



L3HARRIS[®]
FAST. FORWARD.

UNRIVALED VISION SOLUTIONS

Providing Real-Time, Actionable Intelligence



SEE THEM BEFORE THEY SEE YOU

L3Harris leads the industry in engineering fully integrated mission solutions for international military and national security forces around the world. An original and qualified manufacturer of night vision imaging technology, L3Harris employs leading-edge thermal, Image Intensifier (I²) and fusion technologies to deliver solutions engineered to increase operator mobility, safety and Situational Awareness. L3Harris is dedicated to the quality, reliability and supportability of all our fielded systems.

OUR I² UNFILMED TUBES DELIVER THE WORLD'S HIGHEST NIGHT VISION PERFORMANCE. PERIOD.

For over five decades, L3Harris has equipped forces with superior MIL-SPEC, weapon shock-grade I² tubes and electro-optical night vision equipment. 100 percent of these advanced solutions are made in the United States.

Our Gen III unfilmed I² tubes provide the best image resolution, sensitivity and Signal-to-Noise Ratio (SNR) in currently fielded night vision devices. Our innovative technologies include an auto-gated power supply—to protect tubes from sudden light level increases and add significant performance capabilities in mixed light-level conditions on the battlefield and in urban and rural environments.

GEN III WHITE PHOSPHOR DELIVERS A CLEAR DIFFERENCE

L3Harris unfilmed I² tubes are available in standard green and improved white phosphor for greater target detection and recognition.

Low-light and nighttime maneuvers appear more natural in black and white with greater contrast detail and depth perception in shapes and shadows. This gives operators more visual information for assessment and acquisition, increasing accuracy and effectiveness.

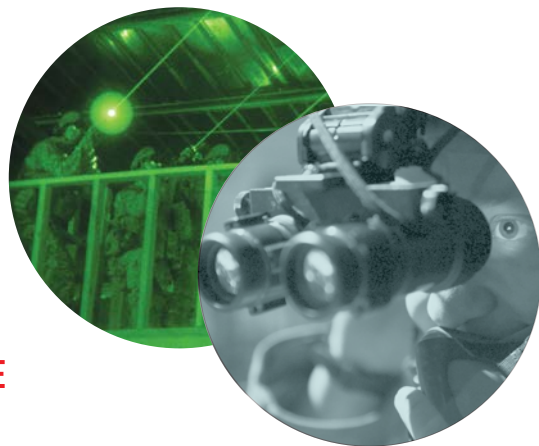
OVERMATCH FOR EVERY OPERATION, EVERY TIME

L3Harris unfilmed I² tubes have been in production for more than 15 years and test at more than twice the U.S. DoD requirement of 10,000 hours.

This is why our most discriminating Special Forces customers choose our unfilmed tubes to get a clear advantage in executing successful missions.

The unfilmed tubes prevent image defect, and there are smaller halos

and higher SNRs, all resulting in unrivaled performance. Resistance to weapon shock is far superior to filmed tubes, making them an ideal solution for weapons-mounted applications. Low-light performance is unparalleled and auto-gating capabilities don't sacrifice audibility. L3Harris unfilmed tubes are quiet—especially important in multi-tube goggle applications. There is no disturbing ringing or humming to distract users from what they need to hear to complete operations.



White phosphor image intensifiers provide superior contrast detail

I² TUBE SOLUTIONS



11769 I² Tubes (Commercial version of the U.S. Military MX-10130D)

The 11769 features a Gen III photocathode, increasing sensitivity to low levels of visible and Near-Infrared light. A thin-film ion barrier greatly extends the tube life. This tube also provides variable gain control and comes in black noryl housing.

- > Inverting optic
- > Military-grade blem spec
- > Available in unfilmed Figure Of Merit (FOM) levels above 1800*

Used in the AN/PSQ-42 ENVG-B, BNVD and BNVD-Fused Night Vision Goggles



10160 I² Tubes (Commercial version of the U.S. Military MX-10160)

The 10160 Gen III photocathode increases sensitivity to low levels of visible and Near-Infrared light. It has a thin-film ion barrier to greatly extend Gen III I² life versus Gen II tubes. It comes in black noryl housing.

