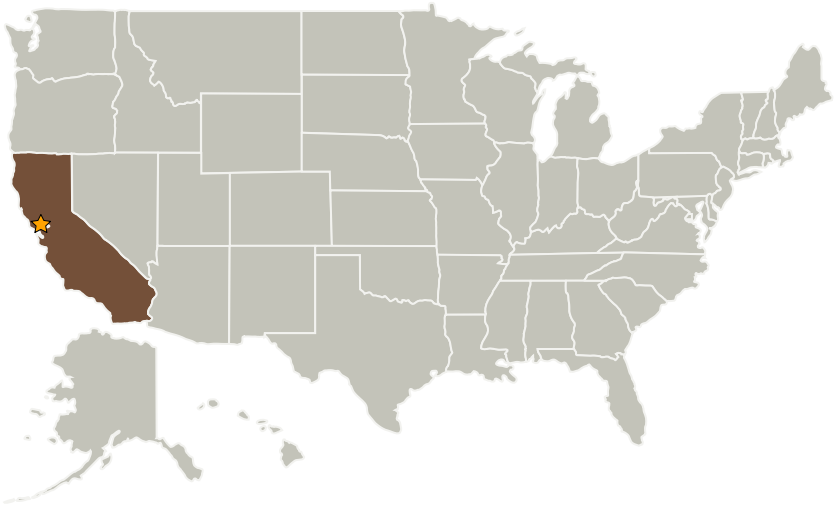
Compact, High Accuracy CO2 Monitor, Phase I

Completed Technology Project (2005 - 2005)

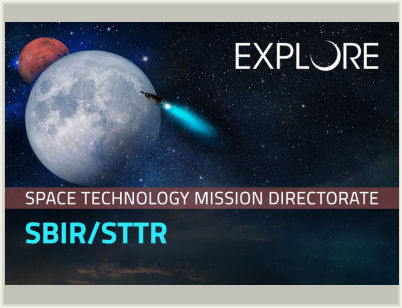
Project Introduction

This Small Business Innovative Research Phase I proposal seeks to develop a low cost, robust, highly precise and accurate CO2 monitoring system. This system will employ a novel mid-infrared laser source, which will be demonstrated during Phase I and integrated into a bench-scale laboratory instrument to perform CO2 concentration measurements. The results of these tests will demonstrate the precision and accuracy of the approach, and will be used to determine specifications for the Phase II instrument. The Phase I research will identify COTS sources for the system subcomponents of the Phase II prototype, which can potentially modified for the detection of other target species such as CO2 isotopes, methane, and CO. Commercial systems based on the Phase II prototype will be refined and marketed during Phase III.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★Ames Research Center(ARC)	Lead Organization	NASA Center	Moffett Field, California
Novawave Technologies	Supporting Organization	Industry	Redwood City, California



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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Ames Research Center (ARC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Primary U.S. Work Locations

California

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Principal Investigator:

Joshua Paul

Technology Areas

Primary:

- TX14 Thermal Management Systems
  └ TX14.1 Cryogenic Systems
    └ TX14.1.2 Launch Vehicle Propellant