



Aerial Imaging

Optikos creates high precision and volume aerial imaging solutions for a range of clients.

Overcoming the elements

The environment for aerial platforms is demanding—needing to function over wide fluctuations in temperature, barometric pressure, and humidity. Understanding how these environmental factors affect the imaging system performance is one challenge—having the equipment to verify the performance in the lab prior to flight is another. Optikos has both the equipment and the experience to make the types of measurements that are critical to providing exceptional image quality.

Aerial imaging lenses designed and built by Optikos can include features that mitigate the environmental impact, including passive and active athermalization, zoom actuation, aperture control, and focusing modules.

Aerial imaging technology enables many end-use industries. Previously described as “photo-reconnaissance,” aerial imaging platforms enable the collection of geospatial information used by many organizations including government, insurance, real estate, civil engineering, forestry and agriculture, public safety, and construction. Whether it is imagery of a building’s roof to assess its condition or estimate its cost to replace, the measurement of crop health, or encroachment onto wetlands, these imaging platforms often require state of the art performance that Optikos® routinely delivers.

Optikos® expert engineering and technical teams have delivered cutting edge designs, prototypes, and production quantities of such systems. Our IQ Lab™ Services comprehensive testing laboratory is equipped with both our proprietary OpTest® measurement systems and interferometers and other spectrophotographic instrumentation that allow us to fully characterize the performance of the systems we manufacture.

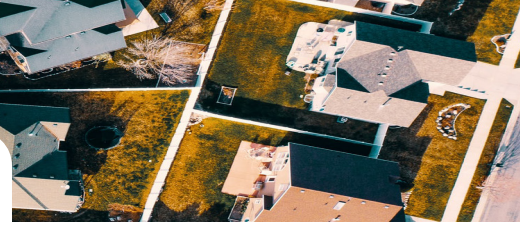
Case Study

Aerial Imaging: Locating and Refueling Satellites

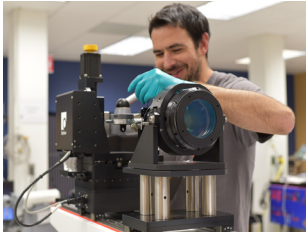
NASA worked with Optikos to develop a system to characterize visible wavelength lenses used in the RESTORE-L payload. Optikos delivered a unique quality measurement station designed to characterize the image quality of lens systems used on the NASA Restore-L Satellite Service Robots. These lenses act as the system’s “eyes” as it approaches and docks with a target satellite. To simulate docking conditions, a special Optikos LensCheck™ System projects resolution targets and measures the quality of lens imagery as the targets move from long to short range distances.



Aerial Imaging Products and Services



Engineering Services

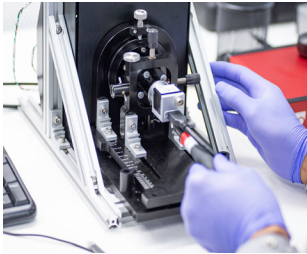


Where other optical consulting firms might offer only lens design services, Optikos has built its reputation on providing our clients with access to broadly skilled optical problem solvers who provide solutions and continuity of support throughout the product development cycle.

Your design can range from a single à la carte technical solution to complete product development through manufacturing.

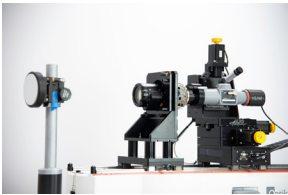
And at project completion, you own the design.

Manufacturing Services



At Optikos, manufacturing of custom lens cells, opto-mechanical systems, and turn key metrology equipment is a core competency. Our experienced team of mechanical, optical, and electrical assemblers and technicians are here to ramp your design from paper or prototype into production volumes. All of our production lines are located in our ISO 9001 and ISO 13485 certified facility where we integrate our metrology expertise into our production lines. By leveraging both our robust quality system and internal metrology expertise, our customers can be confident they are receiving units made to industry standards and customer requirements.

IQ™ Lab Testing



In addition to opto-mechanical design and manufacturing, Optikos services include IQ Lab™ testing by expert optical engineers to ensure that each lens meets specifications and, if needed, we are able to incorporate the imager into the assembly to ensure proper focus and imager alignment and verified performance.

The Optikos Experience™

Optikos engineers and technical staff team up according to the demands of the job—bringing together 40+ years of expertise not only in optics, but also in physics, mechanics, optomechanics, electronics, software, manufacturing, and automation.

What sets us apart is not just our bench strength. It's how we solve.

We call it Optical Ingenuity™. The thread. The ability to apply our insight and experience across all areas of optics to all that we do.

And we do it all.

Learn More



at [optikos.com](https://www.optikos.com)



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