- > Inverting optic
- > Military-grade blem spec
- > Available in unfilmed FOM levels above 1800*

Used in the GPNVG and AN/PVS-15 (M953™) / (M983™) Night Vision Systems



10160 Aviator I² Tubes (Commercial version of the U.S. Military MX-10160)

The 10160 aviator-grade tube with Gen III photocathode is very sensitive to low levels of visible and Near-Infrared light. It has a thin-film ion barrier to greatly extend Gen III I² life and electromagnetic shielding. It comes in silver bullet housing.

- > Inverting optic
- > Military-grade blem spec
- > Available in unfilmed FOM levels above 1800*

Used in the AN/AVS-6/9 (M949™) Night Vision Goggle

All I² tubes are available in green or white phosphor.

* Gen III I² tubes are available at various performance levels and exportable subject to Department of State approval.

UNRIVALED PRECISION TECHNOLOGIES

The ergonomic design of our I² solutions reduce head-borne weight and neck strain, enhancing force speed and operational longevity. They are engineered for a wide variety of deployments and unique customer needs.

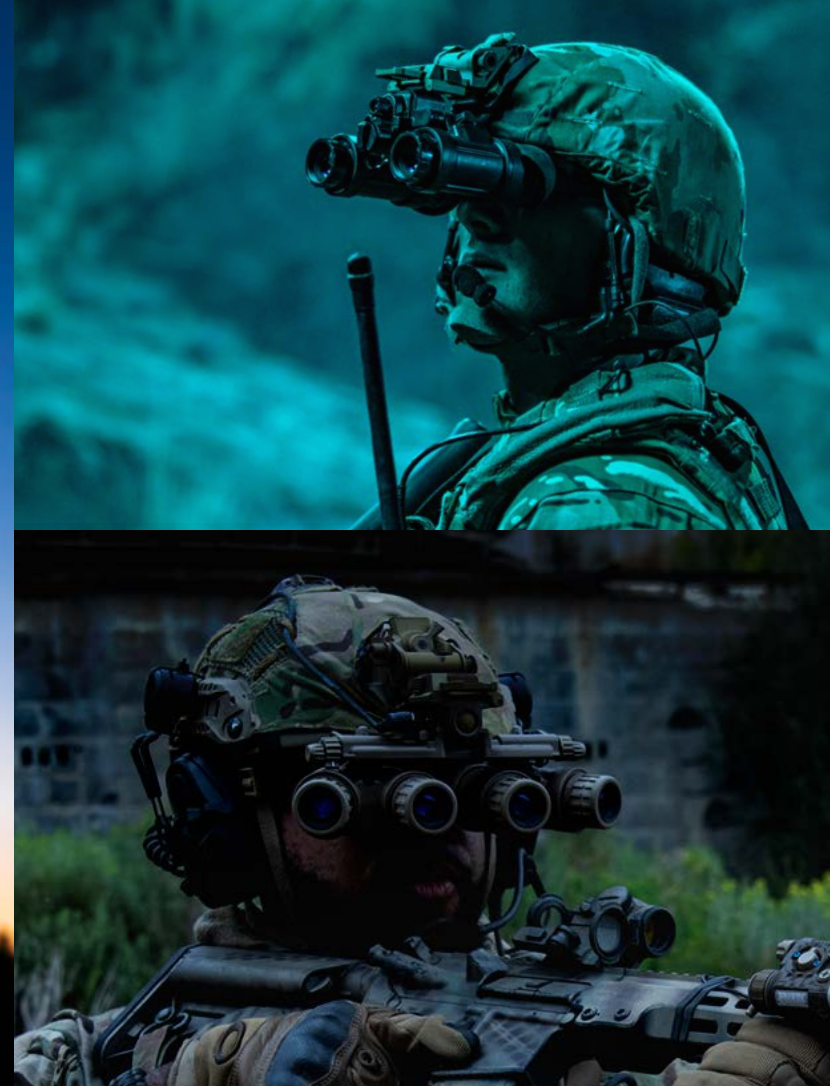


IMAGE-INTENSIFIED SOLUTIONS



AN/PVS-31/31A
Green or White Phosphor
Binocular Night Vision Device (BNVD)

The AN/PVS-31/31A ergonomic, low-profile design reduces head-borne weight and neck strain and delivers superior Situational Awareness compared to single-tube goggles.

