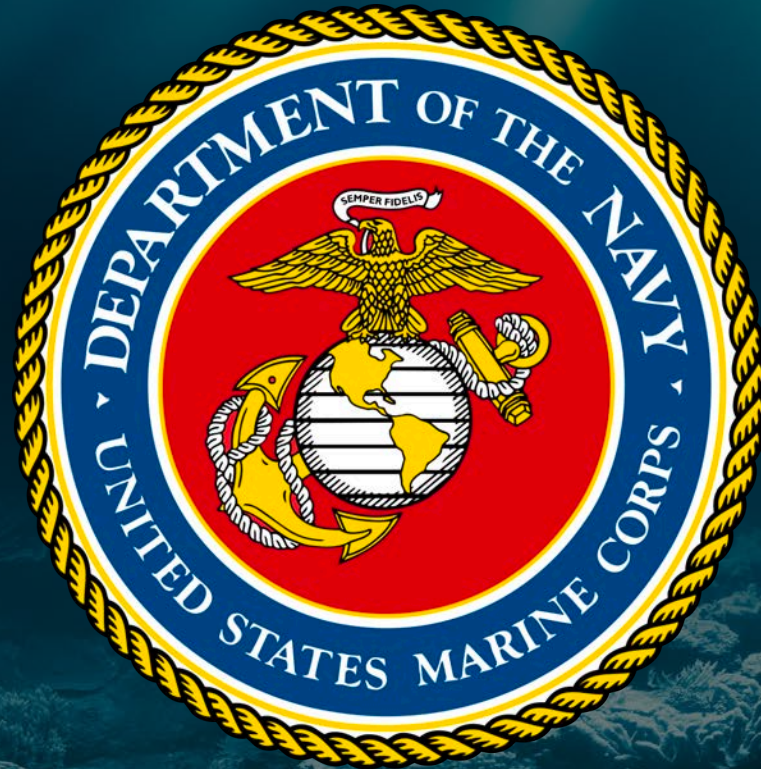




DISCOVER. DEVELOP. DELIVER.

We welcome the Department of the Navy





# MISSION

Areté's mission is to harness our world-class talent to provide superior solutions to national and global security challenges.







# VISION

Leading-edge science  
and engineering  
protecting the nation  
and the world from  
seafloor to space.



# VALUES

Creativity

Integrity

Passion

Responsiveness

Collaboration







# VALUE PROPOSITION

Achieving maximum performance through trusted, creative, and responsive sensing solutions.

Areté (Greek: ἀρετή):  
Excellence





# DISCOVER. DEVELOP. DELIVER.

## APPROACH

Rapid, creative, end-to-end development

- Discover: A science and technology engine advancing state-of-the-art sensing
- Develop: A responsive collaborator rapidly maturing prototype system solutions for new and existing sensors
- Deliver: Reliable producer of high-performance systems, typically low-SWaP





