



**A Global Leader in Next-
Generation Optics &
Imaging Solutions**

Safe Harbor Statement

This presentation contains “forward-looking” statements that are based on our beliefs and assumptions and on information currently available to us. Forward-looking statements include information concerning our possible or assumed future results of operations, business strategies, product development plans, competitive position, potential growth opportunities, the effects of competition and the expected effects on the Company’s business from the COVID-19 pandemic. Forward-looking statements include all statements that are not historical facts and can be identified by terms such as “anticipate,” “believe,” “could,” “seek,” “estimate,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “should,” “will,” “would” or similar expressions and the negatives of those terms.

Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Forward-looking statements represent our beliefs and assumptions only as of the date of this presentation. Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to update the reasons actual results could differ materially from those anticipated in the forward-looking statements, even if new information becomes available in the future.










This presentation includes certain non-GAAP financial measures as defined by the SEC rules. We believe these non-GAAP financial measures are appropriate indicators to assist in the evaluation of our operating performance on a period-to-period basis. We have provided a reconciliation of those measures to the most directly comparable GAAP measures, which is available in this presentation.

About LightPath

LightPath is a leading provider of next-generation optics & imaging systems for defense and commercial applications.

- **Multi-billion-dollar market in defense and commercial applications** for infrared imaging systems
- Provider of high value **optical solutions & imaging systems**
- **Key technology** – Proprietary Chalcogenide Glass Solution is the **ONLY GLASS** that enables use of multi-spectral cameras reducing the size, weight & cost of systems without using Germanium
- **Defense Contract Tailwinds:** Accelerating pipeline of meaningful government and military projects with key defense customers
- **New commercial applications:** Boiler & furnace, optical gas imaging (OGI) and automotive sectors
- **Market size and production** capabilities to drive revenue in excess of \$300 million in 5 years

NASDAQ: LPTH

	Share Price ¹	\$2.80
	Market Cap ¹	\$120.1M
	TTM Revenue ²	\$33.6M
	TTM Gross Margin ²	29.6%
	Shares Outstanding	42.9M
	Float	30.4M
	Insider Holdings	3.0%
	Employees	~350
	Headquarters	Orlando, FL

1) As of May 30, 2025
2) At March 30, 2025

Our Customers



Engineering a New LightPath

LightPath is transitioning to a **solutions-oriented** approach for high value customers geared towards driving higher revenue & gross margins

Legacy LightPath
Components Supplier



ASP:
\$5-\$50

LightPath 2.0
Solutions Provider



ASP:
\$50-\$500

LightPath 3.0
Imaging Systems Creator



ASP:
\$1K-\$30K



ASP:
\$50K - \$500K

Vertical Integration

- Cooled Mid-wave Zoom Cameras
- Uncooled Infrared Cameras and OEM Modules
- Optical Assemblies
- Optical System Design
- Optical Coatings Services
- Optics Fabrication
- Infrared Materials