- > Manual adjustable gain
- > Auto OFF when stowed; resumes power when deployed
- > Internal low-battery indicator visible in optics
- > Replaceable I² tubes



BNVD-1531
Binocular Night
Vision Device

The BNVD-1531 features a streamlined, ergonomic design to enhance operator agility. The goggle is also engineered for versatile use, supporting helmet-mounted, head-mounted or handheld system.

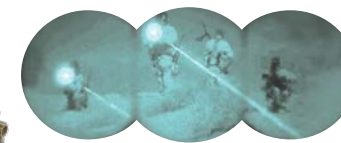
- > Manual system gain and focus adjustments to optimize image quality
- > Adjustable diopter eyepieces
- > Integrated infrared illuminator for map reading
- > Rotating binocular design provides low-profile helmet stow and optional monocular use
- > Replaceable/upgradeable I² tube assemblies



GPNVG
White Phosphor
Ground Panoramic Night Vision Goggle

The GPNVG is a wide field-of-view, helmet-mounted night vision device with white phosphor tube technology adding greater contrast detail in shapes and shadows, giving operators more visual information for assessment and acquisition.

- > Wide panoramic 97° field-of-view image
- > Available with ANVIS or BNVIS mount supporting multiple helmet and mount configurations
- > Individual monoculars can be detached and used as a covert handheld night vision device
- > Meets military environmental specifications
- > Uses four commercially available 18 mm MX-10160 style I² tubes



Panoramic Night Vision
Provides a wide 97° field-of-view



FUSED TECHNOLOGIES

L3Harris is the only company today shipping leading-edge, combat-ready augmented reality solutions. Our Night Vision I² fused with thermal imaging provides forces with advanced capabilities to target, engage and neutralize threats. Our fused technologies deliver top performance even in adverse conditions, including fog, rain, snow and smoke, and during the darkest of nights or daytime operations.

BNVD-FUSED Binocular Night Vision Device – Fused

BNVD-Fused is a dual-waveband, helmet-mounted goggle engineered to significantly improve operator Situational Awareness.



Fused outline mode



White-hot fused overlay view

- > Rotating binocular design provides low-profile helmet stow
- > Monocular option supports dominant and non-dominant eye
- > Gen III I² tubes with auto-gated technology prevents damage in high-light environments
- > Twin tube design provides greater protection against failure or damage versus single-tube devices



THERMAL TECHNOLOGIES

Our thermal imaging IR solution penetrates through adverse conditions by sensing the heat signature of a target. This device does not need any ambient light for forces to assess a situation and is as effective during day or nighttime operations.

LWTS-LR Light Weapon Thermal Sight – Long Range

The LWTS-LR is a next-gen, long-range, weapon-mounted thermal sight capable of long-wave infrared observation and target identification in extreme environments and low light to total darkness.

- > High-resolution display and integrated technologies provide exceptional imagery
- > Engineered for medium- and heavy-caliber weapon platforms
- > Significantly improves Detection, Recognition, Identification
- > Standard range also available



White hot view



Black hot view

AIMING & ILLUMINATION SOLUTIONS

L3Harris IR aiming and illumination solutions improve Situational Awareness in extreme darkness, allowing forces to signal their location and mark targets with beams of light only visible in the night vision goggle.



NGAL Next Generation Aiming Laser

The NGAL is a ruggedized, ultra-compact, lightweight system designed for compatibility with all generations of night vision solutions.