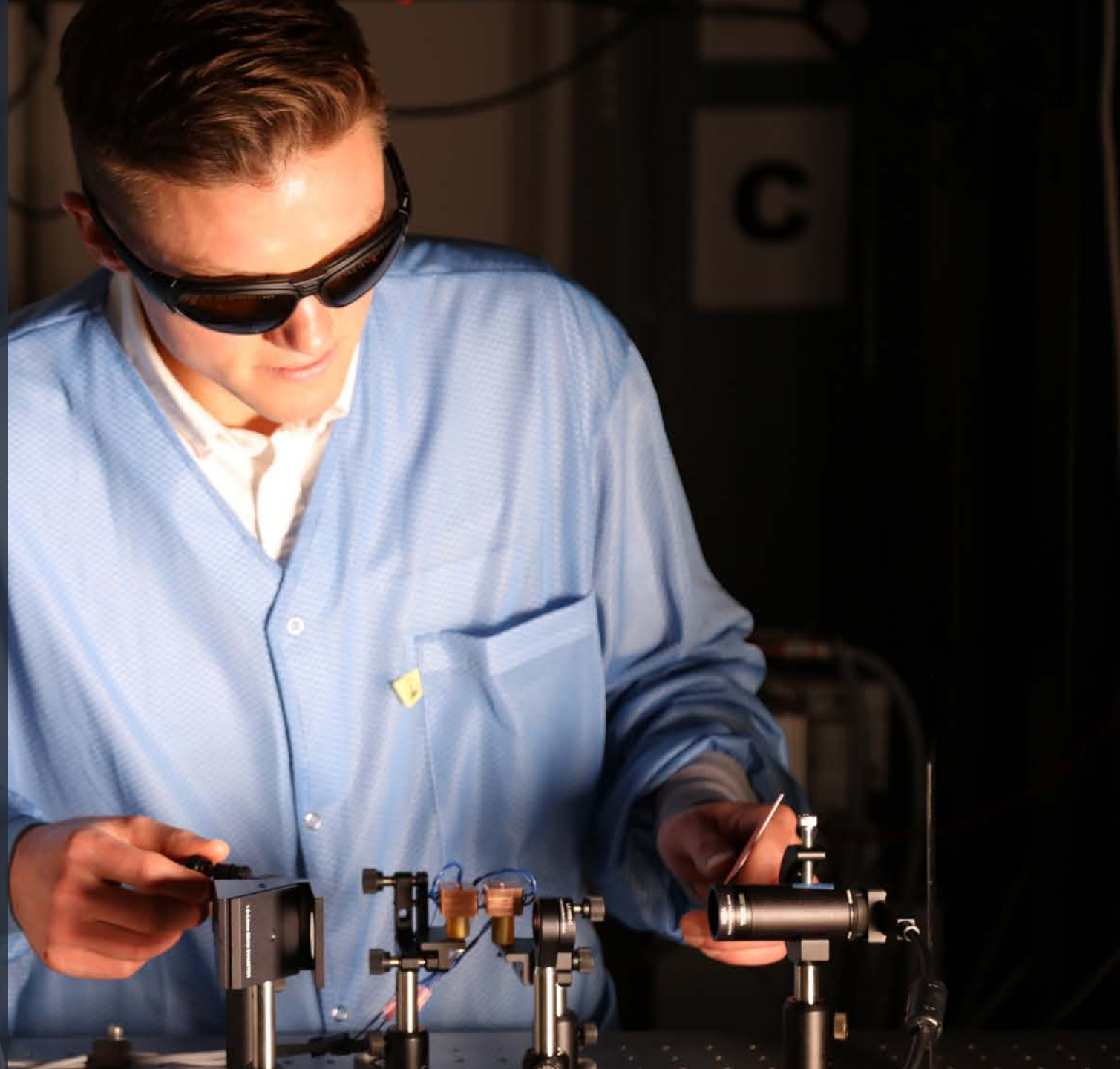
# EXCELLENCE

- An integrated innovation engine that provides exceptional value
- A multi-disciplinary, world-class workforce that solves problems in original ways
- Iterative, rapid prototyping that dramatically reduces development timelines
- Ethical, professional, client focused



# CORE COMPETENCIES

- Detecting weak signals in heavy clutter with low false alarms
- Low-SWaP sensors with real-time fusion
- Extracting maximum performance from systems
- Applying interdisciplinary expertise across domains
- Rapid prototyping and production





# LOCATIONS

Northridge, CA [HQ]

