



# FEB - optronic fire control system

## GENERAL

**FEB** is an electro-optical observation and tracking system for gun armed vessels, based on optronic sensors - TV and IR cameras and laser rangefinder. On board it is used as a standalone system or integrated with ship's information and weapon control system.

With some modifications, it can be used as a land-based observation and target tracking system.

Main functional capabilities are:

- Optical surveillance of air and surface targets
- Target acquisition
- Target tracking
- Information communication with other systems (Deimos)
- Gun fire control of surface and air targets

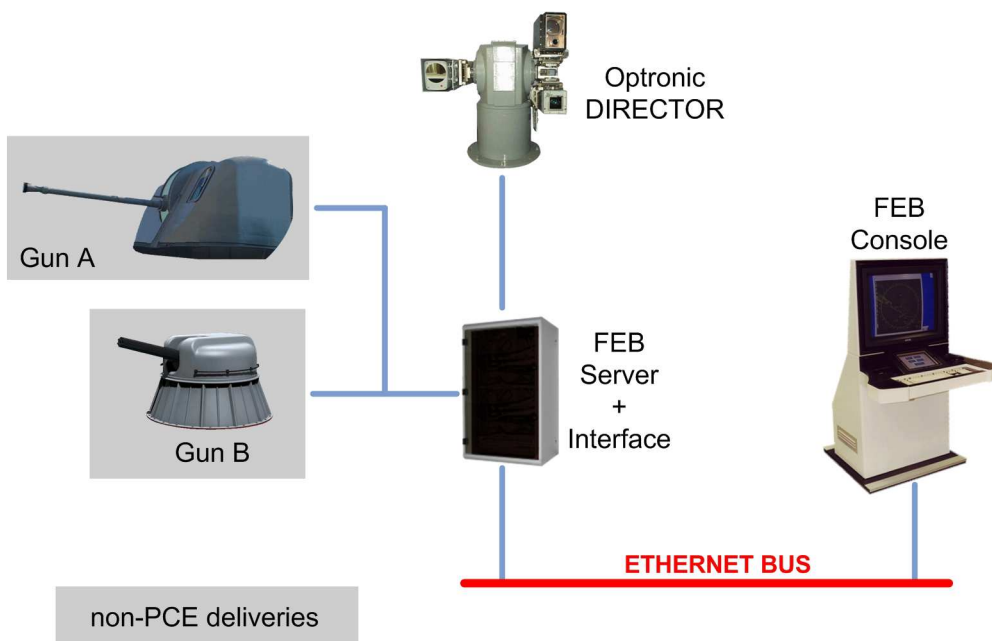
**FEB** is designed to co-operate with the shipboard Command and Information System.

For complete functionality, **FEB** communicate with other systems on board:

- Ship mains
- Log
- Navigation radar system
- Search radar system

Standard user interface for **FEB** system is a Multi Function Console - MFC.

## FEB - Optronic Fire Control System



## SYSTEM STRUCTURE

### Optronic director

Stabilized platform with high-precision electrical motor drive and optronic sensors.

Surveillance and tracking is performed with TV or Infra-Red dual field-of-view camera. Surveillance area is 0 - 360° bearing and 0 - 80° elevation. Target range is measured with laser rangefinder within range of 20 km.

### FEB control computer system

FEB control system is a multicomputer architecture which performs all calculations, user control functions, optronic director servo control and TV/IR target tracker control functions. For its calculations FEB computer receive data(heading, velocity, roll, pitch, wind) from ship's sensors. System communication with user interface equipment is performed by means of Ethernet LAN.

### Operator console

Standard user interface for shipborn applications is Multi Function Console MFC. All control functions and presentation on the FEB system are performed by this console. For land-based surveillance and target tracking applications, FEB can use other type of user interface equipment.

## MAIN TACTICAL TECHNICAL DATA

### Target data (max)

- Range	20 km
- Bearing	0 - 360°
- Elevation	0 - 70°
- Angular velocity	10 °/s

### Optronic director

- Type	two axes - bearing/elevation
- Drive	electric, direct drive
- Bearing coverage	unlimited
- Elevation coverage	-25° – +80°

### TV camera

- Type	CCD
- Field of view (diag)	narrow 2.5°
	wide 9°

### IR camera

- Wavelength	3 - 5 μm
- Field of view	narrow 2.0x1.5 °
	wide 7.2x5.4 °

### Laser

- Range	20 km
- PRF	1 / 3 / 8 Hz
- Resolution	5 m



FEB Optronic director on the missile corvete

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