- > Significantly reduced Size, Weight and Power (SWaP)
- > Independent aim and illuminator boresight adjusters
- > Co-aligned aiming beams with boresight retention ≤ 0.5 mrad



AN/PEQ-15 Advanced Target Pointer Illuminator Aiming Laser (ATPIAL)

The ATPIAL is a small, lightweight night vision solution with integrated infrared and visible aiming lasers.

- > Co-aligned visible and IR aim lasers
- > Variable pulsed IR illuminator
- > Hardened for use on small arms and crew-served weapons



LA-5/PEQ Advanced Target Pointer Illuminator Aiming Laser – High Power (ATPIAL-HP)

The ATPIAL-HP is a lightweight, easy-to-use aiming system with an 80 mW IR illuminator.

- > Co-aligned visible and IR aiming lasers
- > Variable pulsed IR illuminator
- > Integral Rail-Grabber™ interface
- > Heavy weapon and machine gun-hardened

 VISIBLE AND INVISIBLE LASER RADIATION. AVOID EXPOSURE TO BEAM. CLASS 3B LASER PRODUCTS.



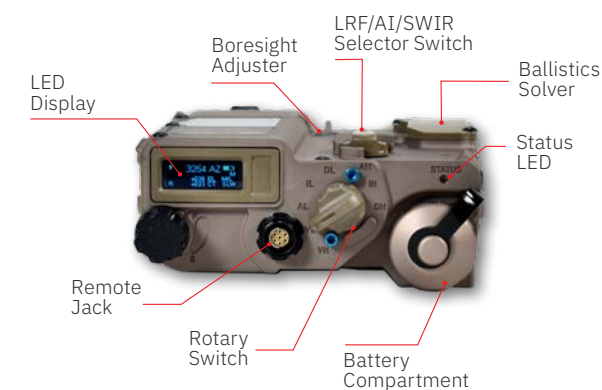
RANGEFINDER & PRECISION TARGETING SOLUTIONS

L3Harris is a world leader in night vision targeting solutions, giving operators critical advantages—enhancing performance and target visibility while allowing forces to remain undetected.

SPEAR Small Precision Enhanced Aiming Rangefinder

SPEAR provides extended-range performance and incorporates an integrated ballistic calculator for improved first-round hit probability.

- > High-performance Erbium glass laser resonator
- > Short-Wave Infrared marking and illumination
- > High-accuracy DMC and external GPS interface



 VISIBLE AND INVISIBLE LASER RADIATION. AVOID EXPOSURE TO BEAM. CLASS 3B LASER PRODUCTS.



CUSTOM-TAILORED VISION TECHNOLOGIES

L3Harris Integrated Vision Solutions is dedicated to working closely with customers to understand their operational challenges and deliver right-sized solutions. Our design, engineering and manufacturing facilities feature world-class technologies, the industry's best-trained workforce and expert customer service and support.



Complete Design, Test, Manufacturing, Quality and Logistics

- > 106,000 sq. ft of production
- > 20,000 sq. ft of engineering labs
- > Over 6,500 sq. ft of clean rooms
- > Full-service product development
- > Total product lifecycle management, including dedicated logistics and repair center, technical publications, user and training manuals and on-site and remote user training



Londonderry, New Hampshire, U.S.A. facilities

Industry-Leading Image Intensifier Technologies

- > 116,000 sq. ft facility
- > Leading-edge engineering and manufacturing processes
- > Specializes in unfilmed and auto-gated tubes in both white and green phosphor
- > Produces Gen III I² solutions employed by military, law enforcement and commercial customers
- > More than one million units delivered over 50 years



Tempe, Arizona, U.S.A. facility

FAST. FORWARD.

Unrivaled Vision Solutions - Intl

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L3Harris Technologies is the Trusted Disruptor in the defense industry. With customers' mission-critical needs always in mind, our ~50,000 employees deliver end-to-end technology solutions connecting the space, air, land, sea and cyber domains in the interest of national security.



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