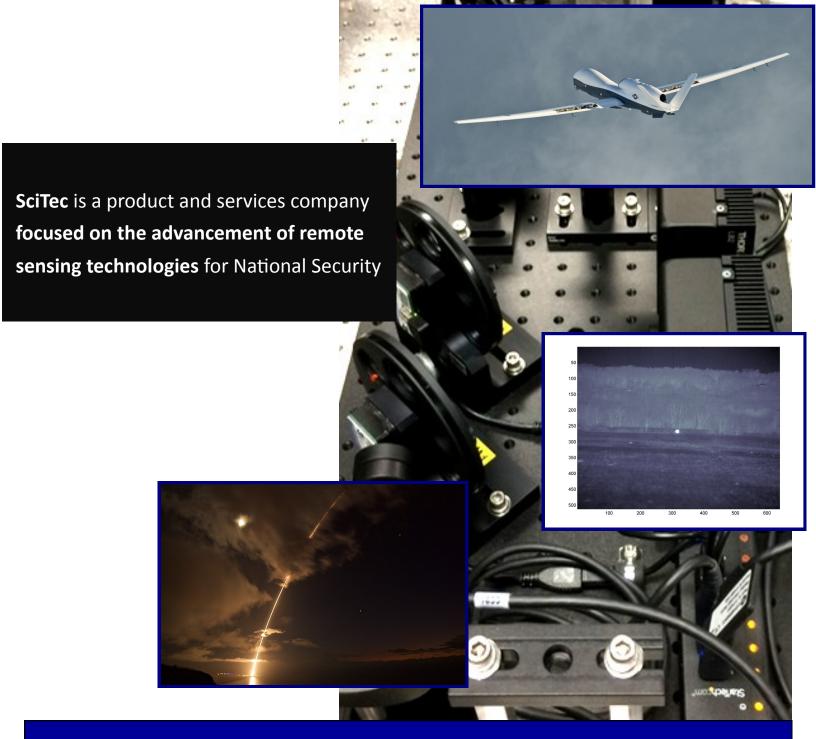
## SciTec

### Science & Engineering Innovation



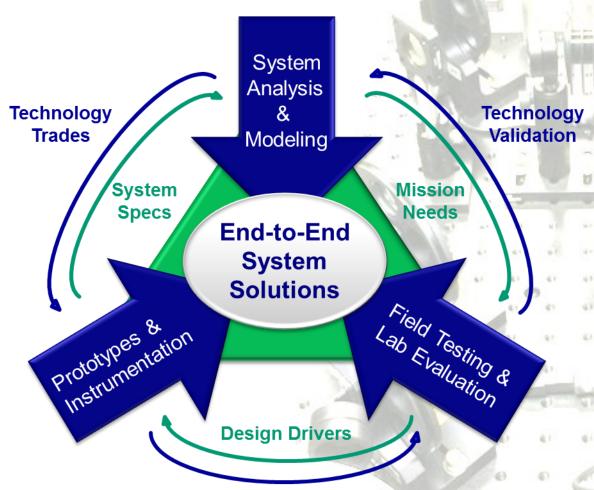
SciTec, Inc.
100 Wall Street
Princeton, NJ 08540-1523

www.scitec.com

## SciTec

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### The SciTec "R&D Triad"



### State of the Art Prototypes & Systems

SciTec advances the state-of-the-art in remote sensing through the application of interrelated activities of systems analysis, rapid prototyping, and test. The SciTec R&D Triad represents the foundation of our system development culture and thought process.