San Diego, CA

Longmont, CO

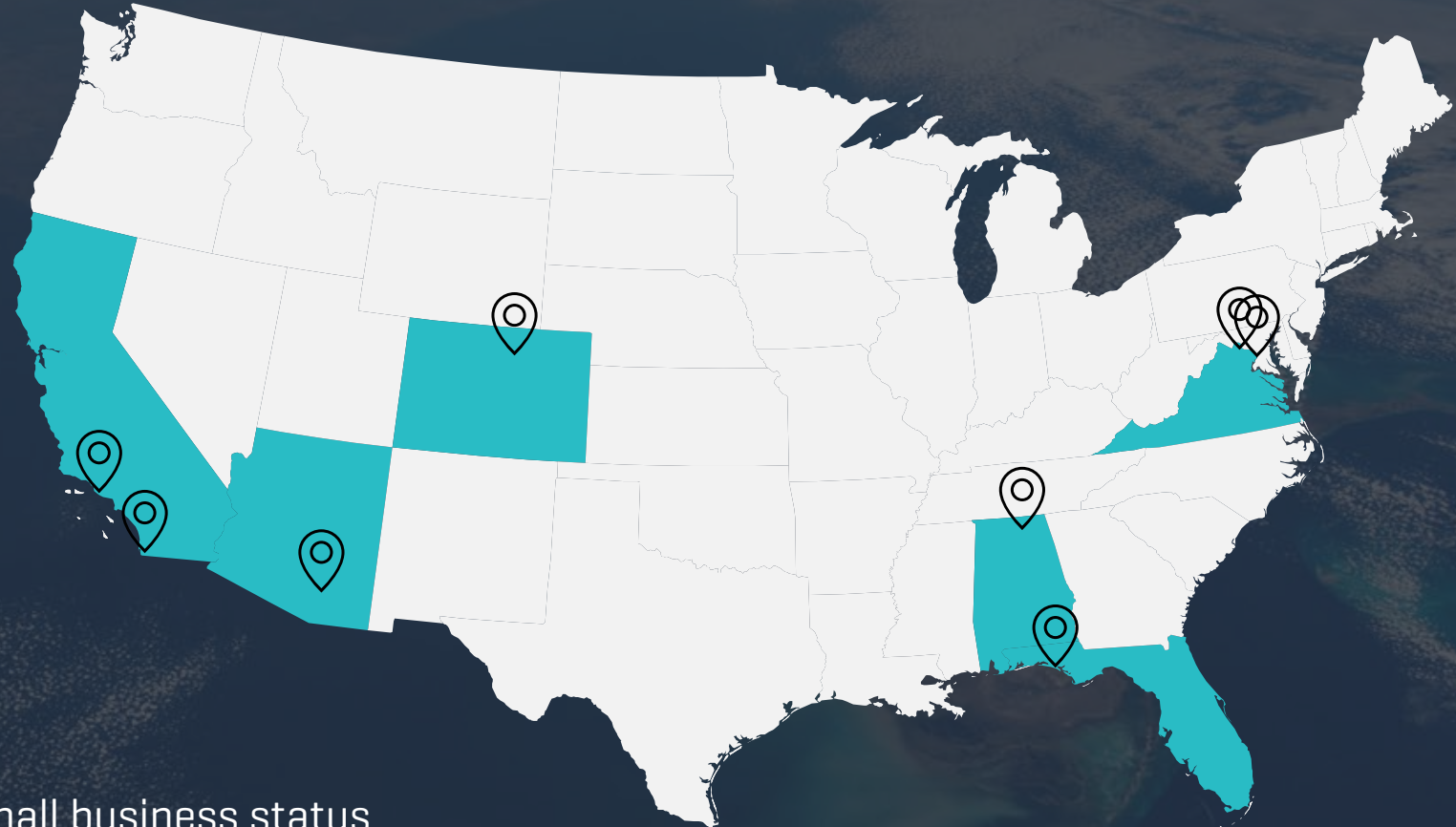
Tucson, AZ

Valparaiso, FL

Huntsville, AL

Chantilly, VA

Arlington, VA



- Employee owned with small business status
- 300 employees, 75% with advanced degrees
- Eight U.S. locations
- 214K sq. ft. lab/office/production capacity; QMS is AS9100/ISO-9001 certified
- 40+ years of government experience