Management Team

Sam Rubin

President & Chief Executive Officer

25 Years in Optics

Owner / Exec / Sales / R&D / M&A

Joined Company in 2020

Revenue Growth of Prior Firm
\$30M to \$500M



THORLABS

Albert Miranda

Chief Financial Officer

22 Years in Optics

Finance / GM / Exec / M&A

Joined Company in 2021

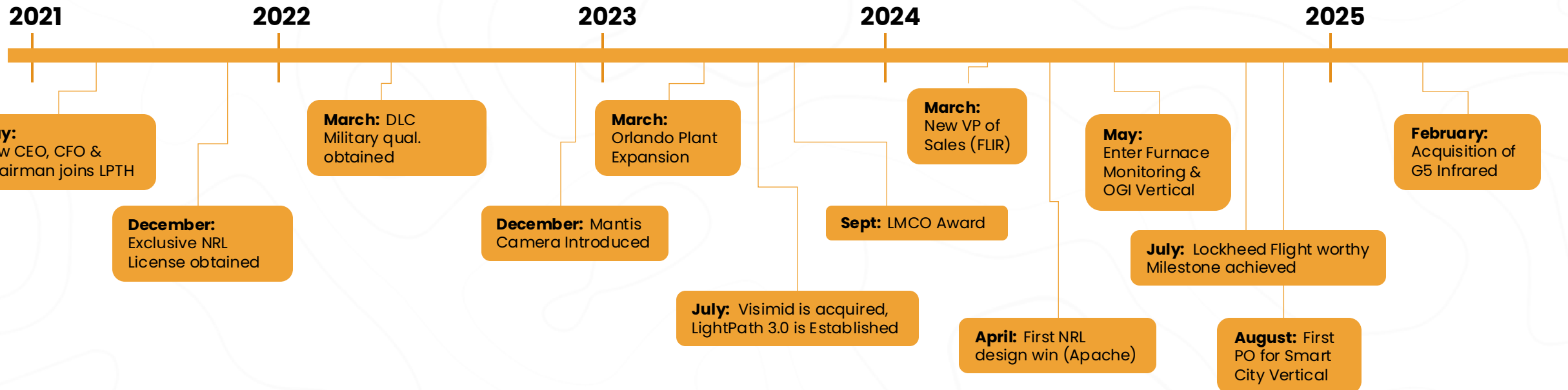
Revenue Growth of Prior Firm
\$30M to \$220M



LightPath's Evolving Transformation

- New strategy
- Rightsizing the company, global footprint, Board of Directors
- Sunsetting unrelated products
- Exclusive technology licenses

- Insourced services
- Manufacturing back in the US
- EU defense manufacturing license
- Acquisition and integration



Infrared Imaging Market Opportunity

Multispectral cameras will be able to replace multiple camera modules in each application

Market data on thermal cameras estimates a

7% CAGR to ~\$9 billion
market by 2026.

Increasing adoption in:



AUTOMOTIVE LIDAR
to benefit public safety



SMART CITIES and
infrastructure uses



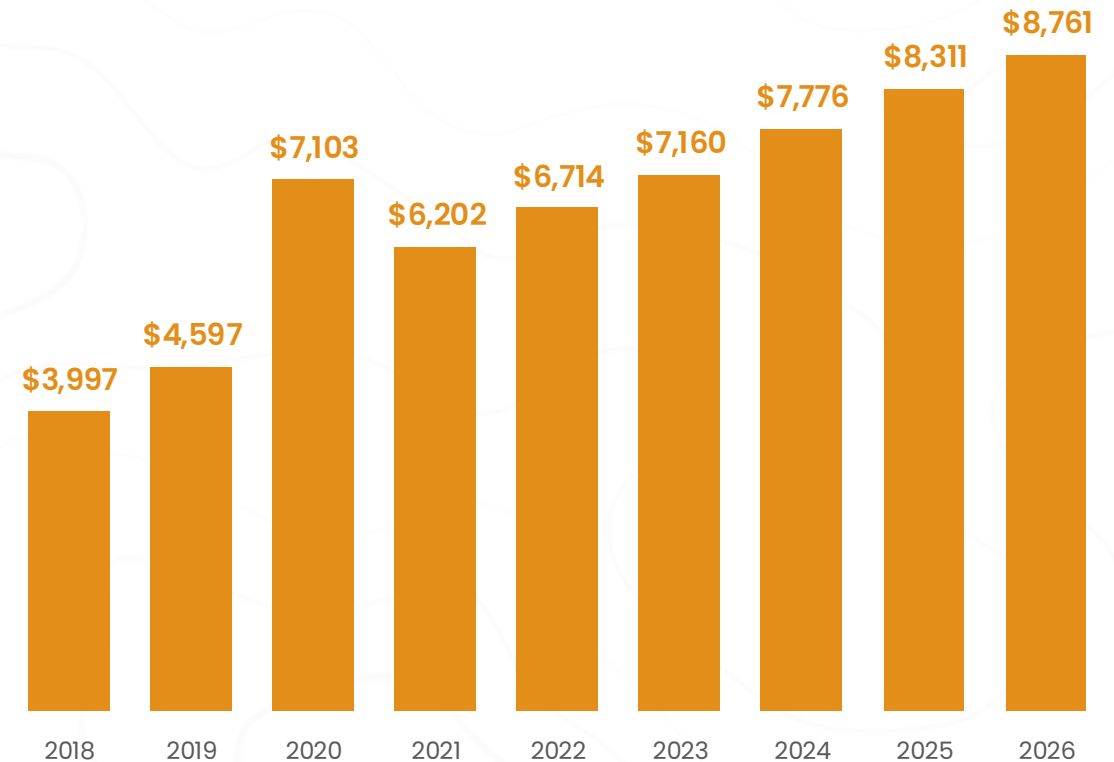
GOVERNMENT/DEFENSE
applications



COMMERCIAL
uses from sports
to drones



Global Thermal Camera Market (in \$ millions)

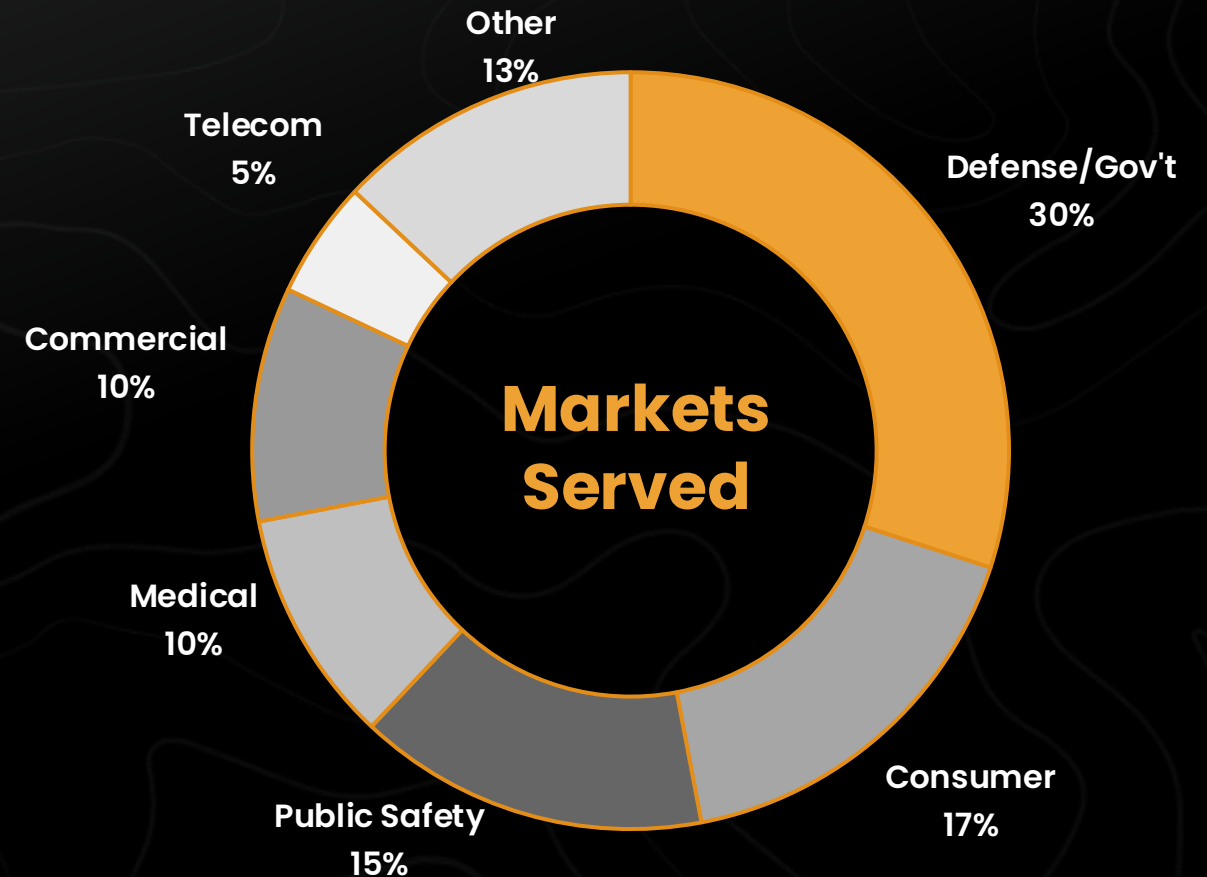


Markets Served Overview

Cameras and optics can be modified for different applications allowing LightPath to deliver solutions to a diverse market of verticals and **a growing defense and government segment**

"The beauty of Photonics is, that as an enabling technology that is embedded in products across many industries, it provides us with a built-in diversification across our customer base.

