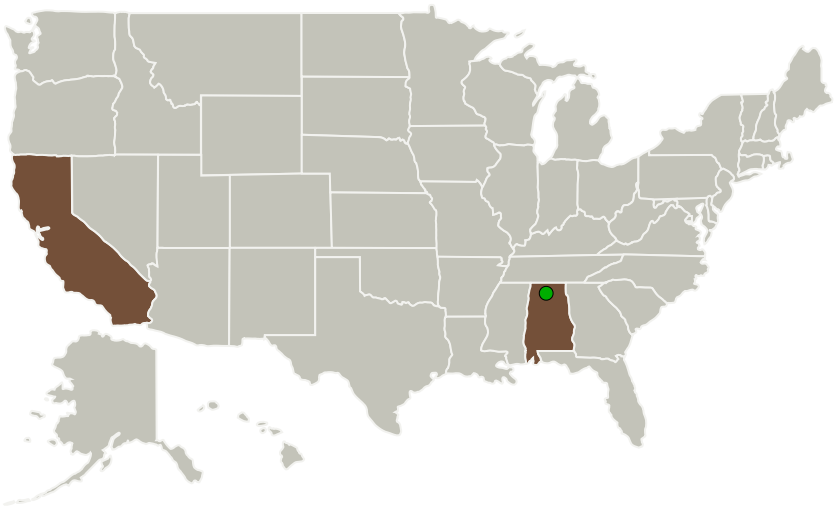
Fieldable, Real-Time NO2 Sensor, Phase I

Completed Technology Project (2010 - 2010)

Project Introduction

This Small Business Innovative Research Phase I proposal seeks to develop a compact, autonomous NO2 sensor for air monitoring applications based on laser induced fluorescence (LIF). A key component in the proposed system is new laser technology developed at NovaWave. The Phase I research will directly demonstrate the utility of this new light source by performing LIF measurements on NO2 samples in a laboratory setting. The Phase II system will fully integrate the laser with an autonomous spectrometer and air sampling system to comprise a complete sensor package. Phase III will result in the development of fieldable commercial systems that will be manufactured and distributed to the regional end users.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
Novawave Technologies	Lead Organization	Industry	Redwood City, California
●Marshall Space Flight Center(MSFC)	Supporting Organization	NASA Center	Huntsville, Alabama

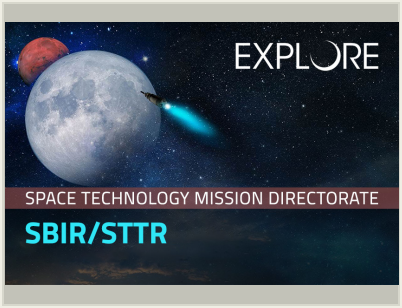


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Table of Contents

Project Introduction 1
Primary U.S. Work Locations and Key Partners 1
Project Transitions 2
Organizational Responsibility 2
Project Management 2
Technology Maturity (TRL) 2
Technology Areas 3
Target Destinations 3

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Primary U.S. Work Locations	
Alabama	California

Project Transitions

January 2010: Project Start

September 2010: Closed out

Closeout Documentation:

- Final Summary Chart*(https://techport.nasa.gov/file/139008)*

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

Novawave Technologies

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

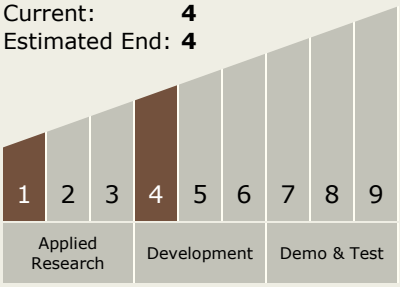
Carlos Torrez

Principal Investigator:

Joshua Paul

Technology Maturity (TRL)

Start: **1**
Current: **4**
Estimated End: **4**



Technology Areas

Primary:

- TX08 Sensors and Instruments
  └ TX08.1 Remote Sensing Instruments/Sensors
    └ TX08.1.5 Lasers

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System