

SIMULTANEOUS RED - BLUE LIDAR
AND AIRBORNE IMPACTOR MEASUREMENTS

by
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ABSTRACT

Simultaneous two-color (0.6943 micro meters and 0.3472 micro meters) LIDAR measurements were made in the troposphere and lower stratosphere over Boulder, Colorado during March 1973. In addition, on the evening of March 26, airborne single-stage impactor measurements were made at four altitudes-- 10,500, 25,000, 33,000 and 43,000 feet MSL. These data were integrated at constant altitude for 15, 45, 45, and 60 minutes respectively.

The LIDAR data were taken with Langley's 48" LIDAR using a dichroic beamsplitter to separate the return at 0.6943 micro meters and 0.3472 micro meters. The analog waveforms for both colors were digitized simultaneously; one on an NCAR data acquisition system and the other on the 48" Langley data acquisition system. A discussion of the preliminary results from these measurements will be presented.

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