Sam Rubin, CEO



Key Product

Chalcogenide Glass

LightPath Black Diamond – Proprietary Chalcogenide Glass Solution



A made-in-the-USA cost effective
alternative to Germanium



The ONLY GLASS that enables use
of multi-spectral cameras reducing the
size, weight and cost of visual systems.



Annual capacity of 10 Metric tons
in Orlando facility



Germanium exports from China are banned – White House identified Germanium as a key strategic mineral with a potential supply chain liability



U.S. imports approximately \$675m
of Germanium for use in Optics, primarily
from Russia and China








11 Alternative Minerals
2 are fully qualified and fielded in DoD
systems (BD6 and BD2)



Key Product

Multi-Spectral Imaging Solutions

Innovative Technology in next generation multispectral imaging systems

-  **Common Aperture multiband** camera reduces weight, size and cost
-  **Key enabling** technology behind MANTIS
-  **Allows customers to use less devices in the field,** without sacrificing functionality
-  **Unique Material** exclusively licensed from the US Navy
-  Technological capability to produce application specific imaging solutions

Short Wave Infrared Camera (SWIR)



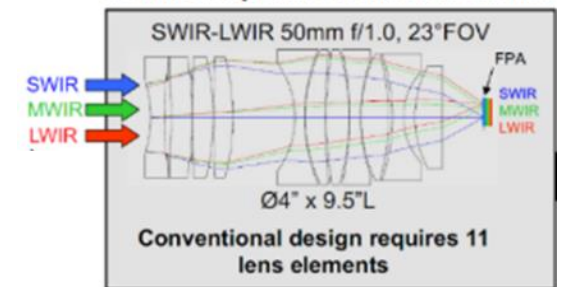
Mid Wave Infrared Camera (MWIR)



Long Wave Infrared Camera (LWIR)

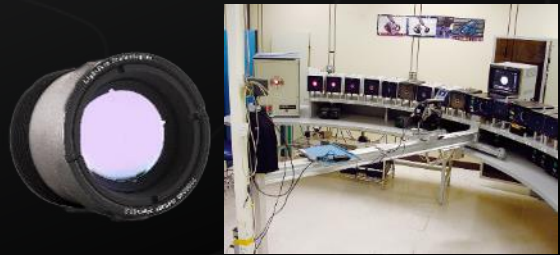


The New Technology,
Common Aperture Multiband Camera



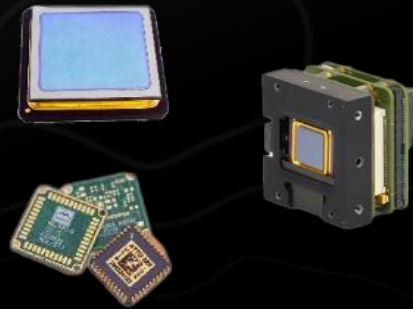
Next Level Customization

Capability to build custom sensor and software systems for cameras unlocks the production of highly customized variations on MANTIS for application specific use.



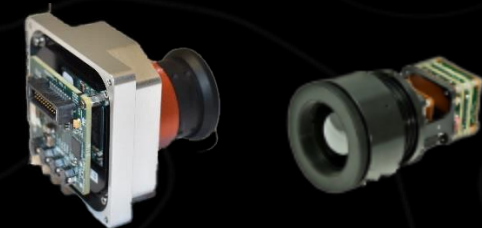
Custom lens assemblies using proprietary materials and expert optical calibration

+



Custom sensors, electronics, and software

=



Complete thermal camera specifically attuned to an OEM's intended use

Application Specific Imaging System

MANTIS™ Camera Solutions



Uncooled, Multispectral Infrared Camera

MANTIS Highlights:



First of its kind – The only solution of its kind that combines the functionality of a Mid Wavelength Infrared (**MWIR**) and Long Wavelength Infrared (**LWIR**) camera in one housing



No Germanium Used – White House identified Germanium as a key strategic mineral with a potential supply chain liability (China is the leading producer)



Produced Outside of China – A key benefit for securing supply chains China restricting Germanium exports



Uncooled – Able to image MWIR wavelengths without an expensive cryogenic cooling mechanism.



