



# DEIMOS - fire control system

## GENERAL

**DEIMOS** is a radar observation and tracking system for gun armed vessels. On board it is used as a standalone system with target tracking system or integrated with ship's information and missile control system.

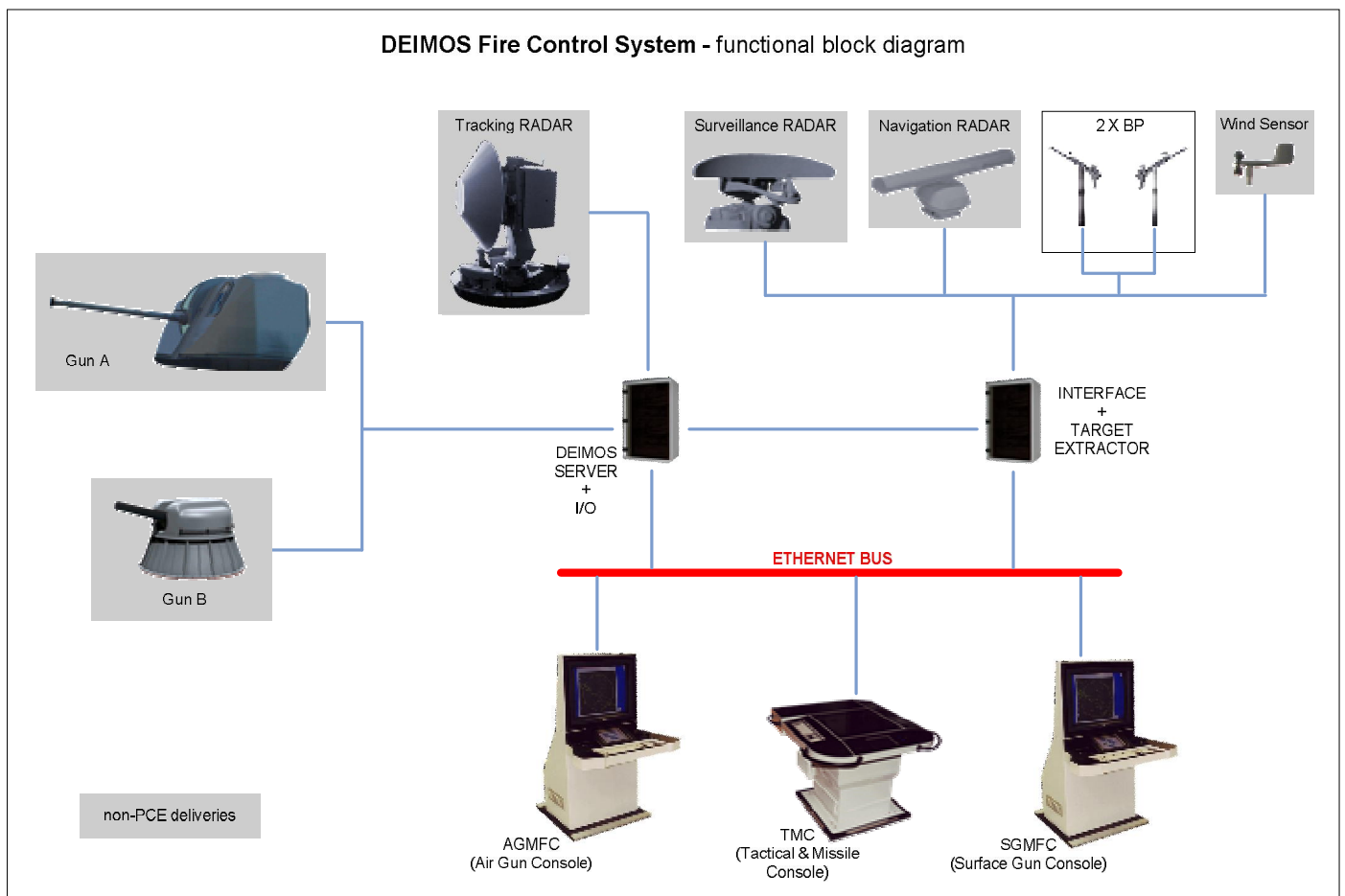
Main functional capabilities are:

- Radar surveillance of air and surface targets
- Target acquisition
- Target tracking
- Information communication with other systems (**FEB, FOBOS, LINKEJ**)
- Gun fire control of surface and air targets

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

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

Standard user interface for system **DEIMOS** are air and surface Multi Function Console–MFC and Tactical Missile Console–TMC.



## SYSTEM STRUCTURE

### DEIMOS control computer system

DEIMOS control system is a server-client computer architecture which performs all calculations, user control functions, director servo control and target tracker control functions. For its calculations DEIMOS computer receive data from ship sensors - course, speed, bearing, range, roll, pitch and wind data. System communication with user interface equipment is performed by means of Ethernet LAN.

### Operator console

Standard user interface for shipborn applications are air and surface Multi-Function Console-MFC with Tactical Missile Console-TMC. All control functions and presentation on the DEIMOS system are performed by these consoles.

### Director

Stabilized platform with two hydraulic motors and radar in K<sub>u</sub> band.

Surveillance and tracking are performed with radar and TV camera. The director forms the main part of the tracking system and can work in a variety of modes.

### Search radar

The main part of the search system comprises an X-band frequency agility radar consisting of an antenna and a transceiver.

The antenna turntable is fully stabilized. Besides the search and detection tasks, the radar also shell give data accurate enough for designation to the tracker system and information that will enable TWS-tracking of surface targets.

Note: Director and search radar are not PCE delivery.

## MAIN TACTICAL TECHNICAL DATA

### Own ship:

- Roll/Pitch angle             $\pm 25^\circ / \pm 10^\circ$  max
- R/P angle velocity        25 / 10 °/s max
- Speed                        25 m/s max

### Air targets:

- Director Range            25 km
- Bearing                    0 – 360°
- Bearing velocity          10 °/s max
- Altitude for full accuracy 0 – 3000 m
- Elevation                  0 – 70°, relative horizon

### Surface targets:

- TWS own Search radar    1.3 – 55 km
- Speed                        45 m/s
- Plot evaluation            Centroid
- Plot filter                  Modified Kalman
- Number of targets        16



Gun-Control Console combat situation

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