SciTec, Inc. is a Certified Small Business with Offices and Operating Locations in:

Princeton, NJ

Boulder, CO

Dayton, OH

Colorado Springs, CO

Huntsville, AL

Herndon, VA

# **R&D MISSION AREAS**

### **Capabilities Overview**

**Geospatial Intelligence** 

**Integrated Air & Missile Defense** 

**Measurement & Signature Intelligence** 

**EO/IR/Laser Threat Countermeasures** 

**Space and Battlespace Awareness** 

RESOURCES

Secure work areas & networks

High performance computing environment & tools

**Optics & Instrumentation Lab** 

**Fabrication Shop** 

**Specialized databases and tools** 

Sensor and processor design

Measurement, calibration, test and evaluation

Sensor and system modeling

**Algorithm development** 

**Real-time signal processing** 

**GUI** development and integration

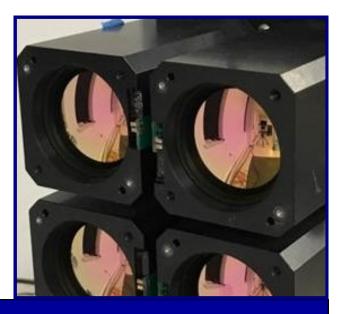
Mission planning and dynamic cueing

Atmospheric and environmental phenomenology

Target signature predictions and phenomenology

**Custom instrument design and fabrication** 

Field test planning and execution



**Contact: Jim Bower** 

Cell: (571) 344-3009

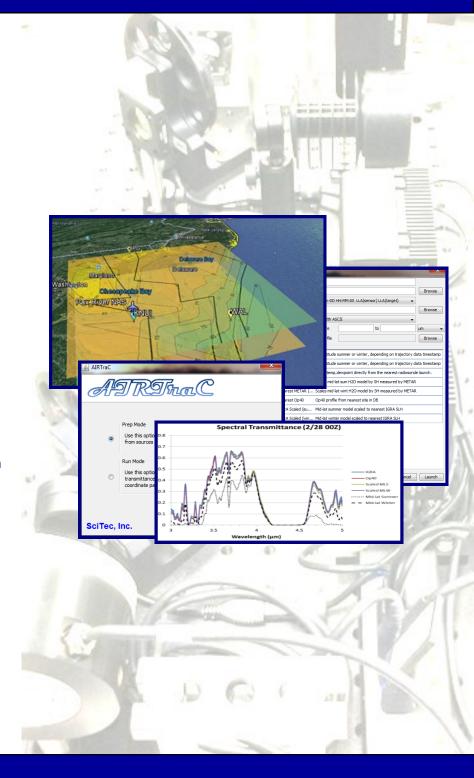
Email: jbower@scitec.com

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SciTec's Atmospheric Infra-Red
Transmittance Calculator software
application provides Test & Evaluation personnel with a robust, highly
automated tool to accurately and
quickly determine atmospheric transmission for remote infrared sensor
testing and calibration. This highfidelity software application provides
increased test flexibility and significantly reduces costs by eliminating
the need for multiple weather balloon
collections or sophisticated measurement equipment.



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SciTec seeks opportunities with Government IR sensor programs and prime contractor developers to provide test and evaluation services. SciTec also seeks partners to license the AIRTraC application.

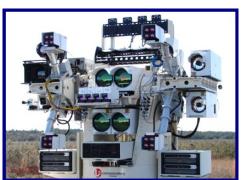
# **FEATURED SYSTEM - ATAMS**

### 4 Generations of Countermeasure Test Equipment

**QRC** 



**JMITS** 



**MSALTS** 



Witness Sensor

Tracker Position

No. 14-67

Witness Sensor

Tracker Position

No. 14-67

Witness Sensor

Tracker Position

No. 14-67

Witness Sensor

Security

Security

Security

Armod Status Emitter Control Diagnostics Connected Security

Security

Tracker Position

No. 14-67

Tracker Position

Tracker Position

Tracker Position

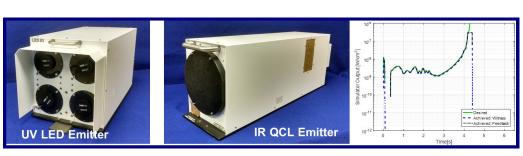
Tracker Position

Tracker Position

Tracker Positi

SciTec's Advanced Tracker and Multispectral Simulator (ATAMS) represents the 4th generation of our infrared countermeasures test instrumentation. ATAMS simulates MANPADs signatures to stimulate test aircraft's onboard Aircraft Survivability Equipment and record the response to validate effectiveness.

