

NORTHROP GRUMMAN

Directed Energy

Adaptive Optics

Laser Communications

Advanced Imaging

Optical Metrology

Fiber Optics

Custom Applications



AOA

Adaptive Optics Associates

**Advanced Electro-Optic Systems for Government,
Scientific and Commercial Customers**

Technical Excellence

A leader in the electro-optical industry, Northrop Grumman's Adaptive Optics Associates (AOA) provides innovative laser beam delivery and control systems and a variety of highly sophisticated optical systems for the government, scientific and commercial communities.

For more than three decades, AOA has expanded its capabilities to address and solve a myriad of beam control and electro-optical system challenges.

Beam Control

- Directed Energy Weapons
- Laser Communications Systems
- Adaptive Optics/Wavefront Sensing
- Innovative Imaging Solutions
- Analysis and Simulation

The extensive experience of Northrop Grumman's AOA in designing and building electro-optical solutions has helped correct distortions in laser beam and imaging systems. Using adaptive optics and non-conventional techniques, the company has developed systems for the directed energy, laser communications, astronomy and ophthalmology marketplaces. Its ground-based and airborne systems meet the most rigorous standards for quality assurance.

Custom Electro-optical Design and Manufacturing

- Fiber Optics
- Laser Beam Delivery and Control Systems
- Beam Diagnostics
- Industrial Imaging Systems

Northrop Grumman's AOA designs, fabricates and integrates optical subsystems for compensation of atmospheric disturbances using closed loop adaptive optics techniques.

Offering design, manufacturing, installation and worldwide field service, Northrop Grumman is the ideal turnkey partner for electro-optic products and programs. The company's broad-based engineering skills, including documentation and quality assurance – along with our clean rooms, machine shop and metrology facilities – are key elements in many successful custom developments.

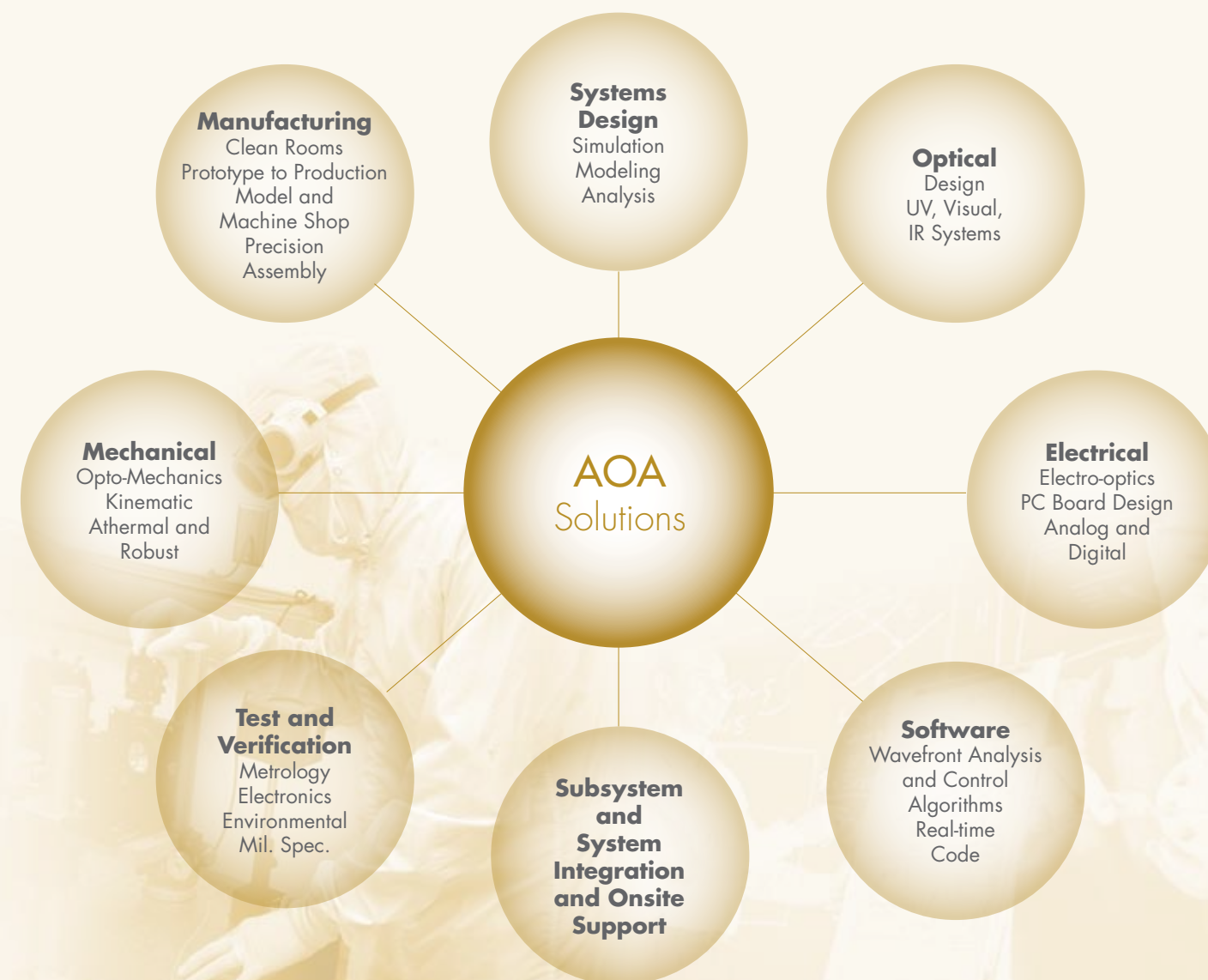
Standard Products

- WaveScope™ family
- Micro Lens Arrays

Northrop Grumman's AOA offers a standard catalog of WaveScope™ Shack-Hartmann wavefront sensors and micro lens arrays. The WaveScope™ sensor offers many features of the company's custom wavefront sensors in a more versatile and affordable package. The company has an extensive catalog of epoxy-on-glass and molded-plastic micro lens arrays.

Northrop Grumman's AOA team...

Providing Advanced Design, Manufacturing and Service Solutions for Electro-optical Challenges Worldwide



AOA Advantages

- Full Turnkey Capability
- Design
- Manufacture
- Service
- Broad Engineering and Scientific Expertise
- Optics through Software
- Precision Optical Assembly and Clean Room Facilities
- Facilities in Massachusetts, California and Connecticut



Northrop Grumman's AOA is a leader in the design, simulation and production of high-performance, computer-aided, electro-optic systems and subsystems.



In addition to offering a standard product line of WaveScope™ Shack-Hartmann wavefront sensors, Northrop Grumman's AOA applies its breadth of engineering and scientific capabilities to customer-specific applications.

Apply Northrop Grumman's expertise to your electro-optic challenge...



Northrop Grumman's AOA houses its manufacturing headquarters in Cambridge, Mass.

Relationships

Northrop Grumman's Adaptive Optics Associates team thrives on solving customer's challenging optical problems. We form close partnerships with our customers to fully understand and fulfill their evolving requirements. Our experience and capabilities enable us to deliver mission-critical systems. Our reputation is built on our customers' success.

Innovation

Quality

Experience

Customer Alliances

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For more information on our standard products, visit

www.northropgrumman.com
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