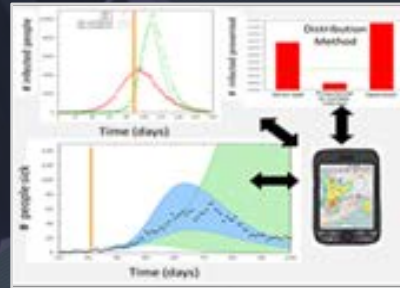
# CAPABILITIES



Modeling & Simulations



Low-SWaP Sensors



Networked Surveillance



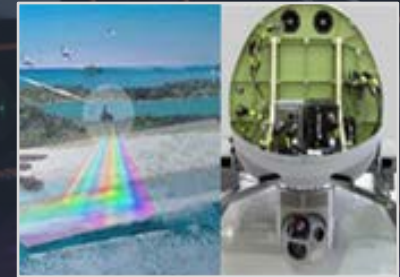
Weak Signals Intelligence Applications



Real-Time Processing



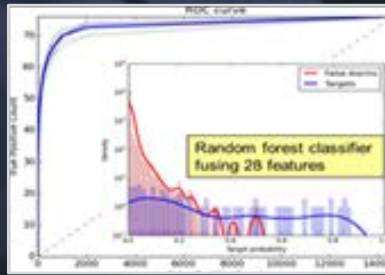
Remote Sensing



System Integration



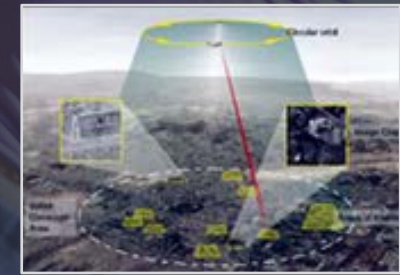
Production



Machine Learning



Field Tests & Measurements



Deep Analytics



Rapid Prototyping





## Modeling & Simulations

Areté's modeling expertise has been applied to address physical, biological, chemical, and heterogeneous data problem areas around the world. We've created high-fidelity simulations of the ocean and atmosphere, for instance, that are so precise that Hollywood has licensed them for movies such as *Titanic*, *Air Force One*, *Harry Potter and the Sorcerer's Stone*.



# Low SWaP Sensors

As tactical environments continue to evolve, the need for low size, weight, and power usage (low SWaP) is becoming crucial. Our low-SWaP profiles increase the ways our sensors can be deployed.







## Networked Surveillance

Areté's networked surveillance technologies allow us to gather intelligence and establish targeting data for uses such as warfare threat reduction. Our work allows the Navy and other customers to detect mines, image ocean conditions, and process the data in real time. Many of our solutions are a combination of passive and active remote sensing.



The image features a dark blue aerial photograph of a coastline, overlaid with a white grid. Several hexagonal markers are scattered across the image: a cyan one in the top right, a yellow one in the bottom center, and several faint yellow ones in the bottom left. The text is positioned on the left side of the image.

# Weak Signals Intelligence Applications

Areté's ability to detect weak signals is outstanding. We've developed a wide range of algorithms that can process valuable data from the most challenging of environments — for example in surf zones, in bad weather or dust storms, and at night.





# Real-time Processing

Whether on the battlefield, an ocean rig, or aerospace, good decisions can only be made with reliable, instant data. Most of Areté's sensor data is processed in real time, saving lives and property.