**ATAMS** 



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## Science & Engineering Innovation

For over three decades, SciTec has been a leader in the research, development and implementation of realtime algorithms and tools supporting Electro-Optical Infra-Red (EOIR) processing and exploitation for DoD, the Intelligence Community and Missile Defense. Key technologies include:

**Real-time Detection and Tracking** 

**Advanced Threat Typing** 

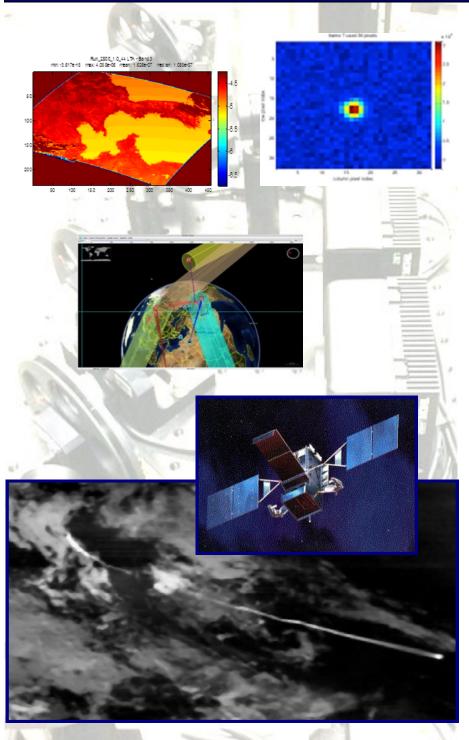
**Intercept and Battle Damage Assess**ment

**Automated Cueing & Situational Awareness** 

Scene content and activities detection and characterization

### **On-board Processing**

SciTec implements these capabilities within Government frameworks and applies standardized formats.



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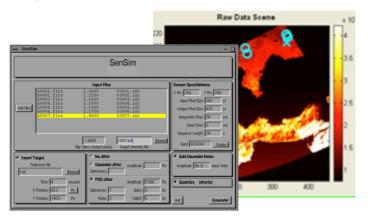
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### Algorithm Development and Software Select Applications

### **EO/IR Sensor Simulation Framework**



High -fidelity Sensor Modeling

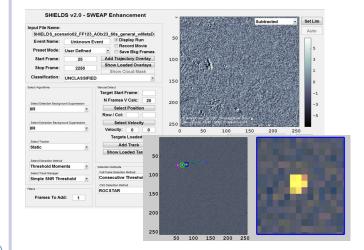
**Staring and Scanning Sensors** 

**UV through LWIR** 

Terrain, Environment and Target models

Verified during several joint agency studies and post-sensor deployment testing

### **EO/IR Mission Data Processing Framework**

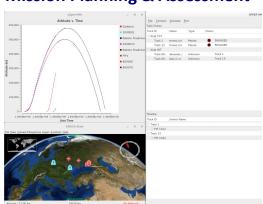


Mature algorithms for all functions in the image chain

Flexible selection of functions, including classifiers derived using machine learning

Best-in-class detection and tracking of low SNR targets

### **Mission Planning & Assessment**



PEER

Multi-phenomenology data exploitation and fusion for post intercept assessments



Multi-tiered decision architecture for target characterization and typing

Enhanced situational awareness via operator informed GUIs

Shared code base with mission planning and dynamic cueing applications

SciTec's rich phenomenological and systems understanding guides our development of state-of-the-art sensors and processing algorithms. Recent advances include the applications of machine learning and machine-to-machine interfaces to speed automation.

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## Science & Engineering Innovation



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