



# Airborne LIDAR Pipeline Inspection System Mapping Tests

DTPH56-01-X-0023

## PHMSA ACCOMPLISHMENTS

Pipeline and Hazardous Materials Safety Administration

Pipeline Safety Research and Development

Technology Development for Improved Leak Detection

### Project Abstract

The primary objective was to extend the current Airborne LIDAR Pipeline Inspection System (ALPIS) capability to the detection of volatile emissions from liquid transmission pipelines.

The ALPIS is an airborne remote sensing system for detecting leaks associated with natural gas and hazardous liquid pipelines. Data collected with ALPIS can be incorporated into a geographic information system to create mapping databases. Project goals are to achieve survey speeds of up to 150 miles per hour and cost equal to or less than much slower survey methods currently available.

**PHMSA Funding:** \$2,245,204

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### Commercial Partner

**LaSen, Inc.**  
[www.laseninc.com](http://www.laseninc.com)



### NET Improvement

A helicopter based fast, efficient, and accurate tool for detecting and mapping natural gas and hazardous liquid pipeline leaks. This work enabled an engineering research prototype to become a commercialized leak detection and mapping system that the pipeline industry can now use.

**US Patent under DOT Contract:**

Application # 60/742,955