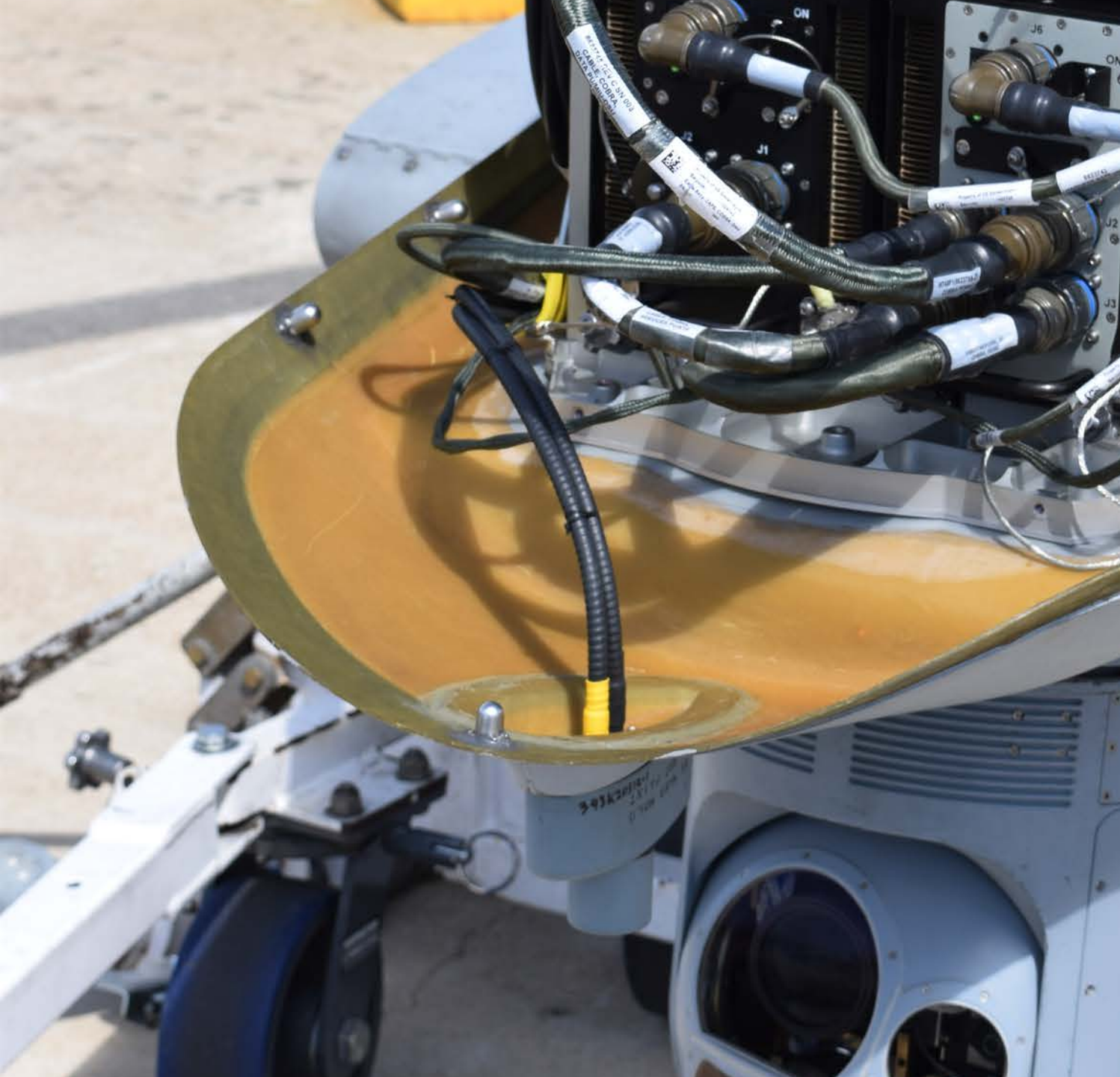


# Remote Sensing

Remote sensing makes it possible to receive data from miles away, often in real time. With remote sensing, we can detect underwater mines, enemy movements in the worst of visual conditions and even weaponized drones in time to save lives. We've also created a way for ships to detect marine mammals in time to steer clear of them, dramatically lowering the number of whale and seal deaths each year.