Inexpensive – Camera costs \$10-15k combining the functionality of a \$100k MWIR and \$3k LWIR camera.



Applications – Fire and Flame detection, industrial high temperature monitoring systems, handheld Mid Wave imaging for defense



Leverages proprietary Black Diamond™ glass that enables the camera's high level of performance.

LightPath Camera Solutions

LightPath 3.0 Product Lineup

LightPath's solutions prior to the acquisition of G5 were based on UNCOOLED cameras, addressing more affordable price point solutions (\$1K - \$30K), and mostly operating in the Long Wave Infrared (LWIR) spectrum

MANTIS

Dual Band Infrared
Camera



High Sensitivity (HS)

Short range drone detection,
Gas detection



Furnace Cameras

Inspection inside
furnaces



EdgeIR

AI-Ready infrared
Cameras



CST-Solo

Compact, low weight,
shutterless



EdgeIR

AI Ready Infrared Cameras

Acquisition of Visimid added the capability to build custom sensor and software systems for LightPath Cameras. This new capability unlocks the production of highly customized variations on MANTIS for application specific uses.

LightPath's IR Line of Cameras

LightPath Mantis Camera with custom Lens assemblies utilizing proprietary materials and expert optical calibration



Hailo's, 26 TOPS AI Accelerator

Custom Sensors, electronics, and software



Application Specific Imaging System

Complete infrared camera specifically attuned to an OEM's intended use



Cooled IR Camera Solutions

Long Range Imaging – Brought by G5 Acquisition

Applications:

Long Range Detection of Person & Vehicles



Border Protection

Naval



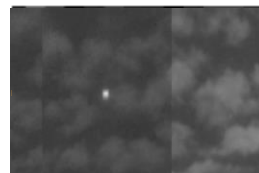
Ship Protection, Long Range Detection

Surveillance



Long Range Surveillance

Detection



Recognition



Identification



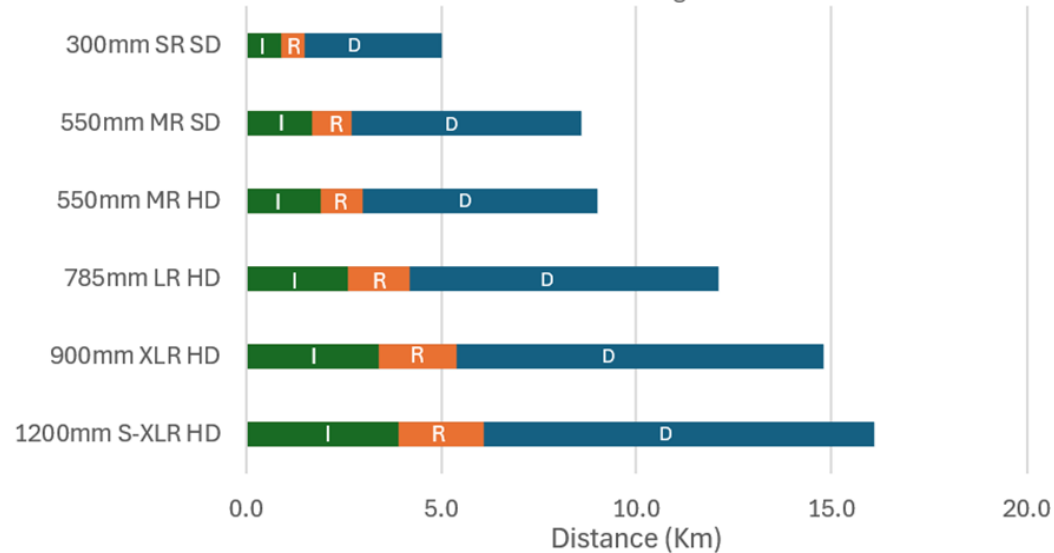
16Km

Counter Unmanned Aerial System (C-UAS)

