



TÜBİTAK
BİLGEM



MÜREN-PREVEZE CMS

INTEGRATED UNDERWATER COMBAT MANAGEMENT SYSTEM
PREVEZE CLASS APPLICATION

MÜREN-PREVEZE CMS is an indigenous integrated underwater combat management system developed for Preveze Class submarines. The system provides an holistic solution for target detection, tracking and classification functions through integrated sonar sensors and nonacoustic sensors.

MÜREN-PREVEZE CMS performs system track management, target motion analysis, and tactical navigation functions with Command Control and Weapon Control units; and has the capability to launch and guide 4 modern heavy-weight torpedoes simultaneously.



MÜREN-PREVEZE CMS

INTEGRATED UNDERWATER COMBAT MANAGEMENT SYSTEM PREVEZE CLASS APPLICATION

Integrated Sonar Sensors

CAS BDT, DEMON

FAS BDT, DEMON, LOFAR

PRS BDT

IPS

IDRS

AOS

ONA

Non-acoustic Sensors

ESM

Radar

LINK T1/22 and WAIS (ADVENT SYS)

VLF

Search and Attack Periscopes

EchoSounder

Ship Data Distribution System (SDDS)

TCMS(DAKA)

Sonar Sensor Functions

Broadband Detection and Tracking

Narrowband Detection and Tracking

Passive Ranging

DEMON and LOFAR Analysis

Intercept Pulse Analysis

Transient Noise Analysis

Own Noise Analysis

Active Ranging

COMMAND AND CONTROL FUNCTIONS

Target Motion Analysis (TMA)

Target Maneuver Detection

Operator Support Feature for TMA Solution

System Track/Target Management

Sensor Fusion

96 System Targets (32 TMA, 64 non-TMA)

Tactical Navigation

- Electronic Sea Chart Display (S57 and S63 support)
- Route Planning and Evasion Maneuver from Threats
- Positioning According to the Closest Point and Time of Approach to the Target

Threat and Combatability Analysis

WEAPON CONTROL FUNCTIONS

Simultaneous Launch and Guidance of 4 Torpedoes

Attack Planning/Copying and Engagement Management on Each Console

Emergency Surface/Underwater and Snapshot Torpedo Firing Capability

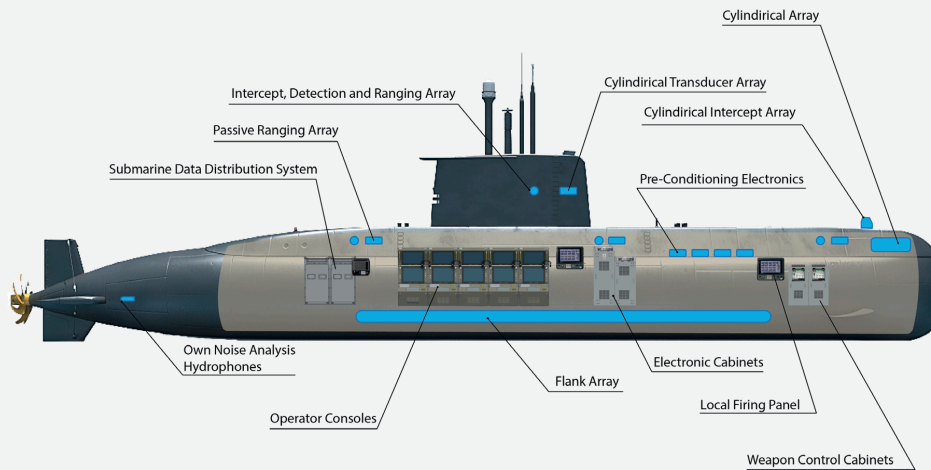
Management of Firing Interlocks, Warning and Information Messages

Board Guidance and Manual Guidance Option

Monitoring the Status of 8 Tubes Simultaneously

Torpedo Sonar Display and Audio

Communication Wire/ A-Cable Closed Loop Tests



SYSTEM FEATURES

Distributed and Modular Software Architecture using National Middleware Software (Genieware)

Redundancy at Network, Processor and Application Levels

5 Operator Consoles with Touchscreen Quick Entry Panel

Local Firing Panel for Torpedo Launch Independent from Sensors and Consoles

Maintenance Functions such as Built-in Tests, Fault Detection, System Monitoring, etc.

DATA RECORDING FUNCTIONS

Operator Console Screen Recording

Sonar Raw Data Recording

Ship Camera Recording

Torpedo Telegram and Torpedo Sonar Audio Data Recording

Own Ship Information Recording

Analysis and Export of Recorded Data

