

# PortLight™

## Long-Range All Weather Day & Night Observation and Identification System

### Technical Specifications

General Guidelines to Long Range Imaging:

Defining visibility in bad weather is subjective and inexact; however, demonstrated experience for "Expectations" and "Comparisons" are below:

At sea during night, recognize...

- Man's head: 2,000m
- Man's head in heavy rain: 1,500m
- RHIB, RIB, IB: 5,000m
- RHIB, RIB, IB in heavy rain: 4,000m
- Flashing lights
- Foot tall letters on ship's hull: 10,000m
- Foot tall letters on ship's hull in heavy rain: 7,000m
- Ship: 16,000 meters
- Ship in heavy rain: 10,000m
- All objects through fire, or extreme heat

### General Characteristics

- Sensor head dimensions: W = 280mm, D=420 mm, H=200 mm (approx)
- Control serial link: EIA-RS-422
- Power supply: 220V/110
- Power consumption: 500 watts in night mode

### Environmental

- Designed and tested for harsh north sea weather conditions
- Designed to IP67 level

### LGI Night Camera

Sensor Type	LGI 2/3" B&W Coupled CCD to a gated Image Intensifier		
Spectral Range	808 ±15 nm		
Resolution (HxV):	640 X 480		
Angle of View (H x V):	Narrow	0.32° X 0.24°	Conti. Zoom
	Wide	18.75° X 14.12°	
Laser Illuminator Field of View	0.34°		

### Color CCD Day Camera

Sensor	2/3" color CCD		
Resolution (H x V)	640 x 480		
Angle of View (H x V):	Narrow	0.32° X 0.24°	Cont. Zoom
	Wide	18.75° X 14.12°	
Angel of View with Extender X2 (H x V):	Narrow	0.16° X 0.12°	Cont. Zoom
	Wide	9.44° X 7.09°	

### Both Day and Night Cameras share the same single lens:

Zoom Lens	D60x12.5R2DE-ZP1	
Focal Length (mm)	Extender 1x	Extender 2x
	12.5 - 750 (60x)	25-1500 (60X)
Aperture Range	F3.8 - F7.1	F7.6 - 14.2



PortLight™ ship at night with birds: 6km



PortLight™ thermal and LGI name: 6km



PortLight™ man transfer to ship with birds: 6km

# PortLight™

Long-Range All Weather Day & Night Observation  
and Identification System





## All Weather Day & Night Observation and Identification System

### Long Range Active Gated Imaging

PortLight™ is a unique **long range** all weather day & night vision system based on Gated Imaging technology. Designed for long range observation and identification, PortLight™ allows you to clearly distinguish objects and details even at distances of around 16 Km or 10 miles at night or day.

- *Identify targets at night in their natural contrast like daytime, and in adverse weather conditions without moon, starlight or night glow*
- *Classify targets typically indistinguishable shadows compared to other technologies*
- *Present clear images in complete darkness: objects, signs, ship names, fishing lines, and human activity easily identified and understood*
- *Slave to Radar, sensor triggers, or other alarm inputs for fastest identification and classification*

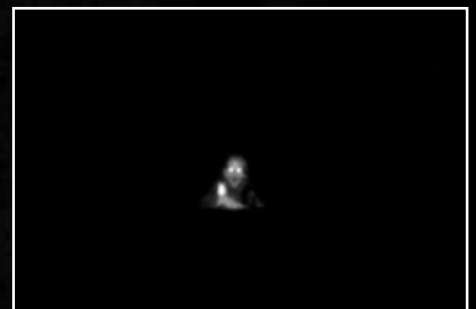
PortLight™ is designed to answer stringent Customs, coastal and port surveillance application demands. The need to read and identify vessel names at great distances during day and night and in any weather condition is a major requirement.

PortLight™ allows monitoring and surveillance crews to perform daytime tactics at night, providing image quality as clear as day.



*PortLight™ pilot boat in heavy weather: 6Km*

*Pirates in RHIB in dead of night range: 1500 meters or 1640 yards, 0.9 mile*



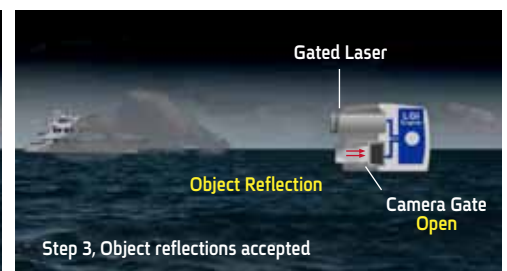
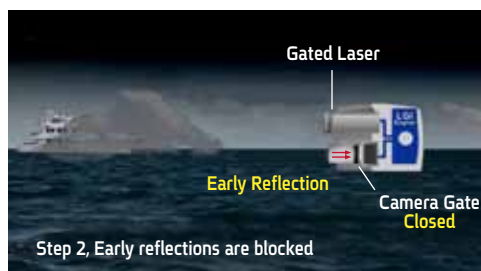
*Man in water in dead of night:*

*1,500 meters or 1640 yards, 0.9 mile*

See better at night than at day  
in all weather

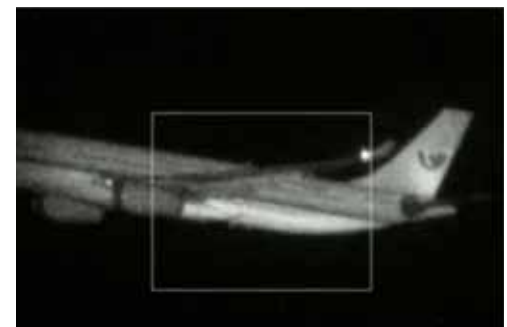
The next evolutionary  
visual extension of the eye

### How it works:



### Major Advantages

- Night recognition and identification for quick target classification and identification
- No “blooming” from any light source
- Nighttime nameplate reading (letters and numbers)
- Human facial ID for identification at night
- Penetrates rain, snow, dust, windows and flames
- Modular, open system architecture adapts to E/O and radar solutions
- Easily integrates with existing surveillance systems as upgrade program
- Real-time image stabilization & image enhancement
- Advanced automation operating modes – auto target finding, scanning, object tracking, etc.



### Market Applications

- Coastal security
- Port security
- Critical infrastructure security
- Border security
- Maritime navigational aid
- Ship security
- Safety



Images shown were taken from actual raw data video shot of scene with PortLight™