High Growth Market – Portfolio of passive camera systems that can detect drones up to 17Km away without emitting any active signal

40cm Drone Example

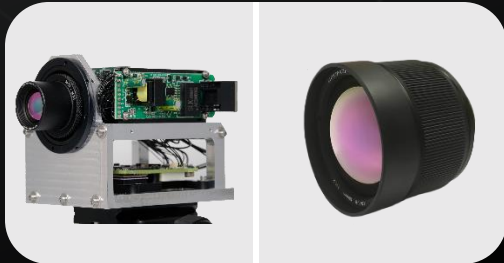
■ Identification ■ Recognition ■ Detection



3 Pillars of Growth

Products and solutions applicable to growing and diverse applications

Optical & Camera Assemblies



- Multispectral imaging systems
- Greater versatility, less parts at an attractive price (ASP ~\$1-30K)
- Total Customization

Government: Defense & Aerospace



- Unique materials provide an alternative to germanium
- Exclusive technology enables multispectral imaging. Cutting edge capabilities

Commercial Applications



- Oil and Gas plant emissions monitoring
- Gas producing plants provide a unique environment for LightPath's camera technology
- Smart City Technology utilizes multiple sensors and cameras to capture targeted activity

Government & Defense



Government & Defense

As global threat levels rise, LightPath solutions provide defense customers with solutions to meet the accelerating need for new advanced technologies.



Qualified optics supplier

Fastest growing market from 7.3% in FY20 to 16.7% in 2Q FY24



Direct funding

from multiple government agencies to accelerate and support the commercialization of the new materials



Exclusive license from DoD

for materials that are key to replacing germanium and next-gen performance of systems



Designed into a variety of new combat systems, including

military vehicles, aircraft, drones and missile systems



Short Range Air Defense System

Customer Name	Lockheed Martin Co.
Target Application	U.S. Army Stinger Missile
LightPath Product	I.R. Imager
RFQ/RFP timeline	RFP: March '23 RFQ: August '23
Start of Production (SOP)	Expected: LRIP: '27 SOP: '27
Project Lifespan	10-year program
Project Milestone(s)	Flight Test Review: Complete/Passed Initial Flight Test: March/May – '25
Expected Volume	Production rate: 10k units/yr.
Product requirements	In process
Target Price	\$5-10k/unit
Win Probability	50%/Sole Sourced to Lockheed Martin
Program of Record	Yes. (PE 0604117A)



General Program Timeline:

Design Phase	FY 2024
Initial Flight Test	CY 2025
Customer Tests	Sept. CY'25
Low-Rate Production (LRIP: 200+/- units)	FY 2027
Start of Production (SOP)	FY 2027

Note: Program is currently on Schedule

Consolidated Tower & Surveillance Equipment

Customer Name	Elbit of N. America
Target Application	Consolidated Tower & Surveillance Equipment (CTSE)
Lightpath/G5 product	Cooled Camera System
Start of Production (SOP)	Expected: LRIP: '25/'26 (current) SOP: '26/'27
Anticipated Project Lifespan	14-year program
Potential Revenue	\$5 - \$10m annually
Product requirements	Complete/In-house
Win Probability	85-90% (IDIQ between 3 primes)
Program of Record	Yes.

Program of Record –
– 024_000005289
Integrated Surveillance Towers



**PROGRAM
OF RECORD**

General Program Timeline:

Design Phase	FY 22-23	LRIP	FY 25
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Field Tests	FY 23	S.O.P.	FY 26
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Program Award Jan. '23

Note: Program is currently on Schedule

Commercial Applications

Industrial Applications

Mantis cameras are used to monitor high-temperature processes inside boilers and furnaces in power plants, while OGI cameras are used to detect gas leaks in energy production



Environmental regulations in the US and Europe are dramatically increasing in scope and complexity, requiring increasingly precise solutions for compliance and monitoring of the roughly 60% of generated power that comes from fossil fuels.



Solution can be tailored to monitor processes and allow precise environmental compliance controls and emissions tracking.



