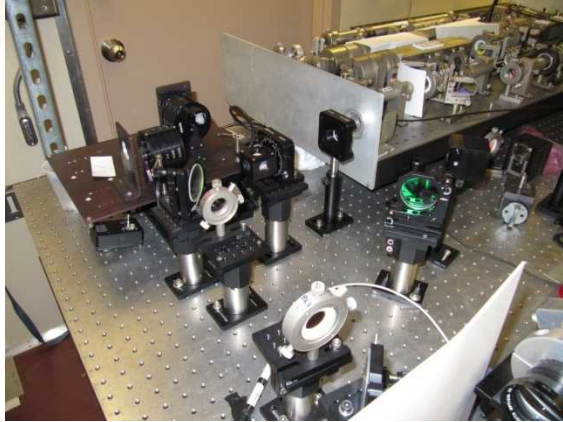
South End of Sled Track



Evaluation Testing at Rocket Sled Track



Evaluation Testing at Rocket Sled Track



Max error 53mm @ 127 m
Min error 16mm @ 3032 m

Sample Range Measurements

