

LSEOS

LIGHTWEIGHT SHIPBOARD ELECTRO-OPTICAL SYSTEM

FIRE CONTROL AND SURVEILLANCE SYSTEM

COMBAT-READY, STABILIZED E/O FIRE CONTROL

Whether on the open sea or in tight littoral regions, fast, accurate weapon response is critical to survival. The L-3 Brashear LSEOS fire control and surveillance system combines high precision electro-optical performance with proven marine ruggedness and durability. The LSEOS integrates easily with shipboard systems to accurately:

- Acquire and track inbound sea and air targets
- Predict target's future position to maximize intercept success (full-solution fire control)
- Slew the weapon to the correct aiming position
- Engage the threat and fire the weapon

COMPACT, FLEXIBLE, EASY TO INSTALL

Lightweight, easy to install and integrate, adaptable to wide range of electro-optical sensors, and mission reconfigurable, the LSEOS is an exceptionally versatile and functional system.

RAPID SURFACE OR AIR ON- TARGET RESPONSE

To rapidly and effectively counter today's emerging littoral threats the LSEOS is designed to provide:

- Open architecture - user defined payloads
- Exceptional manual and automatic target tracking
- Complete short and long-range surveillance
- Maximized line of sight stabilization
- Optimal fire control (full ballistic solution) for a wide range of weapons

EXCEPTIONAL FOR NEW AND RETROFIT VESSELS

LSEOS is used for fire control as well as surveillance, covert tracking, and damage assessment. LSEOS can be used on vessels as small as patrol boats up to frigates.

LSEOS CONFIGURATION

The standard system is comprised of the following components:

- Electro-Optical Director (EOD)
 - MkIIA Stand-alone fire control system
 - MkIIB Integrated combat configuration
- Pedestal Electronics Cabinet (PEC)
- Weapons Control Module (WCM)
- Weapons Control Console (WCC)
- Bridge Surveillance Console (BSC)



LSEOS

LIGHTWEIGHT SHIPBOARD ELECTRO-OPTICAL SYSTEM

SPECIFICATIONS

OPERATING PARAMETERS

Characteristics	Performance/Comments
Modes of Operation.....	STANDBY, CALIBRATION, SURVEILLANCE, BATTLE
*EOD LOS Angular Travel:	
AZ.....	Continuous (slip rings)
EL.....	-30 to +85° (relative to ship's deck)
From Each Characteristics To Each Performance/Comments	
*EOD LOS Slew Rate(Gyro Stabilized):	
AZ and EL.....	>75 deg/sec
*EOD LOS Slew Acceleration (Gyro Stabilized):	
AZ and EL.....	150 deg/sec ²
EOD Sensors:	
IR Imager.....	3 to 5µm and/or 8 to 12 µm
ESLRF.....	1 to 10 pps (user defined)
TV.....	Black & white or color, 30 fps
Engagement Time (from the tracking mode to engagement mode).....	
	One sec maximum
Surveillance Tracking Accuracy.....	
	0.25 mrad (1 sigma) each AZ and EL
Fire Control Accuracy:	
Sea Target.....	0.5 mrad (1 sigma) each AZ and EL
Air Target.....	0.75 mrad (1 sigma) each AZ and EL
LOS Stability.....	
	0.5 mrad RMS for each AZ and EL @ Sea State 3
Power Consumption.....	
	115V, 60 Hz, 1 phase
Mk-IIA Operation Average: 1.7 kVA; Peak Operation: 3 kVA	
Mk-IIB Operation Average: 650 VA; Peak Operation: 2.1 kVA	

* Performance data measured with sensors mounted on EOD

DIMENSIONS & WEIGHT

EOD: 46 in. (1,174 mm) W x 34 in. (865 mm) H; 455 lbs (207 kg)

PEC: 28 in. (712 mm) W x 69 in. (1,727 mm) H x 22 in. (571 mm) D; 211 lbs (96 kg)

WCC: 24 in. (610 mm) W x 63 in. (1,610 mm) H x 41 in. (1,040 mm) D; 570 lbs (259 kg)

WCM: 16 in. (410 mm) W x 20 in. (510 mm) H x 7 in. (183 mm) D; 49 lbs (22 kg)

Maximum System Weight: 1,285 lbs (584 kg)



Electro-Optical Director (EOD)

Brashear

615 Epsilon Drive
 Pittsburgh, PA 15238
 Tel : 412-967-7700
 Fax: 412-967-7973
www.L-3Com.com/Brashear



Weapons Control Console (WCC)



Bridge Surveillance Console (BSC)



Pedestal Electronics Cabinet (PEC)



Weapons Control Module (WCM)



communications
 Brashear

L-3. Leading. Headquartered in New York City, L-3 Communications employs over 63,000 people worldwide and is a prime system contractor in aircraft modernization and maintenance, C3ISR (Command, Control, Communications, Intelligence, Surveillance and Reconnaissance) systems and government services. L-3 is also a leading provider of high technology products, systems and subsystems. The company reported 2006 sales of \$12.5 billion.

Specifications subject to change without notice. Call for latest revision. All brand names and product names referenced are trademarks, registered trademarks, or trade names of their respective holders.

Cleared by DoD/DFOISR for public release under #05-S-0688 on 07/20/05.