Allows **advanced monitoring and optimization of burn processes or gas emissions.**



Provides more **accurate and reliable monitoring of extreme-temperature processes** across a much larger range of temperatures than current technology, enhancing process safety and efficiency for customers.

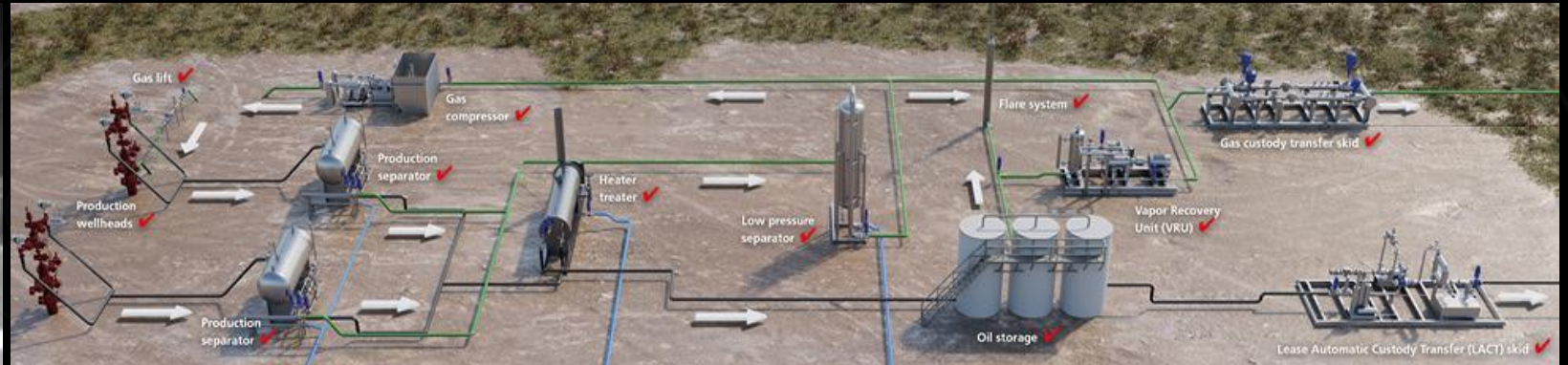
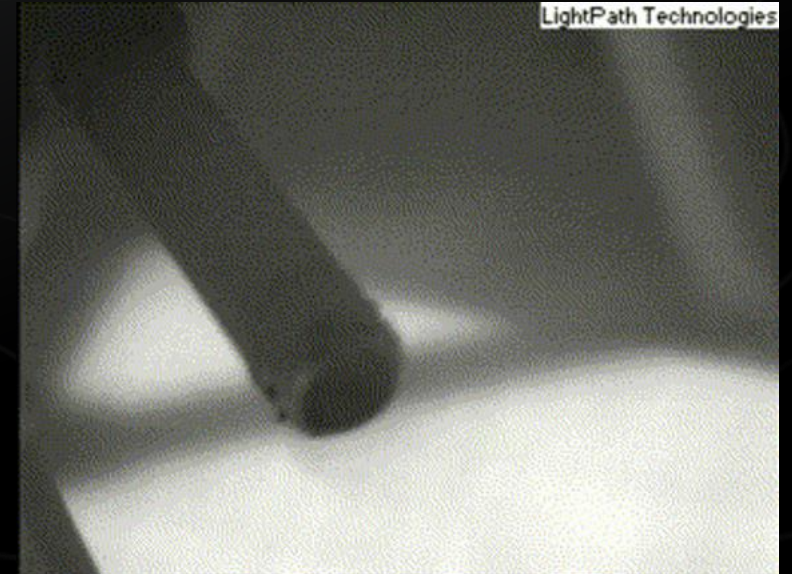


Oil & Gas

Fugitive Emission Monitoring

Uncooled OGI Cameras

Strategically placed around a well pad or Central Delivery Point continuously monitors methane emissions 24/7 tracking potential fugitive emissions.



