Abstract Submitted
for the 4CF12 Meeting of
The American Physical Society

Feasibility of Using Integrated Cavity Output Spectroscopy (ICOS) for Laser Scattering Research[1] EMILY SOTELO, New Mexico Institute of Mining and Technology, DAVID HOSTUTLER COLLABORATION[2], GREG PITZ COLLABORATION[3] — ICOS is proving to be a successful method for accurately measuring the atmospheric absorbance of a laser beam in a simulated environment. It was hypothesized that ICOS could be sensitive enough to accurately measure Rayleigh scattering. If feasible, it would mean that instead of having to conduct open range propagation experiments, scattering losses could be determined using a small, controlled test bed. This would be advantageous because it is cumbersome to propagate a laser beam a long distance in open space, as most other methods require. This study, done by Emily Sotelo as a student intern at the Air Force Research Laboratory, will be applied to the ongoing research of the scalability potential of the DPAL laser.

[1]Phillips Scholar Program/Air Force Research Laboratories
[2]Dr. Hostutler was my mentor over the summer at the Air Force Research Laboratories in the High Power Gas Laser Division, at Kirtland Air Force Base in Albuquerque NM
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Date submitted: 11 Sep 2012 Electronic form version 1.4