

## Innovative Technology

...from concepts to products.  
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Atmospheric Measurement

Optical Remote/In-Situ Automated  
Detection

Mechanical & Opto-Mechanical Systems

Data Exploitation

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# CORE BUSINESS AREAS

## ATMOSPHERIC MEASUREMENT

Light Detection & Ranging (LIDAR) systems to measure wind & atmospheric constituents from the ground, air & space.  
Optical Air Data Systems for improving the performance of manned & unmanned aircraft & weapon systems.

## OPTICAL REMOTE/IN-SITU AUTOMATED DETECTION

Nuclear, seismic, and spectral-signal detection systems.  
Both remote sensing & in-situ applications, including micro-fluidics, nano-g accelerations & measurement of spectral signatures & cross-sections of biological simulants & agents.

## DATA EXPLOITATION

2D/3D image processing, pattern recognition, machine learning, predictive analytics, anomaly detection & visualization software.

## MECHANICAL SYSTEMS

Systems to enable capture & deployment of autonomous vehicles operating in terrestrial, marine & space environments.

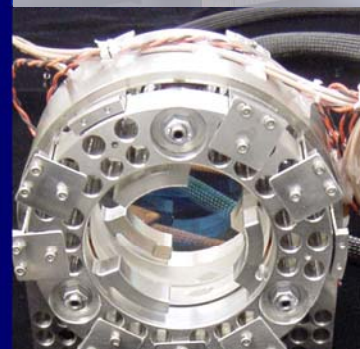
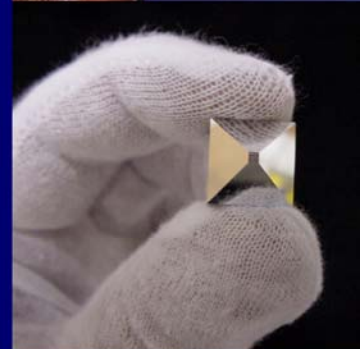
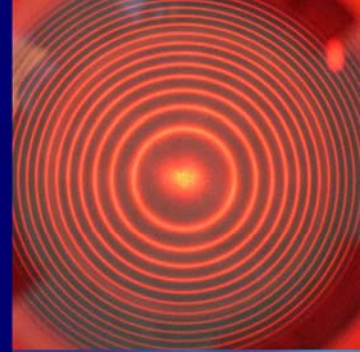
## LIDAR SYSTEMS & COMPONENTS

### COMPACT/MOBILE SYSTEMS

Optical Air Data Systems	End-to-End LIDAR Systems
Transmitter & Telescope Modules	Ground, Marine, Airborne, & Space-Qualified Systems
Receiver & Controller Modules	

## ADVANCED ENGINEERING SERVICES

- ♦ Mechanical & Opto-Mechanical Design, Fabrication & Testing
- ♦ Thermal, Structural & Dynamic Analysis
- ♦ Optical Analysis, Design & Testing
- ♦ Custom Fiber Optic Design & Fabrication
- ♦ Image Processing, Pattern Recognition, Machine Learning, Visualization and Anomaly Detection Software Development
- ♦ Control Systems & Signal Processing
- ♦ Atmospheric Phenomenology & Instrument Performance Modeling
- ♦ End-to-End Instrument Design for Spacecraft, Aircraft, Ground & Marine Environments



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