Automotive & Smart Cities

Government proposal would require automatic emergency braking (AEB) in all cars and light trucks



Recent National Highway Traffic

Safety Administration proposed rule would go into effect in ~2029



LightPath thermal imaging

assembly has been qualified into one of the largest car manufacturers



Using thermal imaging to classify

objects in the field of view is easier and lower risk



LPTH ASP \$20-50

per vehicle

“Smart cities” using advanced technologies to enhance safety and infrastructure are appearing due to population growth and the need for efficient resource management

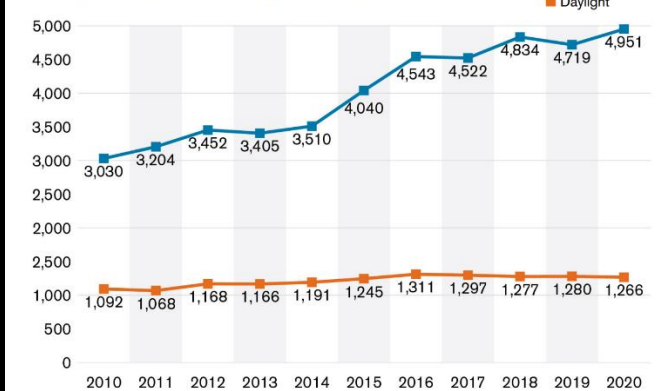


“Night Vision”

in existing Cadillac CT6



Pedestrian Fatalities by Light Condition, 2010-2020



Source: FARS

Significant Manufacturing Capacity

Orlando, Florida

Principal Production Facility

- 2023 facility expansion to 55,000 sq. ft. and 11,700 sq. ft clean room space
- Additional room to expand glass manufacturing, coating and assembly
- Principal production facility

Plano, Texas

Prototyping & R&D Hub

- Prototyping
- R&D
- Molded Lens Manufacturing
- Chalcogenide Production
- Diamond Turned Manufacturing
- Coating



Hudson, New Hampshire

Cooled Camera Production

- Acquired through acquisition of G5 Infrared in February 2025
- Brings advanced cooled camera production in-house (new product line) with top-of-the-line offering chiefly for gov. & defense markets

Riga, Latvia

E.U. Contract Production Hub

- Vertically integrated, able to produce complete components without depending on other LightPath facilities
- Principal facility supporting European defense contracts



3-5 Year Growth Framework

Substantially scaling revenue, EBITDA and profitability



Engineered solutions growth rate of **40 – 60%**



Components business growth rate of **10%**



Defense sales achieve **\$100 million**



Automotive customers in production and shipping **>100,000 units**



Successfully integrated **acquired technologies**



EBITDA margins **exceeding 15%**

Investment Highlights

Industry Opportunity

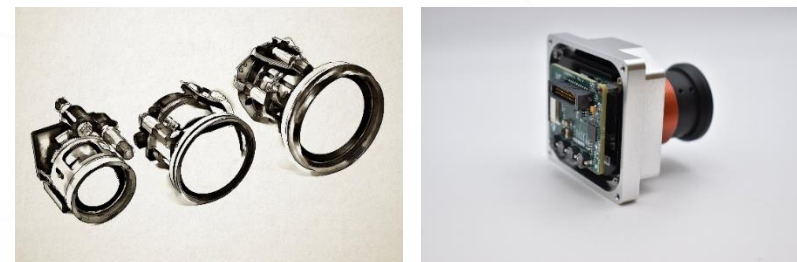
- **Multi-billion-dollar market in defense and commercial applications** for infrared imaging systems and technology including the MANTIS camera
- **Diversified core markets are** experiencing solid secular growth
- Black Diamond Glass is a US-produced alternative to Germanium

Strategic Direction

- An optical systems and solutions provider for high value customers
- **Accelerating pipeline** of government and military projects with key defense customers
- **New commercial applications** in the boiler & furnace, automotive sectors and optical gas imaging (OGI) sectors
- Drive greater efficiency with our deep design and manufacturing expertise and **vertically integrated global manufacturing base**
- **Market size and production** capabilities to drive revenue in excess of \$300 million in 5 years

“This strategy is based on our strengths and our core capabilities to address the largest and fastest growing trends in our industry for visible and infrared optical solutions.”

Sam Rubin, CEO





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