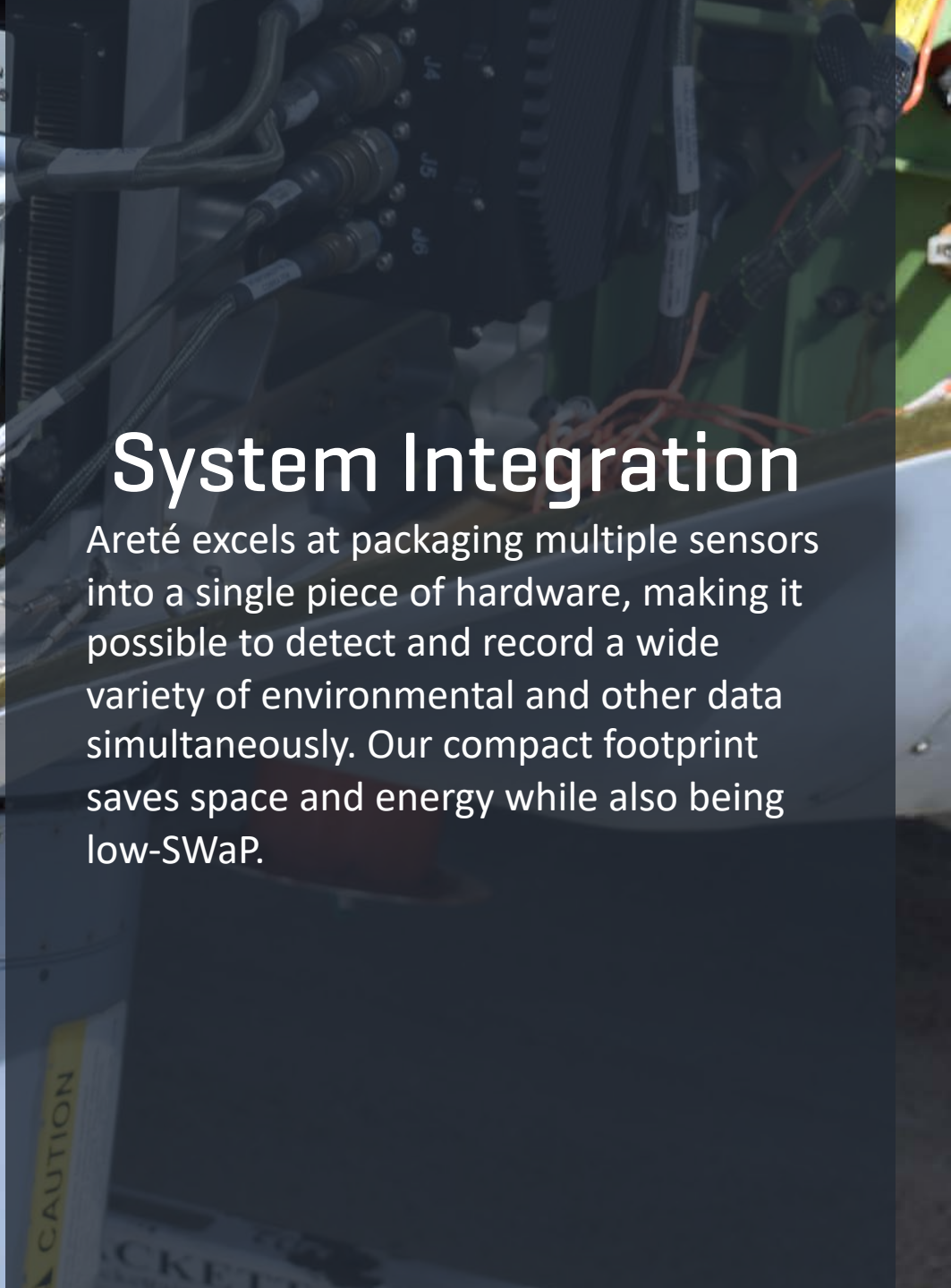






## System Integration

Areté excels at packaging multiple sensors into a single piece of hardware, making it possible to detect and record a wide variety of environmental and other data simultaneously. Our compact footprint saves space and energy while also being low-SWaP.





# Production

Many of our locations not only design and prototype, but also manufacture parts and systems both for Areté technologies and tech partners such as Lockheed Martin and Sierra Nevada Corporation. Across our eight locations, we have 214K square foot lab/office/production capacity and are AS9100/ISO-9001 certified.







## Machine Learning

With machine learning, a system understands more about its environment the longer it surveils that location. Environmental data such as air composition, wind direction, and other characteristics can be vastly different from location to location. Understanding what's normal for a particular environment is key to smart detection, or even path prediction, of contaminants and other aberrants should they occur. Areté's artificially intelligent sensing systems are used around the world.





# Field Tests & Measurements

Our rugged hardware solutions are the result of exacting field tests that cover a wide range of weather and climate conditions. Our *in situ* sensors measure, record, and verify high-resolution data to meet military, commercial, and oceanographic needs.





## Rapid Prototyping

Areté is known for our ability to rapidly prototype solutions. We're an agile team known for our out-of-the-box approaches that often allow us a flexibility that larger organizations can't match. Our company culture, driven as it is by a high level of curiosity and collaboration, is part of our secret sauce.



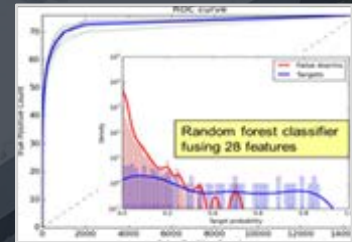
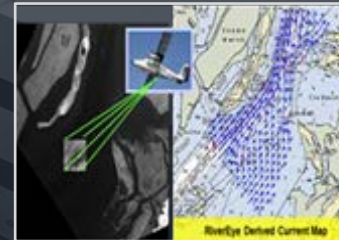
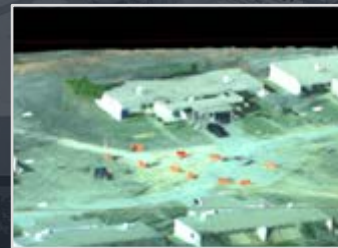
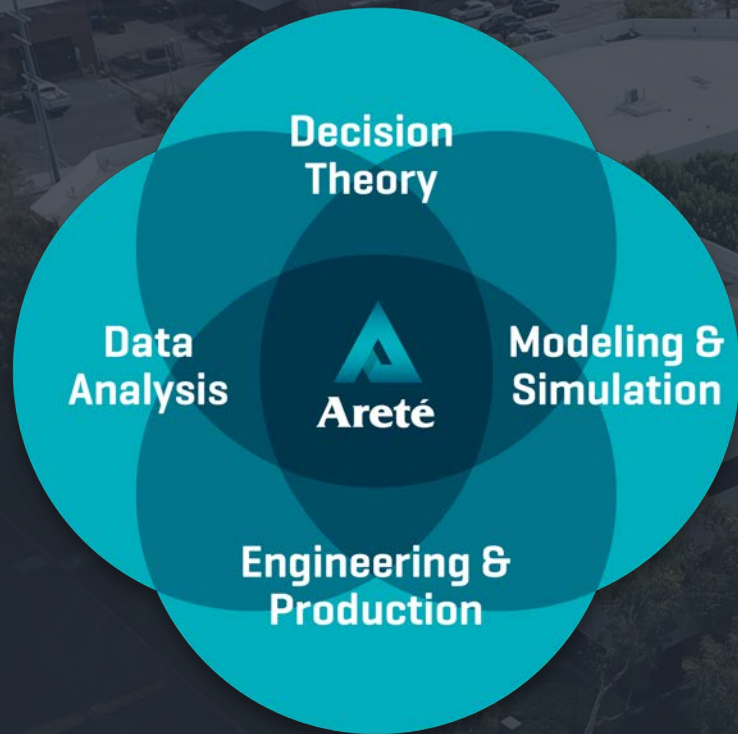
# Deep Analytics

Areté uses principled, statistically grounded techniques to interpret outputs and extract actionable information from our detection, estimation, and tracking algorithms. This way, we deliver powerful and practical decision-making solutions typically in real time.





# OUR UNIQUE VALUE - FUSION



Interdisciplinary fusion enables:

- Extremely low-SWaP sensing solutions
- Smarter and more effective software, hardware, and systems
- Rapid end-to-end development
- Transferring discoveries in one area to another challenging problem



